

# Does Corporate Governance Moderate the Relationship Between Earnings Management and Financial Performance?

Andreea Madalina Bojan, Camelia Iuliana Lungu and Chirata Caraiani

Bucharest University of Economic Studies, Romania

[bojanandreea17@stud.ase.ro](mailto:bojanandreea17@stud.ase.ro)

[camelia.lungu@cig.ase.ro](mailto:camelia.lungu@cig.ase.ro)

[chirata.caraiani@cig.ase.ro](mailto:chirata.caraiani@cig.ase.ro)

**Abstract:** *Motivation:* This study aims to fill the gap in the corporate governance literature by examining the moderating role of corporate governance on earnings management and financial performance. *Idea:* The research is conducted in the light of agency and legitimacy theories, looking through how corporate governance practices moderate the relationship between earnings management and financial performance. *Data:* The database consists of an international sample of non-financial companies, for the time frame between 2020 and 2023. The data are collected from Thomson Reuters Eikon, and the analysed period responds to a thorough approach of the topic under problematic circumstances. In line with prior literature, this analysis includes several corporate governance mechanisms such as number of board meetings, board gender diversity, board size, CEO duality, independent board members, and audit committee independence. Among the control variables could be mentioned firm size, financial leverage, and profit or loss. Corporate governance is examined as a key driver in achieving financial performance, maximising the value created by companies and strengthening their connections with stakeholders. *Tools:* To test the research hypotheses, investigation is performed through frequency and descriptive statistics, parametric correlations, complemented with panel regression analysis with random effects performed in STATA 18 software. *Findings:* According to the results, there is strong evidence that financial performance is impacted by earnings management, at the corporate level. Notably, the main findings suggest that board meetings, board size, and board independence may be underlying factors in reducing the adverse effects of earnings management reflected in financial performance. Likewise, corporate governance may contribute to an effective monitoring of earnings management. Much more, the findings are in line with the agency theory, which asserts that corporate governance practices lessen managerial resource exploitation necessary for sustainable development and financial performance. *Contribution:* Relevance of the study resides in grounding a comprehensive overview in the earnings management and sustainability literature, examining corporate governance patterns. This research contributes to the debate of influence exerted by earnings management practices on financial performance extended towards a better understanding of corporate governance outcomes.

**Keywords:** Corporate Governance, Earnings Management, Financial Performance, Regression Analysis, Sustainable Development

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## 1. Introduction

The scientific environment approaches the connection between financial performance and earnings management, in the light of stakeholders' and societies' interests that may be difficult to fulfil for the reason of information asymmetries. To design a comprehensive overview, authors (Adeneye et al, 2024; Boachie & Mensah, 2022) focus on earnings management and financial performance relationship, using financial and non-financial indicators in the background of sustainable development and corporate governance. Findings regarding earnings management-financial performance relationship are mixed, but according to the literature (Akter et al, 2024; Gull et al, 2018), there may be generally perceived that corporate governance is an assembly of effective mechanisms which lead to earnings management mitigate. In these circumstances, the key role of corporate governance may be emphasised in stimulating efficiency and transparency, safeguarding the wealth of minority shareholders, guaranteeing equitable treatment for all shareholders, and enabling the prompt and accurate disclosure of all relevant information (Nguyen, Kim & Ali, 2024).

This paper undertakes a cross-sectional study on the relationship between earnings management and financial performance, within non-financial European companies, using a random effects regression modelling approach for the time frame between 2020 and 2023. Originality may be highlighted based on corporate governance mechanisms analysed as moderating variables. This research contributes to the body of knowledge in the literature, complemented with a theoretical framework, drawing attention to a challenging topic. In this study, the theoretical background is covered by agency and legitimacy theory, to offer a complete understanding of how corporate governance may affect earnings management. This is especially crucial considering the regulatory and sociodemographic diversity of the sample, where a multi-theoretical approach may be able to explain the findings regarding the correlation between earnings management and corporate governance.

The rest of the paper is organised as follows. Section 2 covers the review of the scientific literature and hypotheses development. Section 3 presents research methodology, based on an extended presentation of secondary data collection, processing, and research techniques. Section 4 debates the results in the context of prior scientific literature, while Section 5 discusses the implications of the findings, complemented with limitations and future research horizons.

## **2. Literature Review and Research Hypotheses**

Corporate governance is designed to balance the interests of shareholders with self-interests of managers. The main frameworks that shareholders rely on are covered by legal systems, board characteristics, and subcommittees such as risk, audit, remuneration, and nomination committees. These are considered among the best corporate governance practices, understood as crucial tools that guarantee a satisfactory return on shareholders' investment, reducing agency issues brought about by the separation of ownership and control (Boachie & Mensah, 2022). According to the literature (Akter et al, 2024; Adeneye et al, 2024), earnings management may be used to manipulate financial reports to deceive stakeholders about the company's performance or for contractual agreements. Earnings management also presents a positive financial and economic picture of the reports prepared and disclosed by companies. However, they may lower the quality level of profit information in financial statements, as result of opportunistic short-term strategies. Corporate governance mechanisms are primarily thought to be a useful strategy for reducing earnings management. Furthermore, it is considered that institutional ownership, board of directors and CEO characteristics may influence performance and effectiveness of the company (Nguyen, Kim & Ali, 2024; El Diri et al, 2020). The rationale is to improve company performance, increase investors' confidence, and decrease opportunistic management behaviour associated with earnings manipulation (Boachie & Mensah, 2022).

According to the agency theory, corporate governance reduces information asymmetry among investors and management, improving corporate information transparency (Nguyen, Kim & Ali, 2024). An underdeveloped corporate governance framework may enable the manipulation of reported earnings with the aim of fulfilling performance objectives and obtaining compensation, which are contingent on the company's achievements (Hong et al, 2023). Likewise, effective corporate governance mechanisms should result in greater transparency in financial reporting. Earnings management avoidance may lessen information asymmetry between management and shareholders, leading to the agency conflicts decreasing (Boachie & Mensah, 2022). The legitimacy theory holds that an organisation's activity is given by the society in which it functions through an implicit contract, necessitating that the organisation behaves in a way that satisfies social expectations.

Prior research examines the question of whether corporate governance influences earnings management, and there are mixed results related to this long-discussed topic in the literature. Thus, Bekiris & Doukakis (2011) highlight that studies examine specific corporate governance mechanisms, such as audit committee characteristics or board structure, to identify the influence exerted by these mechanisms on earnings management practices. Kjærland et al (2020) emphasise that between the percentage of independent board members and earnings management there is a positive and statistically significant relationship, while Aleqab & Ighnaim (2021) present that board independence has a negative and statistically significant impact on earnings management.

Moreover, the influence of the audit committee is studied by Almarayeh, Abdullatif & Aibar-Guzman (2021), Mollik et al (2020) and Feng & Huang (2020), who identify that audit committee independence is significantly correlated with lower levels of earnings management. Kjærland et al (2020) demonstrate that the audit committee negatively impacts the occurrence of earnings management. Feng & Huang (2020) focus on board size, suggesting that a larger board size could limit earnings management behaviour of top managers in companies with high levels of earnings management.

Characteristics of the board, as CEO duality, are essential in the mitigation of earnings management, as highlighted by Bouaziz, Salhi & Jarboui (2019), while El Diri, Lambrinouidakis & Alhadab (2020) find that in non-concentrated markets (less competitive, characterised by a higher propensity to employ techniques that inflate their earnings) board attributes are more successful in reducing earnings management than in concentrated markets. Gull et al (2018) analysing French listed companies, for 2001 to 2010, suggest that female directors discourage managing earnings. The findings are in line with those obtained by Mnif & Cherif (2020), who present that the level of earnings management is reduced by female board participation. Moreover, these statements are supported by Zalata et al (2021), who demonstrate that having female directors with relevant financial background increases the quality of earnings.

Likewise, the scientific literature considers ownership structure as a key corporate governance mechanism. For example, Han, Ding & Zhang (2022) draw attention on the connection between foreign ownership and earnings management, considering that foreign investors are crucial in discouraging managers in developing markets from acting opportunistically, while Akter et al (2024) analyse board diversity as a moderating variable in the relationship between earnings management and ownership structure. Their main results show that ownership concentration and managerial ownership have a significant interaction with board diversity, suggesting that board diversity decreases real earnings management.

Muchmore, the topic of earnings management is approached in connection with corporate sustainable development. Chakroun & Amar (2021) study financial performance and earnings management, considering the moderating effect of corporate social responsibility (CSR). The authors show that financial performance is significantly and negatively impacted by earnings management, whereas governance does, in fact, positively moderate the detrimental effects of earnings management on financial performance.

Adeneye et al (2024) approach the moderating effect of corporate governance mechanisms in the light of earnings management connected with non-financial performance. Authors study the role of corporate governance in the relationship between earnings management and environmental, social and governance (ESG) performance. The analysis is performed for the period 2016-2020, with the sample consisting of UK listed companies. Their main findings emphasise that performance is lowered by earnings management, because businesses have poorer ESG performance as earnings management levels rise. Notably, board gender diversity is more significant and successful in reducing the detrimental effects of earnings management on ESG performance. Therefore, getting more women involved on board is relevant to advance ESG performance. Additionally, the effect exerted by earnings management on ESG performance is not significantly mitigated by the number of independent board members, board size and the independent members in the audit committee.

High-quality corporate governance research is also considered in the relationship between earnings management and financial performance. Thus, outcomes presented by Boachie & Mensah (2022) validate the agency theory's prediction about the effective monitoring impact of adhering to best-practice internal governance systems in limiting companies' earnings management practices and consequently improving their performance. The authors use return on assets as measure of financial performance and their research shows that corporate governance mechanisms, analysed within a cohesive framework, together with information disclosure, are successful in limiting companies' earnings management practices, which, in turn, improves firm performance.

Based on this review and considering the variables analysed in prior studies, the research hypotheses are asserted. The first (RH1) is the baseline research hypothesis, highlighting the influence exerted by earnings management on the financial performance accounting measure (ROA). Then, RH2, RH3, and RH4 emphasise the relationship between financial performance and earnings management, considering the moderating effects of corporate governance mechanisms. Hence, hypotheses are presented as follows:

*RH1.* Earnings management is negatively associated with financial performance.

*RH2.* Number of board meetings moderates the relationship between earnings management and financial performance.

*RH3.* Board size moderates the relationship between earnings management and financial performance.

*RH4.* Board independence moderates the relationship between earnings management and financial performance.

### **3. Research Methodology**

This research aims to analyse the influence exerted by earnings management on financial performance, considering the moderating effects of corporate governance mechanisms represented by the characteristics of the board and audit committee. Furthermore, in the analysis, control variables are included to reflect a comprehensive overview of companies' activities.

#### **3.1 Data Collection and Sample**

This study is based on a longitudinal research design, which investigates the changes in the variables of the companies over time, as indicated by the requirement of the panel data structure both for time series (sample time frame) and cross-sectional units (companies). In the analysis, the panel data estimation technique is used. Secondary data collection and processing is performed in *Microsoft Excel*, while for statistical analysis and

regression estimation, STATA18 software is used. The data source at the company level, both for financial and non-financial information, is represented by Thomson Reuters Eikon database. The sample is constructed for the period between 2020 and 2023. The initial dataset consists of 32,727 observations for 11,733 unique companies. Then, the observations with missing data for financial indicators and corporate governance mechanisms (10,350) are dropped. Similar, non-European (18,424) and then companies which carry out activities in financial business field (728) are eliminated. Thus, the final sample consists of 3,225 observations from 1,160 companies.

### 3.2 Variables Measurement

Figure 1 summarises the description for all variables included in the analysis, complemented with measurement details. The measure of financial performance is an accounting base indicator, return on assets (ROA), representing the *dependent variable*, selected in accordance with prior literature which focuses on corporate governance topic (Boachie & Mensah, 2022).

Variable	Name	Measurement
<i>Dependent variable</i>		
ROA	Return on Assets	Net Income After Taxes divided by Total Assets
<i>Independent and moderating variables</i>		
DA	Discretionary Accruals	Estimated based on Kothari et al (2005) model
BOARD_MEETINGS	Board Meetings	Total number of board meetings in a year
BOARD_SIZE	Board Size	Total number of board members at the end of reporting period
BOARD_DIVERSITY	Board Gender Diversity	Percentage of women in the board
BOARD_INDEPENDENCE	Board Independence	Percentage of independent board members at the end of reporting period
CEO_DUALITY	CEO Chairman Duality	Equals 1 if the CEO is also the chairman of the board and 0
AC_INDEPENDENCE	Audit Committee Independence	Percentage of independent members in the audit committee
<i>Control variables</i>		
COMPANY_SIZE	Company Size	Natural logarithm of total assets
LEV	Financial Leverage	Total liabilities divided by total assets
LN_EMPLOYEES	Number of Employees	Natural logarithm of total employees
LOSS	Loss	Equals 1 if company have positive net income and 0 otherwise

**Figure 1: Variables measurement**

The *independent variable* of interest for this study is discretionary accruals (DA), a measure for earnings management, estimated in accordance with prior research, based on the Kothari, Leone & Wasley (2005) model (Adeneye et al, 2024; Almarayeh et al, 2021; Feng & Huang, 2020; Kjærland et al, 2020). Hence, for earnings management estimation, the following model is used:

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

where  $TA_{it}$  is the total accruals for company  $i$  in year  $t$ , computed as the difference between net income and operating cash flow.  $A$  represents total value of the assets in period  $t$ ,  $\Delta REV_{it}$  represents the change in revenues, while  $\Delta TR_{it}$  is measure for the change in receivables.  $PPE_{it}$  represents the net value of property, plant, and equipment in year  $t$ , and  $ROA_{it}$  is computed as net income (after taxes) divided by total assets in period  $t-1$ .

Addressing the concerns related to heteroscedasticity, the Kothari, Leone & Wasley (2005) model includes all variables scaled by lagged total assets. The residuals of the model serve as an earnings management proxy for discretionary accruals. Further, the values are winsorized at 1% and 99% before being used in the regression analysis, to smooth the influence of extreme values.

Next, on the one hand, several *independent variables*, considered as potential moderators of the relationship between earnings management and financial performance, are represented by corporate governance mechanisms related to board and audit committee characteristics, collected from Thomson Reuters Eikon database, and selected according to previous research conducted by Nguyen, Kim & Ali (2024); Adeneye et al (2024); Mnif & Cherif (2020); Mollik et al (2020); Kjærland et al (2020); Gull et al (2018). Based on the results of the econometric analysis, number of board meetings, board size, and board independence are chosen as *moderating variables* used to address the interaction between board characteristics and earnings management (DA), to identify the moderating effects of corporate governance in the relationship between financial performance and the tendency of companies to apply earnings management techniques.

Moreover, the analysis includes a list of *control variables* that have consistently been identified as determinants of financial performance in previous research. Hence, this study includes two measures for company size (natural logarithmic values for total assets and total employees), financial leverage, and a dummy variable that reflects whether companies reported positive or negative net income (LOSS). The variables' list is adapted in line with

Nguyen, Kim & Ali (2024); Adeneye et al (2024); Boachie & Mensah (2022); Han, Ding & Zhang (2022); Gull et al (2018).

### 3.3 Regression Models

Prior to test the research hypotheses on the relationship between earnings management and financial performance, with the moderating effects of corporate governance, Hausman test is performed, in order to choose between fixed-effects and random-effects regression estimation. Results show that random-effects model is more suitable, since it reduces the unobserved heterogeneity (Nguyen et al, 2024; Gerged et al, 2020).

Three empirical regression models are estimated. The control model is *Model 1*, including the dependent variable related to financial performance (ROA), together with independent control variables (COMPANY\_SIZE, LEV, LN\_EMPLOYEES, LOSS) and the measure for earnings management (DA), according to the specifics presented in Figure 1. Further, the generic regression model is shown as follows:

$$ROA_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 COMPANY\_SIZE_{it} + \beta_3 LEV_{it} + \beta_4 LN\_EMPLOYEES_{it} + \beta_5 LOSS_{it} + \mu_{it} + \epsilon_{it},$$

where  $t$  represents the time frame, while  $i$  represents the company.  $\beta_0$  is the constant,  $\epsilon_{it}$  represents the error term, and  $\mu_{it}$  reflects the year and the industry fixed-effects.

To validate the relationship between financial performance and earnings management, the baseline model (*Model 2*) is estimated, which stands out through adding the corporate governance mechanisms (BOARD\_MEETINGS, BOARD\_SIZE, BOARD\_DIVERSITY, BOARD\_INDEPENDENCE, CEO\_DUALITY) and the characteristics regarding independence of the audit committee (AC\_INDEPENDENCE). Hence, the second regression model is estimated as follows:

$$ROA_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 COMPANY\_SIZE_{it} + \beta_3 LEV_{it} + \beta_4 LN\_EMPLOYEES_{it} + \beta_5 LOSS_{it} + \beta_6 BOARD\_MEETINGS_{it} + \beta_7 BOARD\_SIZE_{it} + \beta_8 BOARD\_DIVERSITY_{it} + \beta_9 BOARD\_INDEPENDENCE_{it} + \beta_{10} CEO\_DUALITY_{it} + \beta_{11} AC\_INDEPENDENCE_{it} + \mu_{it} + \epsilon_{it}.$$

Finally, the moderating effects of corporate governance mechanisms are captured in the third regression model (*Model 3*), as a result of the interaction between earnings management (DA) and BOARD\_MEETINGS, BOARD\_SIZE and BOARD\_INDEPENDENCE, estimated as follows:

$$ROA_{it} = \beta_0 + \beta_1 DA_{it} + \beta_2 COMPANY\_SIZE_{it} + \beta_3 LEV_{it} + \beta_4 LN\_EMPLOYEES_{it} + \beta_5 LOSS_{it} + \beta_6 BOARD\_MEETINGS_{it} + \beta_7 BOARD\_SIZE_{it} + \beta_8 BOARD\_DIVERSITY_{it} + \beta_9 BOARD\_INDEPENDENCE_{it} + \beta_{10} CEO\_DUALITY_{it} + \beta_{11} AC\_INDEPENDENCE_{it} + \beta_{12} BOARD\_MEETINGS_{it} * DA_{it} + \beta_{13} BOARD\_SIZE_{it} * DA_{it} + \beta_{14} BOARD\_INDEPENDENCE_{it} * DA_{it} + \mu_{it} + \epsilon_{it}.$$

## 4. Results

### 4.1 Descriptive Statistics and Correlation Analysis

Figure 2 summarises the descriptive statistics for dependent, independent and control variables, presenting results for the main statistical indicators. Board independence (BOARD\_INDEPENDENCE) stands out with an average value of 57.69, other representative values being counted for the number of board meetings (BOARD\_MEETINGS), gender diversity (BOARD\_DIVERSITY), and the percentage of independent members in the audit committee (AC\_INDEPENDENCE). Two dummy variables are included in the sample: one of them is independent (CEO\_DUALITY) and indicates if the chairman of the Board and the CEO are the same person, while the other one is a control variable (LOSS), creating a clear picture of companies' profitability, depending on their profit or loss in the reporting period. These results may allow for comparability with prior studies conducted by Adeneye et al (2024), Boachie & Mensah (2022), and Gerged et al (2020).

Variable	Obs.	Mean	Std. Dev.	Min	Max
ROA	3,265	0.0201	0.1117	-0.6818	0.2843
DA	3,251	0.0027	0.072	-0.2931	0.3362
BOARD_MEETINGS	2,921	10.644	5.1547	4.00	33.00
BOARD_SIZE	3,263	9.1848	3.9083	1.00	28.00
BOARD_DIVERSITY	3,263	32.2361	13.7616	0.00	80.00
BOARD_INDEPENDENCE	3,263	57.6853	27.6265	0.00	100
CEO_DUALITY	3,265	0.2493	0.4327	0.00	1.00
AC_INDEPENDENCE	3,000	73.1259	28.4498	0.00	100
COMPANY_SIZE	3,265	21.2819	1.9711	14.4311	27.0583
LEV	3,265	0.5911	0.2173	0.0001	3.6356
LN_EMPLOYEES	3,239	8.1644	2.0582	0.6931	13.4884
LOSS	3,265	0.781	0.4136	0.00	1.00

Figure 2: Descriptive statistics

Figure 3 provides the results for parametric coefficients (Pearson) and their significance at 0.05 level. Negative and significant correlations are identified between ROA and corporate governance mechanisms related to number of board meetings (BOARD\_MEETINGS), the percentage of independent members in board (BOARD\_INDEPENDENCE), comparable with the values exposed in existing literature (Akter et al, 2024; Gull et al, 2018).

Furthermore, a negative association is found between financial performance (ROA) and earnings management measured by discretionary accruals (DA). The negative association identified for earnings management is in accordance with results highlighted by Adeneye et al (2024), who study the influence exerted by earnings management on ESG performance. Contrary results are showed for board members' number (BOARD\_SIZE) and CEO chairman duality (CEO\_DUALITY), these variables being positive correlated with financial performance at 0.05 level.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
1. ROA	1.0000					
2. DA	-0.1628**	1.0000				
3. BOARD_MEETINGS	-0.1625**	0.0471**	1.0000			
4. BOARD_SIZE	0.0689**	-0.0288	-0.1289**	1.0000		
5. BOARD_DIVERSITY	0.0218	0.0364**	0.0141	0.2108**	1.0000	
6. BOARD_INDEPENDENCE	-0.0511**	0.0337	0.1888**	-0.1179**	0.1251**	1.0000
7. CEO_DUALITY	0.0700**	-0.0273	-0.0640**	0.1317**	0.1238**	-0.0903**
8. AC_INDEPENDENCE	-0.0222	0.0194	0.1336**	-0.0971**	0.0762**	0.7184**
9. COMPANY_SIZE	0.2664**	-0.0002	-0.1069**	0.6148**	0.2097**	0.0241
10. LEV	-0.1627**	-0.0054	-0.0294	0.1927**	0.0719**	-0.0690**
11. LN_EMPLOYEES	0.2526**	-0.1084**	-0.1801**	0.5408**	0.1837**	-0.0455**
12. LOSS	0.6800**	-0.0212	-0.1360**	0.0522**	0.0657**	-0.0069
Variables						
7. CEO_DUALITY	1.0000					
8. AC_INDEPENDENCE	0.0273	1.0000				
9. COMPANY_SIZE	0.1031**	0.0177	1.0000			
10. LEV	0.0600**	-0.0954**	0.2430**	1.0000		
11. LN_EMPLOYEES	0.1097**	-0.0518**	0.7772**	0.3325**	1.0000	
12. LOSS	0.0449**	0.0009	0.2071**	-0.0944**	0.2087**	1.0000

\*\* p<0.05

Figure 3: Correlation matrix

## 4.2 Multivariate Regression Analysis

The dataset with multilevel structures is used for testing the three research hypotheses, based on multilevel panel regression with random intercept modelling, as mentioned in Section 3.3, fixed-effects for year and industry being considered, similar with Nguyen, Kim & Ali (2024), Boachie & Mensah (2022) and Feng & Huang (2020). Model 1 presents the results for the independent and control variables, while Model 2 is complemented by corporate governance characteristics. Model 3 is further extended with interaction variables between corporate governance mechanisms and earnings management, to emphasise the moderating effects.

Figure 4 summarises the results for multivariate relationship between earnings management and financial performance, with the moderating influence of corporate governance mechanisms. DA is negatively and statistically significant at 0.05 level related to financial performance (ROA), indicating that companies strongly engaged in earnings management techniques reduce their financial performance. Thus, these findings validate the first research hypothesis (RH1). The control model (Model 1) highlights a strong and statistically significant influence of company's characteristics, such as size, number of employees, and profit or loss reported. These results are in line with prior literature conducted by (Akter et al, 2024; Nguyen, Kim & Ali, 2024), while negative influence is identified for financial leverage (LEV), in line with Boachie & Mensah (2022) and contrary to Akter et al (2024), Adeneye et al (2024) and Han, Ding & Zhang (2022).

All extended models confirm the positive and statistically significant influence at 0.01 level of control variables, except for financial leverage (LEV). Moreover, the negative impact of earnings management (DA) on financial performance is maintained in Model 2 and Model 3. Thus, RH1 is supported.

Variable	Model 1		Model 2		Model 3	
	$\beta$	t-stat	$\beta$	t-stat	$\beta$	t-stat
Dependent variable: ROA						
DA	-0.074***	(-4.472)	-0.086***	(-4.819)	-0.129*	(-1.904)
LEV	-0.129***	(-15.152)	-0.127***	(-12.924)	-0.125***	(-12.726)
COMPANY_SIZE	0.010***	(4.749)	0.011***	(4.737)	0.010***	(4.676)
LN_EMPLOYEES	0.003*	(1.680)	0.005**	(2.265)	0.005**	(2.281)
LOSS	0.116***	(36.278)	0.109***	(32.850)	0.109***	(32.897)
BOARD_MEETINGS			-0.001***	(-5.031)	-0.001***	(-4.898)
BOARD_SIZE			-0.002***	(-3.389)	-0.002***	(-3.351)
BOARD_DIVERSITY			-0.000	(-0.673)	-0.000	(-0.707)
BOARD_INDEPENDENCE			-0.000**	(-2.449)	-0.000**	(-2.480)
CEO_DUALITY			0.005	(1.294)	0.005	(1.340)
AC_INDEPENDENCE			0.000	(0.792)	0.000	(0.810)
BOARD_MEETINGS*TA					0.001	(0.171)
BOARD_SIZE*TA					0.015***	(3.047)
BOARD_INDEPENDENCE*TA					-0.001**	(-2.369)
Constant	-0.221***	(-3.959)	-0.201***	(-3.635)	-0.197***	(-3.608)
Observations	3,225		2,706		2,706	
Number of companies	1,160		1,011		1,011	
R-squared	0.5118		0.5058		0.5121	
Year fixed-effect	Yes		Yes		Yes	
Industry fixed-effect	Yes		Yes		Yes	

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$

Figure 4: Multivariate regression results

The relationship between financial performance and corporate governance characteristics is reflected through baseline regression model (Model 2), which illustrates negative influences at 0.01 level (BOARD\_MEETINGS, BOARD\_SIZE) and 0.05 level (BOARD\_INDEPENDENCE). These findings are validated by Model 3 and suggest that financial performance may decrease as the number of board meetings and board members increases. However, research results indicate that there is a lack of a statistically significant impact of the interaction between earnings management and total number of board meetings on financial performance. Hence, RH2 is not supported. The influence exerted by number of board meetings is contrary to Kjærland et al (2020), and Gull et al (2018), while the negative impact of board size is contrary to results highlighted by Adeneye et al (2024), and in line with Feng & Huang (2020).

Furthermore, according to Model 3, the regression estimation emphasises that the moderating influence of board size is significant and positive in the relationship between financial performance and earnings management, while for the interaction between earnings management (DA) and number of independent board members (BOARD\_INDEPENDENCE), the impact exerted is negative. Consequently, RH3 and RH4 are supported by the research results, indicating on the one hand, that earnings management techniques tend to be applied in companies that stand out with larger boards. On the other hand, it is suggested that a higher number of independent board members may lead to avoidance of earnings management practices, ensuring financial performance achievement. These findings are contrary to Boachie & Mensah (2022), who found that corporate governance quality has a positive influence on earnings management-financial performance relationship.

## 5. Conclusion

The role of earnings management in the relationship with financial performance is a long-discussed topic, representing a challenge in the scientific literature. These statements are emphasised by prior research conducted by Ghafran, O'Sullivan & Yasmin (2022); El Diri, Lambrinoudakis & Alhadab (2020). The originality of this research is ensured by including in the analysis corporate governance mechanisms as moderating variables in the relationship between earnings management and financial performance (number of board meetings, board size, and board independence). The theoretical framework is based on agency and legitimacy theories, reflecting that the specifics of entrepreneurial environment may be strongly influenced by the tendency to apply earnings management techniques, complemented by the adoption of several corporate governance mechanisms. Thus, the relationship between financial performance and discretionary accruals may be attributed to several board characteristics, emphasising that shareholders could be more interested in companies that encourage corporate governance quality, being involved in adopting best practices to strengthen their legitimacy in the socio-economic context.

The baseline research hypothesis is validated as a result of the negative influence exerted by earnings management on financial performance maintained in the three regression estimations. Except for financial leverage, the control variables have a positive and significant impact, highlighting that financial performance may be attributed to company size (measured based on the natural logarithms of total assets and number of

employees) and reported information regarding net income (profit/loss). The number of board meetings, board size, and board independence exert a negative and statistically significant influence, highlighting that the achievement of financial performance may be reduced if there are more board meetings in one year, as well as a larger number of members on boards. Board diversity exerts a negative, but not significant influence. Furthermore, the achievement of financial performance is not attributed to CEO duality and audit committee independence. Considering the moderating effects of corporate governance characteristics on the earnings management-financial performance relationship, the findings' summary suggests a stronger tendency to apply earnings management techniques by companies with larger boards. On the contrary, earnings management practices are slashed in companies with a higher number of independent board members.

This study contributes to the scientific literature by extending the debate on earnings management impact on financial performance, considering the moderating effects of corporate governance and controlling for companies' characteristics. Moreover, this study is a useful resource for regulators and shareholders, who may notice that designing and adopting best practices in corporate governance could be an effective decision to limit the companies' opportunistic earnings management behaviours.

One of the limitations is represented by short time frame analysis (period between 2020 and 2023), together with the scant amount of data reported for the year 2023. Moreover, another limitation may be attributed to the single variable used for financial performance measurement. Due to the limitations, future research horizons may be considered. First, an extended time frame could provide a comprehensive overview of the research topic and may allow comparison analyses between different periods, geographical areas, and industries. Second, in the analysis, complementary variables for the measurement of financial performance could be included, such as return on equity or Tobin's Q ratio. Third, by choosing samples from economies with similar background, a comparative analysis across the countries may be conducted (Akter et al, 2024). Last, but not least, an extended approach of the analysis may offer new insights considering the influence exerted by corporate governance mechanisms such as legal and political systems in the corporate disclosure and earnings management nexus (Gerged et al, 2020).

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