

## The Effect of ESG Disclosure on Firm Value with CEO Tenure as a Moderating Variable

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### ABSTRACT

This study examines the effect of ESG disclosure on firm value (Tobin's Q), with CEO tenure as a moderating variable, using panel data from non-financial firms listed on the Indonesia Stock Exchange (2017-2024). Data were analyzed using Fixed Effect Model regression, controlling for leverage, firm size, CEO turnover, the COVID-19 pandemic, and lagged firm performance. Results show that ESG disclosure has a significant negative effect on firm value, while CEO tenure has no significant direct or moderating effect. Leverage and lagged firm performance are positively and significantly associated with firm value. These findings suggest ESG implementation may act as a short-term cost rather than an immediate value driver, with implications for corporate ESG strategy and investor decision-making in Indonesia.

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## INTRODUCTION

Environmental, Social, and Governance (ESG) factors have become increasingly important to investors, business managers, and policymakers, particularly regarding the accuracy of ESG disclosure relative to firms' actual sustainability practices (Al Hawaj & Buallay, 2022). Corporate attention to ESG intensified after the adoption of the 2015 Paris Agreement, through which developed and developing nations committed to achieving net-zero emissions by 2050. Reflecting this shift, the number of firms publishing sustainability reports has grown by 62% over the past five years (Al Hawaj & Buallay, 2022), and academic research on ESG has expanded rapidly since 2017, particularly regarding its relationship with corporate financial outcomes. Several prior studies (e.g., Friede et al., 2015; Bătae et al., 2021) find that ESG components have a positive and significant effect on firm performance.

In Indonesia, sustainability reporting has been mandated since 2017 under OJK Regulation No. 51/POJK.03/2017 on Sustainable Finance. By 2024, 873 listed firms - about 97% of all issuers on the Indonesia Stock Exchange - had submitted sustainability reports for fiscal year 2023. ESG-based investment has grown alongside this trend: the Financial Services Authority (OJK) recorded 34 ESG-based mutual fund products managed by 19 investment managers as of June 2024, while assets under management (AUM) in ESG-based investment products rose from roughly IDR 38 billion in 2014 to IDR 8.21 trillion in 2024. This trend indicates that investors increasingly weigh sustainability alongside traditional financial indicators, such that firms with stronger ESG disclosure are expected to receive a more favorable market response, reflected in higher firm value (Thompson et al., 2022).

Nevertheless, empirical evidence on the ESG-performance relationship remains inconsistent. Aydoğmuş et al. (2022) report a positive and significant effect of ESG scores on firm value, whereas other studies emphasize the administrative burden and short-term costs that ESG implementation imposes, particularly on firms with limited resources (Nazir et al., 2021; Yip & Yu, 2023; Firmansyah et al., 2023). Some studies (Makhdalena et al., 2022; Lunawat & Lunawat, 2022; Maji & Lohia, 2022) find a positive relationship between ESG disclosure and firm performance, while others (Fahad & Busru, 2021; Wasiuzzaman et al., 2022) report a negative relationship. A preliminary review of six Indonesian firms with Bloomberg ESG scores likewise shows that a higher ESG score does not always correspond to a higher Tobin's Q, suggesting that the ESG-firm value relationship may be conditioned by other factors.

One such factor is CEO tenure - the length of time an individual has served as Chief Executive Officer - which shapes strategic decision-making, risk management, and organizational adaptability (Gupta & Mahakud, 2020; Rahman & Chen, 2022; Saha et al., 2023). Meta-analytic evidence drawn from 285 studies and more than one million observations indicates that CEO tenure is generally positively associated with firm performance (Cao et al., 2021), and CEO tenure has been found to strengthen the effect of ESG on firm value by allowing CEOs to more effectively integrate sustainability into corporate strategy and communicate sustainability commitments to investors (Lee et al., 2025).

However, excessively long tenure may also produce strategic rigidity that reduces a firm's adaptability to a changing business environment (Brochet et al., 2021; Yim & Kang, 2024). Building on these arguments and the inconsistent evidence reported in prior research, this study investigates the effect of ESG disclosure on firm value, with CEO tenure as a moderating variable, using a sample of non-financial companies listed on the Indonesia Stock Exchange for the period 2017-2024.

## **LITERATURE REVIEW**

### ***Stakeholder Theory***

Stakeholder theory offers a broader perspective than the traditional shareholder-centric view of the firm. Freeman (1984) defines stakeholders as "groups or individuals who can affect or are affected by the achievement of an organization's objectives," and argues that firms should consider the interests of all stakeholders, not only shareholders, in their decision-making. Mitchell and Wood (1997) further develop a framework for identifying and prioritizing stakeholders based on power, legitimacy, and urgency, while Donaldson and Preston (1995) distinguish descriptive, instrumental, and normative dimensions of the theory. Jones (1995) links stakeholder management to firm performance, arguing that firms that build trust-based relationships with stakeholders gain a competitive advantage, and Post et al. (2002) emphasize that effective stakeholder engagement is essential for long-term corporate sustainability. In this study, stakeholder theory supports the expectation that ESG disclosure - as a mechanism through which firms manage stakeholder relationships - contributes to firm value.

### ***Signaling Theory***

Signaling theory, first introduced by Spence (1973), explains how parties with superior information convey signals to less-informed parties in order to reduce information asymmetry (Hussain et al., 2023). By providing clear and credible signals, firms can increase investor confidence, reduce uncertainty, and ultimately increase firm value (Diantimala et al., 2022). Transparent ESG disclosure functions as a positive signal that can attract sustainability-conscious investors and strengthen a firm's reputation (Aroul et al., 2022; Eng et al., 2021), whereas negative signals - such as frequent CEO turnover - may raise concerns about internal stability (Chen & Liu, 2023; Liu et al., 2023). This study draws on signaling theory to explain why ESG disclosure is expected to positively affect firm value.

### ***Upper Echelons Theory***

Upper echelons theory (Hambrick & Mason, 1984) posits that strategic choices and organizational outcomes are shaped not only by external factors but also by the psychological and demographic characteristics of top executives, including age, education, experience, and tenure. In the context of sustainability, executives with stronger environmental awareness and social/governance experience tend to promote ESG initiatives and more socially responsible policies (Agnihotri et al., 2024; Saha et al., 2023). Longer CEO tenure allows executives to shape organizational culture and exert greater influence over strategic direction

(Hsu et al., 2020; Graham et al., 2022), although excessively long or short tenure may have adverse consequences for both firm performance and ESG disclosure. This theory underlies the moderating role of CEO tenure examined in this study.

### ***Firm Value***

Firm value reflects a company's ability to achieve its financial and operational objectives efficiently and effectively. This study measures firm value using Tobin's Q, a market-based indicator that compares a firm's market value to the replacement cost of its assets. A Tobin's Q greater than one ( $Q > 1$ ) indicates that the market values the firm above the book value of its physical assets, reflecting efficient management and favorable growth prospects, whereas a ratio below one ( $Q < 1$ ) indicates that the firm is undervalued relative to its asset base. Because it captures market perceptions of a firm's future prospects rather than solely its historical accounting performance, Tobin's Q is widely used as an indicator of firm performance in ESG-related research (Dhifi & Zouari, 2024; Zhao et al., 2019).

### ***ESG Disclosure***

ESG disclosure demonstrates a firm's commitment to sustainable and responsible business practices (Nguyen & Nguyen, 2023) and comprises three pillars: environmental, social, and governance (Tahmid et al., 2022). The environmental pillar concerns a firm's management of its operational impact on the ecosystem, including energy consumption, emissions, and pollution control; the social pillar concerns relationships with employees, customers, and communities; and the governance pillar concerns board structure, executive remuneration, anti-corruption practices, and regulatory compliance (Bergman, 2020). This study uses the Bloomberg ESG Disclosure Score (scaled 0-100) as a proxy for ESG disclosure, consistent with prior studies (Alareeni & Hamdan, 2020; Wasiuzzaman et al., 2022; Firmansyah et al., 2023). Because Bloomberg applies a materiality-based, industry-specific weighting scheme rather than a single fixed weighting formula across the three pillars, this study uses the aggregate ESG score rather than disaggregating it into separate environmental, social, and governance scores.

### ***CEO Tenure***

CEO tenure refers to the length of time an individual has served as Chief Executive Officer of a firm and has a significant influence on corporate performance and strategy (Gupta & Mahakud, 2020; Rahman & Chen, 2022). Longer tenure typically provides CEOs with sufficient time to implement strategic visions, build stakeholder relationships, and establish leadership stability (Saha et al., 2023), and is associated with a deeper understanding of organizational culture and industry dynamics that supports more consistent decision-making (Cid-Aranda & López-Iturriaga, 2023). However, excessively long tenure may also reduce innovation and adaptability, as CEOs become more comfortable with the status quo and less responsive to changes in the market (Azzam & Alhababsah, 2022; Yim & Kang, 2024).

### ***Previous Research***

Table 1 summarizes selected prior studies on the relationship between ESG performance, CEO/board tenure, and firm value/performance.

| Author(s) / Year                        | Finding                                                                                                                         |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Livnat, Smith, Suslava, & Tarlie (2021) | Companies with longer CEO tenure tend to have higher market valuation.                                                          |
| Al Hawaj & Buallay (2022)               | Sustainability/ESG disclosure generally has a positive effect on firm performance.                                              |
| Friede, Busch, & Bassen (2015)          | Aggregated evidence from more than 2,000 empirical studies shows a positive ESG-performance relationship.                       |
| Velte (2017)                            | ESG performance positively affects ROA but has no significant effect on Tobin's Q.                                              |
| Fatemi, Glaum, & Kaiser (2018)          | ESG positively affects firm value; higher disclosure strengthens the effect.                                                    |
| Broadstock et al. (2021)                | High-ESG-score firms show better market valuation and greater resilience during the COVID-19 pandemic.                          |
| Huang (2013)                            | Excessively long board tenure reduces monitoring effectiveness and firm value.                                                  |
| Brochet, Loumiot, & Serafeim (2021)     | Longer CEO tenure is associated with a longer disclosure horizon that supports sustainability investment.                       |
| Buallay (2019)                          | Aggregate ESG disclosure positively affects performance, although results vary across individual pillars.                       |
| Naciti (2019)                           | Governance and top-management characteristics positively affect sustainability performance, which in turn increases firm value. |

Table 1. Summary of Prior Research

## Hypotheses Development

### *Effect of ESG Disclosure on Firm Value*

According to signaling theory, firms use information disclosure to signal their quality to the market and to reduce information asymmetry. ESG disclosure offers several advantages over other forms of non-financial disclosure: it is highly relevant to the global sustainability and climate-change agenda, provides a more structured framework for measuring environmental, social, and governance impact, and serves as evidence of a firm's commitment to risk management and long-term value creation that investors can trust (Khamisu et al., 2024; Singhania et al., 2023). Firms that disclose ESG information more comprehensively are

therefore expected to strengthen their reputation, and in some jurisdictions may also benefit from tax incentives associated with environmental investment, which can indirectly reduce their tax burden (Zhu & Zhang, 2023). Consistent with signaling theory, several prior studies report a positive relationship between ESG disclosure and firm performance (Alareeni & Hamdan, 2020; Cabaleiro-Cerviño & Mendi, 2024; Kalia & Aggarwal, 2022; Makhdalena et al., 2023; Siwei & Chalermkiat, 2023; Samy El-Deeb et al., 2023; Buallay, 2019), although other studies report a negative relationship (Chacon et al., 2024; Duque-Grisales & Aguilera-Caracuel, 2019; Fahad & Busru, 2021; Firmansyah et al., 2023; Prabawati & Rahmawati, 2022; Truong, 2024; Wasiuzzaman et al., 2022; Zahid et al., 2022). Based on the arguments above, the following hypothesis is proposed:

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

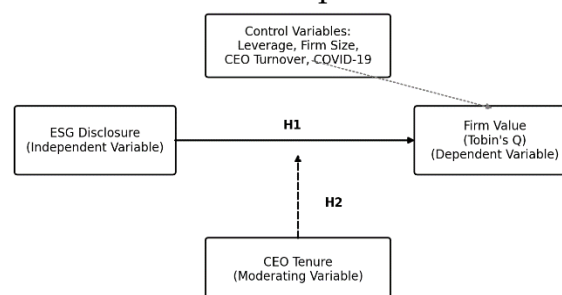
***Moderating Effect of CEO Tenure on the Relationship between ESG Disclosure and Firm Value***

ESG disclosure is a form of corporate transparency regarding the management of environmental, social, and governance issues, which is expected to enhance both firm performance and stakeholder support. CEOs who have served longer typically possess broader organizational knowledge and are therefore better positioned to understand and leverage the positive effects of ESG disclosure (Al-Najjar & Abualqumboz, 2023; Cho et al., 2018). Longer-tenured CEOs are also more likely to weigh the long-term benefits of ESG disclosure (Chen et al., 2019), whereas shorter-tenured CEOs tend to prioritize short-term outcomes and may be less inclined to support ESG initiatives that require substantial upfront investment with benefits that only materialize over time. Based on the arguments above, the following hypothesis is proposed:

**H2: CEO tenure moderates the effect of ESG disclosure on firm value.**

**Conceptual Framework**

Figure 1 illustrates the conceptual framework of this study, which examines the effect of ESG disclosure on firm value (proxied by Tobin's Q) and the moderating role of CEO tenure in this relationship. Leverage, firm size, CEO turnover, and the COVID-19 pandemic are included as control variables to obtain more accurate estimates of the relationships of interest.



**Figure 1. Conceptual Framework**

## METHODOLOGY

### Research Design

Following Sekaran and Bougie (2017), research design is a systematic plan describing the steps taken to collect and analyze data in order to answer the research questions and test the proposed hypotheses. This study is designed to examine and explain the nature of the relationship between ESG disclosure and firm value among publicly listed companies in Indonesia, with CEO tenure as a moderating variable, using a quantitative descriptive approach.

### Population and Sample

The population of this study comprises non-financial companies listed on the Indonesia Stock Exchange during 2017-2024 that have Bloomberg ESG score data available. The year 2017 was selected as the starting point because it coincides with growing corporate attention to sustainability following the entry into force of the Paris Agreement, while 2024 was selected as the endpoint because data collection was conducted in mid-2025, making the 2024 annual reports and financial statements the most recent complete data available. The sample was selected using purposive sampling, based on the following criteria:

1. Public companies listed on the Indonesia Stock Exchange during 2017-2024.
2. Companies with complete annual reports for the period 2017-2024.
3. Companies with continuous ESG performance data for the period 2017-2024.

### Data Type and Source

This study uses secondary data obtained from companies' financial statements and corporate websites. Data on ESG disclosure scores were obtained from the Bloomberg database.

### Research Variables and Operational Definitions

#### *Dependent Variable: Firm Value*

The dependent variable in this study is firm value, measured using Tobin's Q. This ratio, developed by economist James Tobin, indicates whether a firm is over- or under-valued by the market relative to the value of its physical assets. Consistent with Prabawati and Rahmawati (2022), Alareeni and Hamdan (2020), and Truong (2024), Tobin's Q is formulated as follows:

$$TOB = (\text{Market Value of Equity} + \text{Total Liabilities}) / \text{Total Assets} \quad (1)$$

where TOB is Tobin's Q.

#### *Independent Variable: ESG Disclosure*

The independent variable is ESG performance, reflecting a firm's commitment to sustainable and responsible business practices across the environmental, social, and governance dimensions. ESG disclosure is measured using the Bloomberg ESG Disclosure Score (0-100), consistent with Alareeni and Hamdan (2020), Wasiuzzaman et al. (2022), and Firmansyah et al. (2023). The aggregate score, rather than individual pillar scores, is used because Bloomberg's weighting methodology is materiality-based and industry-specific - Environmental and Social scores are industry-specific, while Governance scores also reflect country-level context (Che, 2023) - such that Bloomberg does not publish a single, universal weighting scheme applicable to all firms (Machmuddah & Wardhani, 2020).

#### *Moderating Variable: CEO Tenure*

The moderating variable is CEO tenure, referring to the length of time an individual has served as CEO of the firm. Longer tenure typically provides CEOs sufficient time to implement strategic visions, build stakeholder relationships, and establish leadership stability (Saha et al., 2023). CEO tenure is measured as the number of years an individual has held the position of CEO, consistent with Cid-Aranda and López-Iturriaga (2023), Gupta and Mahakud (2020), and Al-Najjar and Abualqumboz (2023).

#### **Control Variables**

Four control variables are used to minimize confounding effects on the results: leverage, firm size, CEO turnover, and the COVID-19 pandemic.

**a. Leverage.** Leverage measures the extent to which a firm relies on debt in its capital structure and reflects financial risk, since firms with higher debt levels face greater risk related to interest payments and other obligations. Consistent with Cid-Aranda and López-Iturriaga (2023), Alareeni and Hamdan (2020), and Firmansyah et al. (2023), leverage is measured as the ratio of total debt to total assets:

$$LEV = \text{Total Debt} / \text{Total Assets} \quad (2)$$

**b. Firm Size.** Firm size represents the scale of a company's operations and is associated with financial performance, competitiveness, and stability; larger firms generally attract more investor attention, have greater access to debt financing, and have stronger incentives to disclose ESG information. Consistent with Wasiuzzaman et al. (2022) and Lunawat and Lunawat (2023), firm size is measured as the natural logarithm of total assets:

$$SIZE = \ln(\text{Total Assets}) \quad (3)$$

**c. CEO Turnover.** CEO turnover refers to a change of CEO within a firm, whether through resignation, retirement, dismissal, or planned succession, and can substantially affect a firm's strategic direction, organizational culture, and financial performance. Consistent with Al-Faryan (2024), Jatana (2022), and Chijoke-Mgbame et al. (2023), CEO turnover is measured using a dummy variable equal to 1 in years with a CEO change and 0 otherwise.

**d. COVID-19 Pandemic.** Because the observation period (2017-2024) spans the COVID-19 pandemic (2020-2021), a dummy variable is included, coded 1 for pandemic years and 0 otherwise.

**e. Lagged Firm Performance.** Firm performance is widely recognized as a persistent, path-dependent process in which a firm's current condition is shaped by its performance in prior periods, reflecting accumulated reputation, managerial quality, competitive advantage, operating efficiency, and investor perception (Hillman & Keim, 2001). Following the dynamic-panel literature (Arellano & Bond, 1991) and corporate governance studies that control for performance persistence to mitigate endogeneity (Wintoki et al., 2012), as well as evidence that the ESG/CSR-performance relationship unfolds gradually over time (Flammer, 2015), this study includes the natural logarithm of the prior-year firm value,  $\text{LOG}(Y-1)$ , as an additional control variable. Including this lagged term reduces omitted-variable bias and yields a more reliable estimate of the effect of ESG disclosure on firm value net of performance persistence.

| Type | Variable | Measurement |
|------|----------|-------------|
|------|----------|-------------|



|             |                         |                                                                         |
|-------------|-------------------------|-------------------------------------------------------------------------|
| Dependent   | Firm Value              | Tobin's Q = (Market Value of Equity + Total Liabilities) / Total Assets |
| Independent | ESG Disclosure          | Bloomberg ESG Disclosure Score (0-100)                                  |
| Moderating  | CEO Tenure              | Number of years an individual has served as CEO                         |
| Control     | Leverage                | Total Debt / Total Assets                                               |
| Control     | Firm Size               | Ln(Total Assets)                                                        |
| Control     | CEO Turnover            | Dummy: 1 = CEO change occurred; 0 = otherwise                           |
| Control     | COVID-19 Pandemic       | Dummy: 1 = pandemic year (2020-2021); 0 = otherwise                     |
| Control     | Lagged Firm Performance | LOG(Y-1) = natural logarithm of prior-year firm value (Tobin's Q)       |

**Table 2. Summary of Variable Measurement**

### Data Analysis Technique

#### *Descriptive Statistical Analysis*

Descriptive statistics are used to summarize the research data - firm value, ESG disclosure, and CEO tenure - in terms of mean, median, maximum, minimum, range, and standard deviation, in order to provide an overview of the characteristics of the sample.

#### *Panel Data Regression Analysis*

Panel data regression is used to analyze repeated observations of the same units over time. It offers several advantages over pure cross-sectional or time-series regression, including the ability to accommodate individual heterogeneity, increase the number of observations, reduce multicollinearity problems, and produce more efficient estimates (Priyatno, 2022). This study uses a balanced panel covering eight years (2017-2024). The regression models used to test Hypotheses 1 and 2 are specified as follows:

$$FIRMV_{it} = a + \beta_1 ESG_{it-1} + \beta_2 LEV_{it} + \beta_3 SIZE_{it} + \beta_4 CTURN_{it} + \beta_5 COVID_{it} + \beta_6 LOG(FIRMV_{it-1}) + \varepsilon_{it} \quad (4)$$

Model (4) is used to test Hypothesis 1 (the effect of ESG disclosure on firm value). Model (5) below extends this by including the interaction term between ESG disclosure and CEO tenure to test Hypothesis 2 (the moderating effect of CEO tenure):

$$FIRMV_{it} = a + \beta_1 ESG_{it-1} + \beta_2 CTEN_{it} + \beta_3 (ESG_{it-1} \times CTEN_{it-1}) + \beta_4 LEV_{it} + \beta_5 SIZE_{it} + \beta_6 CTURN_{it-1} + \beta_7 COVID_{it} + \beta_8 LOG(FIRMV_{it-1}) + \varepsilon_{it} \quad (5)$$

where FIRMV is firm value; ESG is ESG disclosure; CTEN is CEO tenure; LEV is leverage; SIZE is firm size; CTURN is CEO turnover; COVID is the COVID-19 pandemic dummy; LOG(FIRMV<sub>it-1</sub>) is the natural logarithm of prior-year firm value, included as a control variable to account for performance persistence; i

denotes the firm;  $t$  denotes the year;  $\alpha$  is the constant;  $\beta$  are the regression coefficients; and  $\varepsilon$  is the error term.

#### ***Panel Data Model Estimation***

Panel data regression can be estimated using three approaches: the Common Effect Model (CEM) or Pooled Least Square (PLS), the Fixed Effect Model (FEM), and the Random Effect Model (REM). CEM pools all observations and estimates a single intercept and set of coefficients using Ordinary Least Squares, without distinguishing cross-sectional or time-series variation (Gujarati, 1972). FEM allows each cross-sectional unit to have its own intercept, which is assumed constant over time, while capturing unit-specific effects not explained by time-series variation (Brooks, 2008). REM instead treats cross-sectional differences as randomly distributed intercepts, using Generalized Least Squares, and permits variation in both intercepts and error components across units while remaining constant over time (Brooks, 2008).

#### ***Panel Data Model Selection Tests***

The appropriate panel data model is selected through three sequential tests:

- a. **Chow Test.** Used to choose between CEM ( $H_0$ ) and FEM ( $H_a$ ). If the p-value is below the significance level,  $H_0$  is rejected and FEM is selected; otherwise, CEM is preferred.
- b. **Hausman Test.** Used to choose between FEM ( $H_0$ ) and REM ( $H_a$ ) by evaluating whether the error term is correlated with the independent variables. If the p-value is below the significance level,  $H_0$  is rejected and FEM is selected; otherwise, REM is preferred.
- c. **Lagrange Multiplier (Breusch-Pagan) Test.** Used to choose between CEM ( $H_0$ ) and REM ( $H_a$ ) based on the Chi-Square distribution of residual variance. If the calculated Chi-Square value is smaller than the critical value,  $H_0$  is rejected and REM is selected; otherwise, CEM is retained.

#### ***Classical Assumption Tests***

To obtain valid, unbiased, and efficient regression estimates, three classical assumption tests are conducted:

- a. **Heteroscedasticity Test.** Tests whether residual variance is constant across observations, using the Breusch-Pagan-Godfrey test, since heteroscedasticity produces inefficient estimates and inaccurate standard errors (Gujarati, 1972).
- b. **Multicollinearity Test.** Tests for high correlation among independent variables using the Variance Inflation Factor (VIF), since multicollinearity can destabilize or bias regression coefficients (Gujarati, 1972).
- c. **Autocorrelation Test.** Tests whether residuals are correlated across time periods using the Durbin-Watson test or the Breusch-Godfrey (Lagrange Multiplier) test, since autocorrelation can bias estimates and reduce efficiency (Brooks, 2008).

#### ***Hypothesis Testing***

Hypotheses are tested using panel data regression in Eviews 12, comprising the F-test, t-test, and coefficient of determination.

- a. **F-Test (Simultaneous Test).** Used to determine whether the independent variables jointly and significantly affect the dependent variable; the model is considered significant if the F-statistic p-value is below 0.05 (Sugiyono, 2019).

- b. **t-Test.** Used to determine whether each independent variable individually and significantly affects the dependent variable, and whether the effect is positive or negative. This study uses a 5% significance level: a hypothesis is supported if the t-statistic p-value is below 0.05 (Sugiyono, 2019).
- c. **Coefficient of Determination ( $R^2$ ).** Indicates the proportion of variance in the dependent variable explained by the model, ranging from 0 to 1; adjusted  $R^2$  is used when the model includes three or more independent variables (Ghozali, 2018)..

## RESEARCH RESULT

### Estimation Model and Overall Model Fit

Based on the Chow and Hausman tests described in the Methodology section, the Fixed Effect Model (FEM) was selected as the most appropriate panel data estimation model for this study. The overall regression model is statistically significant, with a Prob(F-statistic) of 0.0000 ( $< 0.05$ ), indicating that ESG disclosure, CEO tenure, the ESG  $\times$  CEO tenure interaction, leverage, firm size, CEO turnover, the COVID-19 pandemic, and lagged firm performance jointly and significantly affect firm value. The model's R-squared of 0.915355 indicates that the independent, moderating, and control variables jointly explain approximately 91.54% of the variation in firm value, while the remaining 8.46% is explained by factors outside the model.

### Panel Data Regression Results

| Variable                | Coefficient | Prob.  | Conclusion              |
|-------------------------|-------------|--------|-------------------------|
| ESG Score               | -0.007589   | 0.0076 | Negative, significant   |
| CEO Tenure              | -           | 0.3738 | Not significant         |
| ESG $\times$ CEO Tenure | -           | 0.1666 | Not significant         |
| Leverage                | 0.548037    | 0.0207 | Positive, significant   |
| Firm Size               | -           | 0.0916 | Not significant (at 5%) |
| CEO Turnover            | -           | 0.9206 | Not significant         |
| COVID-19 Pandemic       | -           | 0.7985 | Not significant         |
| LOG(Firm Value t-1)     | 0.506791    | 0.0000 | Positive, significant   |

**Table 3. Fixed Effect Model Regression Results**

### Effect of ESG Disclosure on Firm Value

The ESG Score variable has a coefficient of -0.007589 with a probability value of 0.0076 ( $< 0.05$ ), indicating a negative and statistically significant effect on

firm value. This result shows that, over the observation period, an increase in ESG disclosure is associated with a decrease in firm value, contrary to the direction hypothesized in H1. Consequently, H1 - which predicts a positive effect of ESG disclosure on firm value - is not supported; ESG disclosure is found to have a significant, but negative, effect on firm value.

#### **Effect of CEO Tenure**

The CEO Tenure variable has a probability value of 0.3738 ( $> 0.05$ ), indicating no statistically significant direct effect on firm value. This suggests that, on its own, the length of a CEO's tenure does not directly increase or decrease firm value within the sample period.

#### **Moderating Effect of CEO Tenure**

The interaction term  $ESG \times CEO\ Tenure$  has a probability value of 0.1666 ( $> 0.05$ ), indicating that CEO tenure does not significantly moderate the relationship between ESG disclosure and firm value. Accordingly, H2 - which predicts that CEO tenure moderates the effect of ESG disclosure on firm value - is not supported.

#### **Control Variables**

Leverage has a coefficient of 0.548037 and a probability value of 0.0207 ( $< 0.05$ ), indicating a positive and significant effect on firm value: firms with higher leverage tend to exhibit higher firm value over the observation period. Firm size has a probability value of 0.0916, which is not significant at the 5% level. CEO turnover has a probability value of 0.9206 and the COVID-19 pandemic dummy has a probability value of 0.7985, both of which are not statistically significant. Lagged firm performance,  $LOG(Y-1)$ , has a coefficient of 0.506791 and a probability value of 0.0000 ( $< 0.05$ ), indicating a positive and highly significant effect: firms with higher firm value in the prior period tend to sustain higher firm value in the current period, consistent with the concept of performance persistence.

## **DISCUSSION**

### **Effect of ESG Disclosure on Firm Value**

Although ESG disclosure has a statistically significant effect on firm value, the direction of that effect is negative rather than positive as hypothesized under signaling theory. This finding can be explained by the fact that ESG implementation and disclosure do not always translate immediately into higher firm value in the short run. Establishing ESG reporting systems requires substantial upfront investment - including reporting infrastructure, technology, staff training, governance adjustments, and regulatory compliance - the economic benefits of which are not always fully reflected in market valuation within the observation period. This is consistent with the view expressed in the underlying research proposal that ESG reporting can constitute an administrative burden and require sizeable investment that may compress short-term profit margins, particularly before the reputational and risk-management benefits of ESG disclosure are fully recognized by the market.

### **Effect of CEO Tenure and Its Moderating Role**

CEO tenure is not found to have a significant direct effect on firm value, indicating that a longer tenure does not automatically translate into better firm

performance. While longer tenure can provide stability and accumulated experience, it may also expose firms to the risk of strategic rigidity, resistance to change, and an inclination to preserve existing strategic patterns - consistent with upper echelons theory's recognition that CEO tenure can have both beneficial and detrimental consequences for the firm, depending on its length.

Similarly, the interaction between ESG disclosure and CEO tenure is not statistically significant, indicating that CEO tenure is not shown to strengthen or weaken the effect of ESG disclosure on firm value once lagged firm performance is controlled for. This suggests that the ESG-firm value relationship is more strongly shaped by firm-level structural characteristics, market response, and the persistence of prior performance than by the length of CEO tenure alone. This is consistent with the preliminary evidence discussed in the Introduction, which shows that firms with similar ESG scores can nonetheless exhibit markedly different Tobin's Q values, pointing to the presence of other, more complex factors underlying the ESG-firm value relationship.

### **Control Variables**

The positive and significant effect of leverage suggests that, within this sample, debt financing is still being used productively to support expansion, asset investment, and operational activity, consistent with leverage's role as an indicator of a firm's financing structure and reliance on external capital. Firm size, CEO turnover, and the COVID-19 pandemic dummy are not statistically significant. The non-significance of firm size suggests that, once other variables - particularly lagged firm performance - are controlled for, a firm's scale of operations does not by itself determine firm value; larger firms may enjoy greater resources and investor attention, but can also face greater bureaucratic complexity and higher operating costs that offset this advantage. CEO turnover is likely non-significant because a change in leadership does not immediately affect firm value within the same period, as new CEOs typically require time to understand the organization, formulate strategy, build internal legitimacy, and redirect the firm. The COVID-19 dummy is likely non-significant because the pandemic's impact was not uniform across firms: while some firms were adversely affected, others were resilient or even benefited from shifting consumption patterns, digitalization, and business adjustments, effects that a single dummy variable cannot fully capture.

The strong, positive, and highly significant coefficient on lagged firm performance,  $\text{LOG}(Y-1)$ , indicates that firm value is persistent: firms that performed well in the prior period tend to continue performing well in the current period. This is consistent with the concept of performance persistence, whereby firm value evolves as a dynamic, path-dependent process shaped by accumulated reputation, managerial quality, competitive advantage, operating efficiency, and investor perceptions formed over time (Hillman & Keim, 2001). Including  $\text{LOG}(Y-1)$  as a control variable, consistent with the dynamic-panel approach of Arellano and Bond (1991) and the endogeneity-mitigation strategy used in corporate governance research by Wintoki et al. (2012), reduces omitted-variable bias and yields a more accurate and reliable estimate of the effect of ESG disclosure on firm value, net of performance persistence. This is also consistent

with Flammer's (2015) observation that the relationship between ESG/CSR and financial performance unfolds gradually, such that controlling for a firm's initial performance condition is important for obtaining accurate estimates.

## **CONCLUSIONS AND RECOMMENDATIONS**

Using panel data regression on non-financial companies listed on the Indonesia Stock Exchange during 2017-2024, this study finds that ESG disclosure has a statistically significant but negative effect on firm value, such that H1 is not supported in its hypothesized (positive) direction. CEO tenure does not have a significant direct effect on firm value, and does not significantly moderate the relationship between ESG disclosure and firm value; H2 is therefore not supported. Among the control variables, leverage and lagged firm performance ( $\text{LOG}(Y-1)$ ) have a significant positive effect on firm value, while firm size, CEO turnover, and the COVID-19 pandemic do not have a significant effect. Overall, the model explains approximately 91.54% of the variation in firm value, with firm value showing strong persistence from one period to the next.

These findings suggest that, within the observation period, ESG implementation in Indonesia may still be functioning primarily as a cost center rather than a value driver, consistent with the view that the economic benefits of ESG disclosure materialize gradually rather than immediately. For corporate management, this implies that ESG investment should be approached as a long-term strategic commitment rather than an activity expected to generate immediate market rewards, with attention paid to managing the short-term costs of ESG implementation. For investors, the findings suggest that ESG scores alone should not be used as a short-term valuation signal, and should be considered alongside a firm's financing structure and historical performance trajectory. For policymakers and regulators, the results suggest a need to consider incentives or transitional support that can help firms absorb the initial costs of ESG compliance, so that the intended long-term benefits of sustainability disclosure are not undermined by short-term financial pressure.

## **ADVANCED RESEARCH**

This study is subject to several limitations that suggest directions for future research. First, the sample is restricted to non-financial companies listed on the Indonesia Stock Exchange with available Bloomberg ESG scores, which may limit generalizability to financial-sector firms or firms in other markets. Second, this study relies on the aggregate ESG score rather than examining the environmental, social, and governance pillars separately; future research could disaggregate these components to identify which pillar drives the negative relationship observed with firm value. Third, CEO tenure is examined as the sole moderating variable and is found not to moderate the ESG-firm value relationship; future studies could explore other governance-related moderators, such as CEO characteristics, board independence, or ownership structure, and could extend the analysis through cross-country comparisons or a longer observation window that allows the longer-term value effects of ESG disclosure to materialize.

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