

Sustainable Governance or Symbolic Compliance?

The Effect of ESG Pillars on Real Earnings Management in ASEAN-5

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ABSTRACT:

Environmental, social, and governance (ESG) performance has become an important indicator of corporate sustainability, yet its relationship with real earnings management (REM) remains inconclusive, particularly in emerging Southeast Asian markets. This study examines the effects of aggregate ESG performance and its environmental, social, and governance pillars on REM among listed firms in ASEAN-5 countries. Using purposive sampling, the study analyzes 271 firms comprising 813 firm-year observations from Indonesia, Malaysia, Singapore, Thailand, and the Philippines during 2020–2022. ESG data were obtained from Refinitiv, while financial data were sourced from OSIRIS. REM was measured using Roychowdhury's framework, based on abnormal cash flow from operations, abnormal discretionary expenses, and abnormal production costs. Fixed-effects panel regressions were estimated with firm size, leverage, and profitability as control variables. The results show that aggregate ESG performance significantly reduces REM, suggesting that comprehensive sustainability practices constrain real-activities manipulation. The environmental and social pillars show no significant individual effects. In contrast, the governance pillar is positively associated with aggregate REM but negatively associated with its underlying proxies, indicating sensitivity to REM measurement and possible substitution across earnings-management strategies. These findings demonstrate that ESG effects are multidimensional and that governance quality should be assessed beyond formal compliance. The study highlights the importance of distinguishing substantive sustainability practices

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from symbolic ESG adoption in strengthening corporate accountability across ASEAN markets.

Keywords: ASEAN-5, ESG performance, corporate governance, real earnings management, corporate sustainability.

Introduction

Environmental, social, and governance (ESG) considerations have moved from a peripheral concern to a central pillar of global investment decision-making (Korwatanasakul, 2019). Over the past decade, ESG has increasingly shaped corporate strategy and stakeholder expectations, as investors, regulators, and the public place growing weight on evidence of sustainable and responsible business conduct (Sarangi, 2022). Reporting practice reflects this shift: the share of the world's largest public companies disclosing ESG information rose markedly between 2010 and 2022 (GRI, 2016), and a similar upward trend is documented among large listed firms in the United States over 2011–2023 (SASB, 2023).

Within Southeast Asia, ESG adoption has advanced but remains uneven across markets. The ASEAN-5 economies, Indonesia, Malaysia, Singapore, Thailand, and the Philippines, have generally reached a higher level of ESG maturity than the CLMV group (Cambodia, Laos, Myanmar, and Vietnam), where independent oversight bodies are largely absent, and ESG awareness remains at an early stage (Korwatanasakul, 2019). The development of ESG practices in the ASEAN-5 has been supported by comparatively well-developed capital markets, stronger regulatory frameworks in several jurisdictions, and a broader shift in investment flows toward sustainability-linked criteria across the region (Sarangi, 2022).

Set against this expansion of ESG commitment is a persistent concern regarding long-term corporate sustainability: real earnings management (REM). Through REM, managers deviate from normal operating decisions—for example, by manipulating the timing of sales, cutting vital discretionary spending, or overproducing inventory—in order to influence

reported earnings (Roychowdhury, 2006). Because REM operates through real operating choices rather than through accounting estimates, it is markedly harder for auditors and regulators to detect than accrual-based earnings management (Graham et al., 2005; Roychowdhury, 2006). It becomes an attractive substitute once the scope for accrual manipulation is constrained (Zang, 2012). However, because REM alters actual business operations, it systematically undermines organizational reputation and long-term financial performance. Whether a strong ESG profile actually restrains this value-destroying behavior or merely coexists with it as a symbolic gesture remains an open and consequential question. Prior evidence indicates that firms may pursue REM to present more favorable results to investors, even while espousing ESG commitments intended to signal lower investment risk and commitment to long-term sustainability (Adeneye & Kammoun, 2022; Tohang et al., 2024).

The empirical evidence on the ESG–earnings management relationship is decidedly mixed. Several studies report that stronger ESG performance is associated with less earnings management, consistent with the view that ESG-committed firms prioritize the long-term interests of a broad set of stakeholders over short-term reporting incentives (Borralho et al., 2022; Liu et al., 2023; Sun et al., 2024; Velte, 2019). Other studies find the opposite: ESG or social performance scores correlate positively with discretionary accruals and earnings management, suggesting that ESG engagement can coexist with, or even facilitate, manipulation (Gargouri et al., 2010; Tohang et al., 2024). Evidence specific to the governance pillar is itself divided: while governance mechanisms are generally expected to constrain opportunistic

reporting, at least one ASEAN-focused study finds that REM affects capital structure only through the governance pillar and not through the environmental or social score, a pattern attributed to comparatively weak corporate governance in the region (Adeneye & Kammoun, 2022); a related study reports that environmental and social dimensions of performance are positively associated with earnings management while the governance dimension is negatively associated with it (Almubarak et al., 2023), the reverse of the pattern this study ultimately finds for ASEAN-5. This inconsistency, combined with the fact that most existing studies rely on aggregate ESG scores or focus on developed markets in North America, Europe, and China, leaves a gap in the literature: comparatively little is known about how the individual ESG pillars, rather than the aggregate score alone, relate specifically to real (as opposed to accrual-based) earnings management in the ASEAN context.

This study addresses that gap by examining the effect of the aggregate ESG score and its three constituent pillars, environmental, social, and governance, on real earnings management among listed companies in the ASEAN-5. Grounded in stakeholder theory (Freeman, 1984). The study tests four hypotheses linking the ESG score, and each of its pillars individually, to REM using a panel of 271 firms (813 firm-year observations) over 2020–2022. By disaggregating ESG into its component pillars rather than relying solely on an aggregate score, and by focusing specifically on real rather than accrual-based earnings management, this study provides more granular evidence on which dimensions of ESG commitment actually restrain earnings manipulation. Ultimately, these insights offer practical implications for investors, corporate boards, and regulators seeking to distinguish substantive governance quality from symbolic ESG compliance, thereby supporting the development of authentic corporate sustainability and sustainable economic planning across emerging markets.

Literature review

Stakeholder Theory and Earnings Management

Stakeholder theory holds that firms are accountable not only to shareholders but to the broader set of groups and individuals who can affect, or are affected by, the achievement of organizational objectives (Freeman, 1984). Because financial statements alone rarely convey the full range of a firm's economic, social, and environmental impact, the theory implies that corporate transparency should extend beyond financial reporting into social and environmental disclosure (Gray et al., 1988), ideally presented in an integrated form (Garcia-Sanchez et al., 2016). Applied to earnings management, the theory suggests two competing dynamics. On one hand, managers who internalize a broad stakeholder orientation have an incentive to protect the long-term interests of employees, customers, suppliers, and communities, which should discourage opportunistic reporting and promote sustainable business conduct (Freeman, 1984; Gonçalves et al., 2021). On the other hand, the same flexibility that accounting standards afford managers to exercise judgment (Watts & Zimmerman, 1990) means that a firm's stated commitment to stakeholders does not, by itself, guarantee restrained reporting behavior, particularly where the mechanisms meant to enforce that commitment are weak or largely symbolic (Kamal, 2021).

Real Earnings Management

Earnings management refers to managers' deliberate intervention in the financial reporting process to mislead stakeholders about the firm's underlying economic performance or to influence contractual outcomes (Healy & Wahlen, 1999; Schipper, 1989). (Roychowdhury, 2006), distinguishes accrual-based earnings management, which alters reported earnings through accounting choices that do not directly affect cash flow, from real earnings management, which alters earnings by deviating from otherwise-optimal operating decisions such as offering aggressive price discounts to accelerate sales, overproducing to lower the reported cost of goods sold, or cutting discretionary expenditures such as R&D and advertising. While these actions may boost short-term margins, they systematically erode organizational reputation

and long-term corporate sustainability. Because real activities manipulation is embedded in ordinary business decisions rather than in accounting estimates, it is substantially harder for auditors and regulators to detect than accrual manipulation (Graham et al., 2005; Roychowdhury, 2006), and firms tend to turn to it once the scope for further accrual management is exhausted (Zang, 2012).

This study draws on stakeholder theory (Freeman, 1984) conceptualize the relationship between ESG performance and REM: firms that

genuinely internalize the interests of their stakeholders are expected to rely less on earnings manipulation of any kind, including the harder-to-detect real-activities type, thereby safeguarding their operational sustainability. The conceptual framework and research model are shown in Figures 1 and 2, respectively. The study examines the effect of ESG performance, measured through the environmental, social, and governance pillar scores and the aggregate ESG score, on REM, controlling for firm size, leverage, and profitability.

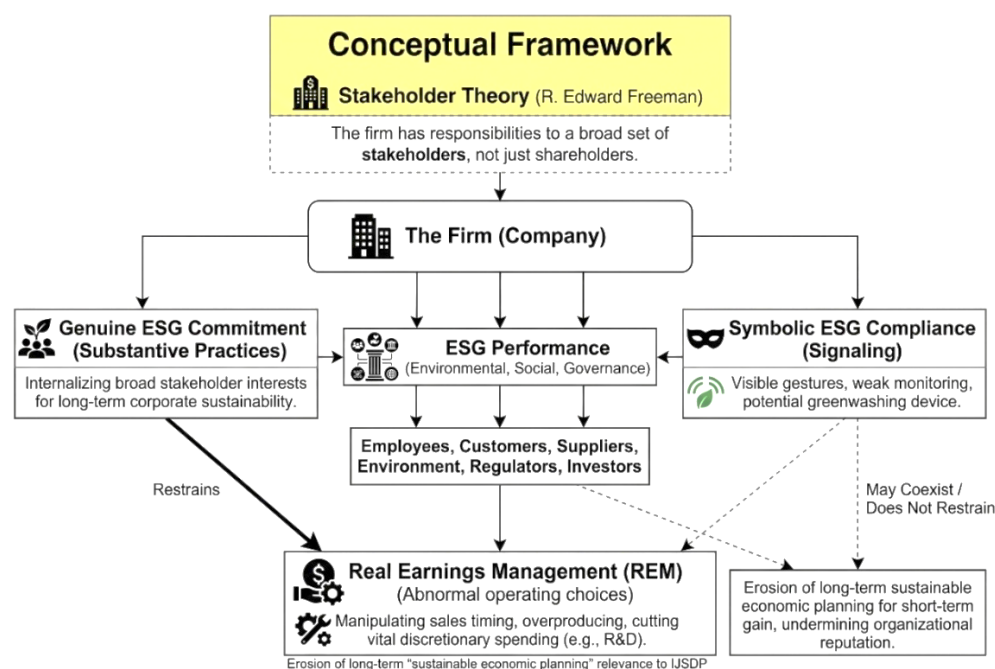


Figure 1. Conceptual framework

ESG Score and Real Earnings Management

A higher ESG score signals that a firm weighs the interests of a broad stakeholder base and prioritizes long-term value creation and sustainable performance over short-term financial expediency, which should reduce its reliance on earnings manipulation, particularly on accrual-based methods that are comparatively easy to detect (Roychowdhury, 2006). (Velte, 2019) reports that ESG performance is negatively associated with accrual-based earnings management among German listed firms, with the governance component showing the

strongest constraining effect of the three pillars. Building on this evidence, the study proposes:

H₁: *ESG score has a negative effect on real earnings management*

Environmental Pillar and Real Earnings Management

Environmental disclosure covers a firm's initiatives on resource use, emissions reduction, and sustainable innovation (Campopiano & De Massis, 2015; Garcia et al., 2017), and can enhance reputation, lower the cost of capital, and strengthen bargaining power (Bae et al., 2018;

Sarumpaet et al., 2017). Yet the literature also identifies a countervailing use of environmental disclosure as a legitimization tool, or even a greenwashing device that coexists with earnings manipulation rather than substituting for it (Chen et al., 2014; Gerged et al., 2020; Lu & Abeysekera, 2017). Managers may invest in visible environmental initiatives to avoid political costs (Ben Amar & Chakroun, 2018) or to burnish personal reputation, while still pursuing earnings management to protect a stable dividend policy (Block & Wagner, 2014; Kumala & Siregar, 2021). On balance, however, genuine environmental commitment is expected to align management incentives with long-term stakeholder interests and ecological sustainability, leading to:

H₂: The environmental pillar has a negative effect on real earnings management.

Social Pillar and Real Earnings Management

The social pillar captures workforce quality, human rights, community engagement, and product responsibility (Bae et al., 2018; Garcia et al., 2017). Employee representation and social engagement are associated with lower earnings management, as a socially engaged workforce is more likely to flag practices it perceives as unethical (Ben Amar & Chakroun, 2018). Furthermore, firms that value their social standing tend to align more closely with

stakeholder interests, including non-financial performance measures such as productivity and customer satisfaction (HassabElnaby et al., 2010; Miller et al., 2013), which in turn discourages a narrow focus on short-term financial targets in favor of long-term social sustainability (Campopiano & De Massis, 2015; HassabElnaby et al., 2010). Accordingly:

H₃: The social pillar has a negative effect on real earnings management.

Governance Pillar and Real Earnings Management

Governance disclosure reflects the systems and processes that align board and executive behavior with the long-term interests of shareholders and broader stakeholders (Sassen et al., 2016), including equal treatment of shareholders and transparent communication of decision-relevant information (Miralles-Quirós et al., 2018). Externally published governance information is itself a governance tool that helps align managerial and shareholder interests toward sustainable governance practices (Ferramosca & Ghio, 2018), and stronger governance disclosure is generally associated with reduced agency conflict and higher-quality financial reporting (Borralho et al., 2020; García-Sánchez & Martínez-Ferrero, 2019; Liu et al., 2016). Based on this reasoning:

H₄: The governance pillar has a negative effect on real earnings management.

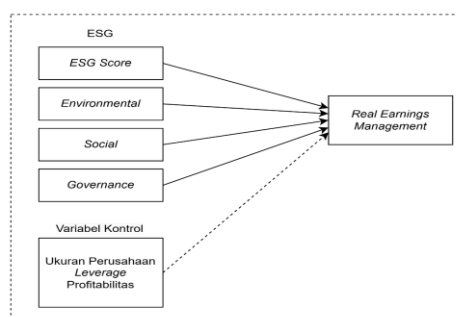


Figure 2. Research model

Figure 2 presents the research model examining the relationship between environmental, social, and governance (ESG) dimensions and real

earnings management (REM). The model incorporates four main explanatory variables—aggregate ESG score, environmental performance, social performance, and

governance performance—which are hypothesized to influence the extent of real earnings management. In addition, firm size, leverage, and profitability are included as control variables to account for firm-specific financial characteristics that may affect managerial incentives to engage in real-activities manipulation. By separating the aggregate ESG

measure from its individual pillars, Figure 2 enables the study to assess whether overall ESG performance and each underlying dimension exert distinct effects on REM, thereby providing a more comprehensive evaluation of whether ESG practices reflect substantive sustainability governance or merely symbolic compliance.

Methodology

Research Design, Population, and Sample

This study employs a quantitative, hypothesis-testing design (Sekaran, U., & Bougie, 2016) To examine the effect of ESG performance on real earnings management among publicly listed companies in the ASEAN-5, Indonesia, Malaysia, Singapore, Thailand, and the Philippines over the 2020–2022 period. The remaining ASEAN member states (Brunei Darussalam, Cambodia, Laos, Myanmar, and Vietnam) were excluded because ESG data for their listed companies is largely unavailable in the Refinitiv database, consistent with evidence that ESG awareness and regulation in these markets remain at an early stage (Korwatanasakul, 2019).

The sample was drawn using purposive sampling (Guarte, 2006; Tongco, 2007) based on two criteria: (1) the firm reports a complete and consistent Refinitiv ESG score for 2020–2022, and (2) the firm's annual report provides complete data to compute all study variables. This process yielded a final sample of 271 firms (813 firm-year observations): 39 from Indonesia (14.4%), 54 from Malaysia (19.9%), 72 from Singapore (26.6%), 84 from Thailand (31.0%), and 22 from the Philippines (8.1%), as summarized in Table 1. ESG scores were obtained from the Refinitiv database, while the financial statement data used to construct the REM and control variables were obtained from OSIRIS.

Table 1. Sample composition by country

No.	Country	Firms	Percentage
1	Indonesia	39	14.39%
2	Malaysia	54	19.93%
3	Singapore	72	26.57%
4	Thailand	84	31.00%
5	Philippines	22	8.12%
Total		271	100%

Source: Refinitiv and OSIRIS databases, compiled by the authors

Variable Measurement

Real earnings management (dependent variable). Following (Roychowdhury, 2006), REM is estimated from three industry-year regressions capturing (i) abnormal cash flow from operations, (ii) abnormal discretionary expenses (research and development, advertising, and selling, general and administrative expenses), and (iii)

abnormal production costs, each estimated as the residual from a regression of the relevant flow on sales (and, for production costs, the change in sales), scaled by lagged total assets. The three abnormal components are summed to obtain the

aggregate REM measure, which is used as the dependent variable in both models.

ESG variables (independent variables). ESG performance is measured using the Refinitiv

(Thomson Reuters) ESG score, which aggregates ten category scores: resource use, emissions, innovation, workforce, human rights, community, product responsibility, management, shareholders, and CSR strategy into three pillar scores and an overall score computed as $ESG = 0.34 \times \text{Environmental} + 0.42 \times \text{Social} + 0.24 \times \text{Governance}$ (Widiastari & Yasa, 2018). Model 1 uses the aggregate ESG score (ESGS); Model 2 decomposes ESG into its Environmental (ENS), Social (SOS), and Governance (GS) pillar scores, each ranging from 0 to 100. Control variables. Firm size (SIZE) is measured as the natural logarithm of total assets (Atidhira & Yustina, 2017); leverage (DER) as the debt-to-equity ratio; and profitability (ROA) as net income after tax divided by total assets (Y. Kim et al., 2012).

Estimated Models

Two panel regression models are estimated:

$$REM = \alpha + \beta_1 ESGS + \beta_2 SIZE + \beta_3 DER + \beta_4 ROA + \epsilon \quad (1)$$

$$REM = \alpha + \beta_1 ENS + \beta_2 SOS + \beta_3 GS + \beta_4 SIZE + \beta_5 DER + \beta_6 ROA + \epsilon \quad (2)$$

where REM is real earnings management; ESGS is the aggregate ESG score; ENS, SOS, and GS are the environmental, social, and governance pillar scores, respectively; SIZE, DER, and ROA are the control variables described above; and ϵ is the error term.

Estimation Technique

Data were analyzed using EViews 12. For each model, the Chow test was first used to choose

between the common-effect and fixed-effect specifications, followed by the Hausman test to choose between the fixed-effect and random-effect specifications. Pearson correlation coefficients among the independent variables were inspected to confirm the absence of multicollinearity, following the 0.90 threshold suggested by (Ghozali, 2016).

Results

Descriptive Statistics

Table 2 reports descriptive statistics for the variables used in both models (813 firm-year observations). Mean REM is 27,603.49, with a wide range between a minimum of -12,143,907 and a maximum of 3,420,192, indicating substantial variation in real earnings management across the sample. Mean ESGS is 52.89 (SD = 17.24), indicating moderate overall ESG performance, while the pillar scores show a similar moderate pattern: ENS averages 47.23, SOS averages 56.94, and GS averages 52.08. Among the control variables, the mean SIZE (log of total assets) is 14.90, the mean DER is 50.26, and the mean ROA is 5.31. The minimum values recorded for DER and ROA are markedly more extreme than their respective means and maxima, consistent with a small number of firm-year observations with distressed or near-zero equity bases; these cases are retained as reported in the original data but merit a sensitivity check in future extensions of this work.

Table 2. Descriptive statistics

Variable	N	Mean	Median	Maximum	Minimum	Std. Dev.
REM	813	27603.49	71495.47	3420.192	-12143.907	682973.2
ESGS	813	52.89	53.79	92.11	6.94	17.23
ENS	813	47.23	49.20	97.30	0.00	23.68
SOS	813	56.94	57.70	97.48	4.37	19.49
GS	813	52.08	52.48	97.60	2.98	21.76
SIZE	813	14.90	14.93	32.60	9.87	1.53

Variable	N	Mean	Median	Maximum	Minimum	Std. Dev.
DER	813	50.26	52.19	97.83	-61.62	19.90
ROA	813	5.31	3.85	83.41	-91.58	10.82

Source: Authors' calculations, 2024. ESGS = aggregate ESG score; ENS = environmental pillar score; SOS = social pillar score; GS = governance pillar score; SIZE = Ln (total assets); DER = debt-to-equity ratio; ROA = return on assets.

Model Selection and Diagnostic Tests

For both Model 1 and Model 2, the Chow test rejects the common-effect specification in favor of the fixed-effect model ($p = 0.000$ in each case), and the subsequent Hausman test likewise favors the fixed-effect over the random-effect model ($p = 0.000$ in each case). The fixed-effect model is therefore used to estimate both models. Pearson correlation coefficients among all independent variables remain below the 0.90 threshold (the highest being 0.69, between ENS and SOS), indicating that multicollinearity is not a concern for either model.

Regression Results

Table 3 presents the fixed-effect regression results for both models. In Model 1, ESGS has a negative and statistically significant effect on REM ($\beta = -4,792.43$, $p = 0.008$), indicating that firms with higher aggregate ESG scores engage in

significantly less real earnings management. The model explains 13.9% of the variation in REM (adjusted $R^2 = 0.139$) and is jointly significant (F-statistic $p = 0.000$). None of the control variables is statistically significant in Model 1.

Model 2 decomposes ESG into its three pillars. The environmental pillar ($\beta = -1,808.41$, $p = 0.905$) and social pillar ($\beta = -1,054.01$, $p = 0.350$) both show negative but statistically insignificant coefficients. The governance pillar, in contrast, shows a positive and highly significant coefficient ($\beta = 1,394.20$, $p = 0.000$), indicating that firms with stronger governance scores engage in significantly more not less real earnings management. Among the control variables, ROA is positive and significant ($\beta = 3,676.32$, $p = 0.000$), while SIZE and DER remain insignificant. Model 2 explains a comparable share of variance (adjusted $R^2 = 0.139$; F-statistic $p = 0.000$).

Table 3. Fixed-effect panel regression results

Variable	Model 1 Coef.	Model 1 Prob.	Model 2 Coef.	Model 2 Prob.
ESGS	-4792.426	0.008***	—	—
ENS	—	—	-1808.406	0.905
SOS	—	—	-1054.011	0.350
GS	—	—	1394.203	0.000***
SIZE	-28153.37	0.735	-16735.10	0.589
DER	-3025.626	0.555	-2858.392	0.585
ROA	-2895.109	0.266	3676.318	0.000***
Adj. R ²	0.139		0.139	
Prob(F-statistic)	0.000***		0.000***	
Observations	813		813	

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Fixed-effect model selected via Chow and Hausman tests (both $p = 0.000$ for Model 1 and Model 2). Source: Authors' calculations, 2024.

Decomposition of Real Earnings Management

To probe the aggregate results further, REM is decomposed into its three constituent proxies abnormal cash flow from operations (Real EM_CFO), abnormal discretionary expenses (Real EM_DISEXP), and abnormal production costs (Real EM_PROD) and each is regressed separately on the ESG variables using the same fixed-effect specification, for both the ESGS model and the ENS/SOS/GS model (Table 4).

For ESGS, ENS, and SOS, the decomposed results are directionally consistent with, and in the case of ESGS reinforce, the aggregate findings in Table 3. ESGS is negative and significant across all three REM proxies ($p < 0.01$ in each case), strengthening the support for H1. ENS and SOS remain negative but statistically insignificant across all three proxies, consistent with the non-support of H2 and H3 at the aggregate level.

The governance pillar presents a more complex picture. While GS shows a significant positive association with the aggregate REM measure (Table 3), it shows a significant negative association with each of the three individual REM proxies: $\beta = -0.020$ ($p = 0.0005$) for Real EM_CFO, $\beta = -0.070$ ($p = 0.000$) for Real EM_DISEXP, and $\beta = -4,192.14$ ($p = 0.000$) for Real EM_PROD. Firms with stronger governance scores thus exhibit systematically lower abnormal cash flow, lower abnormal discretionary expenses, and lower abnormal production costs individually, yet score higher on the aggregate REM measure. Because each of these component-level results is precise and highly significant, this divergence is unlikely to reflect noise; it more plausibly reflects the way the three components are combined into the aggregate score, which is why both the aggregate and the component-level results are reported and interpreted together in Section 4.5 rather than treating either in isolation.

Table 4. Decomposed regression results by REM proxy

	Real EM_CFO		Real EM_DISEXP		Real EM_PROD	
Variable	ESGS	ENS, SOS, GS	ESGS	ENS, SOS, GS	ESGS	ENS, SOS, GS
ESG Score	-0.028615 (0.0005)***	—	-0.096885 (0.000)***	—	-5554.595 (0.000)***	—
Environmental Pillar	—	-0.004514 (0.576)	—	-0.041361 (0.541)	—	-2042.464 (0.905)
Social Pillar	—	-0.006103 (0.469)	—	-0.041004 (0.434)	—	-2969.205 (0.350)
Governance Pillar	—	-0.020367 (0.0005)***	—	-0.069521 (0.000)***	—	-4192.143 (0.000)***
SIZE	-0.014978 (0.877)	-0.000293 (0.998)	-0.470495 (0.639)	-0.435679 (0.766)	-31690.86 (0.471)	-29438.42 (0.589)
DER	-0.007773 (0.408)	-0.008814 (0.347)	-0.053219 (0.380)	-0.055542 (0.311)	-1489.619 (0.509)	-1613.922 (0.585)
ROA	-0.000339 (0.964)	0.000123 (0.987)	-0.025149 (0.785)	-0.023931 (0.728)	-7288.86 (0.000)***	-7227.533 (0.000)***
Observations	813	813	813	813	813	813
Adj. R ²	0.13	0.13	0.18	0.18	0.14	0.14
Prob(F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Coefficient reported above probability (in parentheses). Fixed-effect model. Source: Authors' calculations, 2024, based on the first author's underlying dissertation dataset.

Discussion

ESG score (H1) supported. The negative and significant coefficient on ESGS supports H1 and

is consistent with stakeholder-theory reasoning: firms with stronger overall ESG performance are significantly less inclined toward real activities manipulation. This finding is in line with prior evidence that higher ESG performance constrains earnings management (Borralho et al., 2022; Liu et al., 2023; Sun et al., 2024; Velte, 2019), and with the view that ESG-committed firms face closer stakeholder scrutiny, which raises the cost of undetected real activities manipulation (Almubarak et al., 2023), thereby aligning managerial behavior more closely with the goals of long-term corporate sustainability..

Environmental and social pillars (H2, H3) not supported. Neither the environmental nor the social pillar shows a statistically significant relationship with REM, so H2 and H3 are not supported, although both coefficients are directionally negative as hypothesized. This pattern is consistent with the view that environmental and social disclosures, while reputationally valuable, do not necessarily translate into monitoring pressure specific to earnings reporting; several studies note that environmental and social disclosure in particular can function as a legitimization or greenwashing tool that operates somewhat independently of a firm's underlying reporting behavior (Chen et al., 2014; W. S. Kim et al., 2018; Lu & Abeysekera, 2017). The insignificant coefficients suggest that, in the ASEAN-5 sample, environmental and social performance are not yet functioning as effective, independent constraints on real activities manipulation even though the aggregate ESG score, which weights these pillars together with governance, does show a significant effect. For regional policymakers, this implies that E and S disclosures in emerging markets may currently reflect symbolic compliance rather than substantive shifts in operational sustainability.

Governance pillar (H4) not supported, with a result that is sensitive to the level of aggregation. Contrary to H4, the governance pillar shows a significant positive association with the aggregate REM measure: firms with stronger governance scores engage in significantly more, not less, real earnings management as an aggregate construct. Yet the component-level analysis in Section 4.4

tells a more nuanced story: GS is negatively and significantly associated with each of the three underlying REM proxies individually (Real EM_CFO, Real EM_DISEXP, and Real EM_PROD). Governance's relationship with real activities manipulation in the ASEAN-5 therefore cannot be summarized by a single sign; it depends on whether REM is treated as one composite score or examined through its constituent channels. This kind of divergence is not without precedent. (Gargouri et al., 2010) similarly find that governance-related dimensions of corporate social performance are positively associated with earnings management, and a study of ESG performance and earnings quality in Asia's digital industry reports a positive relationship between ESG performance and discretionary accruals, attributing this pattern to symbolic ESG practices vulnerable to greenwashing (Tohang et al., 2024). Within ASEAN specifically, (Adeneye & Kammoun, 2022) find that REM affects capital structure only through the governance pillar, interpreting this as evidence that governance structures in the region may be comparatively weak in substance despite their formal presence.

One plausible reading draws on the documented substitution between accrual-based and real earnings management (Zang, 2012). Governance mechanisms, board oversight, audit committees, and disclosure requirements are generally designed and evaluated by rating agencies for their ability to constrain the more visible, more easily detected accrual-based manipulation (Graham et al., 2005). If the governance scores used in this study primarily capture the presence of formal, accrual-oriented monitoring structures, well-governed firms facing tighter constraints on accrual management may rationally shift toward real-activity manipulation instead. However, because real activities manipulation involves altering actual business operations, such as cutting essential discretionary expenditures or overproducing inventory, this substitution ultimately compromises organizational reputation and long-term sustainable performance. The component-level results in Table 4 are consistent with part of this

story: stronger governance is associated with significantly lower abnormal cash flow, discretionary expense, and production costs individually, which is the hypothesized restraining effect, while the positive aggregate result suggests that however these components are combined into a single REM score, governance's net association with the aggregate measure runs in the opposite direction. This interpretation is consistent with (Velte, 2019), who finds governance to be the pillar most strongly associated with earnings management outcomes among the three ESG dimensions in the German context; the present findings suggest that in the ASEAN-5, this strong association is not one-directional but depends on how real earnings management is measured, which is itself a finding worth further scrutiny in future research using alternative REM aggregation approaches that fully capture multidimensional sustainability.

5. Conclusion

This study reveals that overall ESG performance is negatively correlated with real earnings

management (REM) among listed firms across ASEAN-5, suggesting that strong ESG commitments can reduce manipulation through actual operating practices. In contrast, the environmental and social pillars do not show significant independent effects, whereas the governance pillar exhibits a complex pattern: it is positively associated with overall REM but negatively associated with specific REM components. These findings imply that ESG's ability to curb managerial manipulation depends on both the specific ESG dimension and the method used to measure REM. Therefore, investors, boards, and regulators should evaluate ESG quality alongside key operational indicators instead of relying solely on overall ratings or formal governance scores. Future research should broaden the observation period, incorporate data from multiple ESG rating agencies, analyze cross-country and industry differences, and explore factors such as ownership structure, family control, financial stress, and digital transformation to better understand the ESG–REM relationship.

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Author Declaration

The authors declare that this manuscript is an original work, has not been published previously, and is not under consideration for publication elsewhere. All authors have reviewed and approved the final version of the manuscript and are responsible for the integrity and accuracy of the work. The authors further declare that there are no financial, professional, or personal conflicts of interest that could have influenced the research, analysis, interpretation, or reporting of the findings.