

## THE EFFECT OF ENVIRONMENT, SOCIAL AND GOVERNANCE ON FIRM VALUE WITH FIRM SIZE AS A MODERATING VARIABLE

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### Abstract

This study examines the effect of Environment, Social, and Governance (ESG) factors on firm value, with company size as a moderating variable, in basic materials and industrials companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. Fourteen companies were picked using purposive sampling, resulting in a total of 42 observations. Data were examined utilizing multiple regression and moderated regression analysis (MRA) with SPSS 26. The results demonstrate that ESG as a whole and the environmental component do not substantially affect corporate value; however, the social and governance facets have an effect on firm value. Furthermore, firm size does moderate the influence of ESG and environmental issues on firm value; instead, it moderates the impact of social and governance elements on firm value.

**Keywords:** Environment, Social, Governance, Firm Value, Firm Size

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### 1. Introduction

Emerging concerns such as climate change, ethical supply chains, environmental degradation, and global welfare are gaining prominence. Environmental, social, and governance (ESG) factors are increasingly more prominent as investors, regulators, and other stakeholders seek to engage in corporate practices that effectively address these concerns. As a result, ESG has emerged as a universally acknowledged factor in investment decision-making and a significant element of organizations' strategic and operational priorities.

Investors' and shareholders' perceptions of firm value have evolved, as they increasingly incorporate ESG factors into their investment decisions and evaluations of a company (Huang, 2022). ESG is regarded as a means to reconcile stakeholder interests in corporate activity. The transparency of pragmatic strategies in finance and investment, including long-term investment and sustainability considerations, also known as sustainable investing, will influence economic development in Indonesia (Wahyuni & Syamsuddin, 2024). Before investing or allocating assets to a firm, investors should examine ESG factors to ensure a positive social impact on the company's environment and to enhance returns (Aich et al., 2021).

A factor affecting firm value is environmental, social, and governance (ESG) (Adhi & Cahyonowati, 2023). Numerous studies have revealed inconsistencies in the findings of ESG and corporate value. Research by Aouadi & Marsat, (2018) and Negara & Priambodo (2024) suggests that ESG does not have a significant impact on firm value. Conversely, additional research indicates a positive impact of ESG on corporate valuation (Fatemi et al., 2018; Aydoğmuş et al., 2022; Yu & Xiao, 2022; Duan et al., 2023; Cheng et al., 2024; Ahmed & Khalaf, 2025). Other researchers show that ESG has a negative effect on company value (Prabawati & Rahmawati, 2022).

The discrepancies in the aforementioned research findings suggest the presence of other variables affecting the correlation between ESG and business value. A variable that can reconcile this disparity is firm size. This study employs firm size as a moderating variable, as it may either amplify or diminish the impact of ESG on firm value. The size of a firm is indicative of the overall assets it possesses (Margono & Gantino, 2021). The magnitude of a corporation can be assessed by its equity, sales, and total assets (Hasangapon et al., 2021). Large corporations typically possess more resources to implement ESG practices, are more appealing to ESG-focused investors, and exhibit enhanced transparency and financial stability compared to smaller enterprises. Moreover, stakeholder pressure compels large corporations to adopt ESG practices more proactively, potentially enhancing their company value.

This research was performed on firms within the basic materials and industrial sectors listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. This study presents business size as a moderating factor to explain the discrepancies in prior research findings regarding the relationship between ESG and firm value. This moderating variable has not been thoroughly examined in relation to ESG and company value in Indonesia. This research evaluates each ESG dimension (environmental, social, and governance) independently, a methodology that has not been extensively investigated in other studies. Based on the explanation above, the problem formulation in this research is (1) Does Environment, Social, and Governance influence company value? (2) Does company size moderate the influence of Environment, Social, and Governance on company value?

The research provides both theoretical and practical contributions. The theoretical contribution strengthens the literature on the ESG-firm value relationship and stakeholder and signalling theories, particularly in the context of emerging markets like Indonesia, where empirical evidence remains limited. The practical contribution provides strategic guidance for management and investors, demonstrating that improving ESG performance is a crucial element in strengthening firm value.

## **2. Theoretical Background**

### **2.1 Stakeholder theory**

Stakeholder theory posits that a company's sustainability is intrinsically linked to the involvement of stakeholders, both internal and external, who possess diverse interests (Córdova-Aguirre & Ramón-Jerónimo, 2024). Corporations must differentiate between core and secondary interests. Primary stakeholders are individuals or groups that maintain a direct relationship with the company, including employees, customers, and suppliers. These encompass other or secondary stakeholders who lack a direct link with the organization, such as the community.

### **2.2 Legitimacy theory**

Legitimacy theory posits that corporations must align their actions with the dominant values and norms of the community in which they operate to attain legitimacy. Nonetheless, discrepancies may occasionally arise between the values upheld by the community and those of the enterprise. This disparity is referred to as the legitimacy gap (Amos, 2024). Organizations may employ various strategies for managing legitimacy, starting with incremental modifications to practices that align with societal conceptions, thereby influencing the company's reputation and mitigating public scrutiny.

### 2.3 Signaling theory

Signaling theory posits that organizations convey signals through information to persuade investors to contemplate and decide on investing in a firm (Connelly et al., 2025). Nevertheless, investors will not instantly place their trust in the facts presented, prompting corporations to convey these signals. Companies disclose some information to external parties, including financial reports and non-annual financial statements.

### 2.4 Environmental, Social and Governance (ESG)

Numerous specialists have extensively elucidated the notion of environmental, social, and governance (ESG). Xiao et al. (2023). define ESG as the engagement in social and environmental obligations and the application of business ethics within a framework of successful governance. ESG comprises three primary components:

#### 2.4.1 Environmental

The environment is a critical concern for stakeholders. Negligent corporate conduct, characterized by production practices that disregard environmental considerations and treat nature merely as a resource for exploitation without regard for conservation, will profoundly impact ecological balance and precipitate numerous environmental issues. Environmental concerns encompass corporate energy usage, waste management, emissions, pollution, conservation of natural resources, and the mitigation of effects on plant and animal life.

#### 2.4.2 Social

The social component of ESG refers to a company's commitment to managing its relationships and societal impact. Factors that must be considered, both directly and indirectly, include communities, society, suppliers, customers, the media, and various other entities. Moreover, these elements can influence a company's financial success. The social dimension highlights the importance of a company's connections with its local communities, encompassing employee welfare, community engagement, and equity and diversity (Prudential, 2024).

#### 2.4.3 Governance

The governance aspect addresses the mechanisms of effective and sustainable corporate management inside the organization, contingent upon the actions of management and ownership. Corporate policies, norms, culture, disclosure, information, audit processes, and compliance are all critical factors in this regard. Effective corporate governance is the cornerstone of future business sustainability. This encompasses openness and responsibility, leadership and corporate ethics, as well as risk management and legal compliance (Prudential, 2024).

### 2.5 Firm Value

Firm value represents the market's assessment of a company's comprehensive performance and future potential, as reflected in its stock price and various financial metrics. This idea illustrates the extent to which investors assess a company's ability to generate profits, maintain corporate operations, and deliver returns to shareholders. The value of a firm reflects an investor's assessment of its effectiveness in organizing, managing, and controlling resources. Enhancing corporate value signifies the organization's capacity to ensure the well-being of its stakeholders. The rising value will incentivize investors to invest in the company (Mawarni, Dewi & Dharma, 2024).

## 2.6 Firm Size

Ahmed (2022) defines firm size as the magnitude of a company, quantified by its equity, sales, and total assets. Large corporations typically possess greater assets, revenues, and market share, resulting in enhanced stability and trust among investors, financial institutions, and other stakeholders. Large corporations are frequently associated with increased openness and information sharing due to their exposure to public and regulatory oversight, which can impact corporate valuation and stakeholder perceptions of their sustainability performance.

## 2.7 Hypotheses Development

### 2.7.1 The Impact of Environmental, Social, and Governance (ESG) Factors on Firm Value

ESG impacts corporate valuation through three primary dimensions: environmental, social, and governance. The environmental component pertains to the utilization of natural resources, pollution, and carbon emissions resulting from a company's operations. Optimal environmental performance and extensive environmental transparency can be achieved if underpinned by economic sacrifices, as reflected in environmental costs. The environmental costs refer to the expenses incurred in preventing and mitigating environmental harm resulting from a company's operating activities (Jung & Kim, 2022). According to agency theory and signaling theory, more disclosure of non-financial information, such as ESG, diminishes knowledge asymmetry between corporations and stakeholders, potentially resulting in additional costs. This enhances market prices, as investors typically favour enterprises that exhibit environmental responsibility. This method enables organizations to reduce operational expenses, thereby enhancing profitability and corporate value. Prior studies by Mahmood et al. (2025), Arifah (2024), and Chi et al (2024) have demonstrated that environmental performance has a positive and significant influence on firm value.

The social dimension refers to how a corporation fosters relationships with stakeholder groups, encompassing both direct stakeholders (employees) and indirect stakeholders (customers and the broader community). Employee social ties can be evaluated based on the company's commitment to safety, health, and work quality. Customer relationships are evident in the company's operations following the sales period or successful product delivery. The company's social relations with society are evaluated based on its implementation of ESG initiatives, such as socially responsive programs or policies. Firms that prioritize social responsibility will garner favorable responses from investors, enhancing the company's reputation and image, thereby ultimately increasing its value. Prior studies by Aditya & Hasnawati (2025) have demonstrated that certain aspects of social transparency have a favourable and significant impact on corporate value. This suggests that enterprises demonstrating strong ESG-social values, which consider societal values in their operations, will be valued and positively regarded by the community.

Elements of sound governance, including transparency, accountability, and effective risk management, are essential for attracting investors. Effective governance helps organizations mitigate uncertainty and reduce capital costs. Organizations that utilize GCG can promote clean, transparent, and professional work practices, thereby enhancing compliance with relevant legislation. Organizations exhibiting sound governance are often regarded with greater trust by investors, thereby enhancing the demand for the company's shares and its market valuation. Prior research by Avinda, Hidayat & Karawinata (2025) indicates that governance exerts a favorable and significant impact on

corporate value. A favorable correlation between governance and company value suggests that a corporation can effectively implement corporate governance practices.

The three ESG dimensions interact to influence favorable stakeholder impressions of the organization. This favorable image not only bolsters the company's reputation but also propels market value growth, as evidenced by research by Mawarni, Dewi & Dharma (2024), which indicates that effective ESG implementation can augment a company's appeal to investors. Through proficient ESG implementation, firms may preserve their competitive edge and generate sustainable value. From the aforementioned explanation, the study hypothesis can be articulated as follows:

- H1 : ESG impacts on firm value
- H1a : Environmental impacts on firm value
- H1b : Social impacts on firm value
- H1c : Governance impacts on firm value

#### 2.7.2 The Influence of Company Size on the Moderation of the Relationship between Environmental, Social, and Governance (ESG) Factors and Firm Value

Large corporations have greater financial resources than smaller enterprises, enabling them to allocate more funds towards ESG initiatives to enhance public legitimacy. Large corporations that typically adopt ESG principles can excel in the global market, exhibit superior sustainability competencies, enhance market quality, substantially improve financial performance, and attain greater profitability, as evidenced by the ROE ratio and enhanced corporate growth. Prior research conducted by Aydoğmuş, Gülay & Ergun (2022) provides empirical data indicating that company scale can enhance the association between ESG and firm value. This assertion is based on the notion that larger corporations are more likely to disclose their ESG initiatives to secure stakeholder support and enhance public legitimacy, thereby potentially enhancing company value sustainably. A further study by Adhia & Paramita (2025) indicates that firm size may serve as a moderating variable between ESG and corporate value.

Large corporations possess enhanced opportunities and exert a considerable influence on their environmental footprint. Companies with significant resources might allocate higher environmental charges. Organizations that regularly optimize their resources can achieve favorable rankings due to an enhanced public perception. Larger corporations may also have shareholders who scrutinize the social initiatives detailed in their financial statements. Corporate social responsibility and environmental concerns serve as mediums for disseminating knowledge among larger corporations. Large corporations provide more information than smaller firms due to their exposure to heightened political risks.

The size of a company correlates with its assets; substantial assets can entice investors, hence enhancing its value. A company's size correlates directly with the extent of its monitoring. Consequently, corporations must establish effective corporate governance, including a board of directors, an independent board of commissioners, and an audit committee, to enhance management efficiency and sustain stable external financing (Wang, 2025). Research conducted by Avinda, Hidayat & Kartawinata (2025) and Li, Liu & Lin (2025) revealed that corporate governance affects firm value, as investors are inclined to pay a higher premium for companies that demonstrate transparency in their annual reports concerning GCG compliance.

According to the aforementioned explanation, the study hypothesis might be articulated as follows:



- H2 : Firm size moderates the impact of ESG and firm value  
 H2a : Firm size moderates the impact of the environment on firm value.  
 H2b : Firm size moderates the impact of social factors on firm value.  
 H2c : Firm size moderates the impact of governance on business value.

### 3. Methods

This study employs a quantitative research method. This study will examine the causal relationship among several hypotheses, with ESG as the independent variable, firm value as the dependent variable, and company size as a moderating variable. This study employs a quantitative method, utilizing statistical formulas to analyze the collected data. The subjects of this study are firms within the basic materials and industrials ESG sectors listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. The basic materials sector supplies essential raw materials that serve as the primary input for the industrial sector to manufacture final products—the sampling using a purposive sampling technique. Fourteen companies and forty-two observations were acquired based on these criteria (Table 1). Variable metrics are displayed in Table 2 below.

**Table 1.** Research Sample

Description	Number of Companies
Companies included in the basic materials and industrials sector on the IDX 2021-2023	178
Companies that do not have complete data according to the research variables for 2021-2023	(164)
The quantity of companies serving as research samples	14
Number of observations	42

**Table 2.** Variable Measurement

Variable	Variable Measurement
ESG	ESG Score
Environment	$ENV = \frac{\text{Total Environmental Disclosure Items}}{\text{Number of Disclosure Items}}$
Social	$SOC = \frac{\text{Total Social Disclosure Items}}{\text{Number of Disclosure Items}}$
Governance	$GOV = \frac{\text{Total Governance Disclosure Items}}{\text{Jumlah Item Pengungkapan}}$
Firm Value	$PBV = \frac{\text{Market price per share}}{\text{Book value per share}}$
Firm Size	Firm size = Ln (Total Asset)

### 4. Results and Discussion

The subsequent data presents descriptive statistics for the examined variables, encompassing the minimum, maximum, mean, and standard deviation values of the primary variables: firm value, ESG, environment, social, governance, and company size. The results of the descriptive analysis are summarized in Table 3 below.

#### 4.1 Descriptive Analysis

**Table 3.** Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. deviation
ESG	42	15574.00	95902.00	47306.8095	22626.67055
Environment	42	.00	86111.00	36244.6905	27558.07997
Social	42	1.00	97222.00	33732.2619	26296.48977
Governance	42	1.00	98.00	38.2619	29.74695
Firm Value	42	-475.00	612.00	118.6429	167.95641
Company Size	42	2555282.00	3144003.00	2865682.3810	168548.08010

Source: Data Processed SPSS 26, 2025

From the output results in table 3, it can be seen that the ESG, environmental, social, governance and company size variables have a mean value that is higher than the standard deviation which means that the value of small deviations and the variation of the data can be said to be low while the variable of company value has a mean value lower than the standard deviation value, which means that the deviation value is high and the data variation can be said to be high.

#### 4.2 Hypotheses testing

Hypothesis testing employs moderated regression analysis (MRA) with a significance threshold of 5% or 0.05. If each significance level has a probability value ( $\text{sig} < 0.05$ ), the variable is accepted in relation to the dependent variable. If the probability value ( $\text{sig} > 0.05$ ), the hypothesis is rejected. The findings derived from the MRA test in this study are as follows:

**Table 4.** MRA test statistical results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-379.005	35.438		
	ESG	-8.797E-5	.002	-.015	.958
	ENV	-.001	.001	-.146	.573
	SOC	.002	.001	.474	.001
	GOV	-2.006	.011	-1.034	.000
	ESG*UP	-7.514E-10	.000	-.391	.203
	ENV*UP	8.303E-10	.000	.506	.073
	SOC*UP	7.102E-10	.000	.409	.003
	GOV*UP	9.849E-7	.000	.644	.000

a. Dependent Variable: NILAI PERUSAHAAN

Source: Data Processed SPSS 26, 2025

Based on Table 4 above, testing of the previously formulated hypotheses can be concluded as follows:

1) The Impact of ESG on firm value

The partial test assessing ESG's impact on firm value yields a p-value of 0.958. The test result shows a significance value exceeding alpha, specifically  $0.958 > 0.05$ , hence H1 is rejected. This suggests that ESG has no impact on corporate value.

2) The impact of environment on firm value

The partial test assessing the impact of the environment on firm value yields a p-value of 0.785. The test result demonstrates a significance value exceeding alpha, specifically,  $0.785 > 0.05$ , hence H1a is rejected. This suggests that the environment has no effect on corporate value.

- 3) The effect of Social on firm value  
The partial test indicating the social impact on firm value has a p-value of 0.001. The test result demonstrates a significant value exceeding alpha, specifically,  $0.001 < 0.05$ , hence H1b is accepted. This signifies that social factors influence firm value.
- 4) The influence of governance on firm value  
The partial test examining the relationship between governance and firm value yielded a p-value of 0.000. The test findings demonstrate that the significance value is below the alpha level, specifically,  $0.000 < 0.05$ ; hence, H1c is approved. This suggests that governance has a significant negative impact on firm value.
- 5) The size of the company moderates the impact of ESG on firm value.  
A preliminary analysis indicating the moderating influence of company size on ESG concerning firm value yielded a p-value of 0.203. The test findings demonstrate a significance value exceeding the alpha level, with  $0.203 > 0.05$ ; hence, H2a is rejected. This suggests that company size does not influence the impact of ESG on firm value.
- 6) The size of a company moderates the impact of the environment on firm value.  
A partial test indicating the moderating influence of company size on the environment's impact on firm value yielded a p-value of 0.073. The test results demonstrate a significance value exceeding alpha, with  $0.073 > 0.05$ , hence rejecting H2a. This suggests that company size does not significantly influence the relationship between environmental factors and firm value.
- 7) Firm size moderates the impact of social responsibility on firm value  
A partial test indicating the moderating influence of company size on social responsiveness regarding firm value yielded a p-value of 0.003. The test findings demonstrate a significance value of 0.003, which is less than the alpha level of 0.05; hence, H2b is approved. This suggests that the size of a corporation moderates the impact of social influence on its value.
- 8) Firm size moderates the impact of governance on firm value  
The partial test indicating the moderating influence of firm size on governance on company value yielded a p-value of 0.000. The test findings demonstrate a significant value below alpha, with a p-value of  $0.000 < 0.05$ ; hence, H2c is supported. This suggests that the size of the organization influences the impact of governance on corporate value.

#### 4.3 Discussion

##### 4.3.1 The impact of environmental, social, and governance on firm value

The results of the study show that ESG and environmental aspects do not have a significant effect on company value. From the perspective of stakeholder theory, ESG disclosure and environmental practices should enhance the company's legitimacy and positive image. However, in practice, many companies in Indonesia still view ESG as merely a compliance measure with regulations or formal reporting requirements, rather than as a strategy that is integrated with long-term value creation. As a result, ESG disclosures do not become a strong signal for investors to value companies higher. The findings of this study align with those of previous research, which suggest that ESG does not have a significant impact on company value (Dan & Handayani, 2025; Aouadi & Marsat, 2018 and Negara & Priambodo, 2024). Thus, although ESG and environmental aspects have normative urgency in driving sustainability, in the context of this study,



neither has been shown to increase a company's value due to the limitations of disclosure quality and investors' preference for short-term profitability.

Furthermore, the study's results show that the social dimension has a significant impact on the Company's value. This can be explained through stakeholder theory, where corporate social concerns, such as community empowerment and the protection of employee rights, can increase the Company's legitimacy and reputation in the eyes of the public. A good reputation is an intangible asset that strengthens consumer loyalty, expands business networks, and reduces the risk of conflict with the surrounding community. These findings are also in line with signaling theory, where good social activity is seen as a positive signal for investors. Social concern through CSR programs, support for employee welfare, and contributions to society can build a positive image and foster public trust, thereby strengthening stakeholder loyalty and ultimately reflecting in increased company value. This research is not in line with the studies conducted by Ernawati, Andini & Subekti, (2025) and Avinda, Hidayat & Karawinata (2025), which found that social disclosure has a positive influence on company value.

Moreover, evidence suggests that governance has a negative impact on firm value. Implementing governance frequently entails additional expenses (including compliance, audit, and internal control costs) that diminish short-term profitability, thereby reducing the market response to the organization. In emerging economies, investors often prioritize financial performance over governance processes, viewing stringent governance as cumbersome and unproductive, which eventually results in diminished firm value. These findings are consistent with previous research that has found governance to affect company value (Ernawati, Andini & Subekti, 2025).

#### 4.3.2 Firm size moderates the impact of environmental, social, and governance impacts on firm value

The results show that company size does not moderate the influence of ESG and environmental aspects on company value. Theoretically, large companies should have more adequate resources to implement comprehensive ESG practices and environmental strategies, thereby attracting investors' attention. However, in practice, both large and small companies often view ESG as a means of regulatory compliance or a symbol of social responsibility, rather than a strategy that is integrated with long-term value creation. As a result, company size does not significantly strengthen or weaken the ESG relationship to company value, because the market has not observed substantial differences between large and small companies in ESG implementation.

Furthermore, the study's results show that company size moderates the social and governance influences on company value. Larger companies typically have wider resources, networks, and public visibility, making social activities and the implementation of good governance easier to observe and appreciate by the market. In this context, company size reinforces the positive signals generated by social programs and governance practices.

These findings align with signaling theory and legitimacy theory. According to signaling theory, large companies have a stronger incentive to provide positive signals through social and governance practices due to higher exposure to investors and the public. Meanwhile, legitimacy theory emphasizes that large companies face greater pressure from stakeholders, so that success in social and governance aspects will be more appreciated by the market. Previous research, such as Avinda, Hidayat & Karawinata (2025) also supports these findings by demonstrating that the social and governance

dimensions in ESG have a greater impact on large-sized companies, as investor perceptions more easily influence them and can increase company value.

## 5. Conclusion

This study concludes that not all ESG dimensions affect firm value; the overall ESG variable and the environmental dimension were found to be insignificant. Simultaneously, the social dimension exhibited a positive effect on firm value, but governance demonstrated a negative effect on company value. The findings suggest that the market regards social factors as boosting reputation and trust, whereas governance is viewed as a financial burden, hence diminishing firm value. The size of the firm did not influence the relationship between ESG and environmental performance or firm value, suggesting that larger firms do not inherently receive greater market recognition for these practices. Nonetheless, business scale has been demonstrated to enhance the impact of social and governance factors on firm value, as larger firms derive higher advantages from social initiatives and effective governance due to increased visibility and investor focus.

This research possesses multiple limitations. Initially, it concentrated exclusively on the moderating variable of company size, neglecting other factors such as profitability, ownership structure, or industry characteristics that could also influence the relationship between ESG and firm value. The restricted research duration, spanning from 2021 to 2023, fails to reflect the long-term trajectory of ESG implementation in Indonesia accurately. Consequently, future research should incorporate additional pertinent moderating or mediating variables, as well as extend the temporal scope and diversify the sample across sectors to achieve a more holistic understanding of the impact of ESG on company value.

Given the above-indicated constraints, future study should incorporate additional moderating or mediating variables, such as profitability, audit quality, or firm risk, to enhance the analysis. Future researchers may extend the timeframe to identify long-term patterns and undertake cross-sector or cross-country analyses to evaluate the impact of ESG on firm value in other circumstances. Researchers can then expand the research sample by adding time periods and selecting companies from various existing sectors so that the results obtained are more diverse.

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