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## Are the environment, social, and government performance affecting the firm's value?

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### ABSTRACT

This study aims to gather empirical data regarding how Environment, Social, and Governance (ESG) Performance affects Firm Value. This study uses two sets of control variables selected from several financial ratios to support the ESG score. The first model is the research observation in the short term with the first set of control variables. The second model is long-term with a second set of control variables. The research sample comprises publicly traded companies on the Indonesia Stock Exchange with a sustainability history and documented ESG performance. This study compiles secondary data sources for ESG company performance scores from Refinitiv. This research uses EViews version 12 statistical package for econometric analysis. This study with first-step variables showed that ENV and GOV significantly positively influence firm value. In addition, variable control DAR and CR significantly positively influence fair value. In Model 2, this study's second-step variables showed that SOC and GOV significantly positively influence fair value. Variable control ROE and ROA have a significant positive influence on fair value. During the financial crisis, ESG performance reduced financial risks; in more normal circumstances, its role grew considerably. This highlights the importance of ESG performance during the crisis, using new and optimized data sets.



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## Introduction

Sustainability has been one of the most important developments in financial markets for decades. The content emphasizes sustainability and ESG (Environmental, Social, and Governance) issues. Due to the unusual disruption during the previous pandemic, businesses across the economy were forced to manage their social and human resources carefully. Companies need to evaluate their strategies and preparedness for extreme risks that are extraordinary, difficult to examine and often produce results that far exceed expectations. While this pandemic is unusual, its consequences may result in greater attention to environmental, social, and governance (ESG) issues and increased preparation for responsive management teams. This research is very important because, in the business world, there is a need to integrate social and environmental problems into business models. ESG findings in previous research differ between countries. Applications vary due to legal, cultural, and political structures that impact a company's actions in sustainability. In addition, gaps in the distribution of internal resources from various company characteristics contribute to the high success of corporate sustainability.

Permanent companies may have developed a membership system. They are long-term oriented and exhibit high value and non-financial information disclosure. Finally, their results show that companies with high ratings are more durable than their peers over time, regarding the stock market and financial outcomes (Eccles, Ioannou, & Serafeim, 2014). One of the shows that affect cooperation with the Indonesian Stock Exchange is SRI-KEHATI. KEHATI Foundation started a green campaign. The index is called the Sustainable Index, cooperating with Indonesia Marketing at the United Nations Principles for Investment (PRI). SRI-KEHATI record included 25 public companies listed on the IDX. They repeat and check the composition twice yearly, in May and November.

Obviously, from 2009 to 2022, the SRI-KEHATI stock index is the only guide to investment principles, focusing on ESG issues in Indonesia's capital markets. The company's selection criteria are outlined as those who apply Sustainable Responsible Investing in environmental, social, and governance (ESG) values. In addition, companies must have a good track record in supporting sustainable operations and pay special attention to ESG. The risk-adjusted returns Sharpe Index, Adjusted Sharpe Index (ASI), Treynor Index, Jensen Alpha Index, and Adjusted Index Jensen's Alpha Index (JIA) are all used in this study. This study examines the effectiveness of SKI and JCI. Except for the Sharpe's Index and Adjusted Sharpe's Index, SKI outperforms JCI as a traditional index benchmark regarding risk-adjusted returns. Also, researchers note that Jensen's model Alpha is the only useful performance measure, indicating that SKI outperformed JCI/IHSG throughout the period (Zulkafli, Ahmad, & Eky Ermal, 2017).

Have at least, the above facts support the research done in China. Here are the results of their research. They studied the role of ESG during the global financial crisis that arose from the pandemic of COVID-19 and asked investors whether they use ESG performance as an indicator of future stock performance and risk reduction. They found that higher ESG portfolios outperformed lower ESG portfolios and that ESG performance decreased performance. With the aid of newspapers, financial risk during the financial crisis and the role of ESG performance are considerably diminished in normal times, thereby bolstering the latter's increasing significance. The dataset covers the Chinese elements of the CSI300. Conclusions are drawn based on ESG investment practices (Broadstock, Chan, Cheng, & Wang, 2021).

However, these details should be taken into account even though ESG performance appears to have a positive effect on corporate performance in nations other than Indonesia. Earth Global Carbon found in sustainability reports and ESG indicators of 39 listed Indonesian companies is still weak (Daruri, 2021). This one ESG integration drives corporate sustainability outcomes, better known as ESG scores. The significance of this research is how the environment, social relations, and governance (ESG) influence stock returns, company value, and financial performance, especially in the short term during the COVID-19 pandemic and the last three years. This research will focus on companies listed on Indonesia Stock Transform and use ESG data from Refinitiv.

This research is important because it provides theoretical and practical research contributions. In the theoretical contributions, period of the previous ten years, ESG integration has gained much influence and importance. Furthermore, the financial benefits of ESG integration are becoming more widely acknowledged, and the complexity of implementing it is growing. As a result, we may anticipate that over the next few years, this favorable trend will persuade many new investors to study the benefits of proactively including ESG variables in their investment processes, research, and conclusions (PRI, 2016). In practical contribution, with an emphasis on the environment and extra social and governance factors in addition to financial considerations, investors assess companies using the Environmental, Social, and Governance (ESG) lens and compare them to their competitors in terms of success. Although some believe ESG investing will reduce returns, divide portfolios, and be difficult to implement when developing a portfolio, a new study shows that these concerns are unfounded and that ESG investments can help investors increase overall efficiency (Marcec, 2018).

This research aims to test and analyze whether: (1) The short-term impact of ESG performance on firm value during the COVID-19 pandemic exists: (a) ENV, SOC, and GOV have a positive effect on company value with the first control variable, (b) ENV, SOC, and GOV have a positive effect on company value with the second control variable. (2) ESG performance has had a positive effect on company value in the last three years (long term): (a) ENV, SOC, and GOV have a positive effect on company value with the first control variable, (b) ENV, SOC, and GOV have a positive effect on company value with the second control variable.

### **Efficient Market Theory**

The primary function of the capital market is to distribute ownership of the nation's capital stock. In general, a market functions best when prices offer accurate details about the distribution of resources. Or, to put it another way, it's a market where companies choose what to create and invest in, and investors choose among securities

that reflect the ownership of companies' operations, with the understanding that the prices of securities "completely reflect" all currently available information (Fama, 1970).

First, an explanation is given for weak-form tests, in which the information set contains past prices. Finally, consideration is given to semi-strong form tests. Whether prices effectively adapt to additional information that appears to be publicly available is the matter at hand. Lastly, strong form tests are performed to determine if any information that is important for price formation is only available to specific investors or groups. According to this study, the efficient markets model performs admirably (Fama, 1970).

### **ESG Performance**

ESG research companies assign scores to various businesses, providing a straightforward and practical metric for assessing various investments. Research firms assign ratings to individual companies, which are represented by ESG scores. Each of the unique E, S, and G components is usually evaluated by the rating agencies using a range of standards (Hill, 2020a) The phrase Environmental, Social, and Governance (ESG) investment was first used in a report published in 2004 by the Global Compact. The study indicates that over 20 of the biggest financial institutions globally think that a company's total performance depends on how well it handles environmental, social, and governance (ESG) issues (Hill J. , 2020b).

### **Control Variables**

By improving internal validity, control variables assist us in determining a correlational or causative relationship between variables. Internal validity is the extent to which observed results accurately reflect the reality in the population under investigation and are not the result of methodological errors (Nielsen & Raswant, 2018). According to (Fatemi, Glaum, & Kaiser, 2018), company value increases when its ESG strength is strong and decreases when its ESG strength is weak. Consistent with previous research in developed countries, (Yoon, Lee, & Byun, 2018) found that a company's CSR activities have a positive and significant impact on its market. (Situmorang, Siagian, & Malau, 2021) found that good corporate governance, the company's debt-to-equity ratio, managerial ownership, and an independent board of commissioners all influence business value. Based on that rationale, the subsequent research hypothesis is proposed.

### **ESG Performance's Short-Term Effect on Firm Value in the COVID-19 Pandemic Years of 2021, 2020, and 2019**

H<sub>1</sub>. ENV, SOC, and GOV supported with the first set of control variables positively affect the firm's value during the COVID-19 pandemic.

H<sub>2</sub>. ENV, SOC, and GOV supported the second set of control variables that positively affected the firm's value during the COVID-19 pandemic.

### **ESG Performance's Long-Term Effect on Firm Value in the COVID-19 Pandemic Years of 2021, 2020, and 2019**

H<sub>3</sub>. ENV, SOC, and GOV supported the first set of control variables that positively affected the firm's value in the last three years.

H<sub>4</sub>. ENV, SOC, and GOV supported the second set of control variables that positively affected the firm's value in the last three years.

## **Method**

### **Research Design**

This research uses a quantitative approach for the analysis. Quantitative research is a type of study that uses numerical data collecting and accounting to describe, explain, and examine it with the support of control variables to investigate the phenomena of interest. Researchers conduct quantitative studies to describe existing events, establish links between variables, and occasionally explain causal relationships. Several decisions need to be made: what kind of sample to use (sampling design), how to measure the variables, how to evaluate the data, and how to test hypotheses (data analysis) (Sekaran & Bougie, 2016). This study will examine publicly traded and listed companies on the Indonesian Stock Exchange that have largely implemented sustainable business practices, with a focus on the ESG scores of financial data market providers (Giammattei, 2016). This means that a quantitative methodology will be used for the analysis in this study. In quantitative research, the phenomena of interest are investigated through the collection, accounting, and description of numerical data supported by control variables (Salkind, 2013).

In this research, the author uses multiple linear regression analysis to find empirical evidence regarding the impact of ESG performance variables on a firm's value. ESG performance for 45 publicly traded companies at IDX was obtained from the Refinitiv data stream. Six banking industry companies out of 45 ESG companies will not be included in the study. In contrast to other sectors, the banking and financial industries are subject to

regulations set forth by the Financial Services Authority of Indonesia. Nevertheless, the author discovered that multiple businesses were to blame for the unsatisfactory results after conducting the assumption tests. Thus, these businesses ought to be kept out of the research's observation. Six companies for 2019, five companies for 2020, and two companies for 2021 were left out. In summary, there are 32 observations in 2019, 33 in 2020, and 15 in 2021 for the short term. As a result, the long-term data set comprises 80 observations that span the years 2019, 2020, and 2021.

### Measurement of Research Variables

The variable of interest in this study is the ESG Performance of Refinitiv's publicly traded Indonesian companies. The London Stock Exchange Group subsidiary Refinitiv is the owner of the majority of Thomson Reuters' shares. Emissions, environmental product innovation, human rights, and shareholders are among the ten primary categories in which scores are used to gauge a company's relative ESG performance, commitment, and effectiveness (Refinitiv, 2022).

This research will demonstrate whether financial performance, which seems to stabilize over time, is positively impacted by ESG performance (Friede, Busch, & Bassen, 2015). Next, we aim to demonstrate that, as per (Eccles, Ioannou, & Serafeim, 2014), 80% of research studies indicate that companies' stock performance is positively impacted by sound sustainability practices. ESG and fundamental investing are very similar, as analysts have shown (van Duuren, Plantinga, & Scholtens, 2016).

### Control Variables

This research uses six control variables, first-step variables, e.g. QR, DAR, CR, and TATO, and second-step variables e.g. DER, ROE, FATO, and ROA to investigate the impact of ESG and its pillar scores on firm value. The following is a description of the research variables:

**Table 1.** Research Variables

Variables Name	Description
<b>Variables of Interest</b>	
ESG	Publicly accessible data serves as the foundation for Refinitiv's ESG ratings. The scores aim to measure the relative effectiveness, commitment, and performance of a company concerning environmental sustainability across ten main categories (emissions, human rights, innovative environmental products, and shareholders), (Amalia & Kusuma, 2023); (Refinitiv, 2022); (Ahlklo & Lind, 2019).
ENV	A company's Environment Pillar Score is its weighted average relative rating determined by the three environmental category scores and the reported environmental information (Amalia & Kusuma, 2023); (Refinitiv, 2022); (Ahlklo & Lind, 2019).
SOC	A company's weighted average relative rating, or Social Pillar Score, is determined by adding the scores from four social categories and the reported social information (Amalia & Kusuma, 2023); (Refinitiv, 2022); (Ahlklo & Lind, 2019).
GOV	By splitting the reported governance data into three governance category scores, a company's weighted average relative rating also known as its Governance Pillar Score is calculated (Amalia & Kusuma, 2023); (Refinitiv, 2022); (Ahlklo & Lind, 2019).
<b>Control Variables</b>	
QR = $\frac{CE + MS + AR}{\text{Current Liabilities}}$	The quick ratio assesses a company's capacity to settle current liabilities without having to sell products or services or secure further funding. (Purnomo, 2018).
DAR = $\frac{\text{Short-term Debt} + \text{Long-term Debt}}{\text{Total Assets}}$	The ratio of total debt to total assets shows how much debt a business has used to finance its assets (Husna & Satria, 2019).
CR = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$	The current ratio, a liquidity ratio, evaluates a company's capacity to fulfill short-term or one-year obligations (Irman & Purwati, 2020).

Variables Name	Description
TATO = $\frac{\text{Total Sales}}{(\text{Beginning Assets} + \text{Ending Assets}) / 2}$	The asset turnover ratio assesses how much a business's assets are worth of its sales or revenues (Irman & Purwati, 2020).
DER = $\frac{\text{Total Liabilities}}{\text{Total Shareholders' Equity}}$	A company's debt-to-equity (D/E) ratio can be used to assess how much leverage it uses by comparing its total liabilities to its shareholder equity (Malau, 2020).
ROE = $\frac{\text{Net Income}}{\text{Shareholders' Equity}}$	The profitability of a company to its stockholders' equity is gauged by the return on equity ratio (Irman & Purwati, 2020).
FATO = $\frac{\text{Net Sales}}{\text{Average Fixed Asset}}$	The fixed asset turnover ratio reflects a company's efficiency in producing sales from its existing fixed assets (Sunjoko & Arilyn, 2016).
ROA = $\frac{\text{Net Income}}{\text{Total Asset}}$	The ratio of a company's return on assets to its total assets indicates its profitability (Malau, 2020); (Siahaan, Malau, & Sembiring, 2022).
<b>Dependent Variables</b>	
Firm's Value (Tobin's Q) = $\frac{\text{Equity Market Value}}{\text{Equity Book Value}}$	Tobin's Q, sometimes known as the Q ratio, is computed by dividing the company's market value by the cost of replacing its assets (Yudi, Sembel, & Malau, 2023); (Fredyansyah, Sembel, & Malau, 2023); (Gharaibeh & Qader, 2017); (Malau & Murwaningsari, 2018).

### Regression Model Equation

Regression models describe the relationship between variables by fitting a line to the observed data. Linear regression models use a straight line. The most widely used statistical method is regression analysis (Montgomery, Peck, & Vining, 2012). The author of this study will employ multiple linear regression analysis to gather empirical data regarding the effect of firm value and ESG performance variables.

### Regression Models

The current study intends to look into the relationship between the firm value and six control variables as well as the variables of interest, which include the ESG score and the pillar scores of GOV, SOC, and ENV. In this study, the relationship between two terms is examined. In the first, every cross-sectional data set from 2019 through 2021 is used. Combining data from 2019, 2020, and 2021 is the second step. Since certain companies did not always have access to ESG data during those years, the author will consider the data to be unstructured when processing it through the EViews application.

$$FV_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 GOV_{it} + \beta_4 QR_{it} + \beta_5 DAR_{it} + \beta_6 CR_{it} + \beta_7 TATO_{it} \quad (1)$$

$$FV_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 GOV_{it} + \beta_4 DER_{it} + \beta_5 ROE_{it} + \beta_6 FATO_{it} + \beta_7 ROA_{it} \quad (2)$$

Equations (1) and (2) demonstrate how Tobin's Q, an indication of firm value, is represented by TOBINSQ, where  $\beta_0$  is the y-intercept or constant. The ENV coefficient is  $\beta_1$ , the SOC coefficient is  $\beta_2$ , and the GOV coefficient is  $\beta_3$ . To investigate its relationship to the firm value, the first set of control variables—QR, DAR, CR, TATO, and the second set of control variables—DER, ROE, FATO, ROA.

### Population and Sample

Forty-five publicly traded companies on the Indonesia Stock Exchange with a sustainability history and whose ESG performance was available on Refinitiv as of May 2022 serve as the research sample. One of the top global providers of financial market data is Refinitiv. However, because the company complies with Indonesian financial regulations, the author is forced to omit six financial institutions.

### Source Category and Method of Data Gathering

Secondary sources served as the main source of data for this initial investigation. Rather than its distinctive qualities, the distinction between primary and secondary data is based on the data's background and applicability to a particular analysis. While some researchers gather secondary data for different purposes, others, either alone or in groups, collect primary data for the analysis under consideration (Salkind, 2015). This study will compile secondary data sources for ESG company performance scores from Refinitiv, one of the major global providers

of data on the financial markets. In addition, the author will obtain relevant company information from company websites and the company's financial data from Yahoo Finance for this study. The author will next identify two approaches to data observation.

The author will first examine the effects of ESG performance scores on firm value in the short-term years of 2019 and 2020 as well as in 2021 during the COVID-19 pandemic. To obtain a more profound and all-encompassing comprehension of the research problem and inquiries, the author will additionally scrutinize the identical collection of combined data variables from the preceding three years, namely 2019 through 2021 (long-term). Subsequently, the writer must collect, from the historical records, the closing and initial adjusted closed stock prices that were released at the start and finish of 2019, 2020, and 2021, as well as the dividends. In addition, the author will require the Jakarta Composite Index (IHSG) for the years 2019, 2020, and 2021, which was released yearly from the IDX website.

### Descriptive Statistics

To address issues, the author will transform the collected data into information using data analysis techniques (Sekaran & Bougie, 2016). The data for this study was processed and analyzed using Microsoft Excel and the most recent version of EViews 12. The software program EViews was developed by Quantitative Micro Software (QMS) and has several features, including statistical and econometric tools for the analysis of panel, time series, and cross-sectional data.

### Estimation Model: Ordinary Least Squares

In the past, the author intended to use regression models with generalized least squares (GLS). This is due to the (Montgomery, Peck, & Vining, 2012) discovery that the generalized least squares (GLS) estimator, rather than the ordinary least squares (OLS) estimator, should be used for linear regression coefficients.

## Results and Discussions

### Model 1

#### Descriptive Statistics

Table 2. Descriptive Statistics of Model 1

	N	Mean	Median	Max	Min	SD
<b>Dependent Variable:</b>						
TOBINSQ	80	1.5744	1.2274	6.1087	0.0036	1.3342
<b>Variables of Interest:</b>						
ENV	80	0.2462	0.4614	0.7264	0.0000	0.2595
SOC	80	0.4205	0.6002	0.8267	0.0795	0.2356
GOV	80	0.5382	0.3227	0.8546	0.0887	0.2289
<b>Control Variables:</b>						
QR	80	0.0714	0.1609	0.5467	-0.0673	0.0825
DAR	80	0.6624	0.5345	2.0308	0.1453	0.4941
CR	80	1.8922	1.6117	5.4776	0.2157	1.2078
TATO	80	0.5457	0.3213	0.8745	0.2263	0.1887

Description: The descriptive statistics for every research variable are shown in this table. The central tendency and data dispersion conditions that were used to estimate the research model are summarized in this table. The dependent variable is FV, and the variables of interest are ENV, SOC, and GOV supported by the control variables QR, DAR, CR, TATO

Source: EViews 12 Analysis Output (Author, 2023)

Table 2 indicates that the descriptive statistics for model 1's variables come from an observation sample of 80 ESG companies in the years 2019, 2020, and 2021. The results are as follows: The firm value variable proxied by the TOBINSQ variable has the smallest (minimum) value, 0.0036, and the largest (maximum) value, 6.1087. The average (mean) Tobin's Q from 80 observations of ESG companies in 2019, 2020, and 2021 is 1.5744. The market value exceeds the recorded asset value of the company if Tobin's Q is higher than 1.0. The median is 1.2274, which is lower than the mean. Therefore, the distribution is positively skewed if the mean exceeds the median. The standard deviation value of Tobin's Q is 1.3242 (below the average), meaning that Tobin's Q has a low level of data variation. The Environment pillar score variable proxied by ENV has the smallest (minimum) value, 0.0000, and the largest (maximum) value, 0.7264. The average (mean) ENV from 80 observations of ESG companies in 2019, 2020, and 2021 is 0.2462 or 24.62%. This means that scores within this range indicate a satisfactory Environment pillar score. Further explanation, resource use, emissions reductions, and innovation category scores of the ESG companies reflect the company performance, commitment, capacity, and

effectiveness in doing the process. The median is 0.4614, which is smaller than the mean. Therefore, the distribution is positively skewed if the mean exceeds the median. The standard deviation value of the Environment pillar score is 0.2595 (below the average), meaning that this pillar score has a low level of data variation.

The Social pillar score variable proxied by SOC has the smallest (minimum) value, 0.0795, and the largest (maximum) value, 0.8267. The average (mean) SOC of 80 observations from a combined data set of ESG companies in 2019, 2020, and 2021 is 0.4205 or 42.05%. According to the ESG scores methodology (Refinitiv, 2022), scores between 50 and 75 (out of 100) are in the third percentile. Accordingly, scores falling within this range represent above-average levels of transparency in the public reporting of material ESG data as well as strong relative ESG performance. The company's performance, commitment, ability, and efficacy in carrying out the process are reflected in the workforce, human rights, community, and product responsibility category scores of 80 observations from a combined data set of ESG companies in 2019, 2020, and 2021. The median is 0.6002, which is smaller than the mean. Therefore, the distribution is positively skewed if the mean exceeds the median. The standard deviation value of the Social pillar score is 0.2356 (below the average), meaning that this has a low level of data variation.

The GOV-proxied Governance pillar score variable has the greatest (maximum) value of 0.8546 and the smallest (minimum) value of 0.0887. The average (mean) GOV of 80 observations from a combined data set of ESG companies in 2019, 2020, and 2021 is 0.5382 or 53.82%. According to the ESG scores methodology (Refinitiv, 2022), scores between 25 and 50 (out of 100) are in the second percentile. This means that scores within this range indicate a satisfactory Governance pillar score. For further information, the company's dedication to adhering to best practices in corporate governance principles and effectiveness in the process are reflected in the management, shareholders, and CSR strategy category scores of 80 observations from a combined data set of ESG companies in 2019, 2020, and 2021. At 0.3227, the median is less than the mean. The governance pillar score has a low degree of data variation, as indicated by its 0.2289 standard deviation value, which is below the average.

### Regression Result and Interpretation

**Table 3.** (Regression Result of Model 1)

$$FV_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 GOV_{it} + \beta_4 QR_{it} + \beta_5 DAR_{it} + \beta_6 CR_{it} + \beta_7 TATO_{it}$$

Variable	Prediction	Coefficient	p-value	Statistic Collinearity	
				Tolerance	VIF
Constant		4.4302	0.0000	-	-
ENV	+	2.0351	0.0075***)	0.4492	2.2262
SOC	+	-0.5353	0.2907	0.3951	2.5310
GOV	+	0.3817	0.0146**)	0.6321	1.5820
QR	+	0.4933	0.2942	0.6070	1.6474
DAR	+ or -	-2.4975	0.0118**)	0.4446	2.2492
CR	+	0.5247	0.0013***)	0.4622	2.1636
TATO	+	0.1168	0.3988	0.3655	2.7360
Jarque Berra Normality Test			10.8344		
Heteroskedasticity Test: Harvey			0.1347		
Adjusted R <sup>2</sup>			0.3650		
S.E. of regression			1.2098		
S.D. dependent var			1.3241		
F-Statistic			3.2021		
Prob (F-Statistic)			0.0025***)		
Total Observation			80		

Significant levels at \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10

Description: This table presents regression results from the equation model that contains the following elements, number of observations and variables of interest, ESG. Other elements included are prediction (+) or (-), constant ©, coefficient, p-value, statistic collinearity, adjusted R square, Heteroskedasticity test, SE regression, SD dependent var, F-Statistics, and Prob (F-Statistics).

Source: EViews 12 Analysis Output (Author, 2023)

This study observed 80 ESG companies from 2019–2020 and 2021, as shown in Table 3. The value of the dependent variable, which is the firm's value as measured by TOBINSQ, indicates the response variable. The predictor variables are ENV, SOC, and GOV supported by control variables QR, DAR, CR, and TATO. Based on the research, we conclude that the beta coefficient of ENV is 2.0351, SOC, -0.5353, and GOV, 0.3817. This means that for every unit decrease in SOC, the firm's value or TOBINSQ will decrease by -0.5353.

After the standard error value has been applied, the R-squared value is known as the adjusted R-squared value. Table 2 leads us to the conclusion that the adjusted R-squared value is 0.3650, meaning that 63.50% of the financial performance is influenced by factors not included in this model. In comparison, 36.50% can be explained by the ENV, SOC, and GOV pillar scores supported by control variables QR, DAR, CR, and TATO. The regression model's Standard Error value, denoted by the S.E. label, is 1.2098. With the designation S.D. dependent var, the Standard Deviation is 1.3241. The response variable's Standard Deviation value is greater than the Standard Error value, indicating that the regression model is a reliable predictor of response variable values.

The results of Table 3 are displayed alongside simultaneous tests in EViews, indicating an F-value of 3.2021 and a p-value of 0.0025. It is possible to conclude that H0 (the null hypothesis) is rejected at the significant level of 1% because the p-value is  $0.0025 < 0.01$ . As measured by TOBINSQ, the firm's value is significantly impacted by the ENV, SOC, and GOV pillar scores, which are supported by the control variables QR, DAR, CR, and TATO. This is indicated by the simultaneous test rejecting H0.

## Model 2 Descriptive Statistics

**Table 4.** Descriptive Statistics of Model 2

	N	Mean	Median	Max	Min	SD
<b>Dependent Variable:</b>						
TOBINSQ	32	1.7066	1.1817	6.1095	0.0045	1.4407
<b>Variable of Interest:</b>						
ENV	32	0.2885	0.2647	0.7674	0.0000	0.2392
SOC	32	0.4779	0.4515	0.9253	0.0693	0.2355
GOV	32	0.4191	0.4392	0.9547	0.1062	0.2181
<b>Control Variables:</b>						
DER	32	0.1611	0.1558	1.2288	-0.1798	0.2262
ROE	32	2.8413	2.4757	9.1527	0.1934	2.3863
FATO	32	1.0751	0.9513	2.8551	0.0345	0.7631
ROA	32	1.1589	0.7352	6.9124	0.1691	1.3275

Description: The descriptive statistics for every research variable are shown in this table. The central tendency and data dispersion conditions that were used to estimate the research model are summarized in this table. The dependent variable is TOBINSQ, and the variables of interest are ENV, SOC, and GOV supported by control variables are DER, ROE, FATO, ROA

Source: EViews 12 Analysis Output (Author, 2023)

Table 4 indicates that a sample of thirty-two companies provided the descriptive statistics for the variables in Model 2. The following are the outcomes: The largest (maximum) value is 6.1095, and the smallest (minimum) value is 0.0045 for the firm value variable that the TOBINSQ variable uses to proxy. For the 32 ESG companies in 2019, the average (mean) Tobin's Q is 1.7066. The market value exceeds the recorded asset value of the company if Tobin's Q is higher than 1.0. The median is 1.1817, which is lower than the mean. Therefore, the distribution is positively skewed if the mean exceeds the median. The standard deviation value of Tobin's Q is 1.4407 (below the average), meaning that Tobin's Q has a low level of data variation.

The Environment pillar score variable proxied by ENV has the smallest (minimum) value, 0.0000, and the largest (maximum) value, 0.7674. The average (mean) ENV of 32 ESG companies in 2019 was 0.2885 or 28.85%. According to the ESG scores methodology (Refinitiv, 2022), scores between 25 and 50 (out of 100) are in the second percentile. This means that scores within this range indicate a satisfactory Environment pillar score. Further explanation, resource use, emissions reductions, and innovation category scores of 32 ESG companies reflect the company performance, commitment, capacity, and effectiveness in doing the process. The median is 0.2647, which is lower than the mean. Therefore, the distribution is positively skewed if the mean exceeds the median. The standard deviation value of the Environment pillar score is 0.2392 (below the average), meaning that this pillar score has a low level of data variation.

The Social pillar score variable proxied by SOC has the smallest (minimum) value, 0.0693, and the largest (maximum) value, 0.9253. The average (mean) SOC of 32 ESG companies in 2019 was 0.4779 or 47.79 %.



According to the ESG scores methodology (Refinitiv, 2022), scores between 25 and 50 (out of 100) are in the second percentile. Accordingly, scores falling within this range signify a moderate level of transparency in the public reporting of material ESG data as well as satisfactory ESG performance. For more information, the 32 ESG companies' workforce, human rights, community, and product responsibility category scores show how well the businesses are performing, how committed they are, how capable they are, and how successful they are in the process. The mean is higher than the median, which is 0.4515. Thus, the distribution is positively skewed if the mean is higher than the median. The Social pillar score's standard deviation is 0.2355, which is below the average and indicates that there is little variation in the data.

The Governance pillar score variable proxied by GOV has the smallest (minimum) value, 0.1062, and the largest (maximum) value, 0.9547. The average (mean) GOV owned by 32 ESG companies in 2019 was 0.4191 or 41.91%. According to the ESG scores methodology (Refinitiv, 2022), scores between 25 and 50 (out of 100) are in the second percentile. This means that scores within this range indicate a satisfactory Governance pillar score. For more information, see the management, shareholders, and CSR strategy category scores of 32 ESG companies. These scores demonstrate the company's efficacy in adhering to best practices in corporate governance principles. At 0.4392, the median is greater than the mean. The distribution is thus negatively skewed if the mean is smaller than the median. The governance pillar score has a low degree of data variation, as indicated by its 0.2181 standard deviation value, which is below the average.

### Regression Result and Interpretation

**Table 5.** (Regression Result of Model 2)

$$FV_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 GOV_{it} + \beta_4 DER_{it} + \beta_5 ROE_{it} + \beta_6 FATO_{it} + \beta_7 ROA_{it}$$

Variables	Prediction	Coefficient	p-value	Collinearity Statistics	
				Tolerance	VIF
Constant		1.6732	0.0892	-	-
ENV	+	-1.7765	0.1611	0.4303	2.3240
SOC	+	0.4322	0.0062***)	0.4122	2.4260
GOV	+	0.2823	0.0311**)	0.4691	2.1317
DER	+ or -	0.1263	0.3022	0.6833	1.4635
ROE	+	1.2848	0.0067***)	0.8011	1.2483
FATO	+	-0.0049	0.4841	0.8622	1.1598
ROA	+	1.5358	0.0765*)	0.4233	2.3624
Jarque Berra Normality Test			2.4375		
Heteroskedasticity Test: BPG			0.1743		
Adjusted R <sup>2</sup>			0.3965		
S.E. of regression			1.5083		
S.D. dependent var			1.4406		
F-Statistic			0.6221		
Prob (F-Statistic)			0.0042***)		
Total Observation			32		

Significant levels at \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.10

Description: This table presents regression results from the equation model that contains the following elements, number of observations, variables of interest, ENV, SOC, GOV supported by control variables, DER, ROE, FATO, ROA. Other elements included are prediction (+), constant (C), coefficient, p-value, collinearity statistics, adjusted R square, Heteroskedasticity test, SE regression, SD dependent var, F-Statistics, and Prob (F-Statistics).

Source: EViews 12 Analysis Output (Author, 2023)

There are 32 observations used in testing the regression model for 2019. The response variable is indicated by the value of the dependent variable, which is the Firm's Value proxied by TOBINSQ. The predictor variables are ENV, SOC, and GOV. This predictor variable is supported by control variables such as DER, ROE, FATO, ROA, and constants (Symbol C). We can conclude from the table above that the beta coefficient of the variables of interest, is ENV, -1.7765, SOC, 0.4322, and GOV, 0.2823. This means that for every unit decrease of ENV, the firm's value or TOBINSQ will decrease by -1.7765. For every unit increase of SOC and GOV, the firm's value or TOBINSQ will increase by 0.4322 and 0.2823. Next, to strengthen this regression model, control variables are added. The ROE variable's beta coefficient is 1.2848. This indicates that the firm value, or

TOBINSQ, will rise by 1.2848 for each unit increase in ROE. Afterward, the firm's value will increase by -0.0049 for each unit increase in FATO. Next, the firm value will rise by 1,5358 and 0.1263 for each unit of ROA and DER.

The R-squared value after the standard error value has been applied is known as the adjusted R-squared value. With an adjusted R-squared value of 0.3965 overall, the second model's output indicates that 39.65% of the variation in variable Y can be explained by changes in the independent variable. Therefore, the regression model is sound, and the remaining 60.35% can be explained by factors not included in the analysis. The regression model's Standard Error value, denoted by the S.E. label, is 1.5083. With the designation S.D. dependent variable, the Standard Deviation is 1.4406. The response variable's Standard Deviation value is less than the Standard Error value, indicating that the regression model is a reliable predictor of response variable values.

The F test values are displayed alongside simultaneous tests in EViews. It was marked as F-statistics in EViews. Table 4 indicates that the p-value is 0.3657 and the F value is 0.6221. The null hypothesis, H<sub>0</sub>, is rejected at the significant level of 1% due to the p-value of 0.0042 < 0.10. The firm's value as measured by TOBINSQ is significantly impacted by the ENV, SOC, and GOV pillar scores, which are supported by the control variables DER, ROE, FATO, and ROA. This is indicated by the simultaneous test rejecting H<sub>0</sub>. The findings of this research are also influenced by the characteristics of ESG companies and external factors that the author cannot control. This emphasizes that more research is needed to reconcile the differences. The study's limitation is that its findings cannot be applied to all nations. The study's findings are limited to businesses that are publicly traded.

To help further illuminate the subject, the author would like to offer specific recommendations for what other researchers should consider doing in the future. Potential avenues for future research include grouping companies based on industry sector and size to obtain empirical evidence over longer periods of data set observation. Additionally, the author offers some suggestions for qualitative research that could help to reconcile the conflicting results. For instance, one may investigate whether the CEO's power alters the link between environmental, social, and governance (ESG) performance and firm value.

## Conclusions

According to this first-step variable study, fair value is significantly positively impacted by both GOV and ENV. SOC does not significantly impact FV. Furthermore, fair value is significantly positively impacted by variable control DAR. CR significantly positively impacts firm value. To preserve firm value, regulators ought to publish rules or guidelines controlling the company's obligations regarding financial statements. The second-step variables in Model 2 of this study demonstrated that SOC and GOV significantly positively influence fair value. ENV does not significantly impact FV. Furthermore, fair value is significantly positively impacted by variable control ROE. ROA significantly positively impacts firm value. It could be that in this research there are characteristics of ESG companies whose population causes results that are different from those expected or maybe there are external factors that the author cannot control that could explain its findings.

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