

## PROFITABILITY IMPLICATIONS OF ESG CONTROVERSY MANAGEMENT UNDER FINANCIAL OPACITY IN INDONESIA



<https://journal.unpas.ac.id/index.php/jrak/index>

Probowo Erawan Sastroredjo <sup>1</sup>, Tarsisius Renald Suganda<sup>2</sup>, Dorothy Srikandi Halim<sup>3</sup>

<sup>1</sup>Department of Management, Universitas Katolik Parahyangan, Bandung, Indonesia

<sup>1</sup>School of Business, University of Leicester, Brookfield, Leicester LE2 1RQ, United Kingdom

<sup>2,3</sup>Department of Accounting, Faculty of Economics and Business,  
Universitas Ma Chung, Malang, Indonesia

Corresponding Author: [probowoes@unpar.ac.id](mailto:probowoes@unpar.ac.id) <sup>1</sup>

Jl. Ciumbuleuit No.94, Hegarmanah, Bandung City, West Java, Indonesia

### Article Info

#### History of Article

Received: 22/1/2026

Revised: 12/3/2026

Accepted: 13/4/2026

Available Online: 20/4/2026


Jurnal Riset Akuntansi Kontemporer

Volume 18, No. 1, April 2026,

Page 48-66

ISSN 2088-5091 (Print)

ISSN 2597-6826 (Online)

 <https://doi.org/10.23969/jrak.v18i1.41171>

**Keywords:** dynamic capability perspective; esg controversy management; financial distress; financial opacity; financial performance; refinitiv eikon

### Abstract

ESG controversies threaten firms' legitimacy and stakeholder trust; however, evidence on their financial impact and the role of financial opacity remains limited. This study aims at examining whether ESG controversy management enhances financial performance in emerging markets and whether this relationship is conditioned by financial opacity. Using panel data of Indonesian listed firms from 2011 to 2023 and Refinitiv's ESGC score, where higher values indicate stronger capabilities to address sustainability incidents, the study is grounded in legitimacy theory, stakeholder theory, and the dynamic capability perspective. The multi-method approach includes firm-, year-, and industry-fixed effects, entropy balancing, propensity score matching, and the Heckman two-stage model, while controlling for firm size, leverage, growth opportunities, and audit quality. The results show that effective ESGC management improves profitability, but the effect weakens in financially opaque firms, with implications for ESG oversight and disclosure.

## INTRODUCTION

The growing prominence of Environmental, Social, and Governance (ESG) considerations in corporate decision-making reflects a global shift toward responsible business conduct. ESG performance and ESG controversy represent two conceptually distinct dimensions of corporate sustainability. ESG

performance evaluates firms' environmental, social, and governance practices based on structured indicators such as carbon emissions, labour policies, and governance mechanisms, whereas ESG controversies refer to negative sustainability-related events, such as environmental accidents, labour disputes, or governance misconduct, that attract public attention and media scrutiny. While ESG ratings capture firms' stated sustainability commitments, ESG controversies reveal how firms respond when those commitments are challenged. Consequently, examining ESG controversy management provides a more dynamic perspective on corporate sustainability by focusing on firms' responses to real ESG failures rather than static sustainability disclosures. In emerging economies such as Indonesia, where institutional environments are characterised by regulatory inconsistencies, community-based accountability pressures, and heterogeneous governance quality, ESG controversies present critical inflection points for firms. These events, ranging from environmental damage and labour disputes to governance misconduct, serve as stress tests of a firm's moral legitimacy and the authenticity of its sustainability commitments (Elamer & Boulhaga, 2024). How firms manage these controversies, therefore, becomes a consequential strategic action that can influence both stakeholder perceptions and subsequent financial performance.

Financial opacity is a defining feature of many emerging capital markets, such as Indonesia, and is a crucial factor in how stakeholders interpret and respond to corporate behaviour. Previous studies have established that organisations located in countries with weak enforcement, diverse reporting quality, and uneven audit oversight typically exhibit higher earnings opacity and greater information asymmetry (Bhattacharya et al., 2003; Leuz et al., 2003). Indonesia's capital market exhibits several of the same dynamics, characterised by concentrated ownership, inconsistent audit quality, unequal financial reporting, and a lack of financial transparency across companies and industries. Although some regulations have introduced improved transparency standards, the performance of financial reporting as a monitoring device remains highly heterogeneous across firms, particularly for those outside international audit networks. ESG controversies are particularly salient in Indonesia due to the country's exposure to environmental conflicts and governance challenges. High-profile cases such as forest fires associated with plantation companies, mining-related environmental damage, and land disputes between corporations and local communities have repeatedly attracted regulatory scrutiny and international attention. For example, environmental controversies related to palm oil expansion and deforestation have triggered sanctions, reputational damage, and investor pressure on Indonesian firms. These incidents demonstrate that ESG controversies represent operational and governance risks that can materially affect corporate performance.

In such an opaque information environment, stakeholders face structural limitations in evaluating whether firms' responses to ESG controversies are substantive or merely symbolic. Legitimacy theory suggests that organisational responses to crises rely on credible signals that demonstrate alignment with societal norms (Lenz & Viola, 2017). However, when financial opacity is high, these legitimacy-restoring signals become noisier and less verifiable, thereby weakening their effectiveness. Similarly, stakeholder theory emphasises that accountability depends on stakeholders' ability to observe, interpret, and sanction corporate behaviour (Valentinov & Chia, 2022). In opaque firms, limited disclosure quality and weak external monitoring constrain stakeholders' capacity to assess responses to ESG controversies, thereby dampening reputational and economic consequences.

From a dynamic capability perspective, financial opacity also constrains the extent to which adaptive ESG responses translate into performance benefits. Although firms may internally develop crisis-management routines and corrective actions, opaque reporting environments reduce the visibility of these capabilities to external audiences. As a result, the strategic value of ESG controversy management, such as reputational insurance, reduced stakeholder backlash, and restored trust, cannot be fully realized (Niesten et al., 2024). Consequently, in emerging markets such as Indonesia, financial opacity operates as a critical boundary condition that weakens the performance implications of ESG controversy management, even when firms undertake remedial or accommodative actions.

Theoretically, the management of ESG controversies can be viewed through the lens of legitimacy theory and stakeholder theory. Together, these frameworks explain why managing ESG controversies influences firm profitability and why financial opacity may weaken this relationship. Legitimacy theory posits that organisations must continually maintain congruence between their actions

and societal expectations to uphold their license to operate (Díez-Martín et al., 2021). ESG controversies disrupt this equilibrium, creating legitimacy threats that require firms to adopt remedial, corrective, or accommodative responses. When firms proactively manage ESG controversies through transparent disclosure, corrective actions, or compliance reforms, they reduce legitimacy gaps and mitigate reputational damage, ultimately preserving or enhancing financial performance. Effective controversy management signals conformity to societal norms and regulatory expectations, thereby reducing sanctions and stakeholder backlash.

Furthermore, stakeholder theory similarly emphasises that controversies intensify the salience of key stakeholders such as regulators, local communities, NGOs, and investors who can materially affect firm profitability (Valentinov & Chia, 2022). Effective controversy management, therefore, becomes a relational capability that signals accountability and reduces information asymmetry, while inadequate responses heighten reputational risk and financial penalties (Barnett, 2019). Consequently, ESG controversies erode stakeholder trust, elevate perceived risk, and may reduce stakeholders' willingness to engage with or invest in the firm. Firms that demonstrate strong controversy management via prompt responses, credible remediation, and transparent communication restore stakeholder confidence, retain business relationships, and secure continued support. These actions can translate into improved operational efficiency, lower financing costs, and higher profitability.

The dynamic capability perspective provides an internal, resource-based explanation of how firms manage ESG-related controversies. From this view, controversy management is not a one-off reaction but a strategic capability embedded in organisational routines, crisis-handling competencies, and transparency mechanisms. Firms with stronger governance systems, established ESG infrastructures, and credible disclosure practices are better positioned to mitigate the negative consequences of ESG controversies and redirect stakeholder evaluations toward more favourable perceptions (Niesten et al., 2024). These capabilities allow firms to sense emerging ESG risks, respond promptly to stakeholder concerns, and reconfigure internal processes when failures occur.

These capabilities can generate "reputational insurance," shielding firms from value erosion and promoting long-term financial resilience (Gangi et al., 2020). Conversely, firms that rely on symbolic actions or minimal compliance may experience intensified scrutiny and higher capital costs, especially in institutional environments where stakeholders rely heavily on reputation as an enforcement mechanism, as is common in Indonesia's relational and community-driven contexts (Eliwa et al., 2021). Therefore, firms that treat controversies as learning opportunities develop adaptive capabilities such as improved monitoring systems, stronger compliance routines, and enhanced crisis management structures. These dynamic capabilities strengthen long-term resilience and create competitive advantages that can translate into superior financial outcomes. In emerging markets like Indonesia, where regulatory enforcement and ESG infrastructure are still developing, firms with strong adaptive capabilities can outperform rivals by responding more effectively to shocks.

Building on legitimacy theory and stakeholder theory, firms that actively manage ESG controversies are better able to restore legitimacy, retain stakeholder support, and mitigate financial losses associated with reputational damage. From a dynamic capability perspective, effective controversy management reflects superior crisis management, thereby enhancing long-term performance. Therefore, stronger ESG controversy management should lead to improved profitability. Moreover, when firms are highly opaque, stakeholders face greater uncertainty in assessing whether firms' responses to controversies are genuine, adequate, or credible. This uncertainty undermines efforts to restore legitimacy and weakens stakeholder trust. Additionally, opaque firms typically lack the governance routines and adaptive capabilities necessary for effective crisis response. Thus, the profitability benefits of ESG controversy management should be weaker for firms with higher levels of financial opacity.

Despite a growing literature on ESG performance and firm value, the role of ESG controversy management remains understudied, particularly in emerging markets. Existing research has often focused on static ESG ratings, sustainability disclosure, or governance attributes (Friede et al., 2015; Fatemi et al., 2018), thereby overlooking the dynamic nature of ESG controversies and firms' behavioural responses. This omission is substantial for Indonesia, where firms frequently face environmental and social disputes, and where responses to controversies influence not only market

perceptions but also community acceptance, regulatory interventions, and political legitimacy. Such controversies are particularly visible in Indonesia's resource-based industries, where environmental incidents, deforestation disputes, and community conflicts have repeatedly drawn public and regulatory attention. The institutional context—characterised by enforcement gaps, regulatory fragmentation, and strong informal governance norms suggests that controversy management may entail distinct financial implications compared with those in developed economies.

Taken together, these arguments suggest that ESG controversy management can enhance firm profitability by restoring legitimacy and maintaining stakeholder support. However, the extent to which such benefits materialise depends critically on firms' financial information environments. In opaque firms, weak disclosure quality and limited monitoring dilute the credibility of ESG responses, thereby constraining their ability to translate into economic gains.

This study addresses these gaps by examining how Indonesian firms manage ESG controversies and how these responses affect profitability. First, from an empirical perspective, most studies have focused on aggregate ESG ratings rather than firms' responses to ESG controversies, leaving the performance implications of controversy management relatively unexplored. Second, from a contextual perspective, existing evidence is largely concentrated in developed economies, while emerging markets such as Indonesia, where regulatory enforcement and transparency vary substantially, remain underexamined. Third, from a theoretical perspective, prior studies have rarely integrated legitimacy theory, stakeholder theory, and dynamic capabilities to explain how firms convert ESG-related crises into strategic advantage. Addressing these gaps, this study examines how ESG controversy management influences firm profitability in Indonesia and how this relationship is conditioned by financial opacity. Prior empirical studies have provided mixed evidence regarding the financial consequences of ESG-related activities. Some studies have documented positive performance effects of sustainability engagement (Friede et al., 2015; Lins et al., 2017), while others have reported neutral or even negative financial impacts due to implementation costs and stakeholder conflicts (Krüger, 2015; Fatemi et al., 2018). These inconsistent findings suggest that the financial implications of ESG may depend on how firms manage sustainability-related risks, particularly when controversies arise. However, limited research has examined how firms' responses to ESG controversies influence financial outcomes, especially in emerging markets.

The empirical analysis draws on firm-level panel data from the Indonesia Stock Exchange, with ESG controversy management measured using Refinitiv Eikon scores and financial opacity captured through accrual-based proxies, as detailed in the following section. We integrate legitimacy theory, stakeholder theory, and the dynamic capability perspective to conceptualise controversy management as a capability that can transform ESG-related threats into strategic opportunities. Our contribution is threefold. First, we shift the focus from ESG metrics to managing ESG failures, introducing a more behaviourally grounded approach to understanding sustainability in emerging economies. In this study, we extend prior ESG–performance research, which has predominantly relied on aggregate ESG ratings, by focusing on firms' responses to ESG-related controversies. While much of the existing literature evaluates sustainability performance using composite ESG scores, less attention has been paid to how firms manage sustainability failures and the financial consequences of these responses. Second, this study develops and empirically examines the role of firms' remedial and accommodative actions as strategic mechanisms that may protect profitability, particularly within institutional environments characterised by regulatory uncertainty and heterogeneous governance quality. Third, this study contributes to the emerging literature on ESG in developing economies by providing empirical evidence from Indonesia, a context where sustainability-related controversies and regulatory enforcement dynamics may shape the financial implications of ESG-related events differently from those observed in developed markets.

Accordingly, the following hypotheses are proposed:

H<sub>1</sub>: ESG controversy management is positively associated with firm profitability.

H<sub>2</sub>: Financial opacity negatively moderates the relationship between ESG controversy management and firm profitability, such that the positive effect of ESG controversy management on profitability is weaker for firms with higher financial opacity.

## METHOD

The data used in this study are sourced from Refinitiv Eikon and cover all firms listed on the Bursa Efek Indonesia (BEI) over the period 2011–2023. The population of listed firms comprises 914 companies recorded in 2025. As an initial data-cleaning procedure, all continuous variables are winsorised at the 1st and 99th percentiles to mitigate the influence of extreme outliers and ensure distributional robustness. Following this step, firms are classified into industry groups using the Fama–French industry classification, which assigns companies to sectors based on their Standard Industrial Classification (SIC) codes. As shown in Table 2, Panel B, we exclude the finance and utilities sector (Souguir et al., 2024) because these industries exhibit unique characteristics in their financial statements.

The distribution of observations across years shows a steady increase from 2011 to 2023, indicating growing data availability and firm coverage in the sample. As presented in Table 3, Panel C, the frequency rises from 19 firms in 2011 (3.93%) to 63 firms in 2023 (13.04%), with the cumulative percentage reaching 100% by the final year. This upward trend likely reflects the expansion of listed firms and improvements in ESG reporting and controversy management in Indonesia over time. The industry distribution, as shown in Table 4, Panel D, reveals that the sample is broadly diversified, with the most significant representation coming from Telephone and Television Transmission (17.39%), Oil, Gas, and Coal Extraction and Products (14.91%), Wholesale, Retail, and Services (14.91%), and Consumer Nondurables (12.63%). Smaller proportions are observed in sectors such as Business Equipment (0.83%) and Healthcare and Medical Equipment (2.69%).

Table 1. Panel A: Variable Definitions

Dependent Variables	Description	Source
Return on assets (ROA)	measured as the net income for the fiscal period divided by the total assets	Refinitiv Eikon
Altman Z-Score	a proxy to represent financial distress by the Altman Z-Score. The formula is $Z=1.2X_1+1.4X_2+3.3X_3+0.6X_4+1.0X_5$ , where $X_1$ , measured as working capital divided by total assets. $X_2$ , calculated as retained earnings divided by total assets. $X_3$ , defined as earnings before interest and taxes divided by total assets. $X_4$ , computed as the market value of equity divided by total liabilities. $X_5$ , measured as sales divided by total assets.	Refinitiv Eikon
<b>Independent Variable</b>		
ESG Controversy Management (ESGC)	This score functions from 0 to 100 and evaluates Companies' exposure to environmental, social, and governance controversies and negative events is reflected in the global media.	Refinitiv Eikon
<b>Control Variable</b>		
Leverage (LEV)	measured by total debt divided by total assets	Refinitiv Eikon
Sales Growth (SG)	measured as current sales minus prior sales divided by prior sales	Refinitiv Eikon
Size (SIZE)	measured by the natural logarithm of total revenue	Refinitiv Eikon
BIG 4 Auditor (BIG4)	a dummy variable to denote whether the auditor is affiliated with one of the BIG 4 auditor firms (1) or not (0)	Refinitiv Eikon
<b>Moderating Variables</b>		
Financial Opacity	A measure of firm-level financial transparency is determined both by industry and year-adjusted total scaled accruals (Bhattacharya et al., 2003). FFIN takes the value 1 if a firm's ACCRUAL year mean exceeds the industry mean, and 0 otherwise.	Refinitiv Eikon

Table 2. Panel B: Sample Selection

Criteria	Number of Firm-Years
Refinitiv Eikon	649
Less:	
Financial Firms (SIC codes 6000-6999)	148
Utilities Firms (SIC codes 4900-4999)	18
Final sample	483

Table 3. Panel C: Distribution by Year

Year	Freq.	Percent	Cum.
2011	19	3.93	3.93
2012	22	4.55	8.49
2013	26	5.38	13.87
2014	28	5.80	19.67
2015	31	6.42	26.09
2016	32	6.63	32.71
2017	34	7.04	39.75
2018	35	7.25	47.00
2019	37	7.66	54.66
2020	42	8.70	63.35
2021	54	11.18	74.53
2022	60	12.42	86.96
2023	63	13.04	100.00
Total	483	100.00	

Table 4. Panel D: Distribution by Industry based on Standard Industrial Classification (SIC) Codes

	Freq.	Percent	Cum.
Consumer Nondurables	61	12.63	12.63
Manufacturing	46	9.52	22.15
Oil, Gas, and Coal Extraction and Products	72	14.91	37.06
Chemicals and Allied Products	24	4.97	42.03
Business Equipment	4	0.83	42.86
Telephone and Television Transmission	84	17.39	60.25
Wholesale, Retail, and Services	72	14.91	75.16
Healthcare, Medical Equipment, and Drugs	13	2.69	77.85
Other	107	22.15	100.00
Total	483	100.00	

The primary dependent variable in this study is profitability, measured by return on assets (ROA), a widely adopted indicator of firms' operational efficiency and overall financial performance. ROA captures the extent to which firms generate earnings from their asset base, making it an appropriate measure for assessing the financial implications of ESG controversy management.

To further validate the robustness of the results, the analysis employs financial distress as an alternative dependent variable, proxied by the original Altman Z-Score (1968). This measure provides a comprehensive assessment of firms' solvency and bankruptcy risk, allowing the study to determine whether the benefits of effective ESG controversy management extend beyond profitability to broader dimensions of financial stability. Although the original model was initially developed for publicly traded manufacturing firms, it has been widely applied in empirical studies involving publicly listed non-financial firms across multiple industries. In this study, firms in the financial and utilities sectors are excluded because these sectors exhibit fundamentally different financial structures and regulatory environments. Therefore, the remaining sample consists of non-financial firms whose financial characteristics are generally comparable and suitable for the application of the original Altman Z-score.

Together, these performance metrics enable a rigorous evaluation of how firms' responses to ESG controversies influence both short-term financial outcomes and long-term financial resilience. The key independent variable in this study is ESG Controversy Management, measured using the ESG Controversy Score (ESGC) from Refinitiv Eikon. This metric captures a firm's exposure to ESG-related controversies and negative events, including environmental violations, governance breaches, and social conflicts. The score ranges from 0 to 100, with higher values indicating stronger controversy

management practices and more effective responses to adverse ESG incidents. In Refinitiv’s framework, a higher ESG controversy score reflects not only fewer severe controversies but also the firm’s capacity to manage, remediate, and communicate its response to such events. Accordingly, this measure serves as a comprehensive indicator of the firm’s overall effectiveness in handling ESG-related risks and restoring legitimacy following negative events.

To ensure that other firm-level characteristics do not confound the estimated relationship between ESG controversy management and financial outcomes, the empirical models incorporate a comprehensive set of control variables commonly used in the corporate sustainability and financial performance literature. These controls include leverage (LEV), to account for financial risk and capital structure (D’Amico et al., 2016; Feng et al., 2024; Jiang et al., 2024; Souguir et al., 2024) sales growth (SG), which captures expansion opportunities and operational momentum (Lucut Capras et al., 2024); firm size (SIZE), reflecting scale effects and resource availability (Delgado et al., 2023); and BIG 4 auditor affiliation (BIG4), which serves as a proxy for reporting quality and external monitoring strength (Abdou et al., 2021; Feng et al., 2024).

The moderating variable in this study is financial opacity (FFIN), which captures the extent to which limited transparency in firms’ financial reporting affects the relationship between ESG controversy management and financial performance. Financial opacity is operationalised following prior research by Bhattacharya et al. (2003); DeFond & Hung (2003); Leuz et al. (2003); Dhaliwal et al. (2012), and is measured as the absolute value of a firm’s scaled accruals averaged over the past three years. To facilitate the moderation analysis, the sample is further partitioned into two groups: high-opacity firms, defined as those with FFIN values above the sample median, and low-opacity firms, defined as those with FFIN values below the median, following the classification approach applied in Sastroredjo et al. (2025). This categorical distinction enables a more precise evaluation of whether and how financial opacity alters the effectiveness of ESG controversy management in influencing firm financial performance. The key component of this mathematical model is scaled accruals, defined as absolute values derived using a formula adapted from Bhattacharya et al. (2003):

$$FFIN = \frac{\Delta CA + \Delta CL + \Delta CASH - \Delta STD + DEP + \Delta TP}{Lag(TAss)} \dots\dots\dots(1)$$

where  $\Delta CA$  represents the change in total current assets,  $\Delta CL$  represents the change in total current liabilities,  $\Delta CASH$  represents the change in cash,  $\Delta STD$  represents the change in the current portion of long-term debt included in total current liabilities,  $DEP$  represents depreciation and amortisation expense,  $\Delta TP$  represents the change in income taxes payable, and lag (TAss) represents total assets at the end of the previous year. FFIN takes the value of 1 if a firm’s ACCRUAL value exceeds the industry-year mean and 0 otherwise.

To empirically assess the relationship between ESG controversy management (ESGC) and firm profitability, this study employs a panel-data regression framework that incorporates both year and industry fixed effects. The model evaluates whether firms that manage ESG controversies more effectively exhibit superior financial performance, operationalised as ROA. Consistent with prior research on sustainability and financial outcomes (e.g., Dhaliwal et al., 2011; Plumlee et al., 2015), the specification includes key firm-level controls: leverage, sales growth, firm size, and Big 4 auditor presence to account for financial risk, growth opportunities, scale effects, and reporting quality. Year fixed effects capture macroeconomic fluctuations, regulatory developments, and market-wide ESG trends, while industry fixed effects control for sector-specific differences in ESG exposure. Standard errors are clustered at the industry level to account for correlated shocks within industries. This model provides a rigorous baseline estimate of the extent to which ESG controversy management contributes to firm profitability, controlling for firm heterogeneity and broader economic and industry-specific influences.

$$ROA_{it} = \beta_1 + \beta_2 ESGC_{it} + \beta_3 LEV_{it} + \beta_4 SG_{it} + \beta_5 SIZE_{it} + \beta_6 BIG4_{it} + \dots\dots\dots(2)$$

*Industry Fixed Effect + Year Fixed Effect +  $\epsilon_{it}$*

## RESULTS

Table 5. Summary Statistics

	N	Mean	SD	Min	Median	Max
ROA	483	9.560	11.478	-44.967	7.465	43.361
Altman Z-Score	483	2.809	1.856	-3.534	2.504	9.916
ESGC	483	98.815	7.755	22.222	100	100
LEV	483	0.228	0.185	0.000	0.209	1.447
SG	483	0.116	0.392	-0.909	0.078	6.478
SIZE	483	30.567	1.028	25.852	30.653	31.916
BIG4	483	0.023	0.149	0.000	0.000	1.000
FFIN	483	0.062	0.485	0.000	1.000	1.000
ESG	483	46.094	19.690	7.443	44.161	89.644

Table 5 presents the descriptive statistics, revealing substantial cross-sectional heterogeneity among Indonesian listed firms and underscoring the empirical relevance of examining ESG controversy management (ESGC) and its link to financial outcomes in this context. Firms' profitability, measured by ROA, averages 9.56% but displays wide dispersion, ranging from severe losses to strong positive performance, reflecting diverse operational conditions across sectors. Financial distress, proxied by the Altman Z-Score, has a mean of 2.809, placing most firms within the safe zone; however, the broad range (-3.53 to 9.92) indicates meaningful variation in underlying financial resilience. ESGC shows a notably high central tendency (mean = 98.82, median = 100), suggesting that most firms report minimal controversy exposure or demonstrate a strong capacity to mitigate negative ESG events; however, the minimum value of 22.22 highlights that, while infrequent, controversy risks can be substantial for certain firms. Considerable dispersion is observed in leverage and sales growth, suggesting heterogeneous financing structures and growth dynamics. At the same time, firm size displays limited variability, consistent with the predominance of large, established firms on the BEI. The BIG4 variable is measured as a dummy variable that takes the value of 1 if the firm is audited by a Big 4 audit firm and 0 otherwise.

The data show that only 11 out of 483 observations (approximately 2.3%) are audited by Big 4 firms, indicating that most firms in the sample are audited by non-Big 4 auditors. Financial opacity (FFIN) is constructed as a binary indicator reflecting the level of transparency in firms' financial reporting. Following prior studies, financial opacity is proxied by the magnitude of accruals relative to the industry-year average. Firms with accruals above the industry-year mean are classified as financially opaque (FFIN = 1), while firms with accruals below the industry-year mean are classified as relatively transparent (FFIN = 0). Based on the sample distribution of 483 firm-year observations, the majority of firms fall into the high financial opacity category. Specifically, 301 observations (62.32%) are classified as FFIN = 1, indicating firms with relatively higher levels of financial opacity, while 182 observations (37.68%) are classified as FFIN = 0, suggesting firms with comparatively lower levels of financial opacity. These results indicate that a larger proportion of firms in the sample exhibit higher opacity characteristics, which may reflect greater information asymmetry and lower transparency in financial reporting. The remaining observations contain non-binary or missing entries that were subsequently addressed during the data-cleaning process before the empirical analysis. Finally, the overall ESG score (separate from controversy scores) has a mean of 46.09 (SD = 19.69), indicating moderate ESG performance, with some firms scoring very low (7.44) and others relatively high (89.64). This variation suggests an uneven adoption of sustainability practices across Indonesian firms.

Then, the correlation matrix (see Table 6) reveals several statistically significant associations among the variables. ROA shows a strong positive correlation with financial health (Altman Z-score), indicating that more profitable firms tend to experience lower financial distress. ROA also exhibits a substantial negative correlation with leverage, consistent with the expectation that firms with strong internal performance rely less on debt financing. Additionally, ROA is positively associated with firm size and Big 4 auditor engagement, suggesting that larger firms and those audited by Big 4 auditors generally demonstrate stronger profitability. A modest positive relationship also emerges between ROA and financial opacity, although the magnitude is relatively small. ESGC shows weak and statistically

insignificant correlations with profitability, financial distress, and leverage. This suggests that a firm’s ability to manage ESG-related controversies is largely independent of its financial characteristics in this sample. The weak correlations imply that ESG controversy management is not strongly collinear with other firm characteristics, which is statistically desirable. It indicates that ESGC captures a distinct, conceptually separate dimension of corporate behaviour reputation risk management rather than overlapping with standard financial indicators.

Table 6. Pearson Correlation Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) ROA	1.000							
(2) Altman Z- Score	0.635***	1.000						
(3) ESGC	0.066	0.066	1.000					
(4) LEV	-0.470***	-0.745***	-0.029	1.000				
(5) SG	0.109**	0.001	0.053	-0.059	1.000			
(6) SIZE	0.213***	0.181***	-0.060	-0.124***	0.079*	1.000		
(7) BIG4	0.295***	0.163***	0.023	-0.104**	-0.014	-	1.000	
(8) FFIN	0.184***	0.092*	0.046	-0.213***	0.237***	0.074	-	1.000
						0.056		0.025

Notes: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 7. Variance Inflation Factors (VIF)

Variable	VIF	1/VIF
LEV	1.03	0.968
SIZE	1.03	0.970
BIG4	1.02	0.983
SG	1.01	0.987
ESGC	1.01	0.991
MEAN VIF	1.02	

Table 7 presents the Variance Inflation Factor (VIF) results indicate that multicollinearity is not a concern in the regression model. All variables LEV, SIZE, BIG4, SG, and ESGC have VIF values between 1.01 and 1.03, well below commonly accepted thresholds such as 5 or 10. The mean VIF of 1.02 further supports the conclusion that the explanatory variables are independent of one another and that none is inflating the variance of the estimated coefficients. The corresponding tolerance values (1/VIF), ranging from 0.968 to 0.991, further confirm the absence of multicollinearity. Overall, these diagnostics validate the stability and reliability of the regression estimates, ensuring that the coefficients are not biased by correlations among the predictors.

The regression results (see Table 8) indicate that ESGC is positively associated with ROA, as shown by the positive and significant coefficient ( $\beta = 0.067$ ,  $p < 0.05$ ). This finding suggests that Indonesian firms that experience ESG-related controversies but subsequently manage, disclose, or remediate them effectively tend to achieve higher financial performance.

The strong negative effect of leverage ( $\beta = -24.705$ ,  $p < 0.01$ ) is consistent with capital structure theory, which posits that high debt burdens reduce profitability due to interest obligations and financial rigidity. Meanwhile, the positive coefficient for sales growth ( $\beta = 2.252$ ,  $p < 0.10$ ) indicates that growing firms tend to perform better. The coefficient on firm size is not statistically significant, suggesting that scale alone does not improve profitability after controlling for ESG controversies, leverage, and growth. This result reflects Indonesian market dynamics, where large firms still face substantial ESG scrutiny and community expectations, preventing them from leveraging size as a risk buffer. In contrast, Big 4 auditor presence ( $\beta = 14.325$ ,  $p < 0.05$ ) demonstrates a substantial positive impact on profitability.

Table 8. The Regression Result for ESG Controversy and Profitability (Hypothesis 1)

DV:	ROA
IV:	
ESGC	0.067** (2.652)
CVs:	
LEV	-24.705** (-3.108)
SG	2.252* (1.920)
SIZE	0.852 (1.145)
BIG4	14.325* (2.091)
Constant	-10.987 (-0.455)
Observations	483
Adjusted R-squared	0.427
Year Fixed Effect	YES
Industry Fixed Effect	YES
Cluster by Industry	YES

Note: Table 8 reports the regression results examining the effect of ESG controversy on firm profitability (ROA). The coefficient for ESG Controversy is positive and statistically significant, indicating that firms that manage or respond to ESG-related controversies more effectively exhibit higher profitability. LEV shows a strong negative association with ROA, consistent with the view that higher leverage reduces financial flexibility and performance. Sales Growth is positively associated with profitability, whereas firm size has no significant effect. Firms audited by BIG 4 auditors demonstrate higher profitability, reflecting the value of audit quality. All models include year and industry fixed effects, and standard errors are clustered at the industry level. The \*\*and \* denote significance at the 5% and 10% levels, respectively.

To assess economic magnitude, we translate the ESGC coefficient into changes in ROA. Using the sample standard deviation of ESGC (7.755), a one-standard-deviation increase in ESG controversy management is associated with an increase in ROA of approximately  $0.067 \times 7.755 = 0.52$  percentage points. Relative to the sample mean ROA (9.56), this corresponds to roughly a 5.4% increase. For comparison, leverage exhibits a substantially larger economic effect: a one-standard-deviation increase in leverage ( $SD = 0.185$ ) is associated with a decrease in ROA of approximately  $24.705 \times 0.185 = 4.57$  percentage points. These magnitudes suggest that, while ESG controversy management has a meaningful positive association with profitability, capital structure remains a quantitatively dominant driver of ROA in this setting.

Table 9. The Moderating Role of Financial Opacity on the Relationship Between ESG Controversy and Profitability (Hypothesis 2)

DV:	ROA	
	High Opacity (1)	Low Opacity (2)
IV:		
ESGC	0.016 (0.307)	0.071* (1.996)
CONTROLS	YES	YES
Constant	9.919 (0.405)	-53.816 (-1.283)
Observations	301	182
Adjusted R-squared	0.566	0.285
Year Fixed Effect	YES	YES
Industry Fixed Effect	YES	YES
Cluster by Industry	YES	YES

Note: In the high-opacity subsample (Model 1), ESG controversy shows no significant effect on profitability, consistent with evidence that weak disclosure environments limit stakeholder monitoring and mute market reactions to negative events (Healy & Palepu, 2001; Bushman et al., 2004; Hutton et al., 2009). In contrast, the low-opacity subsample (Model 2) exhibits a positive and significant association, reflecting that transparent firms face stronger scrutiny but also respond more effectively to ESG-related incidents due to stronger governance and stakeholder engagement (Dhaliwal et al., 2011; Cho et al., 2013). Controversies in transparent firms may also coincide with strategic, high-visibility activities that support performance while attracting stakeholder attention (Surroca et al., 2010). Overall, the results indicate that the profitability implications of ESG controversy depend critically on a firm's information environment, with transparency amplifying both visibility and response effectiveness (Kim et al., 2012; Plumlee et al., 2015). All models include year and industry fixed effects, and standard errors are clustered at the industry level. The \* denotes significance at the 10% levels, respectively.

Moreover, the results reported in Models (1) and (2) (see Table 9) indicate that the effect of ESG controversy on firm profitability is sensitive to sample composition and underlying firm characteristics (financial opacity). The differing results between Model 1 (high-opacity firms) and Model 2 (low-opacity firms) indicate that a firm’s information environment fundamentally shapes how ESGC influences financial performance. Among high-opacity firms, the coefficient on ESGC is statistically insignificant, suggesting that controversies do not meaningfully affect profitability.

By contrast, among low-opacity firms, ESGC becomes positive and statistically significant, indicating that controversies are more salient—and can even correspond to higher profitability when firms operate in transparent information environments. Transparency strengthens information channels, enabling stakeholders to interpret controversies more accurately and firms to respond more proactively. In addition, this study employs an alternative metric for financial distress as part of the robustness assessment. To capture this dimension, the robustness tests employ the Altman Z-score (see Eq. 3), a widely established indicator of bankruptcy risk and financial vulnerability.

$$Altman\ Z - Score_{it} = \beta_1 + \beta_2ESGC_{it} + \beta_3LEV_{it} + \beta_4SG_{it} + \beta_5SIZE_{it} + \beta_6BIG4_{it} + Industry\ Fixed\ Effect + Year\ Fixed\ Effect + \varepsilon_{it} \dots\dots\dots(3)$$

Table 10. Robustness Test

DVs:	ROA (Eq.2)	Altman Z-Score (Eq.3)
IV:		
ESGC	0.067** (2.652)	0.009*** (3.615)
CONTROLS	YES	YES
Constant	-10.987 (-0.455)	0.502 (0.073)
Observations	483	483
Adjusted R-squared	0.427	0.617
Year Fixed Effect	YES	YES
Industry Fixed Effect	YES	YES
Cluster by Industry	YES	YES

Note: ESGC shows a positive and significant association with both profitability and financial stability. Firms that more effectively prevent or address ESG-related incidents experience higher ROA, reflecting reduced reputational damage and improved operational continuity, consistent with evidence that managing non-financial risks enhances firm value (Godfrey et al., 2009; Luo & Bhattacharya, 2009). The positive effect on the Altman Z-score indicates that better controversy management also lowers financial distress risk, aligning with research showing that ESG failures increase cash-flow volatility and litigation exposure (Krüger, 2015). Overall, the results suggest that controversy management operates as a strategic capability, improving both near-term performance and long-term resilience (Lins et al., 2017). All models include year and industry fixed effects, and standard errors are clustered at the industry level. The \*\*\* and \*\* denote significance at the 1% and 5% levels, respectively.

The findings (see Table 10) from both models show that effective ESGC is consistently associated with better firm outcomes. In Model (1), the positive and significant coefficient on ESGC ( $\beta = 0.067$ ) indicates that firms with better systems for preventing or responding to ESG-related controversies experience higher profitability. Model 2 (Eq. 3) shows that ESGC also has a positive and significant effect on the Altman Z-score ( $\beta = 0.009$ ), suggesting that firms that manage controversies more effectively face lower financial distress risk.

Table 11. Endogeneity Tests: Entropy Balancing and Propensity Score Matching – Panel A: Univariate Comparison of Means Between High- and Low-ESG Performance Groups Before and After Entropy Balancing

Variable	High ESG Engagement	Low ESG Engagement	High ESG Engagement	Low ESG Engagement
	Before Balancing		After Balancing	
ESGC	98.920	98.710	98.920	98.920
ROA	11.110	8.021	11.110	11.110
LEV	0.211	0.246	0.211	0.211
SG	0.135	0.096	0.135	0.135
SIZE	30.800	30.330	30.800	30.800
BIG4	0.021	0.025	0.021	0.021

In addition, Table 11, Panel A, compares firms with high and low ESG engagement before and after entropy balancing and propensity score matching. Before balancing, there are meaningful differences between the two groups across several covariates. High-ESG firms exhibit higher profitability (ROA = 11.11 vs. 8.02), lower leverage, higher sales growth, larger firm size, and slightly different Big 4 audit representation. These differences indicate non-random assignment, meaning that firms engaging more actively in ESG practices are systematically different from those that do not. Such an imbalance raises concerns that any observed performance effect could be driven by underlying firm characteristics rather than ESG controversy management itself.

After entropy balancing (EB), the covariates for the high- and low-ESG groups become perfectly aligned. The values for leverage, sales growth, firm size, Big 4 audit status, ROA, and ESGC itself are identical across groups, confirming that entropy balancing successfully reweights the sample to create a quasi-experimental counterfactual. This ensures that the two groups differ only in their level of ESG engagement, not in other observable characteristics that also influence firm performance or exposure to controversy.

Table 12. Endogeneity Tests: Entropy Balancing and Propensity Score Matching – Panel B: Univariate Comparison of Means Between High- and Low-Intensity Groups – upon Propensity Score Matching

Variable	High Intensity	Low Intensity	Difference of Mean	
			Diff	t-value
ESGC	98.596	98.633	0.037	0.019
ROA	6.668	8.820	2.152	1.106
LEV	0.297	0.231	-0.066	-1.460
SG	0.075	0.135	0.060	1.157
SIZE	30.346	30.477	0.131	0.578
BIG4	98.596	98.633	0.037	0.019

Table 12, Panel B, compares firms with high and low ESG engagement to assess whether systematic differences in their financial and firm characteristics exist, using Propensity Score Matching (PSM). Across all variables, the mean differences are small and not statistically significant, as indicated by low t-values. This suggests that firms experiencing higher ESG engagement are not fundamentally different from firms with lower ESG engagement in terms of profitability (ROA), leverage (LEV), growth opportunities (SG), firm size (SIZE), or auditor quality (BIG4). For example, although high-intensity firms exhibit a lower average ROA (6.668 vs. 8.820), this difference is not statistically significant ( $t = 1.106$ ), indicating no reliable performance gap attributable solely to controversy intensity.

Both the entropy balancing (EB) and propensity score matching (PSM) estimations (see Table 13, Panel C) provide consistent evidence that effective ESGC is positively associated with higher firm profitability. In the EB model, ESGC shows a positive, statistically significant coefficient (0.057;  $t = 2.297$ ), indicating that, after reweighting the sample to control for observable differences between firms, firms that managed ESG controversies more effectively achieved higher ROA. This suggests that operational resilience, improved stakeholder confidence, and reduced reputational or regulatory costs translate into better financial performance when controversies are handled appropriately.

The PSM model yields an even higher coefficient for ESGC (0.116;  $t = 2.772$ ), implying that when firms are matched on their likelihood of adopting ESG practices, the estimated effect of controversy management on profitability nearly doubles. This strengthens the causal interpretation, showing that the performance advantage is not merely driven by firm characteristics but by the controversy management itself. Control variable patterns are largely consistent with expectations: leverage continues to exert negative pressure on profitability in the EB model, while sales growth becomes significantly positive in the PSM sample. The significance of BIG4 in the EB model but not in the PSM model suggests that audit quality matters primarily when observable firm differences are fully balanced. The positive and significant coefficient on *\_webal* in the EB model indicates that the reweighting scheme functions as intended, improving sample comparability.

Table 13. Endogeneity Tests: Entropy Balancing and Propensity Score Matching – Panel C. Regression Coefficient Estimates after Entropy Balancing (EB) and Propensity Score Matching

DV:	ROA	
	EB	PSM
IV:		
ESGC	0.057* (2.297)	0.116** (2.772)
CVs:		
LEV	-23.618** (-2.956)	-6.683 (-1.012)
SG	1.914 (1.595)	5.704** (2.451)
SIZE	0.154 (0.181)	-1.749 (-1.089)
BIG4	15.294* (2.205)	8.861 (1.703)
_webal	3.817** (2.652)	
Constant	6.554 (0.254)	60.214 (1.202)
Observations	483	90
Adjusted R-squared	0.437	0.439
Year Fixed Effect	YES	YES
Industry Fixed Effect	YES	YES
Cluster by Industry	YES	YES

Note: Table 13 reports the results of entropy balancing (EB) and propensity score matching (PSM) regressions estimating the effect of ESG controversy management (ESGC) on firm profitability (ROA). The EB model includes the reweighting factor (webal), which is positive and significant, confirming that the entropy-balancing procedure successfully aligns covariate distributions between high- and low-ESG firms and improves estimation precision. The PSM model uses matched samples based on firms' propensity to engage in ESG activities, resulting in a substantially smaller number of observations (90) compared to the full EB sample (483), reflecting the exclusion of unmatched firms to ensure comparability. The positive and significant ESGC coefficients across both approaches indicate that the profitability effects of controversy management are robust to corrections for observable selection bias. Year and industry fixed effects are included, and standard errors are clustered at the industry level. The \*\* and \* denote significance at the 5% and 10% levels, respectively.

Table 14. Endogeneity Tests: The Heckman Test

VARIABLES	ROA	
	ESG_INTENS	ROA
	First Stage (1)	Second Stage (2)
IND_AVG	0.083*** (5.081)	
ESGC		0.066** (2.601)
LEV	-0.431 (-0.737)	-24.803** (-2.969)
SG	-0.036 (-0.365)	2.239* (1.928)
SIZE	0.409** (2.326)	0.920 (1.208)
BIG4	0.640** (2.317)	14.397* (2.069)
lambda		0.269 (0.123)
Constant	-16.354*** (-2.828)	-13.412 (-0.557)
Observations	483	483
Year Fixed Effect	YES	YES
Industry Fixed Effect	YES	YES
Cluster by Industry	YES	YES
Adjusted R-squared	0.295	0.426

Note: Table 14 presents the results of the Heckman two-stage selection model assessing whether sample selection bias affects the relationship between ESG controversy management (ESGC) and firm profitability (ROA). In the first stage, industry-level ESG intensity (IND\_AVG) significantly predicts firms' ESG involvement, validating its use as an exclusion restriction. In the second stage, ESGC remains positive and statistically significant, indicating that the profitability benefits of controversy management persist after accounting for potential selection effects. The inverse Mills ratio (lambda) is statistically insignificant, suggesting that selection bias is not a material concern. All models include year and industry fixed effects, with standard errors clustered at the industry level. The \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Additionally, the Heckman two-stage estimation test (see Table 14) assesses whether sample selection bias affects the relationship between ESG controversy management (ESGC) and firm profitability (ROA). In the first stage, ESG\_INTENS (the likelihood of a firm engaging in ESG-related activities or exposure) was modeled as a function of industry-level ESG intensity (IND\_AVG) and firm characteristics. The strong positive and highly significant coefficient on IND\_AVG (0.083;  $t = 5.081$ ) confirms that firms operating in industries with higher ESG engagement or controversy incidence are

more likely to exhibit higher ESG\_INTENS themselves. This validates IND\_AVG as a suitable exclusion restriction and suggests that ESG intensity is partially shaped by industry norms and peer effects rather than firm performance.

In the second stage, the coefficient on ESGC remained positive and significant (0.066;  $t = 2.601$ ), indicating that even after correcting for potential selection bias, effective ESG controversy management continued to enhance firm profitability. This reinforces the argument that the performance benefits of controversy management are not driven by self-selection into ESG practices but reflect genuine economic gains.

The inverse Mills ratio ( $\lambda$ ) is positive but statistically insignificant, implying that sample selection bias is not a major concern in this setting. In other words, firms' decisions or tendencies to be in the ESG sample do not systematically distort the estimated effect of ESGC on profitability. Control variables behave as expected: leverage exerts a strong negative effect on ROA, sales growth positively contributes to profitability, and BIG4 auditors are associated with higher performance. Overall, the results remain consistent.

## DISCUSSION

The regression results reported in Table 8 indicate that ESG controversy management (ESGC) is positively and statistically associated with firm profitability. The estimated coefficient is positive and significant at conventional levels, suggesting that firms that managed ESG controversies more effectively tend to exhibit higher profitability. This finding indicates that proactive responses to ESG-related incidents may help firms mitigate potential financial losses and stabilize operational performance. This empirical finding is consistent with prior studies, which suggested that effective management of social and environmental incidents can mitigate reputational damage and maintain stakeholder support (Shahab et al., 2025). However, other studies documented that ESG controversies may negatively affect financial performance due to increased litigation risk, regulatory scrutiny, and reputational losses (Krüger, 2015; Lins et al., 2017). Our findings, therefore, contribute to this mixed empirical literature by suggesting that the financial consequences of ESG controversies depend not only on the occurrence of such events but also on how effectively firms manage and respond to them.

From a theoretical perspective, this relationship can be explained through legitimacy theory and stakeholder theory. From a legitimacy theory standpoint, controversies undermine a firm's moral and pragmatic legitimacy; however, prompt corrective actions and transparent communication can help restore legitimacy and reduce the reputational penalties associated with such events (Díez-Martín et al., 2021). Similarly, stakeholder theory posits that controversies increase the salience of key stakeholders such as regulators, communities, NGOs, and investors—whose perceptions directly influence firm performance (Valentinov & Chia, 2022). Firms that responded constructively to controversies were therefore more likely to preserve stakeholder trust, limit regulatory escalation, and reduce potential litigation risks, thereby protecting profitability (Prastiwi et al., 2025). Beyond the theoretical explanations, the positive relationship between ESG controversy management and profitability may operate through several practical mechanisms within firms.

This mechanism operates through several reinforcing channels. First, transparent and credible responses help limit reputational damage and reduce the likelihood of prolonged stakeholder backlash. Second, effective controversy management reassures investors, lenders, and regulators, thereby preserving access to capital and reducing risk premia. Third, internal learning from ESG failures strengthens organizational routines and crisis-management capabilities. These mechanisms are particularly relevant in the Indonesian context, where ESG controversies frequently arise from environmental incidents, land-use conflicts, and governance disputes.

This relationship can also be interpreted through the lens of the dynamic capability perspective. Firms with strong ESG governance systems and established crisis-management routines possess organizational capabilities that allow them to respond more effectively to sustainability-related challenges (Niesten et al., 2024). Furthermore, responsible actions during corporate crises may function

as a form of “reputational insurance,” protecting firms from severe financial losses and strengthening stakeholder relationships (Gangi et al., 2020).

Regarding the control variables, leverage shows a significant negative association with profitability, suggesting that highly leveraged firms face greater financial constraints when responding to ESG-related shocks (Zhang & Liu, 2022). In contrast, sales growth is positively associated with profitability, reflecting stronger competitive positioning and stakeholder confidence (Mansikkamäki, 2023). The presence of Big 4 auditors is also positively associated with firm performance, consistent with prior evidence that high-quality audits enhance transparency and reduce information asymmetry (Thanasas et al., 2018; Abdou et al., 2021).

Table 9 reports the moderating effect of financial opacity on the relationship between ESG controversy management and profitability. The interaction results indicate that financial opacity weakens the positive impact of ESG controversy management on firm profitability, suggesting that the benefits of effective controversy management are more pronounced among firms operating in more transparent information environments (Yu et al., 2018). Furthermore, prior studies demonstrated that transparent firms face greater stakeholder scrutiny and more immediate market reactions to ESG-related events (Dhaliwal et al., 2011). Firms with higher transparency and stronger governance systems are better equipped to manage stakeholder reactions and ESG crises, as transparent disclosure and robust governance frameworks improve stakeholder engagement and external monitoring (Dhaliwal et al., 2012; Alsayegh et al., 2020). This interpretation aligns with the argument that high-performing firms often face stakeholder conflicts or reputational tensions as a by-product of ambitious strategic behavior (Gupta et al., 2020).

The robustness test results reported in Table 10 further support the main findings of this study. Model 1 confirmed that proactive management of ESG controversies helped reduce reputational damage, operational disruption, and stakeholder backlash, thereby improving financial performance (Shahab et al., 2025). Model 2 also suggested that effective controversy management helped firms maintain financial stability by mitigating controversy-related shocks and preserving financial flexibility (Krüger, 2015; Lins et al., 2017).

Moreover, the findings offer several practical implications for managers, auditors, and policymakers. First, firms operating in high-opacity environments should recognize that ESG controversy management alone may not generate financial benefits unless it is supported by credible and transparent financial reporting. Improving disclosure quality enhances stakeholders’ ability to evaluate firms’ responses and increases the effectiveness of ESG-related actions. Second, the results highlight the important role of audit quality in strengthening the credibility of ESG responses. Engagement with BIG4 auditors can serve as an external assurance mechanism that reinforces stakeholder trust, particularly during periods of heightened scrutiny following ESG controversies. High-quality audits may therefore complement firms’ ESG strategies by reducing information asymmetry and enhancing the perceived reliability of corporate disclosures. Finally, managers should view ESG controversies not merely as compliance failures but as governance challenges that require sustained organizational capability. Firms that invest in robust monitoring systems, crisis-response routines, and transparent communication are more likely to transform ESG setbacks into opportunities for organizational learning and long-term financial resilience.

The findings of this study also relate to the Sustainable Development Goals (SDGs) and Indonesia’s national ESG agenda. The positive relationship between effective ESG controversy management and firm profitability supports SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production), suggesting that responsible corporate responses to environmental and social incidents can coexist with strong financial performance. Furthermore, the moderating role of financial opacity highlights the importance of transparency and governance quality, which relates to SDG 16 (Peace, Justice, and Strong Institutions).

From a national policy perspective, these results are consistent with the Indonesian government’s efforts to encourage ESG adoption in the private sector as part of its global commitments, including initiatives on energy transition, environmental protection, and social inclusion. By showing that effective management of ESG controversies can enhance firm performance, particularly when

supported by transparent reporting, the study provides empirical support for policies that promote stronger ESG governance through effective communication (Angraini & Hermawan, 2025), improved disclosure standards, and external assurance mechanisms. Overall, the findings suggest that Indonesia's ESG agenda can be advanced not only through regulatory compliance but also by strengthening firms' organizational capabilities to respond credibly to sustainability-related challenges

## CONCLUSION

This study examines the relationship between ESG controversy management and firm profitability among publicly listed firms in Indonesia. The empirical results show that effective management of ESG controversies is positively associated with firm profitability, even after controlling for potential endogeneity using entropy balancing, propensity score matching, and the Heckman two-stage correction. These findings suggest that firms that respond promptly and credibly to ESG-related incidents such as environmental disputes, governance failures, or social conflicts are better able to preserve operational stability and maintain favorable financial outcomes.

This study contributes to the ESG literature in several ways. First, it extends existing research on ESG performance by focusing specifically on how firms manage ESG controversies rather than on ESG disclosure or ESG scores alone. Second, by examining firms in an emerging-market context, the study provides new evidence on how controversy management influences firm performance in environments characterized by evolving governance standards and sustainability practices. Third, the findings highlight that effective ESG controversy management can function not only as a risk-mitigation mechanism but also as a strategic capability that supports organizational resilience and financial stability.

The findings also carry important practical implications. For managers, the results suggest that ESG controversies should be addressed through transparent communication, timely remediation, and credible governance responses to minimize reputational damage and maintain stakeholder confidence. For regulators and policymakers, the results underscore the importance of strengthening corporate transparency and ESG disclosure frameworks to enhance the effectiveness of corporate responses to sustainability risks.

Nevertheless, this study has several limitations that open avenues for future research. First, the analysis relies on Refinitiv ESG controversy scores, which may not fully capture the qualitative complexity or severity of individual ESG incidents. Future research could incorporate alternative data sources, such as textual analysis of news reports or event-based datasets. Second, the study focuses on Indonesian listed firms, and future studies could conduct cross-country comparisons to examine how institutional environments influence the relationship between ESG controversy management and firm performance. Finally, further research could explore additional performance indicators, including market-based measures or long-term value creation, to provide a more comprehensive understanding of the financial consequences of ESG controversy management.

## REFERENCES

- Abdou, H.A., Ellelly, N.N., Elamer, A.A., Hussainey, K. and Yazdifar, H. 2021. Corporate governance and earnings management nexus: Evidence from the UK and Egypt using neural networks. *International Journal of Finance & Economics*, 26(4), pp. 6281–6311. <https://doi.org/10.1002/ijfe.2120>.
- Alsayegh, M.F., Abdul Rahman, R. and Hodayoun, S. 2020. Corporate Economic, Environmental, and Social Sustainability Performance Transformation through ESG Disclosure. *Sustainability*, 12(9), p. 3910. <https://doi.org/10.3390/su12093910>.
- Angraini, G. and Hermawan, A. 2025. SUSTAINABILITY AWARENESS IN INDONESIA'S OIL AND GAS SECTOR. *JRAK*, 17(2), pp. 332–347. <https://doi.org/10.23969/jrak.v17i2.26356>.
- Barnett, M.L. 2019. The Business Case for Corporate Social Responsibility. *Business & Society*, 58(1), pp. 167–190. <https://doi.org/10.1177/0007650316660044>.

- Bhattacharya, U., Daouk, H. and Welker, M. 2003. The World Price of Earnings Opacity. *The Accounting Review*, 78(3), pp. 641–678. <https://doi.org/10.2308/accr.2003.78.3.641>.
- Bushman, R., Chen, Q., Engel, E. and Smith, A. 2004. Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economics*, 37(2), pp. 167–201. <https://doi.org/10.1016/j.jacceco.2003.09.005>.
- Cho, S.Y., Lee, C. and Pfeiffer, R.J. 2013. Corporate social responsibility performance and information asymmetry. *Journal of Accounting and Public Policy*, 32(1), pp. 71–83. <https://doi.org/10.1016/j.jaccpubpol.2012.10.005>.
- D’Amico, E., Coluccia, D., Fontana, S. and Solimene, S. 2016. Factors Influencing Corporate Environmental Disclosure. *Business Strategy and the Environment*, 25(3), pp. 178–192. <https://doi.org/10.1002/bse.1865>.
- DeFond, M.L. and Hung, M. 2003. An empirical analysis of analysts’ cash flow forecasts. *Journal of Accounting and Economics*, 35(1), pp. 73–100. [https://doi.org/10.1016/S0165-4101\(02\)00098-8](https://doi.org/10.1016/S0165-4101(02)00098-8).
- Delgado, F.J., Fernández-Rodríguez, E., García-Fernández, R., Landajo, M. and Martínez-Arias, A. 2023. Tax avoidance and earnings management: a neural network approach for the largest European economies. *Financial Innovation*, 9(1), p. 19. <https://doi.org/10.1186/s40854-022-00424-8>.
- Dhaliwal, D.S., Li, O.Z., Tsang, A. and Yang, Y.G. 2011. Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation of Corporate Social Responsibility Reporting. *The Accounting Review*, 86(1), pp. 59–100. <https://doi.org/10.2308/accr.00000005>.
- Dhaliwal, D.S., Radhakrishnan, S., Tsang, A. and Yang, Y.G. 2012. Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure. *The Accounting Review*, 87(3), pp. 723–759. <https://doi.org/10.2308/accr-10218>.
- Díez-Martín, F., Blanco-González, A. and Díez-de-Castro, E. 2021. Measuring a scientifically multifaceted concept. The jungle of organizational legitimacy. *European Research on Management and Business Economics*, 27(1), p. 100131. <https://doi.org/10.1016/j.iedeen.2020.10.001>.
- Elamer, A.A. and Boulhaga, M. 2024. <sc>ESG</sc> controversies and corporate performance: The moderating effect of governance mechanisms and <sc>ESG</sc> practices. *Corporate Social Responsibility and Environmental Management*, 31(4), pp. 3312–3327. <https://doi.org/10.1002/csr.2749>.
- Eliwa, Y., Aboud, A. and Saleh, A. 2021. ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting*, 79, p. 102097. <https://doi.org/10.1016/j.cpa.2019.102097>.
- Fatemi, A., Glaum, M. and Kaiser, S. 2018. ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*, 38, pp. 45–64. <https://doi.org/10.1016/j.gfj.2017.03.001>.
- Feng, Z.-Y., Wang, Y.-C. and Wang, W.-G. 2024. Corporate carbon reduction and tax avoidance: International evidence. *Journal of Contemporary Accounting & Economics*, 20(2), p. 100416. <https://doi.org/10.1016/j.jcae.2024.100416>.
- Friede, G., Busch, T. and Bassen, A. 2015. ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4), pp. 210–233. <https://doi.org/10.1080/20430795.2015.1118917>.
- Gangi, F., Daniele, L.M. and Varrone, N. 2020. How do corporate environmental policy and corporate reputation affect risk-adjusted financial performance? *Business Strategy and the Environment*, 29(5), pp. 1975–1991. <https://doi.org/10.1002/bse.2482>.
- Godfrey, P.C., Merrill, C.B. and Hansen, J.M. 2009. The relationship between corporate social responsibility and shareholder value: an empirical test of the risk management hypothesis. *Strategic Management Journal*, 30(4), pp. 425–445. <https://doi.org/10.1002/smj.750>.
- Gupta, K., Crilly, D. and Greckhamer, T. 2020. Stakeholder engagement strategies, national institutions, and firm performance: A configurational perspective. *Strategic Management Journal*, 41(10), pp. 1869–1900. <https://doi.org/10.1002/smj.3204>.

- Healy, P.M. and Palepu, K.G. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31(1–3), pp. 405–440. [https://doi.org/10.1016/S0165-4101\(01\)00018-0](https://doi.org/10.1016/S0165-4101(01)00018-0).
- Hutton, A.P., Marcus, A.J. and Tehranian, H. 2009. Opaque financial reports, R2, and crash risk☆. *Journal of Financial Economics*, 94(1), pp. 67–86. <https://doi.org/10.1016/j.jfineco.2008.10.003>.
- Jiang, H., Hu, W. and Jiang, P. 2024. Does ESG performance affect corporate tax avoidance? Evidence from China. *Finance Research Letters*, 61, p. 105056. <https://doi.org/10.1016/j.frl.2024.105056>.
- Kim, Y., Park, M.S. and Wier, B. 2012. Is Earnings Quality Associated with Corporate Social Responsibility? *The Accounting Review*, 87(3), pp. 761–796. <https://doi.org/10.2308/accr-10209>.
- Krüger, P. 2015. Corporate goodness and shareholder wealth. *Journal of Financial Economics*, 115(2), pp. 304–329. <https://doi.org/10.1016/j.jfineco.2014.09.008>.
- Lenz, T. and Viola, L.A. 2017. Legitimacy and institutional change in international organisations: a cognitive approach. *Review of International Studies*, 43(5), pp. 939–961. <https://doi.org/10.1017/S0260210517000201>.
- Leuz, C., Nanda, D. and Wysocki, P.D. 2003. Earnings management and investor protection: an international comparison. *Journal of Financial Economics*, 69(3), pp. 505–527. [https://doi.org/10.1016/S0304-405X\(03\)00121-1](https://doi.org/10.1016/S0304-405X(03)00121-1).
- Lins, K. V., Servaes, H. and Tamayo, A. 2017. Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *The Journal of Finance*, 72(4), pp. 1785–1824. <https://doi.org/10.1111/jofi.12505>.
- Lucut Capras, I., Achim, M.V. and Mara, E.R. 2024. Is tax avoidance one of the purposes of financial data manipulation? The case of Romania. *The Journal of Risk Finance*, 25(4), pp. 588–601. <https://doi.org/10.1108/JRF-11-2023-0273>.
- Luo, X. and Bhattacharya, C.B. 2009. The Debate over Doing Good: Corporate Social Performance, Strategic Marketing Levers, and Firm-Idiosyncratic Risk. *Journal of Marketing*, 73(6), pp. 198–213. <https://doi.org/10.1509/jmkg.73.6.198>.
- Mansikkamäki, S. 2023. Firm growth and profitability: The role of age and size in shifts between growth–profitability configurations. *Journal of Business Venturing Insights*, 19, p. e00372. <https://doi.org/10.1016/j.jbvi.2023.e00372>.
- Nielsen, E., Jolink, A. and Bacha, E. 2024. Sustainable development in turbulent environments: The impact of ESG capabilities on responses to turbulence. *Business Strategy and the Environment*, 33(7), pp. 6468–6490. <https://doi.org/10.1002/bse.3827>.
- Plumlee, M., Brown, D., Hayes, R.M. and Marshall, R.S. 2015. Voluntary environmental disclosure quality and firm value: Further evidence. *Journal of Accounting and Public Policy*, 34(4), pp. 336–361. <https://doi.org/10.1016/j.jaccpubpol.2015.04.004>.
- Prastiwi, A., Atmini, S., Pusposari, D., Martika Sari, Y. and Christinawati Putri, F. 2025. THE RECIPROCAL RELATIONSHIP BETWEEN PROFITABILITY AND CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE. *JRAK*, 17(2), pp. 414–427. <https://doi.org/10.23969/jrak.v17i2.29561>.
- Sastroredjo, P.E., Ausloos, M. and Khrennikova, P. 2025. Eco-Innovation and Earnings Management: Unveiling the Moderating Effects of Financial Constraints and Opacity in FTSE All-Share Firms. *Sustainability*, 17(11), p. 4860. <https://doi.org/10.3390/su17114860>.
- Shahab, Y., Ye, Z., Liu, J. and Nadeem, M. 2025. Social Trust, Environmental Violations, and Remedial Actions in China. *Journal of Business Ethics*, 198(3), pp. 637–654. <https://doi.org/10.1007/s10551-024-05818-5>.
- Souguir, Z., Lassoued, N., Khanchel, I. and Bouzgarrou, H. 2024. Environmental performance and corporate tax avoidance: Greenwashing policy or eco-responsibility? The moderating role of ownership structure. *Journal of Cleaner Production*, 434, p. 140152. <https://doi.org/10.1016/j.jclepro.2023.140152>.
- Surroca, J., Tribó, J.A. and Waddock, S. 2010. Corporate responsibility and financial performance: the role of intangible resources. *Strategic Management Journal*, 31(5), pp. 463–490. <https://doi.org/10.1002/smj.820>.

- Thanasas, G.L., Filiou, A. and Smaraidos, V. 2018. The impact of corporate governance on earnings management in emerging economies: the Greek evidence. *International Journal of Comparative Management*, 1(3), p. 317. <https://doi.org/10.1504/IJCM.2018.10015717>.
- Valentinov, V. and Chia, R. 2022. Stakeholder theory: A process-ontological perspective. *Business Ethics, the Environment & Responsibility*, 31(3), pp. 762–776. <https://doi.org/10.1111/beer.12441>.
- Yu, E.P., Guo, C.Q. and Luu, B. Van 2018. Environmental, social and governance transparency and firm value. *Business Strategy and the Environment*, 27(7), pp. 987–1004. <https://doi.org/10.1002/bse.2047>.
- Zhang, D. and Liu, L. 2022. Does ESG Performance Enhance Financial Flexibility? Evidence from China. *Sustainability*, 14(18), p. 11324. <https://doi.org/10.3390/su141811324>.