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ESG, Financial Performance, and the Moderating Role of ESG Controversies

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Abstract

Purposes: This study aims to examine the relationship between Environmental, Social, and Governance (ESG) performance and financial performance (FP) and examine the relationship between ESG Controversies (ESGC) and FP, either directly or through moderation roles.

Methods: This study used a quantitative approach with random effect panel data regression and secondary data obtained from *Refinitive-Datastream.* The sample in this study was 175 observations of non-financial sector companies on the IDX during 2019-2023.

Findings: The study showed that ESG performance had a significant positive relationship with Tobin's Q. However, subsequent findings found that ESGC had no significant relationship with FP, directly or through interactions with Tobin's Q.

Novelty: This study provides new insights by filling in the gaps in previous research that examined the direct relationship between ESG, ESGC, and FP. This study will consider how the moderation role of ESGC or negative issues can affect the relationship in the context of the Indonesian market. However, with the limited sample covering Indonesia, the study results are difficult to generalize globally. Further, this study suggests expanding the sample to other sectors or companies in other countries to improve generalizations.

Keywords*:* ESG, ESG Controversies, Financial Performance, Indonesia Stock Exchange, Tobin's Q.

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INTRODUCTION

Environmental, Social, and Governance (ESG) issues have become a significant concern for companies, investors, and regulators as they are considered to improve corporate social responsibility and FP. The phenomenon in Indonesia regarding ESG is experiencing rapid development, with 95% of surveyed companies implementing ESG (Mandiri Institute, 2023). ESG is not only used as an indicator of corporate social responsibility but also integrated into business strategy to create a competitive advantage. Research by Friede et al. (2015) shows that ESG has the potential to improve operational efficiency, strengthen reputation, and reduce risk, which ultimately improves the company's FP. Similarly, ESG performance also benefits and considerably impacts market performance (Amalia & Kusuma, 2023). ESG is also considered a positive signal for investors because it is committed to sustainability (Krüger, 2015; Shakil, 2020).

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In Indonesia, the implementation of ESG is growing with the implementation of POJK No. 51/2017, which requires public companies to report on sustainability activities. However, adopting ESG practices continues to encounter difficulties, including issues like insufficient corporate awareness and inconsistent evaluation methods. Even though several non-financial companies listed on the Indonesia Stock Exchange (IDX) have begun implementing ESG principles, there are still few empirical studies on the connection between ESG and financial success in the Indonesian market (Chairani & Siregar, 2021; Melinda & Wardhani, 2020).

Numerous studies have examined the connection between ESG and FP, yielding mixed results. Whelan et al. (2021) found that ESG often positively influences FP by mitigating risk and enhancing reputation. However, other studies, such as those by Shakil et al. (2019) and Chen et al. (2023), reported insignificant or negative relationships depending on the geographical context, industry, and specific indicators. In emerging markets such as Indonesia, these variables produce more inconsistent results than developed countries (Triadita & Lahaya, 2024).

In addition to ESG performance, ESGC is an important research concern. According to Jo and Na (2012), ESGC refers to problems related to companies' ESG practices. These controversies can include violations of environmental regulations, labor exploitation, and governance scandals, all of which can damage a company's reputation. Then Capelle-Blancard and Petit (2019) mentioned that ESGC is a negative incident involving companies related to violations of sustainability principles. A company's market value, investor confidence, and reputation can all be adversely affected by controversies (Capelle-Blancard & Petit, 2019; Jucá et al., 2024). However, some research, such as those conducted by Aouadi and Marsat (2018), Ab Aziz et al. (2024), and Melinda and Wardhani (2020), suggest that ESGC can increase corporate transparency and accountability, which investors sometimes appreciate.

Prior studies have mostly looked at the direct relationship between ESG and FP, often overlooking the moderating role of ESGC, particularly in emerging markets like Indonesia. In theory, ESG performance is expected to provide a positive signal to FP through increased operational effectiveness, stakeholder trust, and reputation. However, the existence of ESGC can weaken this relationship due to adverse incidents or reputational risks that arise, and it can reduce market confidence in the company, even if its ESG performance is high. Controversies can trigger litigation costs, fines, or expenses to improve reputation. Therefore, ESGC is a risk factor that can either strengthen or weaken the relationship between ESG performance and FP.

Considering the role of ESGC as a moderation variable allows us to identify the variability of the relationship and whether high ESG performance can still positively influence FP if the company has a significant controversy. ESGC shows how reputational risk affects the effectiveness of ESG performance, making it more relevant to explain the actual condition of a company. Companies with high ESG performance (e.g., renewable energy companies) may continue to experience performance degradation due to controversies such as local environmental pollution or human rights violations. This shows that ESGC plays an important role as a moderator in the relationship. In a previous study by Jucá et al. (2024), it has been suggested that ESGC may diminish the positive impact of ESG on FP, particularly in high-risk industries. Then, the research of Rauf et al. (2024) also highlights that sustainability (ESG) effects are often exacerbated by controversial incidents that undermine stakeholder values.

By making ESGC a moderation variable, the study remains focused on the primary variable, ESG performance, while revealing how reputational risk can affect sustainability success in creating financial impact. This determination shows that ESGC is not a direct cause of FP but is a contextual factor that moderates the relationship between ESG performance and FP. So, as an implication, his research provides a viewpoint that companies need to improve ESG performance and actively manage related controversies to ensure a positive impact on FP.

The purpose of this study is to present empirical evidence by analyzing the relationship between FP and ESG performance and the direct and moderating effects of ESGC on FP. Tobin's Q ratio will be used in this study to measure FP, which is considered more reflective of market

expectations and more challenging to manipulate (Al Amosh et al., 2023; Constantinescu et al., 2021). The non-financial companies listed on the IDX are the subject of this study and employ a sample of 175 observations made in Indonesia between 2019 and 2023 and use ESG measurements from the Thomson Reuters ESG performance assessment index. This study is expected to contribute to academic literature and managerial practice by providing empirical evidence regarding the relationship between ESG performance and FP and the role of ESGC in emerging markets.

This signal theory, proposed by Akerlof (1970), explains that parties have unequal access to information in transactions. This theory suggests that issuing company managers better understand their firm's quality than external investors. When information is lacking, investors find it difficult to discern between high-quality and low-quality companies. Consequently, high-quality corporations typically offer cheaper pricing for new issues to communicate the business's worth. Spence (1978) developed this idea further in Signaling Theory, which asserts that corporate reporting aims to tell analysts and investors about the company's worth.

The disclosure of company information, such as ESG performance, is vital in shaping how the market perceives it. Good ESG performance is considered a positive signal that the company is managed effectively and has a commitment to sustainability, while ESGC provides a negative signal that can harm the company's reputation and reduce investor confidence (Rachmawati et al., 2019; Sellami & Hlima, 2019). Additionally, according to research by Rachmawati et al. (2019), businesses can assist the capital market by using voluntary disclosure to provide encouraging signals to investors and creditors.

FP represents a company's efficiency and effectiveness in generating profits. The use of Tobin's Q is considered more relevant in ESG research because this indicator is relevant for ESG research as it captures the market reaction to ESG performance (Eccles et al., 2014). Therefore, this study adopts market performance as a measure of FP. The market expectations for the company's growth prospects are reflected in Tobin's Q, precisely the ratio of an asset's market value to its book value. Every category of FP, as determined by Tobin's Q, is based on Thomson Reuters-created corporations.

ESG is a framework that integrates ESG aspects into a company's activities. It is the cornerstone of corporate sustainability and demonstrates corporate social responsibility (Chen et al., 2023). Environmental aspects cover emissions management, waste handling, and ecosystem preservation, ensuring companies minimize their ecological footprint. The social aspect focuses on employee welfare, community engagement, and the fulfillment of human rights, emphasizing the company's role in fostering social well-being. Meanwhile, governance highlights the importance of transparent and accountable corporate governance, ensuring ethical decision-making and regulatory compliance. ESG enhances corporate reputation and is a crucial benchmark for investors in making investment decisions (Whelan et al., 2021). In its evaluation, ESG performance is measured through various indicators, including those developed by rating agencies such as Thomson Reuters.

As part of ESG, Thomson Reuters has created a metric called the controversy score in addition to FP, which is determined by Tobin's Q and ESG performance. ESGC refers to adverse incidents related to poor ESG practices, such as violations of environmental regulations, labor exploitation, and governance scandals. These controversies may harm a company's market worth and reputation (Jo & Na, 2012; Capelle-Blancard & Petit, 2019). However, in some cases, proper handling of controversies can increase transparency and public trust (Aouadi & Marsat, 2018; Ab Aziz et al., 2024; Melinda & Wardhani, 2020).

Signaling theory by Spence (1973) explains that under conditions of information asymmetry, companies with good performance will provide positive signals to investors to differentiate themselves from low-quality companies. Effective management is demonstrated by a company's good ESG performance disclosure, ability to control ESG risks, and commitment to sustainability.

This increases investor confidence and attracts investment capital, which is reflected in increased market value (Krüger, 2015; Eccles et al., 2014). According to research, a company's market value often rises with its ESG performance. Research by Eccles et al. (2014) found that sustainable companies have higher Tobin's Q because they are considered more resilient to long-term risks. Furthermore, Shakil (2020) also noted that companies with high ESG scores attract investors who care about sustainability, ultimately increasing market capitalization. Based on several previous studies, the following is how the hypothesis can be constructed:

H_1: ESG performance is positively affected by FP (Tobin's Q)

Signalling theory outlines how businesses can communicate with the market by disclosing information such as ESG performance. In this context, good ESG performance is a positive signal to investors that the company has effective management and is committed to sustainability. Conversely, ESGC provides negative signals that can undermine investor confidence, affect market valuations, and lower the FP of the company. ESGC reflects violations of sustainability principles, such as environmental issues, labor exploitation, or governance scandals (Jo & Na, 2012).

Previous research supports that ESGC has a negative impact on FP. Gao et al. (2022) found that controversial incidents, such as environmental pollution or human rights violations, caused the company's market value to drop significantly. Furthermore, research by Nardella et al. (2023) also noted that companies facing ESGC experienced decreased market capitalization due to adverse investor reactions. Considering various prior research, the following is how the hypothesis can be constructed:

H_2: ESGC is negatively affected by FP (Tobin's Q)

Furthermore, signaling theory is also relevant in moderation, where good ESG performance provides a positive signal, but the presence of ESGC may disrupt this impact. When companies with high ESG performance are involved in controversies, the positive benefits of ESG disclosure may be eroded, as the controversies raise doubts about the effectiveness of risk management and commitment to sustainability (Aouadi & Marsat, 2018).

The results of studies by Godfrey et al. (2009) show that ESGC can reduce stakeholder trust even though companies have good ESG performance. Furthermore, Dkhili (2023) notes that ESGC creates uncertainty in the market, which could lessen the positive effect that ESG performance has on market value. However, the negative impact can be minimized if companies overcome the controversy with suitable mitigation measures. Considering various prior research, the following is how the hypothesis can be constructed:

H_3: ESG controversy weakens the relationship between ESG performance and FP (Tobin's Q)

METHODS

This study analyzed the moderating effect of ESGC and the relationship between FP and ESG performance using a quantitative technique and an explanatory study strategy. Panel data regression analysis, which is suitable for analyzing the dynamic relationships between variables across time, was used in this work. The research relied on secondary data from Refinitiv Eikon Datastream for ESG and ESGC scores and company financial reports for FP indicators. The data was processed using STATA 17 software to ensure robust statistical analysis.

Non-financial enterprises listed on the IDX between 2019 and 2023 made up the study sample. The weakness of the 2019 to 2023 elections covered a significant period of global attention to ESG issues. During this period, many companies began to adopt ESG practices more seriously and transparently. In Indonesia, POJK Number 51 of 2017 is the basis for this regulation. This POJK began fully enforced for public companies and financial services institutions in 2019, with several transitional provisions to facilitate preparation. Then, various industries are covered by the selection of businesses from all non-financial sectors, including manufacturing and retail, as

well as technology, which allows for comparative analysis of ESG performance in various industry contexts. This may result in a better understanding of ESG practices across various industries. This study is expected to provide valuable data regarding how ESG performance affects FP and how ESG disputes are handled.

The sample selection was completed using purposive sampling. The final sample was obtained after selection based on predetermined criteria. The following results from the selection of research samples are shown in Table 1. There are 667 firms listed on the IDX in 2019 were included in this study. The total number of businesses that satisfy the requirements is 35 after 102 companies from the financial industry sector and 530 companies without ESG data or ESGC in Refinitiv Eikon were eliminated. The analysis produced 175 company observations using data from 2019 to 2023. Using balanced panel data, the number of observations for each company was consistent throughout the study period. This ensures valid analysis because each company had complete data observed for each year.

Table 1. Research Sample

Criteria	Total
Companies listed on the IDX as of 2019	667
Reduced by financial industry companies	102
Companies for which ESG data is not available and ESGC on Refinitiv Eikon	530
Total companies to be tested	35
Research year 2019-2023	5
Total Company Observation Sample in 2019-2023	175

Source: Data Processed (2024)

Both independent and dependent variables had an impact on each other. In this research, FP was proxied by market performance. Market performance was referred to as the achievement of a company as measured by the stock market price indicator using Tobin's Q ratio consideration, which shows that the ratio not only measured the company's historical performance but also showed the market's appreciation of the company. In this study, Tobin's Q was measured using the approach outlined by Amalia and Kusuma (2023), as presented in Equation 1.

$$Tobin's\ Q = \frac{Market\ Value\ of\ Equity + Total\ Debt}{Total\ Asset} \quad \ldots\ldots(1)$$

In this study, ESG performance served as an independent variable. ESG performance was assessed using the Refinitiv Eikon Datastream ESG platform, which provided a percentage score between 0 and 100 based on the aggregate scores of ESG performance pillars (Whelan et al., 2021). The following ESG performance formula is shown in Equation 2.

$$ESG = \frac{1}{3} \times (Score\ Environment + Score\ Social + Score\ Governance) \quad \ldots\ldots(2)$$

Controversy data was sourced from the controversy scores used in studies by Aouadi and Marsat (2018), Li et al. (2018), Nirino et al. (2021), and Shakil (2021). These scores were determined by analyzing the number of controversies related to ESG issues, along with other adverse events experienced by a company within a year. The method for evaluating ESGC is called the controversy score, which ranges from a minimum value of 0 to a maximum of 100 (Aouadi & Marsat, 2018).

This study included variables to control other factors that could affect FP based on research (Amalia & Kusuma, 2023; Muawanah et al., 2024). The control variables in this study include Firm Size, Leverage, Growth, ROA, and Industry Sector. Additionally, a COVID-19 dummy variable

is incorporated to compare conditions before and after the pandemic, isolate the direct impact of the pandemic from other factors, and control for pre-pandemic trends that may influence the study's results. This ensures a more comprehensive and accurate analysis. With a value of 1 for the pandemic period (2020–2022) and a value of 0 for the time before or after, the COVID-19 dummy control variable is used to represent the impact of the pandemic period on the company's FP (It can be seen in Table 2).

Table 2. Operational Definitions of Variables

Variable	Definition
Tobin's Q	The firm's market-based performance (Amalia & Kusuma, 2023)
ESG Score	Overall ESG performance score (Whelan et al., 2021)
Environment Score (E)	Environmental sustainability performance (Whelan et al., 2021)
Social Score (S)	Corporate social responsibility performance (Whelan et al., 2021)
Governance Score (G)	Corporate governance effectiveness (Whelan et al., 2021)
ESGC Score	Level of negative ESG-related events (Aouadi & Marsat, 2018)
Firm Size	Company size (Amalia & Kusuma, 2023) $Firm\ Size = Ln\ (Total\ Assets)$
Leverage	Financial leverage ratio (Amalia & Kusuma, 2023) $Leverage\ = \frac{Total\ Debt}{Total\ Assets}$
Growth	Asset growth rate (Muawanah et al., 2024) $Growth\ = \frac{Total\ Assets\ - Total\ Assets\ _{t-1}}{Total\ Assets_{t-1}}$
ROA	Accounting-based FP (Muawanah et al., 2024) $ROA\ = \frac{Total\ Net\ Income}{Total\ Assets}$
Industry Sector	Dummy for industry sensitivity, one if sensitive and zero if non-sensitive (Researcher's classification).
COVID-19	Effect of the pandemic, one if the study is in the covid-19 period (2020-2022), zero otherwise (Researcher's classification).

Source: Data Processed (2024)

Microsoft Excel and STATA 17 are used for panel data regression analysis, R-Square, and T-test hypothesis testing. The features of the independent variables that were previously discussed were determined using descriptive statistics, which also provided a summary of the data using the mean, minimum, maximum, and standard deviation. Panel data regression models were tested using three estimate approaches: the fixed effect model and the common effect model (Gujarati, 2004). The Hausman, Lagrange Multiplier, and Chow Test were the three statistical tests used to determine the best model. The best estimation model for panel data regression analysis was found using these tests. Furthermore, this study used several derived traditional presumptions (Ghazali et al., 2020). Ghazali et al. (2020) include normality, multicollinearity, autocorrelation, and heteroscedasticity tests.

This study examines whether ESGC had a short-term or long-term effect on FP. Short-term impacts refer to immediate stock price reactions following negative ESG events, while long-term effects relate to reputational damage and investor confidence erosion over multiple periods. The impact was assessed using interaction terms in the regression model to determine whether ESGC significantly weakened the relationship between ESG performance and Tobin's Q over time. The research hypothesis, which looks at the link between independent factors and the dependent

variable, was tested in this study using a panel data regression model. The equation's panel data regression model referred to DasGupta (2022) and Amalia and Kusuma et al. (2023) research. H1 and H2 were tested on Model 1. H3 was tested using Model 2. These were the models:

Model 1

$$\text{Tobin's Q}_{it} = \beta_0 + \beta_1 \text{ESG}_{it} + \beta_2 \text{ESGC}_{it} + \beta_3 \text{Size}_{it} + \beta_4 \text{Lev}_{it} + \beta_5 \text{rowth}_{it} + \beta_6 \text{ROA}_{it} + \beta_7 \text{Ind}_{it} + \beta_8 \text{D\_Covid19}_{it} + \varepsilon_{it} \quad (3)$$

Model 2

$$\text{Tobin's Q}_{it} = \beta_0 + \beta_1 \text{ESG}_{it} + \beta_2 \text{ESGC}_{it} + \beta_3 (\text{ESG}_{it} * \text{ESGC}_{it}) + \beta_4 \text{Size}_{it} + \beta_5 \text{Lev}_{it} + \beta_6 \text{Growth}_{it} + \beta_7 \text{ROA}_{it} + \beta_8 \text{Ind}_{it} + \beta_9 \text{D\_Covid19}_{it} + \varepsilon_{it} \quad (4)$$

Description:

Tobin's Q_{it}	: Tobin's Q for company *i* in period *t*
ESG_{it}	: ESG Score
$ESGC_{it}$	: ESG Controversies Score
$Size_{it}$	: Ln total asset
Lev_{it}	: Leverage
$Growth_{it}$	: Growth
ROA_{it}	: Return on Assets
Ind_{it}	: Sektor Industri
D_covid19	: Dummy Covid-19
β_0	: Intercept
β	: Koefisien Regresi (Beta)
ε_{it}	: Error

RESULTS AND DISCUSSIONS

Descriptive Statistics

Descriptive statistical analysis is one statistical technique for giving a thorough summary of the study variables. All non-financial sector businesses listed on the IDX between 2019 and 2023 are included in the descriptive statistics computation, which includes FP as determined by Tobin's Q, ESG performance, and ESGC. The descriptive statistics included in this study are the mean, maximum, minimum, and standard deviation. The standard deviation shows how data values vary or disperse from the mean. The data is regarded as homogeneous if the standard deviation is less than the mean, whereas if it exceeds the mean, it is classified as heterogeneous. Descriptive statistical examination of every variable yielded the following findings:

Table 3 shows the number of research samples, which is 175. The average of Tobin's Q level was 2.582, with a value for the standard deviation of 5.384. This indicated a significant variation in the company's market value, with some companies having Tobin's Q ratio maximum value of 42.874, which probably reflected optimistic market expectations for company growth. The average (*mean*) value of the ESG score was around 53.018. This value indicated the average proportion of companies, which indicated that, in general, companies in the sample had moderate ESG performance, which meant that they showed a sufficient level of commitment to ESG aspects. The standard deviation of 18.528 showed that there was considerable variation between companies. This indicated that some companies excel in ESG practices, with scores ranging from 13.178 to 88.731. This variation reflected the diversity in the level of implementation and prioritization of sustainability, which was an important indicator for assessing the general position of companies in the sample about ESG practices, as well as a basis for analyzing the relationship with other variables such as FP.

Table 3 shows the average ESGC score was around 97.800 with a std deviation of 10.302. Then, the companies had scores close to the maximum value (100). This suggested that most of the companies in the sample exhibited low levels of controversy regarding ESG practices, which probably indicated that they generally had a good reputation in terms of sustainability. The control variables used in this analysis include Firm Size, Leverage, Growth, Return on Assets (ROA), Industry Sector, and Covid-19 Dummy. Based on the data observed from 175 observations, the Firm Size variable had an average (mean) value of 31.534 and a standard deviation of 0.877. The range of Firm Size values in the natural logarithm of total assets varied from 29.206 to a max value of 33.730. This indicated that the companies in the sample had a fair uniform size, with insignificant differences. Therefore, it could be assumed that the sample included companies with comparable operational scales.

Table 3. Descriptive Statistics Data

Variables	Obs	Mean	Std Deviation	Min	Max
TOBINSQ	175	2.582	5.384	0.336	42.874
ESG	175	53.018	18.528	13.178	88.731
ESGC	175	97.800	10.302	30.769	100
SIZE	175	31.534	0.877	29.206	33.730
LEV	175	0.461	0.211	0.081	0.004
GROWTH	175	8.737	29.840	-16.015	297.854
ROA	175	0.075	0.085	-0.185	0.454
D_IND	175	0.314	0.465	0	1
D_COVID	175	0.6	0.491	0	1

Description: TOBINSQ: Measured by dividing the company's market value (equity + debt value) by the total asset replacement value; ESG: Measured using a rating scale from ESG research institutions such as Refinitiv, which assesses a company's performance in ESG aspects; ESGC: Measured using a rating scale from research institutions such as Refinitiv that assesses the level of negative controversy related to a company's ESG practices; SIZE: Ln of total assets; LEV: total liabilities divided by total assets; GROWTH: Measured by calculating the percentage change in the company's revenue or profit; ROA: total net profit divided by total assets; D_IND: Measured by giving a value of 1 if the company belongs to a particular industry, and 0 if it is not; D_COVID: dummy variable, valued at 1 if the observation is included in the COVID-19 period (2020-2022) and 0 vice versa.

Source: Output Stata 17 (2024)

The Leverage (LEV) variable had an average of 0.461 and a standard deviation of 0.211. With a minimum value of 0.081 and a maximum value of 0.004. The Growth variable showed an average value of 8.737 with a high standard deviation of 29.840. The range of Growth values was very wide, ranging from -16.015 to 297.854, which probably indicated the existence of companies with highly variable growth rates. ROA had an average value of 0.075 with a std deviation of 0.085. The range of ROA values varied from -0.185 to a maximum value of 0.454. In the Industry Dummy variable with an average value of 0.314 and a standard deviation of 0.465. This showed that around 31.4% of the sample were companies in the sensitive industry category, while the rest were in the non-sensitive category.

Furthermore, the Covid-19 dummy variable, the mean value was 0.6, indicating that 60% of the companies in the sample were affected by the COVID-19 pandemic. Most of the sample consisted of companies operating during COVID-19, indicating that the pandemic had a significant relationship with the research results. The pandemic affected various aspects of the company's operational, financial, and sustainability strategies, including how the company disclosed information related to ESG issues. The minimum value in this study was 0. This meant that the

company was not included in the COVID-19 period. The maximum value was 1, indicating that the company was fully in COVID-19. Thus, these control variables showed significant variation in the observational data.

Normality Test

Using the normality test, the research model was guaranteed to be free of aberrant residual distribution. The test results are considered adequate if the data distribution is close to the normal distribution, which can be assessed through Skewness and Kurtosis testing. Based on the initial data in this study, it could be seen that the distribution of variables did not follow a normal pattern: the Growth variable with a *skewness* value of 6.653 and a *kurtosis* value of 56.796 and the FP (Tobinsq) variable with a *skewness* value of 5.265 and a *kurtosis* value of 32.756. So that winsorized 4% (cuts 4 96) on the Growth variable and 6% (cuts 6 94) on the Tobinsq variable.

The ESG Controversies variable measured by the ESGC score was categorical or discrete data with many repeating values (such as the dominant number 100), and the distribution was likely to be highly centered on certain values. Therefore, in statistical analysis, such discrete data variables could not form a normal distribution because they did not have the range of continuous values required for a normal distribution. After the normality problem was handled with the winsorizing method, the next normality test was conducted using STATA v.17.

Based on Table 4, the results of the *Skewness Kurtosis Test* in Table 4 after the winsorization on the Growth and Tobin's Q variables in 175 samples, it could be seen that the value for all variables otherthan the ESGC variable, ESG, FP (Tobinsq), Size, Leverage, Growth, ROA, Dummy Industry, Dummy Covid-19 had a value below 3 for *skewness* and a value below 10 for *kurtosis* so that the data has met the normality test requirements and could be considered normally distributed.

Table 4. Skewness Kurtosis Test Results

Variables	Skewness	Kurtosis
TOBINSQ	1.951	5.958
ESG	-0.082	2.073
ESGC	-4.062	17.499
SIZE	-0.001	3.241
LEV	0.478	2.402
GROWTH	2.532	8.824
ROA	1.149	6.393
D_IND	0.800	1.640
D_COVID	-0.408	1.167

Source: Output Stata 17 (2024)

Multicollinearity Test

A multicollinearity test was conducted to assess the high correlation among independent variables. The initial data analysis in this study revealed that the tolerance value was less than 0.10, and the Variance Inflation Factor (VIF) exceeded 10, indicating potential multicollinearity issues, which indicated a multicollinearity problem in the SIZE variable with a VIF value of 1426.85 and a *tolerance* valueof 0.001. Furthermore, the ESGC variable has a VIF value of 96.42 and a *tolerance* value of 0.010. and the ESG variable with a VIF value of 12.98 and a *tolerance* value of 0.077. Table 5 below displays the test results following the centering application:

In Table 5, after the centering process, it was observed that each independent variable's tolerance value exceeded 0.10, and all variables exhibited VIF values below 10, indicating the absence of multicollinearity issues.

Table 5. Multicollinearity Test Results

Variables	VIF	*Tolerance*
ESG	1.31	0.763
ESGC	1.04	0.961
SIZE	1.11	0.904
LEV	2.45	0.409
GROWTH	1.39	0.717
ROA	1.64	0.609
D_IND	1.66	0.604
D_COVID	2.44	0.410
Mean VIF	1.63	

Source: Output Stata 17 (2024)

Heteroscedasticity Test

The heteroscedasticity test was conducted to determine whether there were differences in the variation of residuals across observations in the regression model (Ghazali et al., 2020). The Breusch-Pagan-Godfrey test was used to detect heteroscedasticity. If the probability value of the test results is greater than 0.05, the data did not contain heteroscedasticity. The Breusch Pagan Godfrey Test Result shows that the value of Prob > Chi2 is 0.0000 <0.05, which indicates a heteroscedasticity problem. Therefore it was necessary to carry out treatment using the General Least Squares Test.

The General Least Square Test Result shows that there was no heteroskedasticity. This analysis confirmed that the error variation in the regression model was independent of the other variables. Thus, fulfilling the necessary assumption of homoscedasticity, the GLS test results not only proved the absence of autocorrelation but also confirmed no heteroscedasticity problem. Furthermore, it interprets the regression analysis results as more reliable and valid.

Test Coefficient of Determination (R-Square)

The effectiveness of the independent variables in the model in explaining variations in the dependent variable was assessed using the coefficient of determination test. The test result of the Coefficient of Determination shows that the R-Square is 0.4076, which indicates that 40.76% of the variation in the dependent variable was explained by the independent variables. However, other factors not covered by this research accounted for 59.24%. The very low chi-square probability (0.0000) indicated that the R-squared value was statistically significant.

***T-Test* - Model 1**

Each independent variable's impact on the dependent variable is examined separately using the t-test. These were the outcomes of the t-test (T-Test) model 1 used to test hypotheses 1 and 2. Each independent variable's relationship to the dependent variable was evaluated using the t-test. In Table 6, the t-test results in the *Random Effect Model*, the ESG variable showed a value of ($t = 1.76$, $p = 0.040$); it showed a substantial positive correlation at the 5% level, indicating that ESG and FP (Tobin's Q) were significantly correlated and H1 was accepted. Meanwhile, ESGC did not show a significant relationship with a value of ($t = 0.97$, $p = 0.167$), so H2 was not supported, and there was no evidence linking ESGC to FP.

In the control variable, SIZE had a value of ($t = -3.29$, $p < 0.001$), which showed a significant negative relationship with FP, which indicated that a company's FP, as measured by Tobin's Q, decreased with its size. LEV showed a significant positive relationship with the value of ($t = 3.39$, $p < 0.001$), which showed that businesses with more leverage typically perform better financially. GROWTH also showed a significant positive relationship with a value of ($t = 2.31$, $p < 0.011$), indicating that company growth was positively related to FP. ROA had a value of ($t = 7.36$, $p < 0.000$); this finding indicates a significant positive relationship with FP (Tobin's Q), suggesting

that companies with higher profitability tend to achieve better FP. On the other hand, D_IND showed a significant negative relationship with a value of (t = -3.30, p < 0.01), which meant that the effect of the industry sector on FP tends to be negative. Meanwhile, D_COVID showed no significant relationship with a value of (t = -0.57, p = 0.284), so there was no significant relationship between the COVID-19 pandemic and FP in this study.

Table 6. Result of the T-Test – Model 1 (Regression - Random Effect Model)

Variables	t	*Probability*
(*Constant*)	2.94	0.002
ESG	1.76	0.040**
ESGC	0.97	0.167
SIZE	-3.29	0.001
LEV	3.39	0.001
GROWTH	2.31	0.011
ROA	7.36	0.000
D_IND	-3.30	0.001
D_COVID	-0.57	0.248

The ***, **, and * signs mean significant levels of 0.01 (1%), 0.05 (5%), and 0.10 (10%)

Source: Output Stata 17 (2024)

***T-Test* - Model 2 (Moderation)**

The following were the t-test results for Model 2, which aimed to test the moderating role of ESGC in the relationship between ESG and FP (Tobin's Q). These results offer insights into whether ESGC (ESGC) influences the relationship between ESG performance and FP. The t-test results in the Random Effect Model for Model 2 are based on Table 7; the ESG variable showed a value of (t = 0.38, p = 0.702), which did not indicate a significant relationship between ESG and FP (Tobin's Q), so there was no evidence to support the hypothesis of a direct relationship between ESG and FP. Likewise, the ESGC variable showed no significant relationship with a value of (t = 0.88, p = 0.379), indicating that ESGC had no direct effect on FP. Furthermore, the interaction between ESG and ESGC (moderating variable) also showed no significant relationship, with a value of (t = -0.69, p = 0.490). This indicated that ESGC did not strengthen or weaken the relationship between ESG and FP (Tobin's Q), so H3, which tests the moderating role of ESGC, was not supported.

Table 7. Result of the T-Test – Model 2 (Regression - Random Effect Model)

Variables	t	*Probability*
(*Constant*)	4.81	0.000
ESG	0.38	0.702
ESGC	0.88	0.379
ESG*ESGC	-0.69	0.490
SIZE	-5.79	0.000***
LEV	0.48	0.628
GROWTH	1.03	0.304
ROA	7.06	0.000***
D_IND	-1.32	0.187
D_COVID	0.06	0.953

The ***, **, and * signs mean significant levels of 0.01 (1%), 0.05 (5%), and 0.10 (10%)

Source: Output Stata 17 (2024)

SIZE showed a significant negative correlation with FP for the control variables (t = -5.79, p < 0.000), suggesting that larger organizations typically have weaker financial success as measured by Tobin's Q. In contrast, LEV displayed a positive but negligible correlation (t = 0.48, p = 0.628), indicating that leverage had no discernible effect on FP in this model. GROWTH showed a value of (t = 1.03, p = 0.304), which was insignificant, so company growth was not significantly related to FP. ROA had a value of (t = 7.06, p < 0.000), which showed a significant positive relationship with FP, indicating that more profitable businesses typically fare better financially. On the other hand, D_IND showed a value of (t = -1.32, p = 0.187), which was insignificant, suggesting that the industry sector had no significant effect on FP. Meanwhile, D_COVID showed a value of (t = 0.06, p = 0.953), which was also insignificant, indicating that the COVID-19 pandemic had no significant effect on FP in this study.

ESG Performance on FP

Based on the findings in hypothesis 1, which explains that ESG performance had a positive relationship with FP as measured using Tobin's Q. This result was in line with previous research, Al Amosh et al. (2023); Fatemi et al. (2018); and Friede et al. (2015) found that ESG performance was positively related to Tobin's Q. This means that an increase in the company's ESG performance tends to increase the company's ESG performance. That is, an increase in a company's ESG performance tended to increase the value of Tobin's Q, which reflects better FP and higher attractiveness in the market.

This study supported the signaling theory proposed by Spence (1973), suggesting that good ESG performance could be perceived as a positive signal to investors about business sustainability and management's ability to manage ESG risks. In the context of signaling theory, investors who interpret ESG as an indicator of competitive advantage and long-term sustainability will provide a market value premium to the company, where good ESG signals will attract additional investment.

In addition, these findings also reinforced the view that companies that pay attention to ESG factors not only focus on regulatory compliance or social responsibility but could also utilize ESG approaches to create higher economic value. This implies that investing in ESG performance could positively impact a company's competitiveness and profitability, ultimately improving overall FP.

ESGC on FP

Based on the findings for H2, which indicated that ESGC did not have a significant relationship with Tobin's Q, it cannot be concluded that ESGC influences FP. This finding defies the original premise, which postulated that ESGC and Tobin's Q would be negatively correlated.

Then, the findings in this study were not in line with the signaling theory, which states that ESGC can provide negative signals that can undermine investor confidence, affect market valuations, and reduce the company's FP. Then, a higher ESGC score indicates fewer ESG-related controversies in the company, with a score of 100 signifying that the company is free of ESGC (Jucá et al., 2024). This study found no significant relationship between ESGC and FP, as most companies in the sample had very high ESGC scores, close to 100. The average ESGC score of 97.80042 reflects that most companies in this study were not involved in ESGC.

Furthermore, the results contradicted Krüger's (2015) research, which showed that investors reacted negatively to unfavorable ESG disclosures. Furthermore, research by Jucá et al. (2024) showed that ESGC generally harmed FP because it could increase reputational, litigation, or regulatory risks, where companies involved in ESGC often experience a decrease in ESG scores, which then had negative implications for their Tobin's Q value. Other findings by Aouadi and Marsat (2018) used 58 nations from different continents to perform their study. According to the study, organizations with higher performance levels were less susceptible to unfavorable media attention. Likewise, research by Ab Aziz et al. (2024) and Melinda and Wardhani (2020) found that ESGC had a positive relationship with Tobin's Q, indicating that these controversies were able to increase transparency and accountability, which investors welcomed. In some cases, the attention

gained due to controversy can increase market exposure, indirectly increasing the company's value. Later on, Capelle-Blancard and Petit (2019) noted that the impact of controversies on the ESG may differ based on how a company responds. If the company shows a proactive response, such as improving governance or increasing social initiatives, the controversy can be turned into an opportunity that generates positive impacts.

ESGC moderates the relationship between ESG performance and FP

The moderating influence of ESGC was not significant, according to the results for H3. This suggests that the available data did not sufficiently support the idea that ESGC moderates the relationship between ESG performance and Tobin's Q. Although the negative coefficient suggested a moderating direction that could weaken the relationship between ESG and Tobin's Q, there was no statistical significance in the effect. These findings also contradict the hypothesis since there was no discernible moderating effect of ESG debates on the association between ESG and FP. ESGC usually takes time to significantly impact a company's market value; while it may damage its reputation in the short term, its impact on Tobin's Q may be more pronounced in the long term. This was in line with the research of Eccles et al. (2014), who stated that the benefits of ESG were more evident in the long term than in short-term performance.

In this case, the possibility of the insignificance of the findings in hypothesis 3 can be explained by several factors, such as industries taken in several sectors, in the form of energy or mining sectors, where these sectors have a higher market tolerance to controversy due to inherent risk expectations. This is consistent with the study of Jucá et al. (2024), which said that the impact or role of ESGC varies between industries or within certain sectors. Then Flammer (2013) noted that companies with good ESG practices can reduce the negative impact of controversy through their reliability and sustainability commitment signals, where strong ESG can offset the negative impact of ESGC; if the company has high ESG performance, this can be a positive signal that dominates market perception, even if there is controversy.

Furthermore, research by Capelle-Blancard and Petit (2019) found that the company's response to ESGC played an important role; when the company responded to controversies quickly and transparently, the market tended to tolerate the impact of controversies. Then this can also occur because low customer or investor awareness of sustainability issues can reduce the impact of ESGC on investment decisions (Fatemi et al., 2018).

Control Variable Analysis

In the control variable, Firm Size showed that the larger the size of the company, the lower the market value relative to its assets (Tobin's Q), which meant Firm Size had a significant negative relationship with Tobin's Q. This was because large companies may be in the maturity phase with limited growth opportunities, so the market provided lower value. This was because large companies may be in a maturity phase with limited growth opportunities, so the market provided a lower value. In line with research by Jensen (1986), it was stated that large companies often face greater agency problems that can reduce operational efficiency.

Furthermore, the Leverage control variable had a significant positive relationship to Tobin's Q. Companies with higher leverage tended to have additional pressure from creditors or to maintain reputation and compliance so that companies increased transparency in disclosures that can increase market confidence. Jensen (1986) also highlighted that leverage can serve as a disciplinary mechanism to reduce agency costs. On the control variable, Growth had a significant positive relationship to Tobin's Q. This showed that companies with higher sales growth had a higher market value, which can be caused by market expectations of greater expansion opportunities in the future.

High profitability raised the company's market value, as seen by the positive association between ROA and Tobin's Q in the control variable. Investors view ROA as a positive indicator, reflecting the company's operational efficiency and ability to create profits from its assets. It also

emphasizes that profitability was frequently a key factor in determining a company's market valuation (Flammer, 2013).

The control variable, the industry dummy, exhibited a significant negative relationship with Tobin's Q, indicating that industry differences influence FP. This indicated that companies in sensitive sectors (energy and materials) had lower market value than non-sensitive sectors. The research of Eccles et al. (2014) found that the energy and manufacturing sectors tended to have lower market appreciation due to greater sustainability challenges. The pandemic's varied impact on firm value was demonstrated by the lack of a significant correlation between Tobin's Q and the dummy control variable COVID-19. This may occur because the impact of the pandemic was more influenced by individual company adaptation or sector-specific factors than the direct effects of the pandemic. Furthermore, research by Rauf et al. (2024) stated that the impact of a pandemic varied greatly depending on the sector and the company's resilience to disruption.

CONCLUSIONS

This study assesses the relationship between ESG performance and FP according to Tobin's Q, as well as the moderating impact of ESG scandals in companies listed on the IDX between 2019 and 2023. The results demonstrate the significance of sustainable business practices in raising market value and validate that ESG benefits financial success. However, ESGC does not exhibit a significant moderating effect, suggesting that their impact on FP may vary depending on contextual factors. These results emphasize the need for companies to strengthen ESG implementation while effectively managing controversies to maintain long-term financial stability. Despite its contributions, this study is limited by its focus on non-financial firms in Indonesia, a relatively short observation period, and a quantitative approach that may not fully capture reputational risks. Future research could expand the sample scope, incorporate alternative FP indicators, and integrate qualitative methods to explore the broader implications of ESGC on corporate sustainability.

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