



# The Effect of ESG on Firm Value and Implications for Sustainability

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**Abstract.** Environment, Social, and Governance (ESG) is a new theory in the business world and is now being developed in academic research. The purpose of this research is to empirically test the influence of Environment, Social, and Governance (ESG) on Firm Value and its impact on sustainability. The urgency of this research is that companies are encouraged to pay attention to the implementation of ESG in business operations. ESG pays attention to environmental issues that are correlated with social and governance, so it is important to gain stakeholder trust where companies not only pursue profits but also pay attention to environmental, social, and governance impacts. The research stages are first, Literature Study, Second, Data Sources, Third, Data Tabulation and Data Processing, and finally, analysis of results and publication. The method uses quantitative methods for the capital market on the Indonesia Stock Exchange using SPSS 25 and using financial reports for 2024-2025. The research sample is companies listed on the Indonesia Stock Exchange in 2024-2025. The results show that ESG has a significant effect on Firm Value, but ESG has no impact on sustainability, while Firm Value has a significant influence on sustainability. The benefits of this research are for the development of research on ESG management science, Firm Value, and Sustainability. The contribution of research to Firm management is to consider the investment manager for sustainable policy and firm value.

**Keywords:** ESG, Firm Value, IDX, Sustainable

## 1 Introduction

Firms need to consider environmental issues and social issues to continue business operations. The environment and social issues become activities of profitable firms and non-profitable firms because the environment and social issues become the stakeholder assessment. Suppose firms consider environmental and social issues, so firms get a positive image and vice versa. If firms do not consider environmental and social issues, they get a negative image of their operations. The environment and social issues cannot be separated from governance, as known by Environmental, Social, and Governance (ESG). ESG become a

major issue in environmental, Social, and governance as a valuation of firms—the higher ESG value of firms, the higher return of firms for sustainability. The final destination of ESG implementation, such as social return, has an impact on environmental, social, and governance activities. The implementation of ESG is in line with sustainable firms. The goal of financial sustainability is to align economic activities in accordance with the Sustainable Development Goals, which consist of environmental, social, and governance issues [1]. The research gap consists of ESG and sustainability with profitability [2], thus, negative and positive stock shocks about sustainable finance [3].

The research objectives are to find empirical evidence that Environmental, Social, and Governance (ESG) influences firm value, to find empirical evidence that ESG influences sustainability, and to find empirical evidence that firm value influences sustainability.

The benefits of this research are for firm management; the research can serve as recommendations for strategic firm action in the ESG field. Firm management can formulate concrete medium-term steps through the role of ESG and sustainability. For investors, the research can serve as recommendations for strategic firm action in the investment field. Investors can formulate concrete steps for purchasing shares through the role of ESG and stock market sustainability. For further research, the research can serve as recommendations for strategic academic action in the ESG field. Researchers can formulate variables through the role of ESG, firm value, and stock market sustainability.

## 2 Literature Review

### 2.1 Sustainable

Principles for Sustainable Finance in Indonesia, such as scientific and credible means, consider best practices for policy, science, and technology at the national or international levels. Interoperable and Supportive of National Interests means considering best practices for policy, science, and technology at the national and/or international levels. The Sustainable is designed to apply to various user scales for corporations/non-MSMEs and MSMEs. Inclusive means considering applicable taxonomies at the international and regional levels or interoperability, as well as national policies to facilitate Indonesia's gradual and just transition [1].

### 2.2 ESG

The definition of ESG, such as the greater environmental, social, and governance risks, will lower a firm's value. Stakeholder theory states that firms do not only aim for the interests of shareholders but must provide benefits to all interested parties or stakeholders. Furthermore, the disclosure of materiality in the sustainability report can moderate the negative impact of ESG risk on the firm's value [4] and [5].

### 2.3 Firm Value

Firm Value means the market assessment of a wealth firm. Investors give positive appreciation to firms through the higher firm value, which results in a higher stock market. The price-to-book value indicates the improvement of the firm's value. The Signal Theory claims that price stock is a signal of firm value for investors. The pecking order theory means that internal funding, for example, is better than external funding—market value as usually firm value [5].

### 2.4 Hypothesis Development

#### **ESG and Firm Value.**

The implementation of environmental, social, and governance (ESG) activities can impact firm value. Research supporting ESG includes the impact of ESG on returns [20] and the relationship between ESG and performance [21]. Based on the theory and findings above, the following hypothesis can be formulated:

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

#### **ESG and Sustainability.**

The implementation of environmental, social, and governance (ESG) activities supports firm sustainability. ESG can impact sustainability. Good ESG strengthens sustainability. The more ESG is present, the more sustainable a firm will be. [6] Based on the theory and findings above, the following hypothesis can be formulated:

H2: ESG has a significant positive effect on sustainability.

### **Firm Value and Sustainability.**

Firm Value is a figure representing a firm's wealth in the eyes of investors. Investors desire a firm value that has implications for sustainability. A positive firm value, in the sense of increasing it, can impact the sustainability [7]. Based on the theory and findings above, the following hypothesis can be formulated:

H3: Firm Value has a significant positive effect on Sustainability

## **3 Methodology**

This research is quantitative research because it uses data in the form of numbers and can be calculated using arithmetic units [17]. This research can be stated as quantitative research based on the form of data used, namely, annual report numerical data.

The samples used are banking, telecommunications, marketplace, food, and beverage companies that have been listed on the Indonesia Stock Exchange (IDX) in 2024-2025. 2024-2025, which has been selected. Sampling was carried out using a purposive sampling method. The data used from this sample is quantitative data, namely, data measured on a numerical scale. The sampling technique used in this research is the purposive sampling method, namely the sampling technique used by researchers using criteria and considerations in taking samples or determining samples for certain purposes. The criteria of purposive sampling consist of firms that have financial statements for 2024-2025, and these firms have the variables of the research.

The code of samples consists of ERAA, JSMR, BSDE, EMTK, SCMA, TPIA, MNCN, MPMX, UNVR, BBRI, CTRA, ACES, SIDO, ASSA, MAPI, GOTO, BBNI, BBKA, BUKA, PTBA, BRMS, BSDE, TPIA, CPIN, CTRA, EMTK, ELSA, ENRG, AVIA, AKRA, TOWR, BRIS, TLKM, PNLF, BMRI.

The data collection method used in this research was carried out with historical documentation from firm performance reports over a certain period. The data sources used in this research were obtained through searches from; Indonesia Capital Market Directory (ICMD), website [www.idx.co.id](http://www.idx.co.id). Data from the Indonesian stock exchange regarding ESG [18].

The operational definition of variables includes Environment, Social, and Governance (ESG) as independent variables, firm Value as an intervening variable, and Sustainable as a dependent variable. Firm Value is measured by price to book value (P/B), and Sustainable is measured by dividend payout ratio.

**Table 1.** The Rating of ESG

Score of Risk	Category	Descriptive
0-10	Negligible	Considered to have negligible ESG risk
10-20	Low	Considered to have low ESG risk

Score of Risk	Category	Descriptive
20-30	Medium	Considered to have moderate ESG risk
30-40	High	Considered to have high ESG risk
>40	Severe	Considered to have severe ESG risks

Table 1 shows that the ratings of ESG with the maximum score higher than 40 have severe risk and the minimum score between 0 and 10 have negligible risk. ESG refers to three central factors for measuring the impact of sustainability and ethics in investment decisions. These three factors are Environmental, Social, and Governance. ESG assessments are a crucial component in assessing the implementation of ESG practices in companies.

**Table 2.** ESG Category

Category	Descriptive
No Evidence	There is no evidence of relevant controversy
Category 1	Low impact on the environment and society.
Category 2	Moderate impact on the environment and society with minimal risk to the firm, Low frequency of incidents. The firm has a strong management
Category 3	Significant impact on the environment and society with significant business risks. Evidence of structural problems in the firm and/or the firm has
Category 4	an inadequate management system. High impact on the environment and society with high business risks. Structural/systemic problems, repeated incidents and the firm has an inadequate management system.
Category 5	Severe impact on the environment and society with serious business risks. Incredible egregious behavior, high frequency of incidents and the firm has poor controversy management.

Table 2 shows the category of ESG with the characteristic. The minimum score in 1 category has no evidence of relevant controversy. The maximum score in 5 categories has a severe impact on business risks. Therefore, the IDX remains committed to encouraging long-term sustainable investment and improving ESG practices in the Indonesian capital market by collaborating with ESG assessment institutions and conducting ESG assessments of listed companies on the IDX. The IDX

is currently collaborating with Morningstar Sustainalytics to conduct ESG assessments. The IDX only displays assessments conducted by these assessment institutions.

Descriptive statistics are statistics that describe phenomena or characteristics from data that has been collected without any generalized conclusions [8]. Descriptive Statistics is used in research to describe sample data without intending to make general conclusions. Descriptive Statistics describes data seen from the Maximum, Minimum, Average (Mean), and Standard Deviation, which are presented through tables, graphs, and diagrams. The formula of regression is as follows:

$$Y_{1V} = \alpha + \beta_1 \text{ESG} + \beta_2 \text{value} + e \dots\dots\dots(1)$$

- Keterangan:  
 $Y_v$  = Variable Dependent Firm Value  
 $\alpha$  = Constanta  
 $\beta_{1,2,3}$  = Coefficient of regression  
 ESG = X1  
 e = error

$$Y_s = \alpha + \beta_1 \text{ESG} + \beta_2 \text{value} + e \dots\dots\dots(2)$$

- Keterangan:  
 $Y_s$  = Variable Dependent Sustainable  
 $\alpha$  = Constanta  
 $\beta_{1,2,3}$  = Coefficient of regression  
 ESG = X1  
 Value = X2  
 E = error

To test the hypothesis in this research, multivariate analysis was used using the SPSS 25 program. Hypothesis testing is carried out by comparing the significance probability (p) with the significance level ( $\alpha$ ) determined at 5%. If the p-value is smaller than 5%, then the null hypothesis is rejected, which means that there is a relationship between the variables studied. If the sig probability is greater than 5%, then the null hypothesis is accepted, which means that there is no relationship between the variables studied.

## 4 Results

**Table 3.** One-Sample Kolmogorov-Smimov Test

		Value	Sustainability	ESG
N		70	70	70
Normal Parameters <sup>a,b</sup>	Mean	7.518	4.4134	3.0773
	Std. Deviation	1.433	1.808	.35719
Test Statistic		.059	.092	.075

Asymp. Sig. (2-tailed)	.200	.200	.200
Normality test	Accepted	Accepted	Accepted

Based on the results presented in Table 3, the Asymp. Sig. value is 0.200, which is greater than the significance limit of 0.05. Therefore, it can be concluded that the residual data in this study is normally distributed. This indicates that the regression model used meets one of the important assumptions in regression analysis, namely the assumption of residual normality.

**Table 4.** Descriptive Statistics

	Mean	Std. Deviation	N
sustainability	4.413	1.808	70
ESG	1.117	.1146	70
value	7.518	1.433	70

Source : SPSS (2025)

Tabel 4 shows that the ESG mean point 1,117 means that firms are considered to have moderate ESG risk (score 20-30 with Lognatural becomes 1.10 points). The category of ESG at the 3rd level means that there is a significant impact on the environment and society, with significant business risks, and evidence of structural problems in the firm.

**Table 5.** Coefficient Determination

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin Watson
1	.765 <sup>a</sup>	.585	.572	1.18269	1.927

a. Predictors: (Constant), value, esg

b. Dependent Variable: sustainability

Table 5 shows that the Adjusted R Square have 57.2% value, so that the sustainability is influenced by firm values and ESG. Other variables influence the remaining 42.8%.

**Table 6.** F Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	131.881	2	65.940	47.142	.000 <sup>b</sup>
	Residual	93.717	67	1.399		
	Total	225.597	69			

a. Dependent Variable: sustainability

b. Predictors: (Constant), value, esg

Table 6 showed that ESG F value 47.142. ESG simultaneously has a significant impact on sustainability. The sig value is 0.000, which is less than 0.05, so ESG has an impact on sustainability.

**Table 7.** t Test

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	-	1.637		-2.247	.028		
		3.678						
	ESG	.733	1.246	.046	.588	.558	.994	1.006
	Value	.967	.100	.767	9.709	.000	.994	1.006

a. Dependent Variable: sustainability

Based on table 7 shows that the t-test results are as follows:

- a) ESG is not significant for sustainability.
- b) Firm value is significant for sustainability.

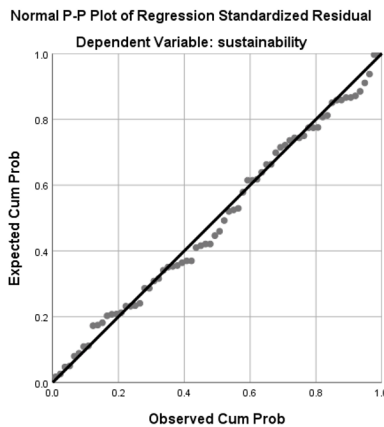
Sobel value test mediation results

Sobel formula

$$\frac{ab}{\sqrt{b^2 SEA^2 + \sqrt{(a^2 SEB^2)}}$$

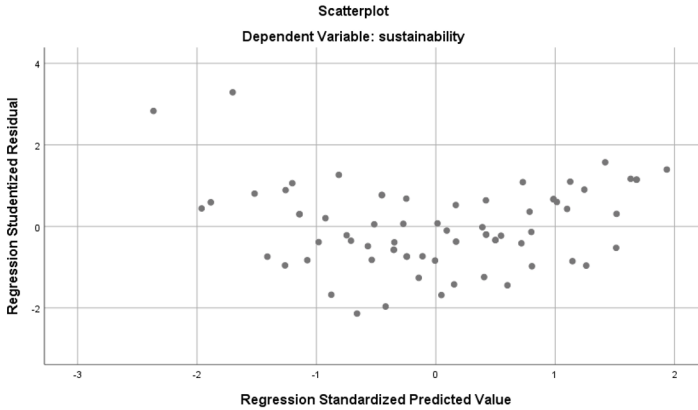
A= 0.175. B = 0.100. SEA = 0.857. SEB=0.767. Sobel Test Statistic = 0.1098. One-tailed probability = 0.4562. Two-tailed probability = 0.9124.

Based on the Sobel test results; firm value is unable to impact ESG sustainability. The Sobel test value is 0.109, with a probability value of 0.45, which is greater than 0.05.



**Fig. 1.** Normality Test

Figure 1 Normality test show that in the probability plot test, data is considered normal if the resulting points are spread along a diagonal line [9]. The normality test was carried out to determine whether the data in this study was normally distributed or not.



**Fig. 2.** Scatterplot of Heteroskedasticity Test

Based on Figure 2 the scatterplot, the residual points are randomly distributed above and below zero on the vertical axis. These points do not form a cone-like pattern such as expanding or narrowing, a wave, or a specific line, which are usually indicative of heteroscedasticity. Furthermore, the distribution of the points also tends to be even across the entire range of predicted values, indicating that the residual variance does not increase or decrease at a specific predicted value level [9].

## 4.1 Discussion

### ESG and Firm Value

ESG has a significant impact on firm value because it is linked to firm value. An increase in ESG leads to an increase in firm value. This finding aligns with research on ESG and firm value. The results are in line with ESG financial performance [9] and ESG firm value moderation [10].

### ESG and Sustainability

ESG has no significant impact on sustainability. ESG fluctuates with sustainability. If ESG increases, sustainability does not. This result differs from research on ESG's impact on sustainability. ESG and sustainability results are in line with the previous studies, such as the Sustainability index [11], ESG disclosure [12], ESG rating [13], ESG performance [14], [15], [7], ESG nilai Perusahaan [16].

### Firm Value and Sustainability

Firm value has a significant positive effect on sustainability. Firm value moves significantly in line with sustainability. As firm value increases, sustainability also increases. This finding aligns with research on stock price movements during the COVID-19 pandemic. The results are in line with the Sustainability index [11].

## 5 Conclusion

ESG and sustainability simultaneously have a significant effect on firm value. Dividends and market power partially have a significant and positive effect on firm value, but ESG has an insignificant effect. Companies are advised to consider ESG, dividends, and market power to increase firm value. Future researchers are advised to develop a model and mediation effect between ESG, dividends, and market power to increase firm value by adding other variables.

Firm management is advised to pay attention to ESG so that firm value can positively stimulate share price movements. Further research is recommended to pay more attention to capital market factors that influence ESG implementation in public companies.

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