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An empirical study on the bidirectional association between ESG performance and earnings management in southeast Asia

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Abstract

This study examines the association between Earnings Management (EM) and environmental, social, and governance (ESG) performance. 289 companies incorporated in Thailand, Malaysia, Indonesia, Singapore, the Philippines, and Vietnam between 2014 and 2021 are utilized as the final sample. Most of the financial data were taken from Asset4 by Thomson Reuters, Capital IQ, and Bloomberg; a few variables were collected manually from company reports and company websites. The hypothesis was tested using panel data regression analysis with a fixed-effect method. This study shows that ESG performance (ESGP) is positively significant to Accruals-based Earnings Management (AEM) and negatively significant to Real Earnings Management (REM). With respect to the bidirectional effect, this study shows that AEM is positively linked to ESG performance, but REM is negatively related to ESG performance. Therefore, ESGP and EM have a perfect bidirectional relationship in Southeast Asia. This study fills the gap in research on ESG performance and earnings management in Southeast Asia while assisting policymakers and companies in prioritizing genuine sustainability practices in the region.

Introduction

Publicly traded companies are now engaging more with stakeholders and implementing sustainability management strategies. The goal is to improve their ESG (Environmental, Social and Governance) Performance by improving transparency and providing high-quality ESG information, significantly increasing stakeholder confidence and contributing to firm performance (Alsayegh et al., 2020). Evaluating a firm's dedication towards sustainable operations and ethical corporate governance has become a critical metric in today's business landscape. The potential for Earnings Management (EM) has been a concern for investors and regulators due to its misleading nature (Modani et al., 2022). Managers have a lot of flexibility in financial reporting and disclosing ESG information. This means that the quality of ESG disclosures and financial reporting are correlated because

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both are critical for management decisions. Stakeholders need to understand the relationship between financial reporting and ESG disclosure to evaluate a company's sustainability efforts and financial practices accurately.

Numerous empirical research has examined the relationship between Earnings management and Corporate Social Responsibility (CSR) (Martínez-Ferrero, Gallego-Álvarez et al., 2015; Martínez-Ferrero, Garcia-Sanchez et al., 2015; Martínez-Ferrero & García-Sánchez, 2015; Cheng & Kung, 2016; Cho & Chun, 2016). As per the research conducted by Velayutham in 2018, most investigations have shown a negative correlation. Some studies have shown positive or inconclusive results with regards to the impact of CSR on EM (Bozzolan et al., 2015). This could be due to the presence of endogeneity and variations in CSR proxies, such as Environmental, Social, and Governance Performance (ESG Performance) and Earnings management. Additionally, most of the research has been conducted in European and American countries, with little work done in Southeast Asia. The authors aim to provide further insights into this topic by exploring the impact of ESG Performance on the practice of EM and by acknowledging the need to expand research beyond the capital markets of the United States and European nations.

The primary goal of this investigation is to study the correlation between EM and ESG Performance in Southeast Asia, examining the relationship in both directions. Although a considerable amount of research has explored the correlation between ESG Performance and EM across various regions worldwide, including studies that focus explicitly on one country in Europe and Asia, there is a lack of analysis about this correlation in the Southeast Asia region. The study excluded financial industry companies due to their unique capital structure and significant leverage, which can lead to misleading results when mixed with other industries. The study conducted by Fama and French (1992) examines the implementation and compliance of accounting standards and practices. According to Frias-Aceituno et al. (2013), these entities are often subject to stricter regulations regarding sector-specific transparency, Corporate Governance (CG), and oversight, as noted by Barth et al. (2004). ASEAN member countries are increasingly interested in adopting ESG standards and exploring prospects for sustainable initiatives in green building projects, social impact, and transparency within corporate boards. The implementation of ESG practices in ASEAN member nations has lately been recognized for its positive impact on generating favorable media coverage, enhancing reputation, increasing shareholder value, and providing greater access to new financial opportunities (Adeneye & Kammoun, 2022). In addition, ASEAN issuers exhibit a higher level of expectation regarding tangible and significant modifications to their business model and capital allocation when compared to issuers in other countries (HSBC Bank, plc, 2021). They maintain a strict policy on responsible investing in ESG issues, showcasing a solid dedication to ESG investments and a clear goal to further their development. In comparison to developed markets, corporate governance structures and enforcement mechanisms in Southeast Asia may be weaker. This can lead to an increase in earnings management practices. The rapid economic growth in Southeast Asia can incentivize companies to manipulate earnings to meet analyst expectations or secure funding. This is especially true since there is a tendency for an increase in IPOs of Asian companies, with a focus on Indonesia, Thailand, and Malaysia (Organization for Economic Cooperation and Development [OECD], 2023).

The study aims to contribute in the following ways: firstly, by addressing the gap in regional research on Southeast Asia; secondly, by providing a more detailed understanding of the dynamic relationship between ESG Performance and Earnings management; thirdly, by informing policymakers and regulators in Southeast Asia on developing regulations that can reduce earnings management, increase good corporate governance practices, and enhance investor protection; and finally, by encouraging companies in Southeast Asia to focus on genuine sustainability practices that ultimately contribute to a more sustainable business environment in the region.

Literature Review

Stakeholder theory is challenging due to conflicting interests and diverse information. Unlike the traditional agent model, the company is responsible for various stakeholder groups, including nonfinancial interests, investors, and creditors (Jensen & Meckling, 1976; Ross, 1973). Both financial and nonfinancial reporting should be given equal importance as management needs to consider the trade-off between these two aspects, as highlighted by Freeman (1984). Managers who follow the stakeholder approach are expected to provide more information to aid decision-making, resulting in improved CSR and financial performance (Velayutham, 2018; Velte, 2016). Integral managers believe that socially responsible companies are dedicated to their stakeholders for the long term, as there is a negative correlation between

CSR and EM. Managers who engage in corporate social responsibility reporting are less likely to engage in EM, as it goes against the interests of their stakeholders. According to the agency theory, managers may use ESG initiatives to improve their reputation and mask negative financial performance through earnings management for opportunistic reasons (Jensen & Mackling, 1976; Alsayegh et al., 2020).

Businesses often use various methods to manipulate their financial figures, aiming to show their stakeholders better earnings and performance. These methods include Accrual-Based Earnings Management (AEM) and Real Earnings Management (REM). According to Roychowdhury (2006), Real Earnings Management refers to a type of earnings manipulation achieved by changing a company's operational activities with the goal of meeting specific earnings targets set by management. On the other hand, Kothari, Leone, and Wasley (2005) define Accrual Earnings Management as the manipulation of earnings through accounting estimates and judgments. This involves using the flexibility inherent in Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) to influence reported financial results.
The performance scores for ESG are divided into three points: environmental, social, and governance. Risk management techniques and a company's impact on the environment are referred to as environmental criteria. These can include natural resources, climatic risk, and greenhouse gas emissions. Relationships between a company, society, and stakeholders are referred to as the social aspect (Adeneye & Kammoun, 2022). Metrics in human capital management are one example of how communities may be impacted. The governance pillar deals with how the company's Board of Directors runs and leads it. It offers accountability and openness regarding how the Board of Directors' leadership may affect the business (Frias-Aceituno et al., 2013).

Hypothesis Development

As per the stakeholder theory, there are differences in information and conflicting interests across the different groups, which makes it challenging to fulfil the diverse demands of coalition partners within the company (stakeholders) (Freeman, 1984). The firm is responsible to several stakeholder groups with nonfinancial concerns, investors, and creditors, in contrast to the principal-agent theory (Jensen & Meckling, 1976; Ross, 1973). To achieve equal importance between financial and nonfinancial reporting, management must find a balance among the interests of various stakeholders. (Freeman, 1984). Stakeholder theory suggests that managers should furnish additional information that can be utilized for decision-making, enhancing both financial and Environmental, Social, and Governance Performance (ESG Performance) (Velte, 2019). Managers who report on CSR and ESG Performance are less likely to manipulate results. This is because they understand that reducing the quality of profits goes against stakeholders' interests (Velayutham, 2018). The empirical studies investigating the correlation between ESGP and EM yield inconclusive and contradictory results (Velayutham, 2018). However, some research has discovered a detrimental impact of ESG factors on the practice of manipulating earnings, which aligns with the stakeholder theory proposed by Bozzolan et al. (2015), Cheng and Kung (2016), and Cho and Chun (2016).

Various studies (Bozzolan et al., 2015; Gras-Gil et al., 2016; Kim et al., 2012; Litt et al., 2014; Martínez-Ferrero, Gallego-Álvarez et al., 2015; Martínez-Ferrero, Garcia-Sanchez, et al., 2015; Scholtens & Kang, 2013; Suteja et al., 2016) have shown that there is a connection between CSR reporting and performance and a reduction in accrual earnings management. Additionally, increased CSR has been linked to decreased real earnings management (Cho & Chun, 2016; Kim et al., 2012; Salewski, M., & Zülch, H., 2014) and reduced errors in analyst and management forecasts (Dhaliwal et al., 2012; Lee, 2017). It has also been found that a stronger focus on ESG factors is positively associated with better accounting conservatism, earnings and cash flow predictability and persistence, and inverse EM indicators (Cheng & Kung, 2016; Choi & Pae, 2011).

Based on a recent study conducted by Gavana et al. (2022), it was found that ESG Performance has a significant impact on Earnings Management as a moderating variable. Habib (2023), stated that firms that apply real earnings management strategy are likely to have lower ESG performance, while Sun et al. (2024) discovered that companies with higher ESG Performance are less likely to engage in earnings management. Moreover, according to Chouaibi et al. (2023), there is a negative relationship between accrual-based earnings management and European ESG firms.

The authors argue that companies with better ESG Performance engage in less EM, which supports stakeholder theory and prior empirical studies:

H1: ESG Performance is associated with Earnings Management

H2: Earnings Management is associated with ESG Performance

Methodology

This study utilized quantitative methodology involving secondary data from various sources such as Capital IQ, annual reports, integrated reports, sustainability reports, status reports, and company websites. Data on ESG Performance (ESGP) were obtained from the Asset4 Thomson Reuters database. The Capital IQ platform also collected data on the company's size (SIZE), market-to-book equity ratio (MB), leverage (LEV), and growth (GROWTH). Information about the audit firm that audited the company (BIGFOUR), the proportion of members that are independent on the supervisory board (IND), and the financial specialist's percentage on the same board (EXP) were collected from the company's reports and website. The BETA variable was obtained using data from Bloomberg. The study utilized an unbalanced panel dataset covering the years 2014 to 2021. The authors analyzed the variables using a regression model with STATA 17 software. The study presented four regression models that examined two proxies of EM, namely, AEM and REM. The independent variable used in these models is ESG Performance, which serves as a proxy for ESG Performance and vice versa.

This research focuses on Southeast Asian countries which have national stock exchanges to get the public companies' data. The authors used the Thomson Reuters database to collect information on the ESG Performance of companies, financial data were collected from Capital IQ, and other nonfinancial data were manually collected from 2014 to 2021. A total of 3,356 companies were initially selected, but after a screening and filtering process, only 289 companies were included in the analysis (1,061 firm-year observations). The data filer is only based on unbalanced-panel data from 2014 to 2021 and the availability of nonfinancial data. The definitive data resulting from implementing many criteria throughout the screening and filtering procedure is displayed in Table 1.

Table 1 Sample distribution by country

Country	Final Companies	Country	Final Companies
Indonesia	37	Singapore	24
Malaysia	93	Thailand	101
Philippines	18	Vietnam	16

Note: They are processed by the authors based on Capital IQ.

To gather data on Corporate Governance and ESG factors that are not available in databases, we make use of Capital IQ, sustainability reports, integrated reports, status reports, and annual reports. To collect data on ESG Performance, we use the Thomson Reuters database, specifically the ESG-Asset4 category. We have collected statistics on ESG Performance from 2014 to 2021. The ESG Performance is measured across various ESG domains.

Two dependent variables, accrual and real earnings management, are used as proxies for earnings management in this research. The study employs unbalanced panel regression models, accounting for various firm-specific variables, to examine the effects consistent with prior studies. Recent research on earnings management has often used the performance-adjusted version of the Jones (1991) model, as Kothari et al. (2005) modified when discussing AEM. Therefore, this study also uses the same model. Kothari et al. (2005) changed the fundamental Jones model to address the misspecification problem when about samples with non-random performance, as explained in Velte (2019). The data computation was obtained from Asset4 by Thomson Reuters, Capital IQ, and Bloomberg to determine the direction of each real earnings management variable. The study calculates REM by Roychowdhury (2006) and Cohen et al. (2008), which is explained in Velte (2019).

This study examines the impact of several control variables on earnings management, which is a measure of a company's environmental management practices. The variables used in the study are SIZE (firm size), MB (market-to-book equity ratio), ROA_adj. (industry mean-adjusted return on assets), LEV (long-term debt leveraged by assets), GROWTH (percentage change in sales expressed as growth), and BETA (beta factor). Previous studies have shown that these variables affect earnings management in various ways.

According to the study, the size of a company has a significant positive impact on earnings management. This is because larger companies are often more efficient due to their economies of scale, which can influence the financial and non-financial reporting preferences of stakeholders. On the other hand, the study predicts that MB will have a negative impact on earnings management. Additionally, ROA_adj is also expected to have a negative impact on earnings management when analyzing book-related financial performance. However, LEV is predicted to have a positive impact on earnings management. Lastly, the study hypothesizes that GROWTH will have a negative correlation with earnings management.

BETA indicates systemic corporate risk, and the authors anticipate a positive impact on earnings management. CG and audit variables, including using a Big Four audit firm for the company's audit and the proportion of autonomous members and financial specialists serving on the supervisory board, are assumed to adversely affect earnings management and are incorporated as additional controls in the model. This study aims to eliminate confounding variables, reduce bias, enhance internal and external validity, and thoroughly examine the phenomena under investigation by implementing multiple variable controls. The procedures employed aim to augment the research findings' reliability, validity, and generalizability. This study predicts that a company's ESG Performance can negatively impact its accruals and real earnings management. Table 2 contains a list of the respected variables.

Data Analysis

This study uses fixed effects balanced panel regression models to examine whether there is a positive relationship between earnings management and ESG Performance, as measured by AEM and REM. To account for several firm-specific variables, the regression assumptions of linearity, homoscedasticity of residues, normal distribution of the error term, and multicollinearity were evaluated using the methodology of Hair Jr et al. (2009). The analysis was conducted using regression statistics in STATA 17. The Hausman test was used to suggest a fixed effects model to ensure the estimated coefficients from the provided panel data are consistent. The following regression equations apply to the total ESGP (Equation (1) and (2)):

$$\begin{aligned} AEM_{it} &= \alpha + \beta_1 ESGP_{it} + \beta_2 SIZE_{it} + \beta_3 MB_{it} + \\ &\quad \beta_4 ROA\_adj_{it} + \beta_5 BIGFOUR_{it} + \beta_6 LEV_{it} + \\ &\quad \beta_7 GROWTH_{it} + \beta_8 BETA_{it} + \beta_9 IND_{it} + \\ &\quad \beta_{10} EXP_{it} + \varepsilon_{it} \qquad (1) \\ REM_{it} &= \alpha + \beta_1 ESGP_{it} + \beta_2 SIZE_{it} + \beta_3 MB_{it} + \\ &\quad \beta_4 ROA\_adj_{it} + \beta_5 BIGFOUR_{it} + \beta_6 LEV_{it} + \\ &\quad \beta_7 GROWTH_{it} + \beta_8 BETA_{it} + \beta_9 IND_{it} + \\ &\quad \beta_{10} EXP_{it} + \varepsilon_{it} \qquad (2) \end{aligned}$$

To address any potential issues of reversed causality we refer to the bidirectional relationship (Velte, 2019), we switch our dependent variables (AEM & REM) and ESGP while keeping the other variable constant. The bidirectional models (Equation (4) and (5)) are as follows:

Table 2 Operating variables

Variable	Research Variable	Formula	Reference
Dependent	AEM	The absolute value of discretionary accruals	(Velte, 2019)
Dependent	AB_CFO	The residual value of CFO	(Velte, 2019)
Dependent	AB_PROD	residual value of PROD	(Velte, 2019)
Dependent	AB_EXP	The residual value of EXP	(Velte, 2019)
Dependent	REM	AB_CFO - AB_PROD + AB_EXP	(Velte, 2019)
Independent	ESGP	Collected by the Asset4 database by Thomson Reuters	(Velte, 2019, Asset4, 2023)
Control	SIZE	ln(market value of equity)	(Velte, 2019)
Control	MB	$\frac{\text{Market value of equity}}{\text{book value of equity}}$	(Velte, 2019)
Control	ROA_adj	$\frac{\text{Net income}}{\text{Book value of assets}} - \text{Median ROAi}$	(Bebchuk et al., 2007)
Control	BIGFOUR	Value 1 if company was audited by Big Four, 0 is otherwise	(Velte, 2019)
Control	LEV	$\frac{\text{Long} - \text{term debt}}{\text{Scaled total assets}}$	(Velte, 2019)
Control	GROWTH	$\frac{\text{Net sales} - \text{Lagged net sales}}{\text{Lagged net sales}} \times 100$	(Velte, 2019)
Control	BETA	beta factor	(Velte, 2019)
Control	IND	$\frac{\text{independent members}}{\text{members of supervisory board}} \times 100$	(Velte, 2019)
Control	EXP	$\frac{\text{financial members}}{\text{members of supervisory board}} \times 100$	(Velte, 2019)

Note: Processed by the authors (2024).

$$ESGP_{it} = \alpha + \beta_1 AEM_{it} + \beta_2 SIZE_{it} + \beta_3 MB_{it} + \beta_4 ROA\_adj_{it} + \beta_5 BIGFOUR_{it} + \beta_6 LEV_{it} + \beta_7 GROWTH_{it} + \beta_8 BETA_{it} + \beta_9 IND_{it} + \beta_{10} EXP_{it} + \varepsilon_{it} \quad (3)$$

$$ESGP_{it} = \alpha + \beta_1 REMit + \beta_2 SIZE_{it} + \beta_3 MB_{it} + \beta_4 ROA\_adj_{it} + \beta_5 BIGFOUR_{it} + \beta_6 LEV_{it} + \beta_7 GROWTH_{it} + \beta_8 BETA_{it} + \beta_9 IND_{it} + \beta_{10} EXP_{it} + \varepsilon_{it} \quad (4)$$

Results and Discussion

Descriptive Statistics and Correlation Analysis

Table 3 displays descriptive statistics for variables used in regression models. The sample size is 1,061 observations covering 2014–2021. Accrual and real earnings management means are -0.0004 and -1.03e-08, respectively, lower than previous research (Velte, 2019). ESG performance score ranges from 2,250 to 92,005, averaging 46,719. Control variables SIZE, ROA_adj, and BIGFOUR have lower averages. MB, LEV, GROWTH, BETA, IND, and EXP have higher values. Companies in this study have higher independent and financial expert member percentages than German companies.

Winsorization was used to normalize extreme data. Robust regression analysis was applied to address the challenges caused by autocorrelation and heteroscedasticity (Maulana, 2018). Based on the test results, it can be concluded that the fixed effect model provides the most accurate interpretation. The results of the Pearson correlation test used for multicollinearity assessment are presented in Table 4. Accrual earnings management is significantly and negatively correlated with leverage, ESG performance, BIGFOUR, and beta factor (BETA); it is significantly and positively correlated with ROA_adj and GROWTH. REM correlates significantly and positively with ESGP, SIZE, MB, ROA_adj, BIGFOUR, and EXP; however, it correlates negatively with leverage. AEM exhibits a negative correlation with MB, IND, and EXP and a positive correlation with SIZE. On the other hand, REM exhibits a negative correlation with BETA and IND and a positive correlation with GROWTH. The results of the two regression models used in this study are shown in Table 5.

This study examines the relationship between earnings management and ESG performance scores in Southeast Asian nations such as Vietnam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. The findings suggest that accrual earnings management is positively correlated with the ESG performance score, which is consistent with previous investigations conducted by Belgacem and Omri (2015) and Velayutham (2018). These investigations suggest that companies that engage in earnings management may use continuous ESG activities and disclosure to hide the opportunistic conduct of their managers. However, Velte's (2019) findings contradict this, as they discovered a negative correlation between the ESG score and accrual earnings management.

On the other hand, this research demonstrates an inverse correlation between ESG performance and real earnings management, consistent with the findings of Cho and Chun (2016) and Pathak and Gupta (2022). This suggests that businesses that prioritize ESG performance considerations in their investment decisions, business operations, and sustainable development tend to engage less in real earnings management. This indicates that managers are more inclined to refrain from engaging in earnings management, ensuring the provision of precise and superior financial reporting when they incorporate sustainability information with an ethical commitment standpoint. This outcome is consistent with stakeholder theory. Hence, this research supports H1, which states that ESG performance is negatively associated with real earnings management and positively associated with accrual earnings management.

Table 3 Descriptive statistics

Variable	Obs	Mean	*SD*	Min	Max	Variable	Obs	Mean	*SD*	Min	Max
AEM	1061	-0.0004	0.065	-0.375	0.393	BIGFOUR	1061	0.886	0.318	0	1
REM	1061	-1.03E-08	0.195	-0.740	1.375	LEV	1061	0.204	0.164	0	1.386
ESGP	1061	46.719	18.898	2.250	92.005	GROWTH	1061	11.290	195.493	-99.493	6302.036
SIZE	1061	7.745	1.434	1.164	10.645	BETA	1061	0.987	0.351	0.24	7.16
MB	1061	3.838	10.799	-0.828	273.495	IND	1061	0.458	0.161	0	1
ROA_ADJ	1061	0.013	0.080	-0.607	0.493	EXP	1061	0.576	0.224	0	1

Note: output STATA software.

Table 4 Pearson Correlation

Variables	AEM	REM	ESGP	SIZE	MB	ROA_ADJ	BIGFOUR
AEM	1.0000						
REM	-.3596***	1.0000					
ESGP	-.0821**	.1065***	1.0000				
SIZE	.0003	.2334***	.2474***	1.0000			
MB	-.0263	.5365***	-.0274	.2915***	1.0000		
ROA_ADJ	.1583***	.5505***	-.0086	.2010***	.4959***	1.0000	
BIGFOUR	-.061**	.1236***	.1686***	.2355***	.0407	.0579*	1.0000
LEVERAGE	-.0803**	-.2274***	.0841**	.1424***	-.0317	-.3288***	.0274
GROWTH	.1626***	.0342	-.0546*	.0723**	.0892**	.2472***	.0274
BETA	-.0571*	-.0087	.1056***	.2058***	-.0559*	-.0779*	-.0229
IND	-.0171	-.0338	.1056***	-.0105	-.0615*	-.0103	-.0322
EXP	-.0504	.0801**	.0809**	.0466	.0914**	.026	.0607*
Variables	LEVERAGE	GROWTH	BETA	IND	EXP		
LEVERAGE	1.0000						
GROWTH	-.0841**	1.0000					
BETA	.1041***	-.0978**	1.0000				
IND	-.1084***	.0266	.0081	1.0000			
EXP	.0830**	.0095	.0816**	.0494	1.0000		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5 Regression results

Variables	AEM		REM	
	COEFFICIENT	*p*	COEFFICIENT	*p*
ESGP	.0004	.057*	-.0008	.011**
SIZE	.0164	.013	-.0043	.561
MB	-.0006	.717	.0026	.323
ROA_ADJ	.274	.019**	.3740	.003**
BIGFOUR	.0101	.254	.0073	.708
LEVERAGE	-.0002	.994	-.0031	.940
GROWTH	.0001	.303	-.0000	.875
BETA	-.0181	.142	.0269	.034**
IND	-.0566	.040**	.0634	.076*
EXP	.0003	.978	.0089	.549
R^2	.050		.168	
F-TEST	.000		.000	
OBS	1,061		1,061	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

Upon analysis of the control variables in this study, it is evident that accrual earnings management is positively impacted by company size, which is consistent with findings from prior research (Bozzolan et al., 2015; Chouaibi & Zouari, 2022; Velte, 2019). Large corporations often face pressure to raise market prices, and increasing stakeholder scrutiny may limit EM. Additionally, substantial corporations may engage in earnings management to evade the imposition of higher taxes resulting from a significant profit surge. The absence of a correlation between the scale of a company and earnings management practices may be attributed to the stringent oversight that various stakeholders, including the government and investors, apply. Due to stringent oversight, managers lack the confidence to undertake potentially detrimental earnings management activities that could harm their reputation and trustworthiness. The results of this study indicate that ROA_adj significantly and positively impacts earnings management An increase in a firm's profitability corresponds to a corresponding rise in the likelihood that the firm will engage in EM. The findings of this study align with those of research conducted by Hamzah et al. (2021) and Guna and Herawaty (2010). The greater the profit the business generates, the greater the tax liability. To circumvent this, businesses diminish their profits, reducing the amount of taxes owed.

In contrast to Velte's (2019) study, the present study reveals that the percentage change in sales (GROWTH) has no effect on earnings managements. This finding is consistent with the research conducted by Savitri (2014) and Melinda and Widyasari (2019), which suggests that companies do not consider it necessary to inflate sales figures to improve their performance outcomes. There exists a negative correlation between sales growth and managerial motivation to engage in earnings management. Furthermore, independent members of supervisory committees (IND) influence real earnings management. The independent members are notably inversely associated with accrual earnings management and positively associated with real earnings management. Greater representation of impartial members on the supervisory board increases the probability that managers' earnings management practices can be averted. However, the converse may also transpire as the number of independent members in the company increases, and the monitoring process may become disrupted, leading to diminished communication effectiveness. This result may also result from inefficient decision-making in companies with a significant number of independent members and the independent members' lack of expertise. The correlation between IND and real earnings management, which is positive, is consistent with the findings of Hashim and Devi (2008). MB, BIGFOUR, LEV, BETA, and EXP have no effect on AEM and REM. This result suggests that when conducting earnings management, the company disregards the market-to-book equity ratio (MB), the audit firm (BIGFOUR), leverage (LEV), beta factor (BETA), and financial specialists on the supervisory board (EXP).

Bidirectional Relationship Analysis

Bidirectional relationship analysis is a valuable methodology used in research to reveal the interdependent and combined effects of variables. Bidirectional analysis acknowledges the fluid nature of connections, considering the reciprocal influence that modifications in one variable can have on the others. The scholarly literature posits that ESG performance may not be predetermined by earnings management but instead emerges consequently. With differing levels of achievement, several scholars have examined the correlation between earnings management and ESG performance factors (Choi et al., 2013; Grougiou et al., 2014; Martínez-Ferrero et al., 2016; Martínez-Ferrero, Garcia-Sánchez, et al., 2015; Martínez-Ferrero & García-Sánchez, 2015). In line with Hypothesis 2, this study has conducted a regression analysis to investigate the relationship between ESG performance and earnings management.

The authors of this study made minor modifications to equations 3 and 4, which changed the dependent and independent variables. The results of additional analysis are presented in Table 6. The study found that accrual earnings management has a strong positive correlation with ESG performance, while real earnings management has a negative correlation. The positive correlation between accrual earnings management and ESG performance can be explained by the pressure on managers in Southeast Asia firms to perform well both in the short and long term. Emphasizing short-term goals can increase the likelihood of achieving long-term goals. This is in line with what the Agency Theory (Jensen & Meckling, 1976) postulated for the past four decades. Different from

Table 6 Bidirectional relationship analysis

Variables	ESGP (AEM)		ESGP (REM)	
	Coefficient	*p*	Coefficient	*p*
AEM	14.428	.043**		
REM			-19.101	.010*
SIZE	2.983	.091*	3.109	.073*
MB	-2.043	.000***	-1.984	.000***
ROA_ADJ	-8.358	9.384	2.789	.778
BIGFOUR	0.1627	.955	0.447	.881
LEVERAGE	6.2647	.210	6.149	.229
GROWTH	0.0108	.577	0.012	.532
BETA	1.3292	.496	1.572	.418
IND	24.4769	.000***	24.668	.000***
EXP	-3.9942	.114	-3.785	.133
R^2	.050		.025	
F-Test	.000		.000	
OBS	1,061		1,061	

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

accrual earnings management, which exploits loopholes in accounting standards, real earnings management has the potential to harm a firm's reputation and relationships with stakeholders and, in the end, could decrease the ESG performance. These results support the study's overall conclusions about the relationship between ESG performance and earnings management. Therefore, it can be concluded that there is an ideal reciprocal association between EM and ESG performance.

Conclusions and Recommendation

The study suggests that companies with high ESG Performance tend to engage in accrual earnings management, which can be concealed through continuous disclosure by corporations that require earnings management to mask their managers' opportunistic actions. The study reveals that there is an inverse correlation between real earnings management and ESG Performance. This implies that by giving priority to ESG issues, businesses can decrease real earnings management. Managers who disclose information regarding their company's sustainability practices and underscore their ethical dedication can reduce the likelihood of earnings management. As a result, financial reporting becomes more precise and aligns with the stakeholder theory.

The study also shows that firm size (SIZE) positively influences accrual earnings management but not real earnings management. Large corporations may face challenges in managing their profitability effectively due to increased scrutiny from stakeholders and the pressure to increase market prices. However, firm size does not affect real earnings management, likely due to the stringent oversight exerted by multiple stakeholders. The study also found that ROA_adj positively impacts earnings management, while GROWTH has no bearing on it. The presence of independent directors on boards influences both earnings management types. Interestingly, independent directors have a negative correlation with accrual earnings management but a positive correlation with real earnings management. The variables MB, BIGFOUR, LEV, BETA, and EXP do not affect both earnings management, suggesting that managers do not consider these factors when implementing earnings management.

The study also investigated the correlation between EM and ESG performance. The results suggest that AEM is significantly and positively correlated with ESG performance, while REM is negatively significant. EM and ESGP have an ideal bidirectional relationship since the outcome is identical among all four main variables.

This research did not conduct separate analyses for each industry sector, which could lead to varying perceptions of investors based on companies' ESG performance and earnings management (EM). The research also did not consider the variables that can contribute to economic growth and impact the company's performance. Therefore, further research should consider different industry characteristics and include control variables related to macroeconomics. This paper contributes to both policymakers aligning their policy about ESG regulation in their respective stock exchanges and companies relating to ESG and EM practices in Southeast Asia.

Conflict of Interest

The authors declare that there is no conflict of interest.

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