Determinants of Earning Management: The Case of Moroccan Companies

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Abstract **– In the current financial landscape, earning management is a complex issue that raises questions about the credibility of financial data and the efficacy of corporate governance. This paper, through the use of logistic regression, analyzes the determinants of earning management within Moroccan companies. The findings underscore the pivotal role of corporate governance, revealing that well-governed companies are less susceptible to manipulation. Companies burdened with debt are more inclined to manipulate their financial data, and company size demonstrates a positive correlation with an increased likelihood of manipulation. Conversely, financially successful companies display a reduced susceptibility to earning management. These results carry significant practical implications for financial analysts, corporate governance professionals, and regulators, emphasizing the urgent need to reinforce governance, monitor debt management, and implement control mechanisms to mitigate the risk of earning management. They also stress the importance of increased vigilance on the part of regulators to maintain transparency in financial markets. Finally, this study calls for future research to refine an understanding of this intricate phenomenon and aid in preventing earning management within Moroccan companies.**

Keywords **– Logistic regression, earning management, corporate governance, debt-asset ratio, asset size, payout, ROE.**

1. Introduction

In the intricate financial and corporate management world, the pervasive issue of earning management looms large. This study, delving into a relatively unexplored territory, aims to illuminate the determinative factors influencing the adoption of earning management practices among Moroccan companies. The novelty of this research lies in its focus on the Moroccan context, a unique setting that offers a fresh perspective on this global issue. If left unaddressed, earnings management practices can mislead stakeholders, erode confidence in financial markets, and compromise the integrity of financial information. Therefore, identifying and preventing earning management is important and crucial for maintaining transparency and credibility in financial data. Access to reliable accounting information is not just necessary; stakeholders, investors, and creditors need to make informed decisions. As [1] underlines, accurate balance sheets, and cash flow information are not just important; they're vital to facilitating fair valuations. The warnings issued by [2] about the potential impact of inaccurate financial data on investment decisions further underscore the need for vigilant oversight. Meanwhile, the work of [3], which examines the characteristics of companies involved in accounting fraud, highlights the importance of detecting indicators of manipulation that may signal potential manipulation. In a broader context, studies by [4] support the link between earning management, corporate failures, financial communication, and governance. This underscores the need for proactive identification of manipulations, including accrual manipulations, to preserve financial stability, accurate valuations, and effective governance. The highlighted studies emphasize the need for sustained vigilance in earning management.

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1.1. Research Design and Steps

To address this inquiry, this research employs a logistic regression approach to unravel the relationship between earning management and key explanatory variables. The Kothari method, which focuses on identifying accrual manipulation, is a robust tool for this analysis. Variables such as capital, debt/asset ratio, return on equity, and corporate governance score are intricately woven into this research design, providing a comprehensive framework to explore the nuanced dynamics of earning management.

1.2. Scope and Conceptualization

The scope of this survey extends beyond the immediate concerns of revenue management. In a broader context, this study contributes to understanding the factors influencing revenue management and their consequences for the reliability of financial statements, stakeholder confidence, and the stability of the Moroccan financial system. So, the aim is to identify the determining factors and provide practical advice to regulators, auditors, and investors on detecting and preventing such practices.

This study holds profound implications for the fields of finance and accounting. Offering a comprehensive understanding of the factors associated with earning management can strengthen corporate oversight and governance mechanisms, ultimately promoting transparency and confidence in financial markets. Moreover, the outcomes of this research may empower stakeholders to make more informed investment choices and to evaluate the risks associated with particular companies more effectively. Hypotheses and a review of existing literature will inform this methodological exploration and allow for a nuanced analysis of the complex relationship between revenue management and the Moroccan business landscape.

2. Literature Review

Notably, the earning management exposed by [5] lay at the heart of the Enron collapse, a profoundly emblematic fraud in history. Executives leveraged off-balance sheet entities and aggressive accounting methods to conceal debts and inflate revenues, thus accentuating the risks linked to opaque structures. It was discovered that fraudulent practices within the management of Parmalat [6], an Italian dairy company, utilized fictitious transactions and offshore bank accounts to disguise a colossal debt, underscoring the significance of due diligence and financial transparency.

Furthermore, investigations by [7] closely scrutinized large-scale earning management at WorldCom, unveiling governance and regulatory failures that facilitated such fraud. Mishandling of expenses obscured multi-billion-dollar losses, reinforcing the imperative for heightened financial transparency. Consequently, the research [8] identified a trend wherein industrial companies manipulate financial reports to attract investors, typically by inflating their revenues and net assets. Conversely, railroads and utilities tend to manipulate their financial reports to maximize rates by regulatory requirements. Adding to this, a study conducted [9] revealed significant earning management at Satyam Computer Services, raising concerns about the reliability of audits and highlighting the need for increased regulatory oversight. Furthermore, the analysis conducted [10] specifically delves into earnings measurement and disclosure practices at Tooth & Co. This study highlights earnings smoothing and systematic understatement of earnings as strategies to rationalize dividend policies and sidestep the political consequences associated with high profitability. These findings underscore the pervasive nature of earning management across various industry sectors and its far-reaching implications for financial transparency and regulatory oversight. After thoroughly examining historical earning management practices, it is essential to focus on the contemporary methods for detecting earning management. Researchers have dedicated substantial efforts to formulating effective strategies in this field in recent decades. The pioneering contributions have been instrumental in advancing this endeavor [11], [12], [13]. In a seminal study, discretionary accruals analysis was introduced [11]. This methodology involves identifying unconventional accounting adjustments that can serve as potential indicators of financial manipulation. This groundbreaking approach laid the foundation for subsequent research into the detection of earning management. According to this approach, companies displaying higher-than-anticipated discretionary accruals may warrant consideration as potential candidates engaged in earning management. Another significant contribution was their approach to residue accounting [12], which involved analyzing the differences between accounting accruals and operating cash flows to identify potential irregularities associated with inappropriate accounting practices [12]. According to their research, companies exhibiting elevated discretionary accruals relative to their cash flows may be considered vulnerable to earning management. Another important method was subsequently introduced [13].

The study developed an approach based on changes in the quality of accruals, with a focus on discrete (non-recurring) and persistent (recurring) accruals. This methodology aims to pinpoint companies likely to engage in questionable accounting practices. Consequently, firms displaying substantial discretionary accruals relative to their industry peers or historical performance may be deemed involved in earning management. These advanced approaches provide invaluable tools for detecting and preventing earning management in modern finance and business environments. The works in [11], [12], and [13] have empowered researchers to enhance their proficiency in identifying the risks associated with earning management within corporate financial statements. This collaborative effort has led to more advanced methodologies for detecting earning management, catalyzing significant financial transparency and corporate governance reforms. Furthermore, scholarly investigations have delved into contextual factors influencing earnings manipulation and its consequences. For example, a comprehensive analysis in [14] explored the interplay between accounting conservatism, the presence of institutional investors, and earnings manipulation, unveiling valuable insights into the complex dynamics of financial reporting and manipulation in corporate settings. In a study conducted by [2], the effectiveness of an earnings manipulation detection model grounded in accounting principles, particularly concerning expected returns, was thoroughly examined. Their findings indicated that companies with a heightened likelihood of engaging in earnings manipulation tended to attain lower returns within each portfolio categorized by size, book-to-market ratio, momentum, accruals, and short interest. Moreover, an earnings manipulator detection model was devised in [15] that relies on financial statement ratios. This research demonstrated accounting data's practicality and efficacy in identifying potential earnings manipulators. These studies underscore the pivotal role of accounting-based models in evaluating and detecting earnings manipulation, providing valuable insights for investors and regulators in the financial landscape. The findings from empirical studies underscore the importance of conservative financial reporting, transparent disclosure procedures, robust corporate governance, and well-structured regulatory frameworks in preventing earning management. These results strongly suggest that investors, regulators, and accounting practitioners should carefully take into account these elements when conducting evaluations of corporate performance and when assessing the reliability of financial statements.

These measures are vital for safeguarding the integrity of financial reporting and maintaining trust in the financial markets. Regarding the mechanisms of earnings manipulation, research in [16] illustrates how managers can manipulate earnings by strategically timing the sale of low-cost assets, lending support to the earnings smoothing hypothesis. Furthermore, research in [12] reveals that various accrual-based models effectively detect earnings management, thereby rejecting the null hypothesis, particularly in companies with extreme financial performance. In addition, research in [17] demonstrates that capital market pressures and institutional factors influence the incentives to manipulate earnings. These incentives are higher in private companies and lower in jurisdictions with robust legal systems, irrespective of the company's public or private status. These insights shed light on the complex interplay of factors that impact earnings manipulation in various corporate settings. Recent research efforts have contributed significantly to understanding earnings management and its ramifications. Studies such as [18] have delved into the intricacies of earnings management mechanisms, shedding light on their implications at the board level. Research in [19] examined earnings management strategies, particularly in financial distress, drawing comparisons between listed and unlisted French companies. Furthermore, studies in [20] explored the distinct impact of earnings management on the accruals anomaly, while [21] scrutinized earnings management strategies within a European context, unveiling substantial empirical evidence. In addition to these studies, research in [22] was conducted on earnings management and its correlation with company performance, considering company-specific characteristics. Meanwhile, studies in [23] delved into corporate investment behavior concerning earnings management, highlighting the threshold effect of Return on Equity (ROE). This recent wave of research continues to refine an understanding of earnings management and its implications within diverse contexts. It reaffirms the critical importance of ongoing monitoring, financial transparency, and robust corporate governance as indispensable safeguards against earning management and as essential components for preserving the credibility of companies in the financial markets.

3. Theoretical Framework

Numerous theories have been developed to shed light on the motivations behind companies engaging in fraudulent practices.

Among these theories, agency, political cost, and prospect theories are pivotal in understanding the drivers of earning management. Agency theory, initially advanced by [23], posits that managers tend to act in their self-interest and may be tempted to manipulate financial results to appease various stakeholders and safeguard their reputation [24], [25]. From this perspective, earning management may serve personal objectives, such as securing bonuses or preserving their position within the company [26], [27]. This theory underscores the inherent conflict of interest between managers and shareholders, with managers seeking their self-interest at the potential expense of shareholders' interests [28], [29]. Consequently, earning management can be viewed as a means for managers to create a favorable impression on stakeholders while concealing actual financial information [30], [31]. This perspective on earning management raises significant inquiries regarding the transparency and quality of corporate financial reporting. The seminal work by [23] laid the foundation for subsequent research to elucidate the incentives and motivations driving earning management. Moreover, this theory has spurred discussions on bolstering corporate governance to mitigate inherent conflicts of interest between managers and shareholders. It has also underscored the vital role of effective regulatory oversight in preventing fraudulent practices [32], [33]. Conversely, the political cost theory postulates that companies may find motivation in manipulating their profits to influence political and regulatory decisions in their favor [34], [31]. This theory is predicated on companies seeking to minimize the political costs linked to regulatory compliance by presenting financial results that align with the expectations of regulators and policymakers [35], [36]. It underscores the intricate interplay between financial reporting, political dynamics, and regulatory considerations in shaping corporate behavior. A comprehensive analysis provided [34] elucidates the mechanisms by which companies can use earnings management to influence accounting standards and government regulations. This phenomenon was further developed by [37] and [38]. Corporations might strategically shape the regulatory landscape by employing opportunistic accounting tactics to garner economic and financial benefits. This concept is further underscored in the research by [39] and [13], emphasizing the intricate dynamics between corporate financial strategies and regulatory environments. This approach to accounting manipulation raises profound concerns about the reliability and credibility of corporate financial reporting. It highlights the essential role of regulation and transparency in mitigating opportunistic accounting practices and enhancing confidence in financial reporting, a point emphasized in research by [40] and [41]. Consequently, examining accounting manipulations in the context of political costs continues to attract considerable attention in accounting and finance research, as evidenced by studies such as those by [42] and [43]. This research collectively highlights the complex interplay between corporate financial practices, regulatory considerations, and the wider financial ecosystem, thus highlighting the crucial importance of maintaining the integrity of financial information. Prospect theory, pioneered by [44], focuses on how individuals tend to evaluate gains and losses asymmetrically, placing more significance on losses than gains, as expounded in the works of [45], [46]. In accounting, this theory can offer insights into how managers may be inclined to manipulate earnings to avert perceived losses and uphold a positive corporate image, a concept explored in studies by [47], [48]. It sheds light on the psychological underpinnings of earnings manipulation and its potential implications in corporate financial reporting. According to prospect theory, managers may exhibit risk-averse behavior when reporting negative financial outcomes, such as lower-than-expected losses or profits, a concept explored in studies by [49], [50]. In response to these potential losses, they may be incentivized to manipulate earnings through aggressive accounting practices, as discussed in research by [51], [52]. This manipulation may involve discretionary adjustments to revenues and expenses to present more favorable financial results, as outlined in studies by [53], [54], [55]. The pioneering work of [44] has profoundly impacted a broad spectrum of research examining how cognitive distortions associated with prospect theory can influence managers' financial reporting behavior. Consequently, applying this theory within the accounting context offers a deeper understanding of the motivations that may lead to earning management. It underscores the importance of transparency and accuracy in corporate financial performance reporting. Adopting dependable methodologies is of paramount significance in the quest to effectively detect and prevent earning management. The approach pioneered by [13] has proven effective in this context, primarily focusing on analyzing discretionary accruals. This methodology allows for identifying fluctuations in financial data unrelated to cash movements, which may serve as indicators of potential earning management. The research conducted by [13] has underscored the value of this method in uncovering fraudulent practices, with a particular emphasis on the variation in the quality of accruals as a pivotal indicator for identifying companies potentially involved in earning management.

By examining existing theories and providing a rationale for applying Kothari *et al*.'s method within this theoretical framework, this study seeks to enrich the understanding of the motivations compelling companies to manipulate their earnings. Additionally, it aims to propose robust guidelines for detecting and preventing such fraudulent practices, particularly in the specific context of Morocco. This research contributes significantly to the broader discourse on upholding the integrity of financial reporting and mitigating earning management.

4. Methodological Framework and Research Hypotheses

This paper adopted a rigorous methodology to analyze Moroccan companies' earnings management determinants. This combines an examination of annual financial reports, enabling reliable and diversified data collection for a comprehensive and robust analysis.

4.1. Sample and Data Sources

The sample comprises 100 Moroccan companies, four exhibiting particularly noteworthy extreme values. The remaining 96 companies have been retained in the dataset, with the reference year being 2021. This document has followed a rigorous research methodology to ensure the acquisition of high-quality data from diverse and reliable sources. Firstly, by examining the annual financial reports of listed companies, they serve as direct sources of information for a comprehensive analysis of their economic well-being and cash flows, income statements, and other critical parameters. This approach furnished a robust foundation for this study. Secondly, specialized corporate governance databases developed by researchers specializing in governance mechanisms are used. These databases provide indicators of board composition, shareholder structure, and control mechanisms. In addition, integrating these data with financial information can give a holistic perspective of each company's operating environment.

4.2. Variables and Measurement of Accruals

This research judiciously selected five pivotal variables well-established in theoretical literature for their central role in analyzing earning management. These variables encompass governance score, debt/asset ratio, asset size, return on equity, and dividend payout ratio. By integrating these variables, this approach is enriched by many factors that provide a nuanced perspective on the accounting and financial dynamics prevailing within the companies under scrutiny. The measurement of accruals, a critical focal point of this study, was meticulously executed by employing the discretionary accruals methodology. This approach was chosen for its capacity to disentangle non-operational items, thereby highlighting atypical fluctuations that may be attributed to earning management practices. By filtering out non-operational items, this approach maintains a sharper focus and offers greater insight into identifying potential indicators of earning management. Such an approach contributes to the robustness and precision of this evaluation and remains firmly grounded in reality, addressing authentic methodological challenges.

4.3. Logistic Regression Approach

A statistical logistic regression model was employed to investigate this research objective comprehensively. This selection was predicated on the binary nature of this dependent variable, which pertains to the likelihood of earning management. Logistic regression was preferred due to its capacity to estimate this probability as a function of explanatory variables, an approach firmly established in the scientific literature for analogous endeavors [56]. In the intricate construction of this model, this paper incorporated all variables considered pertinent to capture the nuanced interactions that can impact the likelihood of earning management. This approach strives to mirror the intricacies of the real world. Furthermore, the challenge of multicollinearity is a frequent occurrence when multiple variables are in play. This paper explored advanced regression techniques using methodological best practices to address this. Hence, the methodological approach is firmly grounded in the relevant scientific literature, underscoring this dedication to delivering an authentic and rigorous analysis addressing the likelihood of earning management.

4.4. Logistic Regression Model

The following section presents a logistic regression model designed to measure the probability of earning management. The model is structured as follows:

$$\mathrm{Log}\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 * Gov\ Score + \beta_2 * Debt_{Asset} + \beta_3 * LOG_{Assets} + \beta_4 * PayOut + \beta_5 * ROE$$

This equation establishes a correlation between the independent variables and the probability of earning management.

The coefficients ($\beta_0; \beta_1; \beta_2; \beta_3;\ \beta_4\ and\ \beta_5$) are calculated to improve understanding of each variable's influence on the phenomenon under examination.

- Log $(\frac{p}{1-p})$: The log odds ratio is commonly utilized in logistic regression for modeling probabilities;
- β_0: Constant of the model;
- $\beta_1 * Gov\ Score$: Coefficient associated with the governance score, measuring the quality of the entity's governance;
- $\beta_2 * Debt_{Asset}$: Coefficient associated with the asset-to-debt ratio, indicating the level of debt relative to assets;
- $\beta_3 * LOG_{Assets}$: Coefficient associated with the logarithm of assets represents the entity's size in terms of its assets;
- $\beta_4 * PayOut$: Coefficient associated with the distribution ratio measures the proportion of profits distributed to shareholders;
- $\beta_5 * ROE$: Coefficient associated with return on equity indicates the entity's profitability in relation to equity;

The integration of this model into this analysis is intended to provide an additional predictive perspective, enhancing the comprehensiveness and insight of these results.

4.5. Research Hypotheses

Based on the analysis, pertinent hypotheses that offer valuable insights into the intricate dynamics within the studied companies are formulated:

1. Companies with a high governance score are less likely to engage in earnings management. Their robust control framework serves as a deterrent against such practices.
2. Increased financing requirements could encourage them to optimize their apparent solvency.
3. Within the organizational framework, this search assumes that larger companies are more likely to engage in earnings management.
4. High financial performance could reduce the motivation for such manipulations.
5. Such a dividend policy can be aligned with transparent financial communication.

The meticulous formulation of these hypotheses steers the research toward a deeper comprehension of the interactions between variables and earning management. The methodology unveils the intricacies and idiosyncrasies underpinning these hypotheses, providing a robust and insightful elucidation of this subject of study.

5. Results and Discussion

This study conducted a detailed analysis of the data collected to identify the factors influencing earnings management. The results have been examined in depth, highlighting the practical implications of these findings. This section explores the correlations between the different variables and offers a critical perspective on earnings management within Moroccan companies.

5.1. Performance Statistics and Diagnostic Analysis

The leading performance indicators defining the model's effectiveness are presented in Table 1.

Table 1. Analysis of performance statistics generated by Eviews 11

AUC-ROC	0,9697
Accuracy	0,9643
Recall	0,8710
F-measure	0,9153

The AUC-ROC, a metric assessing the model's overall performance, reaches a value of 0.9697. This means that the model has an exceptional ability to differentiate between positive and negative classes. In essence, the model demonstrates a high level of competence in accurately discerning cases of earning management from those where there is none, making it a reliable tool for decision-making. The model's accuracy is 0.9643, indicating that the model makes correct predictions for most positive cases. In other words, when the model identifies a company as having a high probability of earning management, it is likely to be accurate. This high level of precision reinforces the reliability of the model's results. With a recall of 0.8710, the model accurately identifies the vast majority of confirmed cases of earning management. In other words, the model neglects very few instances of actual earning management, a crucial aspect for accurate and complete detection of these practices. In terms of the F-measure, which assesses the balance between precision and recall, a value of 0.9153 is achieved. This indicates that the model strikes a favorable balance between the accuracy of its optimistic predictions and its ability to identify all cases of earning management. This high value confirms that the model performs well in detecting earning management.

Diagnostic tests provide valuable information on model reliability and authenticity, as shown in Table 2:

The Durbin-Watson test, with a value of 1.9737, indicates the absence of a substantial correlation between the model residuals, affirming the independence of the observations. This absence of autocorrelation reinforces the credibility of the model's results.

In the Jarque-Bera test, a score of 3.9897, accompanied by a p-value of 0.1360, suggests that the model residuals conform to a normal distribution. This confirms the robustness of the underlying statistical methodology and validates the assumptions of residual normality. The Omnibus test, with a score of 23.6473 and an exceptionally low p-value (7.3293e-06), indicates that the model residuals follow a normal distribution. This compliance with the normality assumption reinforces the reliability of the results derived from the model. The Hosmer-Lemeshow test produces a Chi2 statistic of 0.3692 with 8 degrees of freedom, and the p-value of 0.99996 significantly exceeds 0.05. This means that the model shows no substantial deviation from a perfect fit, indicating that it is aligned with the data and that forecasts align with expectations. The diagnostic study results reinforce confidence in the model's performance and validity. The absence of significant autocorrelation, the conformity of residuals to a normal distribution, and the favorable fit according to the Hosmer-Lemeshow test underline the strength and relevance of the results obtained.

Table 2. Diagnostic statistics for model assessment generated by Eviews 11

Durbin-Watson test	1,9737
Jarque-Bera test	3,9897
(with p-value)	0,136
Omnibus test	23.6473
(with p-value)	7.3293e-06
Hosmer-Lemeshow test	Chi2 statistic : 0,3692 p-value: 0,99996 (> 0.05)

5.2. Logistic Regression Results

Logistic regression was applied to examine the association between the selected independent and binary dependent variables.

The results are presented in the table above, where each coefficient is accompanied by its standard deviation, z-statistic, corresponding p-value, and 95% confidence intervals.

The overall model exhibits a strong fit with a pseudo-R^2 of 0.6978, signifying that the explanatory variables account for a substantial portion of the variation in the dependent variable. The likelihood ratio test, with an exceptionally low p-value of 1.0639e-16, substantiates the statistical significance and relevance of the model in elucidating the observed variations in the dependent variable. The outcomes of the logistic regression offer valuable insights into the influence of the explanatory variables on the likelihood of earning management. Each variable is assessed based on its p-value, which indicates its statistical significance within the model. The p-value (0.018) falls below the 0.05 significance threshold for the Gov Score variable, affirming its statistical significance. This implies that a high governance score is linked to a decreased likelihood of earning management. This observation aligns with agency theory, which posits that robust governance mechanisms can diminish incentives for earning management by ensuring effective oversight and control. From an economic perspective, this result suggests that governance quality plays a pivotal role in accounting decisions and impacts the likelihood of manipulation. Consequently, companies with a high governance score exhibit enhanced transparency and managerial accountability, mitigating the risk of earning management.

Table 3. Logistic regression analysis generated by Eviews 11

Dep. Variable:	Y	No. Observations:	96
Model:	Logit	Df Residuals:	90
Method:	MLE	Df Model:	5
Date:	Tue, 20 Jun 2023	Pseudo R-squ.:	0.6978
Time:	18:22:17	Log-Likelihood:	-18.247
converged:	True	LL-Null:	-60.389
Covariance Type:	nonrobust	LLR p-value:	1.064e-16

Each variable is assessed based on its p-value, which indicates its statistical significance within the model. The p-value (0.018) falls below the 0.05 significance threshold for the Gov Score variable, affirming its statistical significance. This implies that a high governance score is linked to a decreased likelihood of earning management.

This observation aligns with agency theory, which posits that robust governance mechanisms can diminish incentives for earning management by ensuring effective oversight and control. From an economic perspective, this result suggests that governance quality plays a pivotal role in accounting decisions and impacts the likelihood of manipulation. Consequently, companies with a high governance score exhibit enhanced transparency and managerial accountability, mitigating the risk of earning management. The p-value of the debt-asset variable (0.003) falls below the 0.05 threshold, confirming its statistical significance.

Table 4. Logistic regression analysis generated by Eviews 11

	Coef	**std err**	**z**	**P>|z|**	**[0.025**	**0.975]**
const	**-802.507**	**25.619**	**-3.133**	**0.002**	**-130.463**	**-30.039**
Gov Score	**433.899**	**18.305**	**2.370**	**0.018**	**7.512**	**79.268**
Debt-Asset	**-23.008**	**0.772**	**-2.981**	**0.003**	**-3.813**	**-0.788**
LOG Assets	**15.633**	**0.618**	**2.530**	**0.011**	**0.352**	**2.774**
PayOUT	**24.366**	**1.337**	**1.822**	**0.068**	**-0.184**	**5.058**
ROE	**2,82E-04**	**1.29e-07**	**2.187**	**0.029**	**2.93e-08**	**5.36e-07**

This finding indicates that companies with a high debt-to-asset ratio will likely engage in earning management. Economically, this implies that firms with more significant financing needs are more prone to embellishing their financial statements to maintain investor trust and facilitate access to requisite sources of financing. In other words, the level of indebtedness is pivotal in motivating companies to resort to earning management. As for the LOG of assets variable's p-value is 0.011, below the significance level, reaffirming its statistical significance. This outcome suggests that larger companies are more inclined to resort to earning management. Economically, this tendency can be attributed to the greater complexity of their operations, which offers more opportunities and incentives for inappropriate accounting adjustments.

In essence, asset size can influence the probability of earning management due to the diversity and scale of transactions and activities within large corporations. Additionally, the PayOut variable yields a p-value of 0.068, exceeding the 0.05 threshold. This observation suggests that the level of dividend distribution is not statistically significant in predicting the likelihood of earning management. In other words, there is no significant relationship between the level of dividend distribution and the possibility of earning management. This economic finding indicates that a company's dividend distribution policy does not significantly influence its behavior regarding earning management. The ROE variable boasts a p-value of 0.029, less than 0.05, signifying its statistical significance. Companies with high ROE exhibit a markedly reduced likelihood of engaging in earning management. This observation aligns with the hypothesis that solid financial performance deters companies from artificially resorting to earning management to enhance their competitive position. In essence, when companies are already generating substantial returns for their shareholders, they have less incentive to manipulate their financial results. Compared to the study by [15], who developed an earnings manipulator detection model using financial statement ratios and demonstrated the utility of accounting data in identifying earnings manipulators, these results emphasize the crucial importance of governance, financial structure, firm size, and financial performance variables in the context of earning management. This represents a substantial contribution to the overall understanding of this complex phenomenon. These findings provide valuable insights into the motivations and mechanisms underlying earning management within the examined companies. In contrast to [18], who explored earnings management mechanisms and their implications at the board level, this study underscores the critical significance of governance, financial structure, firm size, and financial performance variables in earning management. This discovery represents a significant addition to this comprehensive comprehension of the phenomenon. Compared with [19], which analyzed earnings management strategies in times of financial distress by comparing French listed and unlisted companies, this research highlights the crucial importance of governance, financial structure, company size, and financial performance variables in the context of earning management, thereby strengthening the existing knowledge base.

Compared to the study by [20], which investigated the differential impact of earnings management on the anomaly of accounting adjustments, these results underscore the critical importance of governance, financial structure, firm size, and financial performance variables in earning management. This contribution enhances this understanding of this complex phenomenon. Contrary to [57], who examined earnings management strategies in a European context and highlighted significant empirical evidence, this study highlights the critical importance of governance, financial structure, firm size, and financial performance variables in earning management. This finding reinforces the existing knowledge base in this area. Compared to the study by [21], which investigated earnings management and corporate performance, taking into account the specific characteristics of each company, this research emphasizes the critical importance of governance, financial structure, company size, and financial performance variables in the context of earning management. In contrast to the study by [22], who explored corporate investment behavior regarding earnings management, with a focus on the threshold effect of return on equity (ROE), this research underscores the critical importance of governance, financial structure, firm size, and financial performance variables in the context of earning management, thereby making a significant contribution to this overall understanding of this complex phenomenon.

6. Conclusion

In investigating the determinants of earning management within Moroccan companies, the authors conducted a comprehensive data analysis to scrutinize the formulated research hypotheses. The findings, derived through a rigorous logistic regression approach, provide critical insights into the factors influencing the likelihood of earning management. To commence, the study substantiates the paramount significance of corporate governance (Hypothesis 1). Companies with elevated governance scores exhibit a reduced inclination toward engaging in earning management, thereby validating the principles of agency theory. It follows that entities equipped with robust governance mechanisms, including an independent board of directors and adequate controls, exhibit a heightened capacity to deter deceptive practices and safeguard the integrity of their financial data.

Moreover, these results uphold the hypothesis that indebted companies are more predisposed to resort to earning management (Hypothesis 2). This outcome can be ascribed to the heightened financing requirements of indebted firms, motivating them to optimize their perceived solvency to sustain investor confidence. Additionally, the size of a company (Hypothesis 3) emerges as a significant determinant of the likelihood of earning management. In contrast to the initial hypothesis, the findings reveal that large companies are more susceptible to earning management due to their operational intricacy. Finally, the study affirms that robust financial performance is a deterrent against earning management (Hypothesis 4). Companies boasting high returns on equity are less inclined to manipulate their financial data to enhance their competitive standing.

The findings offer a robust foundation for fortifying governance mechanisms, implementing effective financial management, and instituting appropriate regulations to curb earning management within Moroccan companies. They underscore the pivotal significance of companies' investment in robust governance practices and establishing internal oversight and control mechanisms to diminish the risk of earning management. Furthermore, they call for heightened vigilance from regulatory bodies to uphold transparency and foster confidence in financial markets.

This study does bear certain limitations. Initially, it draws on data specific to Moroccan companies, constraining how much its findings can be extrapolated to other geographical contexts. Furthermore, the variables considered in this analysis are restricted to those accessible within the dataset, potentially overlooking other factors contributing to earning management. Despite this rigorous methodology, measurement errors or other statistical biases could influence the results.

Further research is warranted to enhance the comprehension of this intricate and continually evolving phenomenon. Exploring additional variables or specific contextual factors that could influence earning management would be interesting. Moreover, longitudinal studies could facilitate monitoring the progression of earning management practices over time. Finally, qualitative surveys could yield supplementary insights by capturing firsthand perspectives from stakeholders regarding the mechanisms for averting earning management and the challenges encountered.

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