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The relationship between CSR and earnings management: The case of Moroccan companies listed on the Casablanca Stock Exchange

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Abstract

This study investigates the relationship between corporate social responsibility (CSR) and earnings management in Morocco, addressing the scarcity of research in African contexts and testing whether CSR-driven firms exhibit reduced financial manipulation. Using a quantitative, positivist approach, we analyze 384 firm-years observations (48 non-financial companies from 2016 to 2023) via logistic regression. Discretionary accruals (proxy for earnings management) are measured using the Kothari et al. model. Analyses were conducted in RStudio (v4.4.2). Results reveal a significant negative correlation between CSR engagement and earnings management, indicating that Moroccan CSR-focused firms prioritize transparency. Larger firms and those with concentrated ownership further reduce earnings manipulation, aligning with agency theory. These findings mirror international trends but emphasize Morocco's unique institutional dynamics. CSR serves as a disciplinary mechanism against earnings management in Morocco, reinforcing ethical governance. Neo-institutional theory explains how CSR enhances legitimacy and aligns stakeholder interests, particularly in emerging markets. Prioritizing CSR initiatives can strengthen governance frameworks, align managerial behavior with ethical standards, and attract sustainability-focused investors. Firms should embed CSR into core strategies to balance profit motives with stakeholder expectations.

Keywords: Corporate social responsibility (CSR), Discretionary accruals, Earnings management.

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1. Introduction

In response to socio-environmental demands and institutional pressures, socially responsible companies are increasingly committed to enhancing their legitimacy among stakeholders by considering all of their interests. To ensure the continuity of their operations, firms must account for the impact of their actions on the society and environment in which they operate [1].

According to Leuz, et al. [2] ethically responsible companies must *"do what is right, just, and fair"* towards society. In his view, every firm is obliged to adopt virtuous behavior in the disclosure of accounting information. Accordingly, Prior, et al. [3] assert that companies are less likely to engage in earnings management when they adopt an ethical stance through their CSR commitments. Such firms encourage their management to act with honesty and trustworthiness [4] thereby avoiding earnings management – a practice widely employed by executives – that ultimately degrades the quality of accounting information [5].

Although the literature addressing the relationship between earnings management and CSR is abundant – especially within the Anglo-Saxon context [4, 6-9] – it remains scarce in the African context, particularly within Morocco.

Several international studies have demonstrated that socially responsible firms are less inclined to engage in earnings management via accruals. This is evidenced by the study of Prior, et al. [3] in South Korea, that of Porter and Kramer [8] in the United States, the research by Bellari [10] in Spain, as well as the study by Scholtens and Kang [11] in an international setting. Nonetheless, the institutional context in Africa – and Morocco in particular, especially regarding CSR – exhibits certain divergences that may alter the relationship observed in other contexts.

Moreover, the literature clearly identifies two types of behaviors adopted by corporate executives to explain the relationship between CSR levels and earnings management. While some studies suggest that executives display an ethical attitude [4, 10, 11] others argue that these producers and users of accounting information may adopt opportunistic behavior [12, 13]. Furthermore, this relationship is examined either in terms of CSR explaining earnings management [4, 11] or, conversely, in terms of earnings management justifying CSR [12, 13].

In our case, the analysis of the relationship between CSR and earnings management leads us to ask whether firms committed to CSR are less likely to engage in earnings management in the Moroccan context. Thus, considering that every research problem is defined by a central question – and within the framework of companies listed on the Casablanca Stock Exchange – our study aims to determine to what extent Moroccan listed companies that engage in CSR rarely practice earnings management.

To answer this question, we adopt a strictly positivist approach, employing quantitative methods with the objective of testing our fundamental hypothesis: Socially responsible companies are less likely to engage in earnings management in the Moroccan context (specifically among companies listed on the Casablanca Stock Exchange). Accordingly, we have utilized statistical modeling techniques, leveraging RStudio (version 4.4.0), to uncover causal links between the variables under study. In adhering to the methodological approach of positive accounting theory [14] our study conforms to the scientific rigor expected in accounting research. The results presented in this study are based on the analysis of a sample comprising 48 Moroccan companies listed on the Casablanca Stock Exchange, observed over an eight-year period (2016 to 2023).

At the conclusion of this research, the findings from the quantitative analysis are expected to provide a dual assessment: on the one hand, to gauge the extent to which the management of Moroccan listed companies resorts to earnings management, and on the other, to scrutinize the impact of CSR engagement on such practices.

This article is organized into four sections. The first section reviews the literature on the theoretical foundations of the relationship between CSR engagement and earnings management. The second section outlines the methodology employed. The third section presents the results of our study, and the final section is dedicated to the discussion of our findings.

2. Literature Review

The relationship between CSR and earnings management has attracted considerable scholarly attention, as evidenced by a plethora of research studies [3, 4, 6-13, 15-18]. These studies can be broadly categorized into two principal groups. The first group posits those ethical concerns – aimed at presenting high-quality accounting information – serve as the central motivational stimulus for socially responsible firms [4, 7, 8, 11, 15, 16]. In contrast, the second group, drawing on agency theory [31], advocates that manager may exhibit opportunistic behavior [12, 13].

2.1. The Loyal Manager and Ethical Behavior

Several studies have demonstrated that socially responsible companies exert additional effort and allocate more resources to meet the ethical expectations of their stakeholders. For instance, Chassagne [6] conclude that socially responsible firms in the United States are less inclined to engage in earnings management. Their findings suggest that more transparent communication of information constitutes a form of socially responsible behavior. Similarly, the research by Hemingway and Maclagan [7] indicates that CSR contributes to enhancing the quality of a firm's financial reporting. Carroll [9] also support the view that the commitment of American companies to socially responsible practices mitigates the extent of earnings manipulation, whether upward or downward. Moreover, these authors emphasize that socially responsible firms limit managers' personal incentives, such as bonuses, in their earnings management practices, thereby curtailing opportunistic behavior.

In the Spanish context, Bellari [10] highlight that CSR engagement promotes more efficient management of organizational resources, thereby reducing earnings management practices. They assert that involvement in CSR improves stakeholder satisfaction. Socially responsible firms tend to favor long-term relationships with their partners over short-term profit maximization. In this regard, the reliability of financial reporting and socio-environmental commitment become key elements – fundamental principles of CSR – that help constrain managerial discretion and personal gain.

On an international scale, Scholtens and Kang [11] find that socially responsible companies alleviate aggressive earnings management practices, as measured by discretionary accruals. Their study explores the possibility that CSR performance influences the motivations related to financial reporting. They argue that a firm's CSR orientation can affect the discretionary latitude of managers in the financial reporting process. The authors also examine the strategic choice faced by managers between accrual-based earnings management and real earnings management. Although real earnings management is less detectable by auditors, it is more costly because it alters the firm's normal operations without economic justification. Leventis, et al. [19] notes that such modifications do not directly affect the underlying operations. Socially responsible firms generally prefer real earnings management because it minimizes costs for stakeholders. However, this practice may impair the firm's long-term competitiveness [20] given its adverse impacts on future performance. Ultimately, socially responsible companies safeguard the interests of their stakeholders and ensure the sustainability of their activities [21].

2.2. The Disloyal Manager and Opportunistic Behavior

An alternative perspective in the literature examines the relationship between CSR and earnings management from a different angle. According to Alves [22] socio-environmental engagement may be perceived as serving the personal interests of managers rather than those of the firm and its stakeholders. Barth, et al. [23] support this view, arguing that managers might engage in CSR activities simply to mask earnings manipulation practices. Such actions can be seen as embellishing the firm's image through socially responsible practices, potentially misleading stakeholders about its financial condition and performance. Thus, CSR becomes a tool to garner stakeholder support while affording managers an opportunity to consolidate their position through earnings management practices [18].

Chih, et al. [24] even suggests that ethical codes can sometimes serve as a façade, concealing self-serving motivations or economically selfish behaviors within an organization. Consequently, Barth, et al. [23] contend that adopting a CSR strategy may be a means to divert attention from the detrimental impacts of harmful managerial behaviors. Nonetheless, Hoummani [12] argue that such a strategy cannot provide a sustainable solution, given its negative effects on the firm's value. Based on an international sample of companies from various countries, the study by Fritzsche [15] analyzes the relationship between CSR and three forms of earnings management: income smoothing, earnings aggressiveness, and loss avoidance. They conclude that the nature of the relationship depends on the specific earnings management modality examined. The results indicate a positive association between CSR performance and aggressive earnings management. In other words, earnings management tends to increase when a firm engages in socially responsible activities, which is consistent with the "multiple objectives" hypothesis suggesting that CSR exacerbates information asymmetry issues [25, 26]. Conversely, the higher the firm's CSR performance, the less it resorts to smoothing earnings or loss avoidance, in line with the "avoidance of myopia" hypothesis.

In a European context, Kothari, et al. [13] examine the correlation between CSR and earnings management for firms that have adopted International Financial Reporting Standards (IFRS). They question the fairness of socially responsible firms, inquiring whether these companies truly adopt responsible behavior or merely exploit CSR initiatives opportunistically to conceal their earnings management practices. Thus, unlike other studies [12, 15] these researchers reverse the perspective and investigate whether earnings management explains CSR practices rather than the reverse. Their approach, based on agency theory, employs two measures of earnings management: on the one hand, discretionary accruals following the model of Waweru and Prot [27] which includes the firm's economic performance; on the other, accrual quality as per the model of Capelle-Blancard and Monjon [28] which considers cash flows. Their quantitative analysis reveals a positive and significant correlation between the overall CSR score and the absolute value of discretionary accruals. These results suggest that firms that extensively engage in accrual-based earnings management are also more likely to be conspicuously involved in societal initiatives.

In summary, the relationship between CSR and earnings management presents two conflicting rationales: opportunistic managerial behavior versus ethical managerial behavior. However, most researchers [4, 6-11, 17] advocate the idea that CSR fosters transparency and curtails earnings management practices. Accordingly, socially responsible firms appear to mitigate the reliance on earnings management through the sustained ethical behavior of their managers [18].

3. Research Methodology

First, we will present the procedure followed to construct our sample. Then, we will explain the rationale adopted for measuring earnings management by relying on the estimation of discretionary accruals. Finally, we will detail the operationalization of the explanatory variables associated with this practice.

3.1. Research Sample

To address our research question, we have targeted a population consisting of Moroccan companies listed on the Casablanca Stock Exchange, observed over an eight-year period from 2016 to 2023. It is noteworthy that we stratified the parent population (77 listed companies) by excluding financial firms1.

All data were collected from the Casablanca Stock Exchange. Our sample was constructed using the official website of the exchange. The selection criteria employed were, on the one hand, the inclusion of non-financial Moroccan companies listed in the database, and, on the other hand, the exclusion of outliers or companies lacking a minimum eight-year

1 In order to achieve our research objective and work with homogeneous accounting and financial indicators across all sectors, we were compelled to exclude these companies due to the unique nature of the financial analysis of their financial statements, which are particularly distinctive in terms of classification and indicators (given that they have their own chart of accounts).

historical record. These two criteria yielded a fixed sample of 48 companies for the eight-year period. Table 1 provides a summary of the manner in which the sample for the present study was selected.

Table 1.
Summary of the Selected Sample.

Selection Criteria	Number
Companies listed on the Casablanca Stock Exchange	77
Companies operating in the financial sector	20
Companies excluded due to insufficient data 2	9
= Final Sample	48

3.2. Measurement of Discretionary Accruals

To determine the indicator for earnings management, we adopt a three-step approach. First, we estimate the total accruals. Next, we determine the normal (or non-discretionary) accruals using the model proposed by Kothari, et al. [13]. Finally, we compute the abnormal (or discretionary) accruals, which constitute the primary focus of our study.

3.2.1. First Step: Determination of Total Accruals

According to Collins and Hribar [29]; Gelb and Strawser [20] and Salewski and Zülch [4] it is more appropriate to determine total accruals using a subtractive method. These authors suggest that total accruals can be calculated using the following formula:

$$\text{Total Accruals} = \text{Net Income} - \text{Operating Cash Flows}$$

While net income can be readily obtained from a company’s financial statements, operating cash flows present a challenge. It is well known that Moroccan companies are not required to publish a cash flow statement, as this financial statement is not standardized under the CGNC (General Accounting Standardization Code). Unfortunately, the financing statement, which yields the net cash position, does not explicitly present operating cash flows, and in no case does it detail them. Only companies obligated to prepare their accounts under IFRS publish a cash flow statement (IAS 7).

To determine operating cash flows, we calculate the difference between the firm’s self-financing capacity and the change in its working capital requirement (WCR). Ideally, the WCR should exclude cash flows related to investment and financing activities, thereby capturing only the operational component. However, it is challenging to distinguish between operating and non-operating components within the WCR, as such details can only be derived from the general ledger, which, unfortunately, is not publicly available. For this reason, we have adopted the approach proposed by McWilliams and Siegel [5] who considers operating cash flows to be the net result of the difference between self-financing capacity and the overall working capital requirement.

3.2.2. Second Step: Estimation of Normal Accruals

The model of Kothari, et al. [13] measures non-discretionary accruals based on a regression specified as follows:

$$NAit / ASSETit\text{-}1 = \alpha\ (1/\ ASSETit\text{-}1) + \beta 1\ (\Delta REVit - \Delta ARit\ /\ ASSETit\text{-}1) + \beta 2\ (FIXASSETit\ /\ ASSETit\text{-}1) + \beta 3\ ROAit + \varepsilon it$$

For firm i at period t:

- NA : Normal accruals
- ASSETi,t–1: Total assets at the beginning of the period
- ΔREVi,t – ΔARi,t: Difference between the change in revenue and the change in accounts receivable
- FIXASSETi,t: Total gross fixed assets for the period
- ROAi,t: Return on assets
- α; β_1; β_2; β_3: Coefficients to be estimated
- εi,t: Error term

In addition to fixed assets and the evolution of sales adjusted for accounts receivable, the model of Kothari, et al. [13] is distinguished by the incorporation of a variable reflecting the firm’s economic performance, namely, its asset profitability.

3.2.3. Third Stage: Evaluation of Abnormal Accruals

In this final stage, abnormal accruals are computed as the difference between the total accruals—determined as the difference between net income and operating cash flows—and the values estimated via the Kothari, et al. [13] model. This reasoning can be formulated as follows:

$$AVDAit\ /\ ASSETit\text{-}1 = TA\ /\ ASSETit\text{-}1 - [\alpha\ (1/\ ASSETit\text{-}1) + \beta_1\ (\Delta REVit - \Delta ARit\ /\ ASSETit_{-1}) + \beta_2\ (FIXASSETit\ /\ ASSETit\text{-}1) + \beta_3\ (ROAit) + \varepsilon it]$$

For firm *i* at period *t*:

- AVDAi,t: Absolute value of discretionary accruals
- α, β_1, β_2, and β_3: Coefficients to be estimated

2 These refer to companies that were excluded due to the absence of information in the financial statements, companies that were listed on the stock exchange after the first year of the study (2016), or companies that were delisted before the final year of the study (2023).

Note that the variable AVDA is measured in absolute terms in order to account for both upward and downward earnings management (i.e., negative and positive values). Consequently, a high absolute value indicates an intensive reliance on earnings management practices, whether aimed at reducing or inflating earnings. According to Hoummani [12] the decision to use absolute values versus signed accruals depends on the objective of the study. Indeed, if the direction of earnings management is not of primary interest, the absolute value represents the most appropriate approach.

In the present study, our objective is not to examine whether earnings management is upward or downward but rather to ensure that socially responsible companies are less likely to engage in earnings management, regardless of its direction. This is why we opt for the absolute value of abnormal accruals. Such a decision is fully consistent with a range of previous studies [5, 30-36].

3.3. Presentation of the Different Variables

Table 2 summarizes all the variables making up our regression model for examining the relationship between CSR and earnings management:

Table 2.
Operationalization of study variables.

Variables	Attribute	Indicator	Measure
Dependent	Discretionary Accruals	AVDA	Absolute value of discretionary accruals normalized by total assets.
Explanatory	Corporate Social Responsibility	CSR	Binary variable: 1 if the company is CSR-certified by the CGEM, 0 otherwise.
Control	Firm size	SIZE	Natural logarithm of total assets.
	Industry sector	SECT	Polychotomous variable taking values from 1 to 13, representing the various industry sectors of the companies in the sample.
	Firm age	AGE	Actual age of the firm.
	Return on Assets	ROA	Ratio of operating income to total assets.
	Concentrated Ownership	CONCENT	Binary variable: 1 if the principal shareholder holds more than 40% of the shares and no other shareholder holds more than 30% (according to Law No. 17-95 relating to public limited companies, Article 144), 0 otherwise.

3.4. Correlation

Table 3 presents the correlation matrix, which reveals a significant negative correlation ($r = -0.519$, $p < 0.001$) between the explanatory variable (CSR) and the dependent variable (discretionary accruals). Two control variables – one related to corporate identity and the other to corporate governance – are also significantly and inversely correlated with earnings management. Specifically, firm size ($r = -0.446$, $p < 0.001$) and ownership concentration ($r = -0.381$, $p < 0.001$) exhibit such relationships, indicating that larger firms with a higher concentration of ownership tend to engage less in earnings management.

Moreover, the matrix indicates that larger firms are more actively involved in CSR practices, as evidenced by a significant positive correlation ($r = 0.519$, $p < 0.001$) between firm size (SIZE) and CSR. A similar observation is made regarding the relationship between CSR and ownership concentration, where a significant negative correlation ($r = -0.381$, $p < 0.001$) is observed.

It is important to note that neither the age of the firms nor their industry sector exerts a significant influence on the practice of earnings management.

Table 3.
Correlations.

	AVDA	CSR	SIZE	SECT	AGE	ROA	CONCENT
AVDA	1.0000						
CSR	-0.5189^{***}	1.0000					
SIZE	-0.4456^{***}	0.5193^{***}	1.0000				
SECT	0.0689^{***}	0.0764^{***}	-0.0889^{***}	1.0000			
AGE	-0.0532^{***}	-0.0860^{***}	-0.1155^{***}	-0.0989^{*}	1.0000		
ROA	0.1132^{***}	-0.0476^{***}	-0.0667^{***}	0.1069^{**}	0.0634	1.0000	
CONCENT	-0.3808^{***}	0.3431^{***}	0.3295^{***}	0.1583^{***}	-0.0883^{*}	-0.0137	1.0000

Note: (***, ** and * denote significance levels at $p < 0.01$, $p < 0.05$, and $p < 0.1$, respectively.)

3.5. Specification Tests

To examine the validity and robustness of our regression model, we conducted a series of specification tests. First, to ensure that the model is statistically sound, we performed a Fisher test. The F-statistic, which measures the strength of the test for individual effects, is equal to 3.0698. A higher F-value indicates greater variation. With a p-value of 2.328e-09 – well below the conventional 0.05 threshold – we reject the null hypothesis that no significant individual effects exist.

Thus, the Fisher test for our regression model indicates that individual effects are significant (p-value < 0.05), implying significant heterogeneity in our data and suggesting that a fixed effects model is more appropriate than a random effects model for our study. It should be noted that a more in-depth analysis using a Hausman test is recommended to draw definitive conclusions.

In our model, the chi-squared statistic – which measures the strength of the test comparing fixed effects and random effects models – stands at approximately 171.8 according to the Hausman test. A high value indicates a significant difference between the two models. Moreover, the p-value is extremely low (2.2e-16), far below the 0.05 threshold. These results confirm that the random effects model is inconsistent compared to the fixed effects model (p-value < 0.05). Therefore, the fixed effects model is preferred for our analysis, as it provides more reliable and consistent estimates of the independent variables' coefficients.

It is worth noting that the fixed effects model explains approximately 54.7% of the variance in the dependent variable (R-Squared = 0.5467) with significant coefficients for the explanatory variable (CSR) and two control variables. In fact, the results obtained via RStudio 4.4.2 suggest that CSR, firm size (SIZE), and ownership concentration (CONCENT) have significant negative influences on earnings management.

Furthermore, to assess multicollinearity, we calculated the Variance Inflation Factor (VIF) and Tolerance, as summarized in Table 4.

Table 4.
Summary of VIF and Tolerance Results.

Variable	VIF	TOLERANCE
CSR	1.452033	0.6886898
SIZE	1.481617	0.6749385
SECT	1.085820	0.9209633
AGE	1.031896	0.9690898
ROA	1.020583	0.9798325
CONCENT	1.213234	0.8242435

Since the VIF values for all six variables are below 10 and the tolerance values are well above 0.1, multicollinearity does not pose a major problem for our model. Consequently, we can be reasonably confident that the coefficient estimates are not unduly affected by collinearity among the independent variables.

However, our model exhibits two main issues: heteroscedasticity and autocorrelation. The Breusch-Pagan test yields a p-value of 1.032e-08, which is far below the 0.05 threshold, leading us to reject the null hypothesis of homoscedasticity. In other words, there is sufficient evidence to conclude that the model's residuals exhibit significant heteroscedasticity (i.e., the residuals from the regression of earnings management determinants do not have constant variance).

Additionally, the Breusch-Godfrey test for autocorrelation reveals a high LM statistic (78.19) with 1 degree of freedom and a p-value of 2.2e-16. These results suggest that the residuals in our model exhibit first-order autocorrelation, meaning that the errors are not independent, which could indicate a misspecification of the model or the omission of relevant explanatory variables.

To address these issues, we applied a correction using White [37] robust standard errors model. This approach adjusts the standard errors and test statistics under conditions of heteroscedasticity and autocorrelation, based on the ordinary least squares estimator. Consequently, the results from White's test (see Table 5) indicate that CSR, firm size (SIZE), industry sector (SECT), and ownership concentration (CONCENT) have significant negative influences on earnings management, with respective p-values of 9.966e-12, 0.02907, 0.04152, and 1.289e-05 (all below 0.05).

In order to examine the validity and robustness of our regression model, we conducted the following specification tests.

Table 5.
Summary of White's Test (Correction for Standard Errors)

Variable	Estimate	Standard Error	T value	Pr(>|t|)
CSR	-0.3198718	0.0453157	-7.0587	9.966e-12 ***
SIZE	-0.0848488	0.0387059	-2.1921	0.02907 *
SECT	-0.0413123	0.0201888	-2.0463	0.04152 *
AGE	0.0032002	0.0054914	0.5828	0.56045
ROA	0.1462369	0.0840930	1.7390	0.08297
CONCENT	-0.3436390	0.0775881	-4.4290	1.289e-05 ***

Note: (***, **, and * denote significance levels at p < 0.001, p < 0.01, and p < 0.05, respectively.).

Thus, the results adjusted for heteroscedasticity and autocorrelation largely confirm the findings obtained prior to correcting the standard errors. The next step is to discuss these results in light of the previously reviewed literature.

4. Discussion

Gelb and Strawser [20] were among the first to investigate the relationship between CSR and earnings management in a purely Anglo-Saxon context. They demonstrated that socially responsible firms provide higher quality financial information and reduce informational asymmetries. Our study corroborates this finding, suggesting that Moroccan companies listed on the Casablanca Stock Exchange that engage in CSR practices are more transparent and less prone to earnings manipulation. The quality of accounting information appears to be a common characteristic of firms that practice CSR.

Our study's results further support the conclusions of research conducted by Hemingway and Maclagan [7]; Porter and Kramer [8]; Salewski and Zülch [4]; Scholtens and Kang [11]; Bellari [10] and Agoglia, et al. [18] which document a negative correlation between CSR and earnings management, as well as the significant influence of CSR practices. These studies argue that engaging in CSR fosters more ethical governance and curtails opportunistic behavior by managers.

In Morocco, socially responsible companies often attract heightened scrutiny from stakeholders – including regulators, investors, and NGOs – which can discourage opportunistic behaviors. Such firms cannot maintain a double standard by being both socially responsible and manipulating financial results. Therefore, the prevailing culture of business ethics and social responsibility within Moroccan companies, particularly among larger firms, discourages the manipulation of financial outcomes.

Within the Moroccan stock market environment, firm size contributes to minimizing discretionary accruals. The negative and significant coefficient associated with the size variable (SIZE) in our regression model indicates that larger companies are less likely to engage in earnings management. This finding aligns with the work of Capelle-Blancard and Monjon [28] and more recent studies such as those by Dechow and Dichev [38]; Calegari, et al. [35] and McWilliams and Siegel [5]. These studies suggest that larger firms are generally subject to greater oversight by regulators, financial analysts, and investors, which reduces their leeway for manipulating earnings.

These findings are also consistent with the propositions of El Amri [14] in their positive accounting theory, which explains earnings management practices in relation to firm size. Essentially, the larger the firm, the greater the incentive to engage in earnings management. In our study, the low dispersion of firm sizes (with skewness close to 0) might explain why larger companies in our sample conform more closely to accounting standards.

However, despite the robustness of these results, studies in certain emerging markets – most notably in South Africa [39, 40] – highlight that the impact of firm size on earnings management is closely linked to the maturity of local institutions. These studies contend that in more developed institutional environments, larger firms are more inclined to adhere to sound governance practices, whereas in less developed settings, firm size may be associated with external pressures (from international investors, regulators, etc.) that influence accounting behaviors [41, 42].

With regard to corporate governance (control), concentrated ownership is significantly linked to earnings management. Our model indicates a statistically significant and negative relationship (with a p-value well below 5% and a correlation coefficient of approximately –40%) between the absolute value of abnormal accruals and concentrated ownership. This result confirms that majority shareholders play an effective role in minimizing opportunistic behaviors by managers with respect to reported earnings.

This finding is consistent with Jensen and Meckling [43] in their research on earnings management in Latin America, where they explored various aspects of corporate governance, including concentrated ownership. They found that ownership concentration was significantly and negatively related to discretionary accruals. Similar conclusions have been drawn in other studies across different contexts, such as those by Habib and Jiang [44] in Portugal, [45] in France, [43] in China, as well as by Ben and Zeghal [46]; Calegari, et al. [35] and McWilliams and Siegel [5] in Morocco, Bellari [47] in Saudi Arabia, and Cornett, et al. [48] in Pakistan. All of these studies conclude that firms with a high degree of ownership concentration tend to exhibit lower levels of earnings management.

These studies adhere to agency theory, which posits that concentrated ownership reduces conflicts of interest between shareholders and managers. Large shareholders, owning a significant stake in the company, possess greater power and incentives to closely monitor management to ensure that decisions maximize the firm's value rather than serving the personal interests of managers. Additionally, large shareholders typically demand greater transparency and more rigorous financial reporting, along with enhanced access to internal information, thereby reducing opportunities for earnings manipulation.

5. Conclusion

The primary motivation for this study stems from the scarcity of academic literature examining the relationship between CSR and earnings management in the specific context of Africa, particularly in Morocco. Previous research has predominantly focused on European and Asian contexts [3, 10, 11, 18] and, most notably, on the American context [4, 6-9].

Thus, the present study contributes by highlighting the relationship between CSR and earnings management within the specific framework of Morocco, focusing particularly on a sample of non-financial companies listed on the Casablanca Stock Exchange. It seeks to address the question of whether firms that engage in CSR are less inclined to practice earnings management.

Our findings suggest that, in Morocco, the socially responsible performance of listed companies significantly curtails earnings management. Such firms tend to adopt enhanced governance and transparency practices, which in turn are associated with higher quality financial information in terms of both faithful representation and relevance. It should be noted that companies making significant CSR investments may do so as a compensatory measure for reduced earnings management. In other words, they might seek to improve their image among stakeholders by emphasizing social initiatives rather than resorting to aggressive accounting practices.

Moreover, CSR commitments often entail substantial costs (social, environmental, or philanthropic projects), which can reduce profit margins and thus diminish the incentive for companies to manipulate their earnings to meet investor expectations. Moroccan firms could benefit from increased investment in CSR initiatives, as such actions are likely to bolster their credibility with stakeholders and mitigate expectations of aggressive earnings management. A robust CSR strategy may also attract long-term institutional investors who value sustainability and sound governance.

Furthermore, this research aligns with prior studies suggesting that firm size and concentrated ownership significantly contribute to mitigating earnings management practices. Indeed, large Moroccan companies with concentrated ownership are increasingly incorporating business ethics and CSR strategies into their business models.

However, although the CSR culture is gaining importance in the Moroccan landscape, specific regulatory and fiscal incentives to promote corporate social responsibility remain limited. Regulators and policymakers should design policies that further promote CSR in Moroccan companies, such as encouraging mandatory and standardized sustainability reporting.

It must also be acknowledged that our study has certain limitations. Specifically, we relied on the Kothari, et al. [13] model to measure normal accruals, a model that incorporates the firm's economic performance as an explanatory variable. However, this performance is purely accounting-based and does not consider market factors or exogenous elements. Additionally, our study focused exclusively on accounting-based earnings management and did not examine real earnings management, which, given its importance, warrants a separate investigation.

Regarding corporate governance, we opted to include only the ownership structure as a control variable, excluding the board of directors and audit components. This decision was justified by our concern that incorporating all three dimensions might skew the focus of our study toward a purely corporate governance perspective, which is not the primary objective of this research.

Finally, these limitations open new avenues for future research. For instance, it would be interesting to compare different modalities of earnings management, namely accounting-based (accruals) versus real earnings management (transactions). Although such comparisons have been conducted in the American context [4] and internationally [11] no study has yet addressed this issue within the African context, particularly in Morocco.

References

[1] P. M. Dechow, R. G. Sloan, and A. P. Sweeney, "Detecting earnings management," *Accounting Review,* vol. 70, no. 2, pp. 193-225, 1995.

[2] C. Leuz, D. Nanda, and P. D. Wysocki, "Earnings management and investor protection: An international comparison," *Journal of Financial Economics,* vol. 69, no. 3, pp. 505-527, 2003. https://doi.org/10.1016/S0304-405X(03)00121-1

[3] D. Prior, J. Surroca, and J. A. Tribó, "Are socially responsible managers really ethical? Exploring the relationship between earnings management and corporate social responsibility," *Corporate governance: An International Review,* vol. 16, no. 3, pp. 160-177, 2008. https://doi.org/10.1111/j.1467-8683.2008.00691.x

[4] M. Salewski and H. Zülch, "The Association between corporate social responsibility (CSR) and earnings quality–evidence from European blue chips," *Problems and Perspectives in Management,* vol. 12, no. 4, pp. 17–24, 2014.

[5] A. McWilliams and D. Siegel, "Corporate social responsibility and financial performance: Correlation or misspecification?," *Strategic Management Journal,* vol. 21, no. 5, pp. 603-609, 2000. https://doi.org/10.1002/1097-0266(200005)21:5<603::AID-SMJ108>3.0.CO;2-3

[6] J. Chassagne, "The link between corporate social responsibility and earnings management: A European study," Doctoral Thesis, Université Clermont Auvergne, 2020.

[7] C. A. Hemingway and P. W. Maclagan, "Managers' personal values as drivers of corporate social responsibility," *Journal of Business Ethics,* vol. 50, pp. 33-44, 2004. https://doi.org/10.1023/B:BUSI.0000016199.36944.a7

[8] M. E. Porter and M. R. Kramer, *Creating shared value: How to reinvent capitalism—and unleash a wave of innovation and growth. In Managing sustainable business: An executive education case and textbook*. Dordrecht: Springer Netherlands, 2018.

[9] A. B. Carroll, "A three-dimensional conceptual model of corporate performance," *Academy of Management Review,* vol. 4, no. 4, pp. 497-505, 1979.

[10] M. Bellari, "Identity, control and financial determinants of earnings management by accruals in listed Moroccan companies," *International Journal of Accounting, Finance, Auditing, Management and Economics,* vol. 5, no. 11, pp. 47–68, 2024.

[11] B. Scholtens and F. C. Kang, "Corporate social responsibility and earnings management: Evidence from Asian economies," *Corporate social Responsibility and Environmental Management,* vol. 20, no. 2, pp. 95-112, 2013. https://doi.org/10.1002/csr.1285

[12] S. Hoummani, "Accounting and real results management and corporate governance: Case of listed Moroccan companies," PhD Thesis, Mohammed V University, 2019.

[13] S. P. Kothari, A. J. Leone, and C. E. Wasley, "Performance matched discretionary accrual measures," *Journal of Accounting and Economics,* vol. 39, no. 1, pp. 163–197, 2005. https://doi.org/10.1016/j.jacceco.2004.04.001

[14] W. El Amri, "Ownership structure and earnings management in Moroccan companies," *Moroccan Journal of Finance and Accounting,* vol. 9, no. 2, pp. 123–139, 2014.

[15] D. J. Fritzsche, "A model of decision-making incorporating ethical values," *Journal of Business Ethics,* vol. 10, pp. 841-852, 1991. https://doi.org/10.1007/BF00383336

[16] P. Marinakis, "An investigation of earnings management and earnings manipulation in the UK," Doctoral Thesis, University of Nottingham, 2011.

[17] S. Roychowdhury, "Earnings management through real activities manipulation," *Journal of Accounting and Economics,* vol. 42, no. 3, pp. 335-370, 2006. https://doi.org/10.1016/j.jacceco.2006.01.002

[18] C. P. Agoglia, C. Beaudoin, G. B. Bennett, and G. T. Tsakumis, "Can corporate social responsibility counteract managers' incentives to manage earnings?," *Accounting, Organizations and Society,* vol. 58, pp. 1–18, 2017. https://doi.org/10.1016/j.aos.2016.11.002

[19] S. Leventis, I. Hasan, and E. Dedoulis, "The cost of sin: The effect of social norms on audit pricing," *International Review of Financial Analysis,* vol. 29, pp. 152-165, 2013. https://doi.org/10.1016/j.irfa.2012.12.007

[20] D. S. Gelb and J. A. Strawser, "Corporate social responsibility and financial disclosures: An alternative explanation for increased disclosure," *Journal of Business Ethics,* vol. 33, pp. 1-13, 2001. https://doi.org/10.1023/A:1013348729391

[21] M. Khalil and A. Ozkan, "Board independence, audit quality and earnings management: Evidence from Egypt," *Journal of Emerging Market Finance,* vol. 15, no. 1, pp. 84-118, 2016. https://doi.org/10.1177/0972652716631013

[22] S. Alves, "The effect of board independence on the earnings quality: Evidence from Portuguese listed companies," *Australasian Accounting, Business and Finance Journal,* vol. 8, no. 3, pp. 23–44, 2014.

[23] M. E. Barth, D. P. Cram, and K. K. Nelson, "Accruals and the prediction of future cash flows," *The Accounting Review,* vol. 76, no. 1, pp. 27-58, 2001.

[24] H.-L. Chih, C.-H. Shen, and F.-C. Kang, "Corporate social responsibility, investor protection, and earnings management: Some international evidence," *Journal of Business Ethics,* vol. 79, pp. 179-198, 2008. https://doi.org/10.1007/s10551-007-9403-9

[25] M. Habbash and S. Alghamdi, "Audit quality and earnings management in less developed economies: The case of Saudi Arabia," *Journal of Management & Governance,* vol. 21, pp. 351-373, 2017. https://doi.org/10.1108/JAEE-07-2016-0060

[26] P. Dechow, W. Ge, and C. Schrand, "Understanding earnings quality: A review of the proxies, their determinants and their consequences," *Journal of Accounting and Economics,* vol. 50, no. 2-3, pp. 344-401, 2010. https://doi.org/10.1016/j.jacceco.2010.09.001

[27] N. M. Waweru and N. P. Prot, "Corporate governance compliance and accrual earnings management in eastern Africa: Evidence from Kenya and Tanzania," *Managerial Auditing Journal,* vol. 33, no. 2, pp. 171-191, 2018.

[28] G. Capelle-Blancard and S. Monjon, "The impact of board composition on earnings management: The case of French companies," *French Corporate Governance Review,* vol. 13, no. 1, pp. 45–64, 2014.

[29] D. W. Collins and P. Hribar, "Errors in estimating accruals: Implications for empirical research," *Journal of Accounting Research,* vol. 40, pp. 105–134, 2002. https://doi.org/10.1111/1475-679X.00039

[30] A. Khan, M. Tanveer, and F. Ahmad, "Ownership concentration and earnings management: Evidence from Pakistani listed companies," *International Journal of Financial Studies,* vol. 8, no. 1, p. 11, 2020. https://doi.org/10.3390/ijfs8010011

[31] B. Litt, D. Sharma, and V. Sharma, "Environmental initiatives and earnings management," *Managerial Auditing Journal,* vol. 29, no. 1, pp. 76-106, 2013. https://doi.org/10.1108/MAJ-12-2012-0911

[32] D. A. Cohen and P. Zarowin, "Accrual-based and real earnings management activities around seasoned equity offerings," *Journal of accounting and Economics,* vol. 50, no. 1, pp. 2-19, 2010. https://doi.org/10.1016/j.jacceco.2010.01.002

[33] E. Gras-Gil, M. P. Manzano, and J. H. Fernández, "Investigating the relationship between corporate social responsibility and earnings management: Evidence from Spain," *BRQ Business Research Quarterly,* vol. 19, no. 4, pp. 289-299, 2016. https://doi.org/10.1016/j.brq.2016.01.001

[34] R. L. Watts and J. L. Zimmerman, "Towards a positive theory of the determination of accounting standards," *Accounting Review,* vol. 53, no. 1, pp. 112-134, 1978.

[35] M. F. Calegari, T. Chotigeat, and M. Harjoto, "Corporate social responsibility and earnings reporting," *Journal of Current Research in Global Business,* vol. 13, no. 20, pp. 1-28, 2010.

[36] Y. Kim, M. S. Park, and B. Wier, "Is earnings quality associated with corporate social responsibility?," *The Accounting Review,* vol. 87, no. 3, pp. 761-796, 2012. https://doi.org/10.2308/accr-10225

[37] H. White, "A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity," *Econometrica,* vol. 48, no. 4, pp. 817-838, 1980. https://doi.org/10.2307/1912934

[38] P. M. Dechow and I. D. Dichev, "The quality of accruals and earnings: The role of accrual estimation errors," *The Accounting Review,* vol. 77, no. s-1, pp. 35-59, 2002.

[39] S. Bozzolan, M. Fabrizi, C. A. Mallin, and G. Michelon, "Corporate social responsibility and earnings quality: International evidence," *The International Journal of Accounting,* vol. 50, no. 4, pp. 361-396, 2015. https://doi.org/10.1016/j.intacc.2015.06.003

[40] Y. Hong and M. L. Andersen, "The relationship between corporate social responsibility and earnings management: An exploratory study," *Journal of Business Ethics,* vol. 104, pp. 461-471, 2011. https://doi.org/10.1007/s10551-011-0927-9

[41] H. Chen, Q. Tang, Y. Jiang, and Z. Lin, "The role of international financial reporting standards in accounting quality: Evidence from the European Union," *Journal of International Financial Management & Accounting,* vol. 21, no. 3, pp. 220-278, 2010.

[42] M. O. Elsayed and Z. Hoque, "Perceived international environmental factors and corporate voluntary disclosure practices: An empirical study," *The British Accounting Review,* vol. 42, no. 1, pp. 17-35, 2010. https://doi.org/10.1108/S1479-3563(2010)0000010005

[43] M. C. Jensen and W. H. Meckling, *Theory of the firm: Managerial behavior, agency costs and ownership structure*. Gower: Amsterdam, Netherlands: North-Holland., 2019.

[44] A. Habib and H. Jiang, "Corporate governance and financial reporting quality in China: A survey of recent evidence," *Journal of International Accounting, Auditing and Taxation,* vol. 24, pp. 29-45, 2015. https://doi.org/10.1016/j.adiac.2015.02.001

[45] C. G. Ntim and T. Soobaroyen, "Corporate governance and performance in socially responsible corporations: New empirical insights from a Neo-Institutional framework," *Corporate Governance: An International Review,* vol. 21, no. 5, pp. 468-494, 2013. https://doi.org/10.1111/corg.12033

[46] O. H. Ben and D. Zeghal, "Analysis of the determinants of earnings management: Case of Canadian, French and Tunisian firms," *Revue Repères et Perspectives,* vol. 10, pp. 1–18, 2007.

[47] M. Bellari, "The quality of accounting information: Between qualitative and quantitative perspectives," *International Journal of Accounting, Finance, Auditing, Management and Economics,* vol. 5, no. 8, pp. 518-532, 2024.

[48] M. M. Cornett, A. J. Marcus, A. Saunders, and H. Tehranian, "Earnings management, corporate governance, and true financial performance," *SSRN Working Papers,* pp. 1–28, 2006. https://doi.org/10.2139/ssrn.890594