

The Effect of ESG Disclosure on Firm Value: The Moderating Role of The Reporting Format

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ABSTRACT

This study examines the effect of Environmental, Social, and Governance (ESG) disclosure on firm value by incorporating reporting format as a moderating variable. This study uses a quantitative approach to investigate mining companies listed on the Indonesia Sharia Stock Index (ISSI) from 2020 to 2024. The analysis in this study employs a Moderated Regression Analysis (MRA) approach, which is used to assess the direct effect of ESG disclosure on company value, considering the moderation of the reporting format. The results indicate that ESG disclosure has a positive and statistically significant impact on firm value. The Reporting Format can moderate the relationship between ESG and company value and the relationship between ESG Disclosure and Firm Value remains significant and positive. Theoretically, this study highlights that the reporting format influences market perception, while practically, it supports regulators in strengthening the quality of sustainability reporting.

Keywords: ESG Disclosure; Company Values; Reporting Format

ABSTRAK

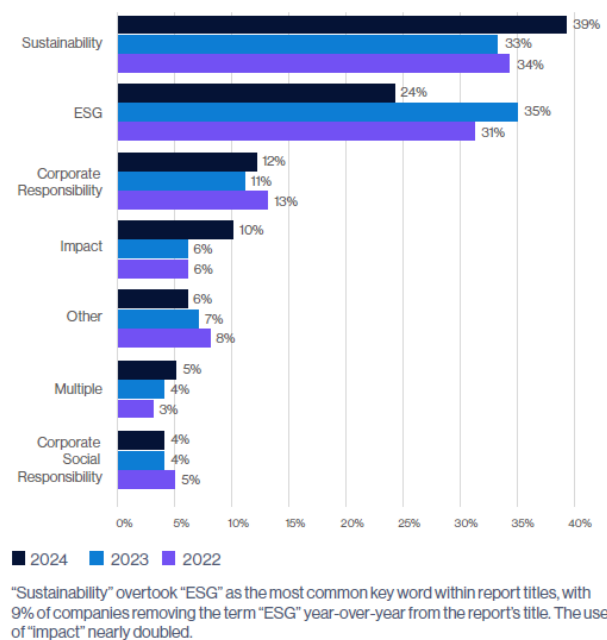
Penelitian ini mengkaji pengaruh pengungkapan Environmental, Social, and Governance (ESG) terhadap nilai perusahaan dengan format pelaporan sebagai variabel moderasi. Penelitian ini menggunakan pendekatan kuantitatif untuk menganalisis perusahaan tambang yang terdaftar di Indonesia Sharia Stock Index (ISSI) pada periode 2020 hingga 2024. Analisis dalam penelitian ini menggunakan pendekatan Moderated Regression Analysis (MRA) yang digunakan untuk mengukur pengaruh langsung pengungkapan ESG terhadap nilai perusahaan dengan mempertimbangkan moderasi dari format pelaporan. Hasil penelitian menunjukkan bahwa pengungkapan ESG memiliki pengaruh positif dan signifikan secara statistik terhadap nilai perusahaan. Format pelaporan dapat memoderasi hubungan antara ESG dan nilai perusahaan dan pengungkapan ESG memiliki pengaruh positif signifikan terhadap nilai perusahaan. Secara teoritis, penelitian ini mengungkapkan bahwa format pelaporan dapat mempengaruhi persepsi pasar, sedangkan secara praktis, penelitian ini mendukung regulator dalam memperkuat kualitas pelaporan keberlanjutan.

Kata kunci: Pengungkapan ESG; Nilai Perusahaan; Format Pelaporan

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INTRODUCTION

Environmental, Social, and Governance (ESG) disclosures have received increasing attention in recent decades (Bosi et al., 2022; Ellili, 2022; Lagasio & Cucari, 2019; Senadheera et al., 2022) as one of the main indicators in assessing the quality of corporate governance (Cahya et al., 2024) and its sustainability (Aboud & Diab, 2018; Alsayegh et al., 2020; Bosi et al., 2022; Lagasio & Cucari, 2019). Global and domestic investors are demanding greater transparency regarding how companies manage their environmental, social, and governance (ESG) impacts (Gerged et al., 2022; Oncioiu et al., 2020; Yu et al., 2018).



Source: Financial Services Authority, processed 2025.

Figure 1. Percentage of Issuers Publishing Sustainability Reports in Indonesia as of Dec 2024

The graph illustrates the penetration of sustainability reporting on the Indonesia Stock Exchange, showing that the majority of issuers have published sustainability reports (IDX reported 882 issuers, or 94%, as of December 2024). This high figure confirms that ESG disclosure is now almost a common practice in the Indonesian capital market. However, the mere quantity of reports does not guarantee consistency or quality, as empirical studies have shown significant variation in the structure, comprehensiveness, and adherence to global reporting standards among Indonesian companies (Fitriani & Sari, 2022; Wicaksana & Pramono, 2023). Therefore, despite the high quantity of reports, research needs to assess the format and depth of reporting as factors that may moderate the relationship between ESG disclosure and firm value.

Despite the growing attention on ESG disclosure and its impact on firm value, empirical findings in developing countries, including Indonesia, remain inconsistent. Some studies report that ESG disclosure positively influences firm value, particularly through governance mechanisms, while the environmental and social dimensions

often show weak or insignificant effects (Aditya & Hasnawati, 2025; Putri & Wijayanti, 2023). This inconsistency indicates the presence of contextual and institutional factors that may moderate the ESG-firm value relationship, highlighting a clear research gap.

The mining sector is particularly relevant for investigating this relationship because it has a significant environmental impact and is subject to intense scrutiny from regulators, investors, and the public regarding its ESG practices. Mining firms are exposed to environmental risks (Rakhmawati & Restuti, 2022), social responsibilities (Restuti et al., 2023), and reputational pressures, making the quality and format of ESG disclosure critical for market perception and firm valuation (Otoritas Jasa Keuangan, 2017; Wicaksana & Pramono, 2023). Therefore, examining ESG disclosure in Indonesia's mining sector provides both theoretical insights and practical relevance for policymakers and investors seeking to strengthen sustainable corporate practices.

Environmental, Social, and Governance (ESG) disclosure is increasingly becoming an important factor in assessing company quality by investors and stakeholders (Alsayegh et al., 2020; Huang, 2021; Sharma et al., 2020). Especially amidst increasing global pressure on sustainability and social responsibility. In Indonesia, ESG disclosure is not yet a full obligation, but it has become mandatory for issuers and public companies through OJK regulations. POJK No. 51/POJK.03/2017 requires financial institutions, issuers, and public companies to prepare and publish sustainability reports, either as a separate report or as part of their annual reports (OJK, 2017). In addition, SEOJK No. 16/2021 emphasizes that sustainability reports must be presented as part of the annual report, but still allows for expanded disclosure as needed (OJK, 2021).

Empirical evidence suggests that compliance with these OJK regulations has a positive impact on ESG transparency. Companies adhering to the reporting standards demonstrate higher completeness, clarity, and consistency in ESG disclosure, which in turn strengthens investor confidence and market perception (Fitriani & Sari, 2022; Wicaksana & Pramono, 2023). Therefore, the presence of these regulations indicates that ESG transparency in Indonesia has shifted from a strategic preference to a regulatory requirement, ensuring that sustainability reporting is not only encouraged but systematically enforced.

In the Indonesian context, the transparency of ESG disclosure is strongly influenced by the regulatory environment, particularly the mandatory sustainability reporting requirements issued by OJK. The implementation of POJK No. 51/POJK.03/2017 has obligated issuers and public companies to publish sustainability reports, leading to substantial improvements in the quality and breadth of ESG transparency (Otoritas Jasa Keuangan, 2017). Empirical evidence shows that companies with higher levels of compliance with OJK regulations tend to disclose ESG information more comprehensively and credibly, thus generating stronger market responses (Fitriani & Sari, 2022). Other studies also find that regulatory enforcement enhances the consistency, comparability, and reliability of sustainability reporting (Cahya et al., 2023), ultimately reducing information asymmetry and strengthening investor confidence (Nugroho & Utama, 2021; Rahmawati & Dewi, 2020). Consequently, analyzing ESG disclosure without accounting for the role of regulatory

compliance would ignore a major institutional driver shaping firms' disclosure behavior and its economic implications in Indonesia (Wicaksana & Pramono, 2023).

Previous research indicates that companies with high levels of ESG disclosure tend to receive more positive market perceptions, which has implications for increasing the company's value (Susilowati et al., 2025). However, empirical evidence in developing countries, including Indonesia, continues to show mixed results. Several studies have found that ESG disclosure only has a significant impact on certain dimensions, such as governance, while environmental and social dimensions have not had a strong impact on company value (Aditya & Hasnawati, 2025).

Additional studies further confirm this inconsistency; for instance, Putri & Wijayanti (2023) report that ESG disclosure improves valuation only in firms with strong financial capacity, while Siregar & Rahman (2022) find that ESG's environmental dimension has no direct impact unless supported by industry-level sustainability pressures. Similarly, Handayani & Pramudito (2021) highlight that investor responses vary depending on the quality of disclosure and the credibility of reporting. This suggests that other factors could potentially influence the strength of the relationship between ESG disclosure and firm value, making it important to explore relevant moderating variables.

One variable that has begun to receive attention in the ESG literature but still lacks in-depth empirical investigation is the reporting format. While some scholars argue that the discussion should focus specifically on integrated sustainability reports, the concept of reporting format is broader and more comprehensive. The reporting format not only refers to whether sustainability information is presented in an integrated report or a standalone sustainability report, but also encompasses the use of reporting standards (such as GRI, SASB, or local regulations), the structure and layout of disclosures, and the balance between quantitative indicators and narrative explanations. These variations create meaningful differences in comparability, credibility, and readability, which may influence how investors interpret and value ESG information. Thus, using "reporting format" rather than only "integrated sustainability reports" is more appropriate because it captures the full spectrum of presentation factors that can moderate the relationship between ESG disclosure and firm value (Febriantoko et al., 2025).

Previous studies have predominantly focused on internal firm characteristics, such as firm size, corporate life cycle, and institutional ownership, as moderating variables in the relationship between ESG disclosure and firm value (Areta & Rahman, 2023). However, empirical research examining reporting format, including whether firms use integrated reports or standalone sustainability reports, as well as the structural clarity of their disclosures, remains relatively limited. Existing evidence highlights that reporting quality and format play a critical role in enhancing transparency, strengthening legitimacy, and improving investor confidence (Higgins et al., 2014; Vitolla et al., 2020). Consequently, positioning the reporting format as a moderating variable provides a meaningful extension to the literature, as format-related attributes can influence how effectively ESG information is interpreted and incorporated into firm valuation decisions.

Thus, this study addresses an urgent gap in the literature by examining how reporting formats can strengthen or weaken the influence of ESG disclosure on firm

value relevance. The findings are expected to contribute to the development of financial accounting and sustainability theory, while also providing practical implications for regulators, standard setters, and companies in designing more effective ESG reporting strategies (Febriantoko et al., 2025; Susilowati et al., 2025).

LITERATURE REVIEW

Signaling Theory

Signalling theory posits that corporations communicate information to the market through financial and non-financial reporting, thereby mitigating information asymmetry between management and investors. ESG disclosure is perceived as an indicator of a company's commitment to sustainability, governance, and social responsibility, thereby enhancing investor trust and bolstering the company's value. The efficacy of the signal is predominantly influenced by the reliability and lucidity of the information communicated. A consistent and comprehensible reporting structure that conforms to global norms enhances the efficacy of ESG signals in the market (Connelly et al., 2011; Rossi et al., 2023; Spence, 1973).

Relevance of Corporate Values

The significance of corporate value relevance lies in how reported accounting and non-financial information impact investor decisions and reflects the company's market value. Essential information offers a deeper understanding of a company's performance, potential risks, and future opportunities. In the current landscape, value relevance is assessed through a combination of financial metrics, such as profit and cash flow, alongside non-financial factors, including sustainability performance and corporate social responsibility (Barth et al., 2001; Francis & Schipper, 1999; Schipper, 2020).

Environmental, Social, and Governance (ESG) Disclosure

ESG disclosure is a reporting practice that conveys information about a company's impact and involvement in environmental, social, and governance (ESG) dimensions. ESG disclosure is considered significant as it bolsters transparency, mitigates information asymmetry, and enhances a company's credibility and reputation. Empirical research suggests that the quality and thoroughness of ESG disclosure are positively correlated with firm value, as investors increasingly consider sustainability in their investment decisions (Eccles & Krzus, 2018; Khan et al., 2016; Kotsantonis et al., 2016; Li et al., 2023).

Reporting Format

The reporting format refers to the structure, standards, and media used in presenting a company's reports, whether they are annual financial reports, sustainability reports, or integrated reports. A good reporting format is clear, easy to understand, consistent, and compliant with global standards, such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), or the International Integrated Reporting Council (IIRC). A more comprehensive reporting format is believed to improve the usefulness of information and strengthen the relevance of ESG disclosures to investor assessments (Eccles & Krzus, 2018; Oware, 2023; Rossi et al., 2023).

In this study, reporting format is positioned as a moderating variable because it can strengthen or weaken the extent to which ESG disclosures influence investor

perceptions and firm value. A high-quality and standardized reporting format improves the transparency, comparability, and reliability of ESG disclosures, making investors more likely to interpret ESG initiatives as value-relevant signals. In contrast, low-quality or poorly structured formats may obscure ESG information, reducing its perceived credibility and weakening its impact on firm valuation. Therefore, using the reporting format as a moderating variable is justified both theoretically and empirically, as it captures the informational environment in which ESG data is communicated, ultimately shaping the market's reaction to these disclosures.

Previous Research

Table 1. Previous Research

No	Researcher & Year	Main Variables	Method	Key Findings	Relevance to the Study
1	Vitolla, Raimo & Rubino (2020)	Integrated reporting quality; Board characteristics	Quantitative - 800 European firms	The quality of reporting format (readability, comparability) increases investor trust and the relevance of information.	Confirms that the reporting format influences investor perception, which is relevant for the moderating role.
2	Lee & Yoon (2021)	Integrated reporting; Value relevance	Quantitative - Korean study	Integrated reporting increases the value relevance of non-financial information.	Supports the argument that reporting format (integrated vs. standalone) moderates the effect of ESG → Firm Value.
3	Aboud & Robinson (2021)	ESG disclosure; Firm value	Regressions - US firms	ESG disclosure has a significant effect on firm value, especially when reporting quality is high.	Relevant as the basis for the ESG → Firm Value relationship, and the importance of reporting quality.
4	Baboukardos & Rimmel (2021)	Sustainability reporting format; Market reaction	Event study	The market reacts more positively to companies that use integrated reporting compared to those that use standalone reports.	Strengthens the evidence that reporting formats generate different impacts on investors.
5	Raimo et al. (2021)	Readability; ESG disclosure	Quantitative - Europe	The readability of ESG reports increases readership levels and credibility among investors.	Readability as an element of reporting format → a moderating variable.
6	Khelif Chouaibi (2022)	ESG rating; Corporate value	Panel data	ESG disclosure has a positive impact on corporate value, influenced by the quality of governance.	Empirical basis for the direct ESG-value relationship.
7	Wang & Li (2022)	Integrated reporting adoption; Investment efficiency	Quantitative - China	Integrated reporting increases investment efficiency by improving transparency.	The reporting format influences the usefulness of investor decisions → relevant for moderation.
8	Suttipun (2022)	Sustainability reporting	Survey	The reporting format and structure	Strong evidence that format/structure affects investor reactions.

		quality; Investor trust		significantly influence investor trust levels.	
9	Kim, Park & Wier (2023)	ESG disclosure; Market valuation	Empirical - global sample	- ESG disclosure increases firm value only when the reports are presented consistently and in a well-structured format.	Supports the hypothesis that the moderating role of reporting format quality is significant.
10	Areta & Rahman (2023)	ESG disclosure; moderating firm characteristics	Panel data	Moderation is mostly done using firm characteristics (size, ownership), but not the reporting format.	Justifies your study: The use of moderation in reporting formats is still limited.
11	Al-Shaer & Zaman (2023)	Assurance reporting quality	Empirical - UK	- Assurance and the ESG reporting format enhance the credibility of investor information.	Relevant to the argument that format influences investor credibility and interpretation.
12	Febriantoko et al. (2025)	Reporting format; ESG disclosure; Investor relevance	Mixed ESG method	The reporting format (GRI vs. local, integrated vs. standalone) affects the relevance of ESG to investors.	The latest study supports the moderating role of reporting format.

Source: Various Journal, Processed 2025.

Hypothesis Development

ESG Disclosure and Firm Value

Environmental, Social, and Governance (ESG) disclosure has increasingly become an essential mechanism through which firms communicate their non-financial performance to stakeholders. From the perspective of stakeholder theory, transparent ESG disclosure helps firms address the information needs of various stakeholders, thereby enhancing trust, legitimacy, and long-term relationships (Freeman, 1984). Similarly, signaling theory suggests that comprehensive ESG disclosure serves as a positive signal regarding a firm's commitment to sustainability and ethical practices, which may reduce information asymmetry between management and investors (Spence, 1973).

Prior empirical studies provide evidence that ESG disclosure is positively associated with firm value. For instance, Eccles & Krzus (2018) find that firms with strong sustainability disclosure practices exhibit superior financial performance and higher market valuation. Friede et al. (2015), through a meta-analysis, also document a predominantly positive relationship between ESG performance and corporate financial performance. In emerging markets, Alareeni & Hamdan (2020) show that ESG disclosure enhances firm value by improving corporate reputation and investor confidence. These findings indicate that ESG disclosure contributes to firm value by lowering capital costs, mitigating risk, and improving market perception. Based on the theoretical arguments and prior empirical evidence, the first hypothesis is formulated as follows:

H₁: ESG Disclosure Positively Affects Firm Value.

The Moderating Role of Reporting Format

The effectiveness of ESG disclosure in influencing firm value may depend not only on the content of the information but also on how the information is presented. Reporting format, such as integrated reporting or standalone sustainability reporting, plays a critical role in enhancing the readability, comparability, and credibility of ESG information. According to information processing theory, well-structured and integrated reporting formats facilitate stakeholders' understanding and interpretation of complex ESG information, thereby increasing its decision usefulness.

Empirical evidence supports the moderating role of reporting format in strengthening the impact of ESG disclosure. Dhaliwal et al. (2011) find that firms issuing high-quality sustainability reports experience improved analyst forecast accuracy and lower information asymmetry. Bernardi & Stark (2018) argue that integrated reporting enhances the value relevance of non-financial disclosures by presenting financial and ESG information in a coherent and connected manner. Furthermore, Haji & Anifowose (2016) demonstrate that the adoption of integrated reporting strengthens the association between sustainability disclosure and firm value.

Thus, an effective reporting format can amplify the positive effect of ESG disclosure by improving transparency, credibility, and stakeholder engagement. Based on these arguments, the second hypothesis is proposed as follows:

H₂: Reporting Format Positively Moderates the Relationship Between ESG Disclosure and Firm Value.

Based on the hypothesis development described above, the conceptual framework of this study is as follows:

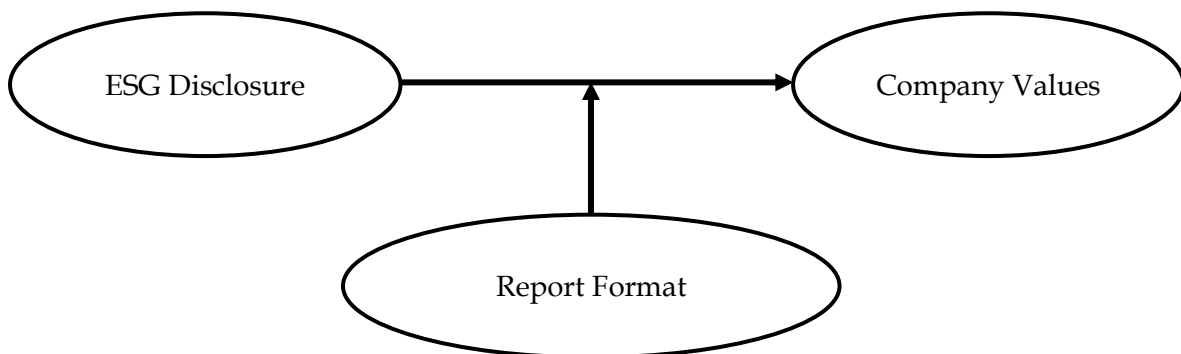


Figure 1. Conceptual Framework

METHOD

This study uses a quantitative approach to analyze the effect of Environmental, Social, and Governance (ESG) disclosures, including environmental, social, and governance aspects, on firm value, as measured by the Price-to-Book Value (PBV) ratio, with report format (FORMAT) as a moderating variable. The following is a description of each research variable and its measurement.

Table 2. Research Variables

Variables	Indicator	source
ESG Performance	GRI Standards	https://www.globalreporting.org/Risk Ratings
Firm Value	$PBV = \frac{\text{Market Price per Share}}{\text{Book Value per Share}}$	(Indrawati et al., 2023)
FORMAT	0 = Integrated 1 = Separate	(Romero et al., 2019)

This study will investigate mining companies listed on the Indonesia Sharia Stock Index (ISSI) from 2020 to 2024. The data used is secondary and obtained from sustainability reports, annual reports published on the Indonesia Stock Exchange, and ISSI (IDX.co.id). Companies listed on ISSI during the period and with complete sustainability reports were selected using a purposive sampling technique. Data were collected according to established criteria, followed by data processing (Adhia & Paramita, 2025).

The mining sector was chosen because it has a high environmental impact (Restuti, 2023) and is under intense scrutiny from investors, regulators, and other stakeholders regarding environmental and social performance (Restuti et al., 2023). Such characteristics make ESG disclosure particularly relevant in this industry, as investors are likely to respond to both the quality and credibility of sustainability reporting (Wicaksana & Pramono, 2023). The selection of the Indonesia Sharia Stock Index (ISSI) is important because it represents companies that comply with Islamic principles, which often include strong ethical and social responsibilities. Firms listed on ISSI are more likely to adopt ESG practices aligned with sustainable and socially responsible values, making the index a relevant and consistent sample for examining the relationship between ESG disclosure, reporting format, and firm value (Fadly, 2024; Susilowati et al., 2025).

Table 3. Population and Sample Data Processing

Criteria	Total
Population of Mining Companies registered with ISSI	12 Companies
1. Inconsistency in the publication of annual financial reports and complete sustainability reports	2 Companies
Total research sample based on the criteria	10 Companies
Observation Year	5 years
Number of Observations	50 Observations

The five-year period (2020–2024) was chosen for several reasons. First, this timeframe provides recent and relevant data, reflecting current ESG practices and regulatory compliance in Indonesia. Second, a five-year period is sufficient to capture trends, changes, and developments in ESG disclosure and reporting practices over time, including the impact of regulatory updates such as POJK No. 51/POJK.03/2017 and SEOJK No. 16/2021. Finally, using multiple years increases the robustness and reliability of the analysis, allowing for more accurate estimation of the effects of ESG disclosure and reporting format on firm value (Fadly, 2024; Susilowati et al., 2025).

Table 4. List of Research Samples

No	Code	Company name	No	Code	Company name
1	INCO	PT. Vale Indonesia Tbk	6	ANTM	PT. Antam Tbk
2	BSSR	PT. Baramulti Sukesssarana Tbk	7	PTBA	PT. Bukit Asam Tbk
3	EARTH	PT. Bumi Resources Tbk	8	ZINC	PT. Kapuas Prima Coal Tbk
4	ELSA	PT. Elnusa Tbk	9	HRUM	PT. Harum Energy Tbk
5	TINS	PT. Timah Tbk	10	MDKA	PT. Merdeka Copper Gold Tbk

The analysis in this study uses a Moderated Regression Analysis (MRA) approach, which is used to assess the direct effect of ESG disclosure on company value by considering the moderation of the report format. This stage consists of descriptive analysis, classical assumption testing, regression analysis, and hypothesis testing (Pramesti et al., 2024). the following is a regression model for the hypothesis:

1. $PBV = \alpha + \beta_1 ESGp + \varepsilon$
2. $PBV = \alpha + \beta_1 ESGp + \beta_2 FORMAT + \beta_3 ESGp * FORMAT + \varepsilon$

Information:

PBV	: Company Value (Y)
α	: Constant
$\beta_1 - \beta_3$	: Regression coefficient
ESGp	: ESG Disclosure (X)
FORMAT	: Report format (M)
$\beta_3 ESGp * FORMAT$	: Interaction Between ESG Disclosure and Report Format
ε	: Error

RESULTS AND DISCUSSION

Descriptive Analysis

This descriptive analysis section presents an initial overview of the data used in research related to the influence of Environmental, Social, and Governance (ESG) disclosure on company value, with a focus on the role of reporting format as a moderating variable.

Table 5. Results of Descriptive Statistical Analysis

	EGS	PBV	FORMAT	ESG_FORMAT INTERACTION
Maximum	24.18	7.14	0.84	21.80
Minimum	6.21	1.77	0.37	10.16
Mean	0.00	0.73	0.00	0.00
Standard Deviation	30.00	9.38	1.00	30.00

Source: SPSS output, 2025

For the ESG Report Format variable, which is measured using binary values (0 and 1), the minimum value recorded is 0, and the maximum value is 1. This indicates that most companies use only two categories of report formats, namely Integrated (0) and Separate (1). The mean of 0.00 and the standard deviation of 1.00 indicate significant irregularity in the implementation of ESG report formats, with most companies not yet following a consistent or standardized report format. The interaction between ESG disclosure and report format varies significantly across the companies studied, with values ranging from 10.16 to 21.80, a mean of 0.00, and a standard deviation of 30.00. This large variation indicates that the combination of ESG disclosure and report format may have different effects depending on the specific context of each company. Overall, these results indicate that although ESG disclosure and the use of ESG report formats have large variations, there is an indication that the report format (although simple in its measurement) has the potential to moderate the effect of ESG disclosure on firm value.

The ESG report format variable has a minimum value of 0 and a maximum value of 1, measured on a binary scale of 0 and 1, respectively. This indicates that most businesses use only two types of report formats: unstructured (0) and structured (1). These data, with a mean of 0.00 and a standard deviation of 1.00, indicate that many companies have not adopted a standard or consistent format for ESG reports. Furthermore, within the companies analyzed, there is a marked difference in the relationship between ESG disclosure and report format; the ESG Format interaction term ranges between 10.16 and 21.80, with a mean of 0.00 and a standard deviation of 30.00. Overall, these findings suggest that despite considerable variation in the use of ESG report formats and ESG disclosure, the report format appears to have the potential to moderate the effect of ESG disclosure on firm value, despite its relatively simple measurement.

Classical Assumption Test

Table 6. Results of The Classical Assumption Test

Classical Assumption Test	Approach		results	Information
data normality test	Kolmogorov - Smirnov		0.801	Normally distributed data
Multicollinearity Test	1<VIF<10.00	ESG	1,774	Multicollinearity does not occur
	1<VIF<10.00	FORMAT	1,774	Multicollinearity does not occur
	1<VIF<10.00	ESG*FORMAT	1,000	Multicollinearity does not occur
Heteroscedasticity Test	Glejser Test	ESG	0.311	Heteroscedasticity does not occur
	Glejser Test	ESG*FORMAT	0.705	Heteroscedasticity does not occur
Autocorrelation Test	Durbin-Watson	dL = 1,5035 Du = 1,5849	1,789	No autocorrelation occurs

Source: SPSS output, 2025

To ensure the validity of the research findings regarding the effect of ESG disclosure on company value, using report format (FORMAT) as a moderating variable in mining companies listed on the Indonesian Sharia Stock Index (ISSI) from 2020 to 2024, a crucial step in the regression analysis is the classical assumption test. Several classical assumption tests, such as normality, multicollinearity, heteroscedasticity, and autocorrelation, were conducted based on SPSS research output (Hariyanto & Ghozali, 2024).

The normality test was performed using the Kolmogorov-Smirnov method, resulting in a value of 0.801. This value indicates that the residual data is normally distributed, thus the model meets the normality assumption. The Kolmogorov-Smirnov test is a recommended technique in many statistical studies because it can effectively assess whether the data distribution conforms to a normal distribution.

To test for multicollinearity, the variance inflation factor (VIF) value is used. The VIF values for the ESG, FORMAT, and ESG*FORMAT variables range between 1 and 10; VIF values lower than 10 are 1.774, 1.774, and 1.000, respectively, indicating that there is no multicollinearity among the independent variables in the model. Therefore, each variable can be evaluated based on its own influence.

The heteroscedasticity test uses the Glejser test on the ESG and ESG*FORMAT variables, with values of 0.311 and 0.789, respectively. No heteroscedasticity problem is detected, as both exceed 0.05. In other words, the regression parameter estimates and research conclusions remain unaffected because the residual variance remains constant.

Based on the autocorrelation test using Durbin-Watson, the values $d = 1.789$, $dL = 1.5035$, and $dU = 1.5849$ are used. With the formula $dU < d < 4-dU$, the model is declared autocorrelation-free because the d value is between the two limits. This is crucial to ensure that there are no residual patterns that could compromise the validity of the research results.

Hypothesis Testing

Table 7. Hypothesis Test Results

Variables	coefficient	Std. Error	T-statistics	Prob.	Results	Information
ESG → PBV	0.276	0.100	1.785	0.000	H1 accepted	ESG disclosure (ESG) has a positive and significant impact on company value (PBV).
EGS*FORMAT → PBV	0.134	0.016	8.324	0.000	H2 accepted	The Report Format (FORMAT) can moderate the relationship between ESG

and company value, but the relationship between ESG Disclosure (ESG) and Firm Value (PBV) remains significant and positive.

Source: SPSS output, 2025

The findings from the hypothesis test, derived from panel data analysis using SPSS, indicate that Environmental, Social, and Governance (ESG) disclosure has a positive and significant influence on company value (PBV). The results are supported by a regression coefficient of 0.276 and a t-statistic value of 26.829, alongside a probability level (p-value) of 0.000, which is below the threshold of 0.05. Consequently, the initial hypothesis (H1), which posits that ESG disclosure positively affects firm value, is affirmed.

Additionally, the findings indicated that the format of the report can influence the connection between ESG disclosure and a firm's value. The moderation coefficient was noted at 0.134, accompanied by a t-statistic of 8.324 and a p-value of 0.000, which also suggests statistical significance. The acceptance of the second hypothesis (H2) suggests that employing a suitable report format can enhance the beneficial effect of ESG disclosure on firm value. The effectiveness of the report format directly correlates with the extent to which ESG enhances firm value.

Overall, the results of this study confirm that ESG disclosure has a significant influence on company value, supporting the hypothesis that ESG disclosure positively affects firm value. Additionally, the report format moderates this relationship, enhancing the impact of ESG on company value. However, while the moderation decreases the strength of the relationship, it remains positive and significant, highlighting the importance of both ESG transparency and the reporting format in maximizing its effect on firm value.

Discussion

This study investigates the moderating effect of reporting format on the link between Environmental, Social, and Governance (ESG) disclosure and business value, focusing on mining companies listed on the Indonesian Sharia Stock Index (ISSI) from 2020 to 2024. The analysis, employing moderated regression, reveals that ESG disclosure significantly enhances business value, as indicated by the Price-to-Book Value (PBV) ratio. This affirms that corporate openness and dedication to sustainability and governance enhance investor confidence and the company's market valuation (Aditya & Hasnawati, 2025).

Research in the Indonesian mining sector Fakhriansyah et al. (2025) revealed that ESG disclosure accounted for 27.4% of the enhancement in firm value, with the remaining contribution attributed to factors unrelated to ESG. These findings correspond with several worldwide studies indicating that strong ESG performance

can enhance corporate transparency, bolster reputation, and convey favourable signals to stakeholders and prospective investors, hence augmenting firm value. A separate analysis of firms on the IDX ESG Leader Index revealed that comprehensive ESG disclosure significantly enhances firm value, especially regarding the social dimension, which is the most impactful feature.

This study also demonstrated that the implementation of a reporting format (FORMAT) moderates the impact of ESG disclosure on corporate value by strengthening the positive effect of transparent, concise, and uniform reporting on firm outcomes. A clear and consistent reporting structure augments the legitimacy of disclosures and bolsters stakeholder trust in published ESG information, thereby reinforcing the value relevance of ESG disclosure. This favourable moderating role of FORMAT is consistent with Orazalin and Mahmood (2020), who highlight that a high-quality reporting structure enhances stakeholder confidence in ESG information, and aligns with the findings of Romero et al. (2019), which indicate that corporations publishing sustainability or integrated reports provide superior quality information compared to firms that only embed sustainability data within conventional annual reports.

CONCLUSION

This study provides evidence that ESG disclosure enhances firm value for Indonesian mining companies and that using a separate sustainability report format further strengthens this positive ESG-firm value relationship by presenting clearer, more comparable, and more credible information to investors. The findings extend signalling theory and legitimacy theory by showing that high-quality, standardized ESG reporting operates both as a credible signal of long-term commitment and as a mechanism to secure legitimacy in an environmentally sensitive industry context. Nevertheless, the evidence is limited to a small sample of ten listed mining firms, so future research should include other sectors and larger samples, as well as compare different reporting standards and assurance levels, to assess whether the strengthening effect of separate sustainability reports on the ESG-firm value link remains robust in broader settings.

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