

Beyond Earnings Management and ESG Performance. The Effects of Corporate Governance Mechanisms

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Abstract. *Drawing on agency, legitimacy, and resource dependence theories, this research delves into the nexus between earnings management and environmental, social, and governance (ESG) performance within an international sample of non-financial companies. The proxy for earnings management is discretionary accruals, while ESG performance is measured both by ESG score, overall, and by the three pillars (environmental, social, and governance). Furthermore, this investigation includes several company-level characteristics as control variables. Research hypotheses are tested using a panel dataset collected from Thomson Reuters Eikon, for the time frame between 2018 and 2023. Prior to econometric modelling, data analysis is based on descriptive statistics and correlation matrix. Then, through a multilevel regression estimation, performed in STATA18, a noteworthy pattern is demonstrated, namely that earnings management techniques are associated with lower ESG performance. Notably, this relationship is positively moderated by corporate governance mechanisms, such as board independence, board diversity, and audit committee independence, which may diminish the negative link between discretionary accruals and ESG performance. From this perspective, it is found support for the agency theory, which holds that corporate governance mechanisms lessen managerial manipulation of the resources needed for sustainable performance. The main findings suggest a possible managerial tilt toward immediate profits at the expense of long-term sustainability requirements. Given these circumstances, this study expands the scientific background addressed to academics and practitioners, emphasizing the crucial need for greater awareness and accountability of sustainability, as well as a greater focus on avoiding and minimizing opportunistic management behaviors.*

Keywords: corporate governance, earnings management, environmental, social, governance, performance.

Introduction

The core of earnings management techniques could be a generating factor for principal-agent conflict because managers employ unethical and untruthful accounting practices for their own personal gain (Githaiga, 2024; Salihi et al., 2024). According to the literature, managers may misrepresent stakeholders the actual economic performance of the company due to the flexibility of financial reporting standards (Githaiga, 2024). Consequently, research raises interest in how earnings management may influence disclosure practices and non-financial performance, respectively.

Sustainability reporting is the practice of disclosing a company's social, environmental, and economic performance, that recorded a growing tendency in recent decades (Githaiga, 2024). In these circumstances, stakeholders have become more aware of the importance of activities related to environmental, social and governance (ESG) dimensions for corporate sustainability. As a result, they give more weight to non-financial information disclosure (Tsang et al., 2023; Pathak & Das Gupta, 2022). Due to the multitude of reporting guidelines and the low degree of comparability between ESG information provided by companies, it is crucial to investigate the potential credibility enhancing practices of such disclosures using internal or external mechanisms (Tsang et al., 2023). From this perspective, corporate governance mechanisms are identified, given their relevance as demonstrated by prior research (Mohapatra et al., 2025; García-Meca et al., 2024).

The purpose of this study is to fill the gap in earnings management and ESG literature, exposing novel evidence on the moderating effects exerted by corporate governance, for a panel dataset consisting of non-financial companies analyzed between 2018 and 2023. The theoretical basis of agency, legitimacy, and resource dependence perspectives is approached, while regression modelling using random-effects is performed. Results contribute to a better understanding of the extent to which corporate governance mechanisms could impact the effects of earnings management on ESG performance, overall, and divided into environmental, social, and governance pillars. These challenging topics and the debates raised according to the findings may represent a key scientific resource for academics and practitioners.

The rest of the paper is organized as follows. Literature review debates previous studies that approach similar topics, representing a basis for hypotheses design. Methodology describes the sample, variables, and empirical analysis. Results and discussions report the main findings interpreted according to existing literature, while Conclusion exposes final remarks, complemented by research limitations and future scientific directions.

Literature review and hypotheses design

Earnings management is the practice of using accounting judgment to manipulate financial reports about economic performance and to affect outputs that rely on reported accounting figures. Earnings management has been shown to negatively impact the company value and earnings quality. Hence, manipulating the reported accounting results could mislead stakeholders or influence contractual agreements (Velte, 2024; Liu et al., 2023). Due to its possible effects on the accuracy of accounting results and corporate sustainability goals, earnings management has become a focus of attention for scientific and entrepreneurial settings (Abdelbaky et al., 2024).

Corporate governance mechanisms are associated with earnings management, especially considering the agency theory, which emphasizes that best practices of corporate governance may ensure an effective board monitoring role which decreases the tendency toward opportunistic accounting practices. Moreover, corporate governance policies require equal treatment for all shareholders and disclosure of information related to economic, financial, social, and environmental factors that are pertinent to their decision-making processes (Adeneye et al., 2024; García-Meca et al., 2024).

Management opportunistic behaviors caused companies to increasingly address the concerns of external stakeholders and regulators regarding environmental, social, and governance (ESG), integrating these dimensions into the decision-making process. Nonetheless, questions have been raised about how earnings management may impact on the accuracy and reliability of ESG disclosure, because to achieve several goals, such as achieving earnings targets or concealing unfavorable information in company reports, earnings management may manipulate all reported data (Liu et al., 2023; Saleh et al., 2023).

A variety of theoretical approaches, such as agency, stakeholder, and resource dependence, are used to examine the connection between earnings management and sustainability performance. *Agency theoretical framework* contends that company would focus on encouraging socially conscious practices to guarantee higher reporting quality and lessen conflict of interest through less manipulative tactics (Mao et al., 2024; Salihi et al., 2024; Liu et al., 2023; Saleh et al., 2023). *Stakeholder theory* summarizes that company societal relationships include a variety of groups in addition to creditors and investors, and it could be difficult to satisfy these groups in the presence of information asymmetries. According to this theory, companies, in order to increase their performance, as well as to improve economic and social well-being, should concentrate on satisfying

the legitimate needs of all stakeholders, including the environment, society, and economy landscapes (Abdelbaky, et al., 2024; Adeneye et al., 2024; Saleh et al., 2023; Tsang et al., 2023; Pathak & Das Gupta, 2022). Hence, researchers argue that managers would decrease these asymmetries by releasing more high-quality information and reporting. Muchmore, given that the main responsibility of the board of directors is to provide resources for company, *resource dependence theory* may be outlined, based on the fact that a higher number of independent members could expand access to resources (Abdelbaky et al., 2024; Halliman & Dalziel, 2003). This perspective is complemented by the key role that gender diversity plays on board in building strong external connections and improving competitive advantages (Adeneye et al., 2024; Salihi et al., 2024).

Thus, earnings management as a tough scientific topic, has different approaches in the literature, considering ESG disclosure and performance (García-Meca et al., 2024; Mao et al., 2024; Liu et al., 2023; Saleh et al., 2023), or corporate social responsibility (Velte, 2024; Kim et al., 2012).

Scientific literature extends the analysis with specific characteristics that may relate to corporate governance mechanisms. For example, Liu et al. (2023) consider the moderating effects of the managerial ownership, given that it may reduce agency problems bringing managers' and stakeholders' interests into alignment. Therefore, the alignment effect is expected to reduce opportunistic managerial behavior, improve long-term corporate performance, and encourage owners and managers to make more voluntary disclosures.

Adeneye et al. (2024) examine the moderating effects of corporate governance mechanisms and expose that gender diversity has a significant contribution to attenuating the negative effects exerted by earnings management on ESG performance. Gender diversity is also considered by Salihi et al. (2024), who outline that this mechanism makes companies more effective in restraining earnings management.

Abdelbaky et al. (2024) study the relationship between earnings management and ESG performance, considering board independence as one of the control variables. Their findings highlight that board independence has a positive and significant influence on overall ESG performance and governance pillar. Mohapatra et al. (2025) approach the moderating effects of CEO duality on the ESG performance-earnings management relationship, demonstrating that CEO duality acts as a buffer against possible greenwashing by moderating this connection.

Accordingly, the research hypotheses, designed to test to what extent earnings management influences ESG performance, and if this relationship is moderated by corporate governance mechanisms, are asserted as follows.

RH1. Companies that are engaged in earnings management techniques have lower ESG performance.

RH2. The relationship between earnings management and ESG performance is moderated by corporate governance mechanisms.

Methodology

This section covers data collection and processing, research variables and their measurement, complemented by insights into the empirical approach performed to test the research hypotheses.

Data collection and sample

This research is based on a longitudinal empirical design, using a panel data estimation method to evaluate how company-level variables change over time. Panel data structure implies both

companies and time series (the analyzed time frame). Secondary data is collected from Thomson Reuters Eikon, for the period between 2018 and 2023.

From the initial sample are dropped companies with missing data for financial and non-financial variables, together with extreme data for earnings management variable (discretionary accruals). Similar to Mohapatra et al. (2025), Abdelbaky et al. (2024), Salihi et al. (2024), and Saleh et al. (2023), companies whose main activity is carried out in the financial field are eliminated, given their specific disclosure and corporate governance regulations, as well as accounting policies and practices. Thus, the final dataset consists of 35233 observations for 8970 unique companies.

Variables measurement

Table 1 presents the research variables. In line with prior literature (Adeneye et al., 2024; Saleh et al., 2023; Pathak & Das Gupta, 2022;), discretionary accruals represent a proxy for earnings management, estimated as follows, according to the model developed by Kothari et al. (2005):

$$DA_{it}/A_{it-1} = \alpha_0 + \alpha_1(1/A_{it-1}) + \alpha_2[(\Delta REV_{it} - \Delta TR_{it})/A_{it-1}] + \alpha_3(PPE_{it}/A_{it-1}) + \alpha_4ROA_{it}/A_{it-1} + \varepsilon_{it},$$

where α_0 is the constant, DA_{it} is computed as net income minus operating cash flow, the change in revenues is represented by ΔREV_{it} , while ΔTR_{it} is the change in receivables for the company y in period t . PPE is property, plant, and equipment (net value), ROA corresponds to the return on assets in year t , and the error term is ε_{it} . To prevent heteroskedasticity in the error term, all variables in this model are scaled by the lagged value of total assets (A_{it-1}).

Table 1. Research variables

Code	Variable name	Details
<i>Dependent variables</i>		
ESG_SCORE	ESG Score	Total company score resulting from reported data in the environmental, social and corporate governance pillars
ENV_PILLAR	Environmental Pillar Score	How effectively a company employs best management practices to take advantage of environmental opportunities
SOC_PILLAR	Social Pillar Score	The ability of a company to foster loyalty and trust among its customers, employees, and society
GOV_PILLAR	Governance Pillar Score	The ability of a company to manage its rights and obligations in order to produce long-term value for shareholders
<i>Independent and moderating variables</i>		
DA	Discretionary Accruals	Estimated in line with Kothari et al. (2005) model
BOARD_SIZE	Board Size	Total number of board members
BOARD_INDEPENDENCE	Board Independence	Percentage of independent members on the board
BOARD_DIVERSITY	Board Gender Diversity	Percentage of women members on the board
AC_INDEPENDENCE	Audit Committee Independence	Percentage of independent members on the Audit Committee
<i>Control variables</i>		
PROFITABILITY	Profitability	EBIT / Total assets
COMPANY_SIZE	Company Size	Natural logarithm of total assets
LEV	Financial Leverage	Total liabilities / Total assets
LOSS	Profit or Loss	Equals 1 for positive net income and 0 otherwise

Source: Author's own research after data collection.

Corporate governance and control variables are included in line with previous literature (Abdelbaky et al., 2024; Pathak & Das Gupta, 2022; Alipour et al., 2019), being considered as determinants of ESG performance. The measures are represented by corporate governance mechanisms (BOARD_SIZE, BOARD_INDEPENDENCE, BOARD_DIVERSITY, AC_INDEPENDENCE), as well as by financial information at the company-level (PROFITABILITY, COMPANY_SIZE, LEV, and LOSS).

Empirical model

The research hypotheses are tested through two regression equations. The first one reflects the relationship between earnings management and ESG performance, considering both corporate governance mechanisms and control variables.

$$ESG_PERF_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 BOARD_SIZE_{it} + \beta_3 BOARD_INDEPENDENCE_{it} + \beta_4 BOARD_DIVERSITY_{it} + \beta_5 AC_INDEPENDENCE_{it} + \beta_6 PROFITABILITY_{it} + \beta_7 COMPANY_SIZE_{it} + \beta_8 LEV_{it} + \beta_9 LOSS_{it} + \mu_{it} + \varepsilon_{it},$$

where ESG_PERF_{it} is successively replaced with ESG score, environmental, social, and governance pillars, β_0 is the constant, i is the company, while the period analyzed is represented by t . Fixed effects for year and industry are reflected in μ_{it} , while ε_{it} is the error term.

The second equation is extended with the interaction between earnings management (DA) and corporate governance mechanisms to examine the moderating effects of board size, board independence, board diversity, and audit committee independence.

$$ESG_PERF_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 BOARD_SIZE_{it} + \beta_3 DA_{it} * BOARD_SIZE_{it} + \beta_4 BOARD_INDEPENDENCE_{it} + \beta_5 DA_{it} * BOARD_INDEPENDENCE_{it} + \beta_6 BOARD_DIVERSITY_{it} + \beta_7 DA_{it} * BOARD_DIVERSITY_{it} + \beta_8 AC_INDEPENDENCE_{it} + \beta_9 DA_{it} * AC_INDEPENDENCE_{it} + \beta_{10} PROFITABILITY_{it} + \beta_{11} COMPANY_SIZE_{it} + \beta_{12} LEV_{it} + \beta_{13} LOSS_{it} + \mu_{it} + \varepsilon_{it}.$$

Results and discussions

This section presents the results of the analysis conducted, including the main statistical indicators (Table 2), correlation matrix (Table 3), regression models (Table 4, Table 5), and robustness checks (Table 6).

Descriptive and correlation analysis

Table 2 displays descriptive statistics for ESG scores, earnings management, corporate governance mechanisms, and control variables. The maximum value for ESG scores is about 100, while the mean values are 46.248 for overall ESG score, 38.428 for environmental pillar (ENV_PILLAR), 47.579 for social pillar (SOC_PILLAR), and 50.965 for governance pillar (GOV_PILLAR). These results are comparable to those of Adeneye et al. (2024) and Pathak and Das Gupta (2022). The environmental pillar score is the lowest of the ESG pillars, suggesting that companies in the sample have performed below average in terms of managing environmental issues and upholding corporate environmental policy agendas. Furthermore, for sampled companies, the mean value of discretionary accruals (DA) is close to zero, with minimum and maximum values of -0.441 and 0.325 respectively. These values are comparable with those of Abdelbaky et al. (2024) and emphasize that companies generally have a lower propensity to use earnings management

techniques. Average values for board characteristics suggest that there are 9 directors on the board, about 60% independent, and about 22% women board members, while in the audit committee the average percentage of independent members is about 84%.

Table 2. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
ESG_SCORE	35233	46.248	20.268	0.352	99.582
ENV_PILLAR	35233	38.428	27.496	0	99.144
SOC_PILLAR	35233	47.579	23.597	0.203	98.779
GOV_PILLAR	35233	50.965	22.214	0.536	99.448
DA	35233	-0.04	0.096	-0.441	0.325
BOARD_SIZE	35233	8.996	2.974	1	138
BOARD_INDEPENDENCE	35233	60.378	23.45	0	100
BOARD_DIVERSITY	35233	22.231	14.326	0	100
AC_INDEPENDENCE	35233	84.376	24.492	0	100
PROFITABILITY	35233	0.05	0.159	-9.55	3.729
COMPANY_SIZE	35233	21.373	1.766	14.402	28.795
LEV	35233	0.555	0.295	-0.123	16.738
LOSS	35233	0.771	0.42	0	1

Source: Author's own research.

Table 3 summarizes the results of parametric correlation (Pearson), and outlines that environmental, social, and governance pillars are significantly positive associated with ESG score. This does not represent a multicollinearity concern, given that ESG score (Liu et al., 2023) and the three pillars are analyzed individually as dependent variables (Abdelbaky et al., 2024; Adeneye et al., 2024; Pathak & Das Gupta, 2022). All corporate governance mechanisms are positively and significantly associated with ESG score and ESG pillars, except for the negative association found between board independence and environmental pillar. Interpreting these findings suggests that best practices of corporate governance will strengthen sustainability practices that lead to achievement of the stakeholders' interests (Mohapatra et al., 2025; Mao et al., 2024).

Table 3. Correlation matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. ESG_SCORE	1.0000						
2. ENV_PILLAR	0.8690**	1.0000					
3. SOC_PILLAR	0.8997**	0.7392**	1.0000				
4. GOV_PILLAR	0.6758**	0.4060**	0.4011**	1.0000			
5. DA	0.0099	0.0270**	-0.0059	0.0097	1.0000		
6. BOARD_SIZE	0.3313**	0.3532**	0.3140**	0.1320**	0.0043	1.0000	
7. BOARD_INDEPENDENCE	0.1509**	-0.0239**	0.1295**	0.2775**	-0.0934**	-0.0933**	1.0000
8. BOARD_DIVERSITY	0.2907**	0.1887**	0.2651**	0.2610**	-0.0026	0.0668**	0.2896**
9. AC_INDEPENDENCE	0.1237**	0.0011	0.0959**	0.2201**	-0.0638**	-0.0333**	0.6068**
10. PROFITABILITY	0.1730**	0.1983**	0.1240**	0.1293**	0.2222**	0.0876**	-0.0662**
11. COMPANY_SIZE	0.5397**	0.5797**	0.4602**	0.3041**	-0.0206**	0.4684**	0.0073
12. LEV	0.1102**	0.1154**	0.1047**	0.0494**	-0.0642**	0.1061**	0.0409**
13. LOSS	0.1820**	0.2151**	0.1275**	0.1397**	0.3338**	0.1186**	-0.1118**
Variable							
8. BOARD_DIVERSITY	1.0000						
9. AC_INDEPENDENCE	0.0924**	1.0000					
10. PROFITABILITY	0.0233**	-0.0372**	1.0000				

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. ESG_SCORE	1.0000						
2. ENV_PILLAR	0.8690**	1.0000					
3. SOC_PILLAR	0.8997**	0.7392**	1.0000				
4. GOV_PILLAR	0.6758**	0.4060**	0.4011**	1.0000			
11. COMPANY_SIZE	0.0560**	0.0116**	0.2105**	1.0000			
12. LEV	0.0632**	0.0053	-0.1253**	0.2119**	1.0000		
13. LOSS	0.0121**	-0.0603**	0.4837**	0.2338**	-0.0962**	1.0000	

** p<0.05

Source: Author's own research.

Financial leverage (LEV) has a positive association with ESG score and ESG pillars, highlighting that if companies implement ESG practices, they have lower debt financing costs and have a greater chance of being able to take on debt.

Regression results

The influence of discretionary accruals on ESG performance validates the first research hypothesis (*RH1. Companies that are engaged in earnings management techniques have lower ESG performance*), being comparable to prior literature (Adeneye et al., 2024; Habib, 2024; Liu et al., 2023). The results of the multivariate relationship between earnings management (DA) and ESG performance are exposed in Table 4. To identify the appropriate model between fixed and random effects, Hausman test is performed. The random-effects model is identified as suitable, given that this model allows for numerous dummies and time-invariant variables. The negative influence exerted by earnings management on ESG, environmental, and social scores emphasizes that companies engaged in using earnings management techniques to alter financial reports record lower ESG performance. Therefore, socially responsible behavior is not encouraged by managers' indulgence in earnings management activities. According to Liu et al. (2023), this perspective indicates that companies with fewer ESG performance are more susceptible to practice earnings manipulation. These results support the assumption of the agency theory that shareholders' goals are impacted by agency conflicts that arise from managers' opportunistic actions.

Table 4. Regression analysis for the relationship between earnings management and ESG performance

Variables	Dependent variables			
	(1) ESG	(2) ENV PILLAR	(3) SOC PILLAR	(4) GOV PILLAR
DA	-0.0984 (-0.1680)	-0.2357 (-0.2902)	-0.2916 (-0.3970)	0.7660 (0.8526)
BOARD_SIZE	0.0952*** (3.6187)	0.1893*** (5.2025)	0.1913*** (5.7979)	-0.1148*** (-2.9126)
BOARD_INDEPENDENCE	0.0904*** (18.9380)	-0.0056 (-0.8618)	0.0461*** (7.7089)	0.2193*** (31.9608)
BOARD_DIVERSITY	0.1481*** (25.8353)	0.1097*** (13.8846)	0.0999*** (13.9113)	0.2540*** (30.1958)
AC_INDEPENDENCE	0.0449*** (11.1614)	0.0069 (1.2545)	0.0266*** (5.2801)	0.1027*** (17.5098)
PROFITABILITY	1.3429*** (2.6939)	1.2028* (1.7546)	0.9749 (1.5608)	2.6984*** (3.7314)
COMPANY_SIZE	5.2286*** (62.9253)	7.3693*** (65.8248)	5.3763*** (51.7708)	3.2646*** (30.4596)

Variables	Dependent variables			
	(1) ESG	(2) ENV PILLAR	(3) SOC PILLAR	(4) GOV PILLAR
LEV	0.2927 (0.9581)	1.0665** (2.5500)	0.4164 (1.0882)	-0.4244 (-0.9866)
LOSS	0.5479*** (3.9882)	0.4747** (2.4886)	0.4862*** (2.8213)	1.1279*** (5.3168)
Constant	-86.6903*** (-29.7948)	-138.0156*** (-35.5704)	-79.7986*** (-21.9733)	-50.9077*** (-14.3179)
Observations	35233	35233	35233	35233
Year fixed-effects	Yes	Yes	Yes	Yes
Industry fixed-effects	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1

Source: Author's own research.

Board size and diversity have a significant influence on ESG performance at 0.05 level. Hence, companies with larger boards and where the percentage of women members increases will have higher ESG scores. These findings are in line with resource dependence theory, which asserts that company uses resource provision capabilities of the board of directors to plan and carry out sustainability-related initiatives and practices that meet objectives of stakeholders. This outlook is supported by prior findings (Adeneye et al., 2024; Githaiga, 2024; Salihi et al., 2024) that demonstrate the positive impact of women directors on sustainability practices. Pathak and Das Gupta (2022) expose similar insights related to the influence of board size. The same impact is exerted by the number of independent members on board (BOARD_INDEPENDENCE) and on the audit committee (AC_INDEPENDENCE), except on the environmental pillar. These findings indicate that strong corporate governance mechanisms may increase sustainability performance by increasing ESG scores. Similar findings are exposed by Abdelbaky et al. (2024) and Adeneye et al. (2024), for the influence of board independence.

Table 5 shows the results for further analysis on the impact of earnings management on ESG score and individual ESG pillars, considering the moderating effects of corporate governance. The aim is to determine whether corporate governance mechanisms would mitigate the adverse effects of earnings management on governance, social, and environmental (ESG) performance.

When board size moderates (DA*BOARD_SIZE), the coefficients are negative and statistically significant at 0.1 level for the influence exerted on ESG score, social, and governance pillars. Thus, in companies with a higher number of board members, ESG performance decreases due to the use of earnings management techniques. Positive coefficients may be highlighted when board diversity (DA*BOARD_DIVERSITY) moderates, while for the effect of board independence (BOARD_INDEPENDENCE), the influence exerted on the governance pillar is negative, suggesting that on boards with higher number of independent members, when earnings management techniques are applied, ESG performance will have a lower tendency. When audit committee independence moderates (DA*AC_INDEPENDENCE), the coefficient is positive and statistically significant at 0.05 level for the influence exerted on governance pillar. All these findings are comparable with those of Adeneye et al. (2024). Moreover, resource dependence theory is stayed by the fact that knowledge and resources provided by independent directors on the audit committee improve ESG performance in the sampled companies. Thus, the second research hypothesis (RH2. *The relationship between earnings management and ESG performance is moderated by corporate governance mechanisms*) is empirically supported.

Table 5. Regression analysis for the moderating effects of corporate governance in the relationship between earnings management and ESG performance

Variables	Dependent variables			
	(1) ESG	(2) ENV PILLAR	(3) SOC PILLAR	(4) GOV PILLAR
DA	-1.6816 (-0.6431)	-3.7132 (-1.0233)	0.0289 (0.0088)	-1.9062 (-0.4736)
BOARD_SIZE	0.0981*** (3.7238)	0.1910*** (5.2440)	0.1944*** (5.8838)	-0.1112*** (-2.8192)
DA* BOARD_SIZE	-0.3747* (-1.9359)	-0.1918 (-0.7137)	-0.4194* (-1.7272)	-0.5303* (-1.7773)
BOARD_INDEPENDENCE	0.0904*** (18.9458)	-0.0055 (-0.8446)	0.0462*** (7.7200)	0.2192*** (31.9553)
DA*BOARD_INDEPENDENCE	0.0109 (0.3702)	0.0409 (0.9969)	0.0281 (0.7583)	-0.0319 (-0.7028)
BOARD_DIVERSITY	0.1482*** (25.8326)	0.1097*** (13.8730)	0.1003*** (13.9502)	0.2538*** (30.1326)
DA*BOARD_DIVERSITY	0.0444 (1.2008)	0.0099 (0.1932)	0.0716 (1.5439)	0.0146 (0.2571)
AC_INDEPENDENCE	0.0449*** (11.1610)	0.0069 (1.2455)	0.0266*** (5.2796)	0.1026*** (17.4945)
DA*AC_INDEPENDENCE	0.0355 (1.2764)	0.0268 (0.6944)	-0.0013 (-0.0364)	0.1011** (2.3631)
PROFITABILITY	1.3443*** (2.6967)	1.2037* (1.7558)	0.9851 (1.5771)	2.6831*** (3.7104)
COMPANY_SIZE	5.2216*** (62.8174)	7.3637*** (65.7497)	5.3708*** (51.6923)	3.2545*** (30.3498)
LEV	0.2971 (0.9724)	1.0622** (2.5393)	0.4246 (1.1095)	-0.4230 (-0.9833)
LOSS	0.5480*** (3.9856)	0.4711** (2.4678)	0.4826*** (2.7983)	1.1369*** (5.3555)
Constant	-86.6071*** (-29.7687)	-137.9490*** (-35.5579)	-79.7553*** (-21.9599)	-50.7380*** (-14.2699)
Observations	35233	35233	35233	35233
Year fixed-effects	Yes	Yes	Yes	Yes
Industry fixed-effects	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1

Source: Author's own research.

Related to the control variables, it is outlined that the coefficients for COMPANY_SIZE and LOSS are statistically significant in all four models. The overall results portray that earnings management-ESG performance relationship is moderated by corporate governance, reflecting that corporate governance mechanisms may conceal opportunistic management behavior and impact ESG performance.

Robustness checks

The robustness of the results is examined by considering the absolute values of discretionary accruals (DA_ABS) as proxy for earnings management, as well as considering country fixed-effects, given the international sample analyzed. Thus, the four models exposed in Table 4, used to test RH1, are re-estimated for the overall sample. The complementary findings summarized in Table 6 provide empirical support for the initial ones.

**Table 6. Robustness checks for the relationship
between earnings management and ESG performance**

Variables	Dependent variables			
	(1) ESG	(2) ENV PILLAR	(3) SOC PILLAR	(4) GOV PILLAR
DA_ABS	-3.2842*** (-4.4024)	-3.8622*** (-3.7350)	-2.8220*** (-3.0315)	-3.8188*** (-3.3091)
BOARD_SIZE	0.0757*** (2.8807)	0.1700*** (4.6785)	0.1561*** (4.7634)	-0.1300*** (-3.2688)
BOARD_INDEPENDENCE	0.1305*** (25.8513)	0.0477*** (6.8606)	0.0573*** (9.1143)	0.3200*** (42.5307)
BOARD_DIVERSITY	0.1322*** (22.7613)	0.0836*** (10.4310)	0.0584*** (8.0721)	0.2876*** (33.0784)
AC_INDEPENDENCE	0.0482*** (11.8087)	0.0072 (1.2812)	0.0203*** (4.0039)	0.1251*** (20.5850)
PROFITABILITY	0.4449 (0.9257)	0.2635 (0.3987)	-0.3463 (-0.5792)	1.9427*** (2.7606)
COMPANY_SIZE	5.6398*** (67.8146)	7.6272*** (67.6513)	6.2419*** (60.6804)	3.1872*** (28.5857)
LEV	0.1353 (0.4600)	0.8586** (2.1315)	-0.1356 (-0.3712)	0.0581 (0.1387)
LOSS	0.4263*** (3.1871)	0.2893 (1.5603)	0.4477*** (2.6825)	0.8226*** (3.9807)
Constant	-88.6618*** (-27.7054)	-140.9583*** (-32.8000)	-90.8929*** (-23.0505)	-38.6499*** (-9.5152)
Observations	35233	35233	35233	35233
Year fixed-effects	Yes	Yes	Yes	Yes
Industry fixed-effects	Yes	Yes	Yes	Yes
Country fixed-effects	Yes	Yes	Yes	Yes

*** p<0.01, ** p<0.05, * p<0.1

Source: Author's own research.

The re-estimated regressions are in line with prior literature (Habib, 2024; Liu et al., 2023), highlighting the negative and, at this time, statistically significant impact of earnings management (DA_ABS) on ESG performance, overall, and for each pillar. Muchmore, in line with Adeneye et al. (2024), it may be noticed that the environmental pillar is positively and statistically significant influenced by the percentage of independent board members, compared to the results presented in Table 4. In the coefficients of the other corporate governance mechanisms, no considerable differences were observed. Therefore, the research findings are robust and may be validated.

Conclusion

Drawing on the importance of earnings management and ESG performance highlighted in previous literature (Githaiga, 2024; Pathak & Das Gupta, 2022; Kim et al., 2012), this study provides new insights for these thought-provoking topics. To high-point the originality, it may be outlined that the analysis offers noteworthy visions regarding corporate governance mechanisms as moderating variables, in accordance with perspectives of Mohapatra et al. (2025), Adeneye et al. (2024) and Liu et al. (2023).

Results are in line with agency theory, given that an ascending trend in ESG performance will lead to less information asymmetry and lower earnings management techniques, respectively (Mohapatra et al., 2025). The first research hypothesis (RH1) is validated, demonstrating that when

companies are involved in manipulation techniques, the impact on ESG, overall, and on the environmental, social and governance pillars is negative. Therefore, a higher degree of earnings management would cause mistrust among stakeholders and compromise the accountability and transparency of non-financial companies. Moreover, the support for the second research hypothesis (RH2) is confirmed when audit committee independence, board diversity, and board independence moderate the relationship between earnings management and ESG performance. Companies could reduce information asymmetries to increase their ESG performance by promoting a higher number of independent members on board and audit committee, as well as a higher number of women on board. Thus, corporate governance mechanisms endorse ethical conduct, risk aversion, and adherence to rigorous financial reporting.

This research has several scientific and practical implications. First, the investigation may represent a valuable resource for academics due to the significant implications of earnings management techniques and corporate governance mechanisms in the landscape of sustainable development. Second, encouraging ESG performance is necessary to reduce indulgence in earnings management and improve corporate performance. This fact may motivate policymakers to standardize the requirements for ESG performance in European and international markets. Third, a downward trend in earnings management techniques could solve the conflict of interest among stakeholders. Thus, in order to reduce information asymmetry and protect stakeholders' interests, management should give ESG performance a top priority.

This study has some limitations, identified as a basis for future research horizons. First, the research is conducted over an extended time frame, but there is a lack of comparison analyses between different periods or between emerging and developed economies. Future research may consider performing an in-depth analysis, complemented by comparisons, and considering recent crisis periods such as war or pandemic. Second, this research includes a limited number of corporate governance mechanisms and uses only one model to estimate discretionary accruals as a proxy for earnings management. Hence, for future approaches, it may be interesting to extend the list with more non-financial variables related to board and executive management, or regarding CSR activities, as well as including additional models to estimate proxies for earnings management. Third, this paper does not consider either country-level characteristics or measures of financial performance. This fact provides an opportunity for further research, to expand the approach with country-level and financial performance variables, to gain a comprehensive understanding of corporate governance, earnings management, and ESG performance, providing noteworthy valuable results.

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