

EFFECT OF REVENUES EARNING MANAGEMENT ON FINANCIAL PERFORMANCE OF NON- FINANCIAL FIRMS IN KENYA

^{1*} **Francis Makau Ngati**
fmngati.2020@gmail.com

^{2**} **Dr. Vitalis Abuga Mogwambo**
mogwambov@yahoo.com

^{3***} **Dr. Edwins Baraza**
edwinsbaraza@gmail.com

^{1, 2, 3} *Jaramogi Oginga Odinga University of Science and Technology, Kenya*

Abstract: *Earnings management has become an increasingly critical concern for both scholars and practitioners, given its implications for firm performance, market stability, and investor confidence. This study examined the effect of revenue earnings management on the financial performance of non-financial firms in Kenya, an area that remains underexplored in emerging economies. Anchored on a positivist philosophy and employing an explanatory longitudinal research design, the study analyzed secondary data from 44 non-financial firms listed on the Nairobi Securities Exchange (NSE) over a seventeen-year period (2004–2020). Revenue earnings management was operationalized using a modified Dechow and Dichev (2002) model, while financial performance was measured through both accounting-based indicators (Return on Assets and Return on Equity) and market-based measures (Tobin's Q and Earnings per Share). Correlation analysis revealed a strong positive association ($r = 0.7026$) between revenue earnings management and financial performance, while regression results confirmed a significant effect ($\beta = 0.764$, $p < 0.05$). Segmental analysis indicated variations across industries: the commercial sector recorded the strongest influence of revenue manipulation on financial outcomes, followed by construction and investment, whereas the energy sector showed the weakest effect. These findings provide robust evidence that revenue earnings management significantly enhances reported financial performance, although the extent of its impact is industry-specific. The study concludes that while revenue earnings management may improve short-term financial indicators, it also raises concerns about sustainability, regulatory scrutiny, and potential distortions in investor decision-making. The findings contribute to the literature on earnings management in emerging markets and offer practical implications for policymakers, investors, and managers. Strengthening corporate governance, enhancing disclosure requirements, and tailoring regulatory oversight to sectoral risks are recommended as measures to curb excessive manipulation and promote transparency in Kenya's financial markets.*

Keywords: *Revenue earnings management; financial performance; non-financial firms; Nairobi Securities Exchange; emerging markets; corporate governance*

1. Introduction

In recent years, the phenomenon of earnings management has garnered significant attention from academics and practitioners due to its implications for financial performance among firms. This study aims to explore the effect of revenue earnings management on the financial performance of non-financial firms in Kenya, a topic that remains under-examined in the context of emerging economies. Earnings management, defined as the

manipulation of financial reporting to present a desired image of a company's profitability, can have dire consequences on the perceived and actual financial health of firms, ultimately influencing investor decisions and market stability (Nagy & Valášková, 2022).

Kenya's environment presents a unique setting for studying earnings management practices, especially given the country's distinct economic challenges and regulatory landscape. For instance, a study by Kamau et al. found that variations in leverage and liquidity significantly impact firms' financial performance in Kenya, suggesting that financial metrics can be influenced by managerial decisions regarding earnings management strategies (Kamau et al., 2021). Moreover, the broader implications of earnings management extend beyond mere reporting, intertwining with capital structure and operational efficiency as highlighted by research indicating that financial reporting is susceptible to misrepresentation when firms strive to meet market expectations (Stubben, 2010).

The relationship between revenue recognition and earnings quality has been examined in various contexts, revealing that firms often resort to aggressive earnings management to align reported revenues with investor expectations. Notably, research focusing on international contexts, such as the study by Malikov et al., illustrates that companies with strict covenant requirements engage in earnings manipulation to maintain operational leverage (Malikov et al., 2019). Such behavior raises concerns regarding the reliability of financial statements, emphasizing the importance of understanding the implications of earnings management practices on overall firm performance in Kenya's dynamic market environment.

Studies have shown that robust governance frameworks can alleviate the risks associated with earnings manipulation, contributing to enhanced firm performance and stakeholder trust (Prastiwi, 2018). By providing empirical evidence from non-financial firms across Kenya, this research aims to contribute to the growing body of literature in earnings management while offering practical insights for policymakers, investors, and corporate managers alike.

2. Problem statement

In Kenya, non-financial sectors contribute significantly to the economy, yet the interplay between earnings management and actual financial performance remains largely unexplored. Anecdotal evidence suggests that firms may manipulate revenue recognition to present a more favorable portrayal of financial results, driven by pressures from investors, competition, and other external factors. The inconsistency and opacity surrounding revenue practices not only complicate the investment decision-making process among stakeholders but also pose risks to the integrity of financial markets.

Moreover, the relationship between earnings management and financial performance is complex and multifaceted, influenced by various contextual factors, including corporate governance structures and regulatory oversight. Existing research has predominantly focused on developed markets, leaving a gap in the literature regarding emerging economies such as Kenya. The lack of empirical data specifically addressing the practices of revenue earnings management among non-financial firms in Kenya poses a critical challenge to scholars, practitioners, and policymakers seeking to understand the implications of these practices on overall firm performance.

Consequently, this study aims to empirically investigate the effects of revenue earnings management on the financial performance of non-financial firms in Kenya, seeking to answer crucial questions surrounding the mechanisms of earnings manipulation, the contextual determinants influencing such practices, and the resultant

implications for stakeholders. By addressing these fundamental concerns, this research intends to enhance the understanding of revenue management in Kenya's economic landscape, thereby contributing to improved corporate governance practices and fostering greater financial transparency in the region.

3. Empirical Literature Review

Earnings management is a critical area of study in accounting, particularly regarding its impact on the financial performance of firms. The relevant literature spans various dimensions of earnings management, including its underlying motivations, methodologies, and effects. This empirical review synthesizes findings from existing studies focusing on the context of non-financial firms, with a special emphasis on emerging markets such as Kenya.

One of the pivotal contributions to the understanding of earnings management comes from studies examining the relationship between business strategies and earnings manipulation practices. Research by Mawaali et al. highlights that a cost leadership strategy is significantly associated with increased earnings management in non-financial firms, as management often seeks to present a more favorable financial outlook amidst competitive pressures (Mawaali et al., 2024). Similarly, the influence of market competition on management decisions has been documented, indicating a tendency for firms engaged in differentiation strategies to resort to earnings management as a method of achieving short-term financial goals, potentially jeopardizing long-term prospects (Widuri & Sutanto, 2019).

The effects of earnings management on financial performance have been a focal point of numerous studies. Githire et al. found a critical correlation between earnings quality and investment efficiency among firms listed on the Nairobi Securities Exchange (NSE), suggesting that higher earnings quality positively affects financial performance (Githire et al., 2023). This aligns with findings from Kamau et al., which establish that earnings management practices can lead to financial distress, thereby affecting overall firm performance (Kamau et al., 2022). The implications of financial performance are compounded by the structural characteristics of firms, such as asset structure, which Obong'O et al. posit as a significant predictor of success for non-financial firms listed on the NSE (Obong'o et al., 2024).

Additionally, the broadened understanding of revenue manipulation mechanisms presents further insights into earnings management practices. Research by Malikov et al. emphasizes that firms with tight interest coverage covenants engage in revenue classification shifting as a means to manipulate financial outcomes (Malikov et al., 2019). This highlights the nuanced strategies employed by management to alter earnings presentations without direct alterations to reported revenues. On a related note, studies show that corporate governance can act as both a moderator and a mitigator of earnings management practices, with effective governance structures reducing the incidence of earnings manipulation (Prastiwi, 2018).

Furthermore, the role of economic policy uncertainty (EPU) has emerged as a crucial factor influencing earnings management behaviors. Cui et al. provide evidence that increased EPU prompts managers to engage in earnings manipulation, adversely affecting earnings quality, particularly in the context of transitional economies (Cui et al., 2020). This dynamic points to the broader implications of macroeconomic conditions and managerial behavior, providing a rich domain for further inquiry.

Finally, the adopted methodologies in research on earnings management, including the application of models such as the Modified Jones Model and discretionary revenue approaches, play vital roles in the detection and measurement of earnings manipulation (Nyakarimi, 2021; , Stubben, 2010). Critically, these methodologies

shape the understanding of how various factors, including firm size and performance objectives, can influence earnings management choices.

The empirical literature increasingly substantiates the multifaceted nature of earnings management, highlighting its pervasive impact on financial performance among non-financial firms in emerging markets like Kenya. This review underscores the necessity of a nuanced understanding of managerial behaviors, structural firm characteristics, competitive dynamics, and governance mechanisms in shaping the earnings management landscape. Further research is essential to bridge existing gaps and provide actionable insights for stakeholders across the financial ecosystem.

4. Research methodology

This study was guided by a positivist research philosophy, which assumes that social phenomena can be observed objectively, quantified, and analyzed to establish causal relationships. Positivism was considered appropriate because the study relied on verifiable, numerical data drawn from audited financial statements, NSE records, and regulatory filings. By adopting this philosophical stance, the research sought to provide empirical evidence on how revenue earnings management influences the financial performance of non-financial firms. A deductive reasoning approach was used, beginning with theoretical propositions and hypotheses, which were then subjected to statistical testing using longitudinal data.

The study adopted an explanatory longitudinal design, which is well-suited for examining cause–effect relationships across time and across entities. This design was selected because it accommodates both cross-sectional analysis of multiple firms and time-series analysis over an extended period. The longitudinal framework was particularly valuable in tracing the evolution of earnings management practices and their impact on firm performance, thus addressing potential issues of short-term bias that are common in cross-sectional studies. The study covered the period from 2004 to 2020, a span of seventeen years, which provided sufficient variation in firm performance and earnings management behavior to facilitate robust analysis.

The target population consisted of all non-financial firms listed on the Nairobi Securities Exchange (NSE). Financial institutions such as banks, insurance, and investment companies were excluded due to their sector-specific reporting frameworks and regulatory requirements, which would have introduced heterogeneity into the analysis. Using a census approach, the study included all 44 non-financial firms that consistently reported complete and audited financial statements within the study period. This ensured comprehensive coverage of the non-financial sector and minimized sampling bias.

The study relied exclusively on secondary data, which were extracted from publicly available sources, including audited annual reports of firms, the Capital Markets Authority (CMA) databases, and NSE handbooks. Data were systematically collected using a document review guide to ensure consistency across firms and years. The independent variable of interest— revenue earnings management—was operationalized through discretionary accruals using a modified Dechow and Dichev (2002) model, which has been widely applied in empirical studies to capture manipulation in financial reporting. Other components of earnings management, such as revenues, provisions, reversals, and depreciation, were also considered for completeness, while firm size (log of total assets) was included as a moderating variable. The dependent variable, financial performance, was measured using both accounting-based indicators (Return on Assets and Return on Equity) and market-based indicators (Tobin’s Q and Earnings per Share), allowing for a multidimensional assessment.

Data analysis involved inferential statistics. Inferential analysis was conducted using panel regression models, specifically fixed effects and random effects estimators. This approach enabled control for unobservable firm-specific effects and improved the robustness of causal inference. To ensure the reliability of the regression results, multicollinearity tests (Variance Inflation Factor) was performed to check for correlations among explanatory variables.

The validity and reliability of the data were enhanced through the use of audited financial statements, which are subject to stringent regulatory oversight by the CMA and NSE, thereby reducing the likelihood of bias or manipulation in reporting. The longitudinal coverage of seventeen years also improved reliability by smoothing short-term fluctuations and cyclical effects. Furthermore, the operationalization of earnings management using established models strengthened construct validity and aligned the study with global empirical standards.

Diagnostic analysis of study variables

5. Multicollinearity Test

In a regression model, multicollinearity occurs when two or more independent variables exhibit a high degree of correlation with one another, making it challenging to ascertain the distinct contributions of each independent variable to the dependent variable. Since independent variables ought to be independent, this correlation is problematic. When fitting the model and interpreting the findings, it may be problematic if the degree of correlation between the variables is high enough. Table 1 displays the outcomes of this test based on the study.

Table 1: Multicollinearity test statistic results

	Collinearity Statistics	
	Tolerance	VIF
Intercept		
(X₁) REV_{it}	0.8264	1.210

Tolerance indicates how much of a variable's variance is not explained by other independent variables in the model. A tolerance value below 0.10 is usually a sign of severe multicollinearity. In this case, the tolerance for REV_{it} is 0.8264, which is well above the threshold, suggesting no multicollinearity problem.

Variance Inflation Factor (VIF) shows how much the variance of a regression coefficient is inflated due to multicollinearity. A VIF value above 10 is considered problematic, and values between 5–10 may indicate moderate concern. Here, the VIF for REV_{it} is 1.210, which is very low, again confirming that multicollinearity is not an issue.

The results indicate that the independent variable REV_{it} (Revenues earnings management) does not suffer from multicollinearity. This means it can be reliably included in the regression model without distorting coefficient estimates.

6. Correlation coefficients of study Variables

Measure of the relationship between the study variables under examination is correlation. It is presumed that change in one variable's magnitude is linked to a change in another variable's magnitude in correlated data, either in the same direction (positive correlation) or in the opposite direction (negative correlation).

Table 2 displays the results of the correlation coefficients of the study variables.

Table 2: Correlation coefficients of Variables

	(Y) <i>Financial Performance</i>	(X ₂) REV _{it}
(Y) Financial Performance	1	
(X ₁) REV _{it}	0.7026	1

The correlation coefficient between Financial Performance (Y) and Revenues Earnings Management (X₁: REV_{it}) is 0.7026.

This value is positive and strong, since correlation values above 0.7 typically indicate a strong linear relationship.

This suggests that as revenues earnings management practices increase, the financial performance of non-financial firms tends to improve correspondingly.

The diagonal entries (1.0) simply indicate perfect self-correlation for each variable.

The strong positive correlation (0.7026) implies that Revenue earnings management is strongly associated with better financial performance of non-financial firms listed on the NSE.

7. Segmental Earning Management Price/Earnings Ratio Analysis

Certainly overvaluing or undervaluing a company's stock, segmental earnings management can have a substantial effect on the price-to-earnings (P/E) ratio and, in turn, the securities market. Companies can present a false image of their financial health and affect investor perception and trading behavior by manipulating segment earnings. This may result in securities being mispriced and potentially detrimental investment choices. In order achieve the desired financial reporting results, the listed firms may employ a variety of approaches to manipulate earnings in those various segments. This may entail adjusting accounting procedures, redistributing revenues or costs among various segments, or making tactical choices that affect segment performance.

Factoring in anticipated profits growth, the Price/earnings to growth ratio adds further degree. The PEG ratio, which is calculated by dividing the P/E ratio by the earnings growth rate, supports investors and directors of the non- financial firms in taking into consideration a company's potential for future earnings. According to DeBoeuf and Stanley (2013), a stock may be cheap in relation to its growth potential if it's PEG ratio is less than 1. The study developed a segmental analysis of the earnings price ratio for non-financial companies listed on the NSE. The results are shown in table 3.

Table 3: Segmental Earning Price/Earnings Ratio Analysis

Firms' Segments	Mean	S.D	CV	Minimum	maximum	95% Confidence Level
Commercial	0.2022	0.3665	1.8125	0.0304	1.5786	0.0469
Manufacturing	0.1437	0.0605	0.4210	0.0728	0.2773	0.0321
Energy	0.1536	0.1304	0.8490	-0.1026	0.4557	0.0461
Automobile	0.1169	0.0975	0.8340	0.0166	0.2944	0.0246
Construction	0.4609	1.1686	2.5355	-0.2663	3.2657	0.0315
Agriculture	0.0581	0.0522	0.8985	-0.0581	0.1504	0.0301
Investment	0.0838	0.0685	0.8174	-0.0529	0.2530	0.0219

The construction segment has the highest mean of segmental earnings management at 46.09%, while the agriculture segment has the lowest mean at 5.81%, according to table 4.8's descriptive statistics of segmental earning as presented by price/earnings ratio. The remaining segments' mean earnings/price of the segmental earning management is lower than the commercial segment's 20.22%. These also compare well with the mean of 21.37% for the market earnings management price/earnings ratio analysis. Comparing the segmental mean averages with the corresponding standard deviations yields meaningful information. The coefficient of variation, a relative metric, is thus produced from these absolute measurements. With a CV of 2.5355, the construction industry again offers the highest volatility from this perspective, closely followed by the commercial section at 1.8125. The manufacturing segment is the least volatile, with a CV of 0.4210, whereas the other segments all have CV values below 1.

8. Inferential Statistics Analysis Results

Regression analysis is a collection of statistical procedures used in statistical modeling to estimate the associations between one or more error-free independent variables (regressors) and a dependent variable (outcome or response variable, or a label in machine learning jargon). Agriculture, commercial and services, construction and related industries, energy and petroleum, manufacturing and related industries, and automobiles and accessories were the seven Nairobi Securities Exchange segments that were examined. All seven parts satisfied the requirements. Regressing annual changes in financial performance on the factors whose variations translate into the variations in financial performance allowed for the reliability of the earning management model to be established prior to its use for financial performance estimate. Table 4 and 5 displays the results of the regression.

Table 4: Regression Analysis: ANOVA and Coefficients

ANOVA					
	SS	MS	F	Sign	
Regression	0.81983	16.397	15.50598	.000	
Residual	0.15862	1.057			
Total	0.97845				
	Coefficients	Standard Error	t-Statistics	P-value	

Intercept	.572	.13637	2.568682	.001
(X ₁)REV _{it}	.764	.117731	2.346421	.033

The regression analysis results revealed that the overall model was statistically significant, as shown by the ANOVA output. The F-statistic of 15.506 with a corresponding p-value of 0.000 indicates that the explanatory variable—revenue earnings management (REV_{it})—collectively explains a significant proportion of the variation in financial performance among non-financial firms in Kenya. This implies that the regression model is a good fit and provides credible evidence for examining the effect of earnings management on firm outcomes. The relatively large regression sum of squares (0.81983) compared to the residual sum of squares (0.15862) further confirms that the independent variable meaningfully accounts for variations in the dependent variable.

The coefficient estimates provide deeper insights into the direction and magnitude of the relationship between revenue earnings management and financial performance. The intercept value of 0.572 ($p = 0.001$) was significant, suggesting that even in the absence of revenue management practices, firms demonstrate some level of financial performance. However, the more important finding lies in the coefficient of REV_{it}, which was 0.764 with a p-value of 0.033. This coefficient was positive and statistically significant at the 5% level, indicating that revenue earnings management exerts a favorable influence on financial performance. Specifically, the results suggest that a one-unit increase in revenue earnings management is associated with a 0.764-unit improvement in financial performance, holding other factors constant.

These findings provide strong empirical support for rejecting the null hypothesis that revenue earnings management has no significant effect on financial performance. Instead, the results confirm that revenue management practices play a substantial role in shaping the profitability and market outcomes of non-financial firms. This is consistent with prior studies which have demonstrated that firms engaging in earnings management through revenues often appear more financially stable and attractive to investors, thereby boosting both accounting-based and market-based measures of performance. However, while the short-term gains are evident, the findings also raise questions regarding the sustainability of such practices, as excessive reliance on earnings manipulation may expose firms to regulatory scrutiny and reputational risks in the long run.

Model Summary per Firm's Segment

The model summary results across the seven firm segments demonstrate that revenue earnings management (REV_{it}) strongly explains variations in financial performance within the non-financial sector. The coefficient of determination (R^2) values were all relatively high, ranging from 0.759 in the automobile sector to 0.867 in the investment sector. These results suggest that between 75.8% and 86.7% of the changes in financial performance across the firm categories can be attributed to revenue earnings management. The adjusted R^2 values, which account for model parsimony, were also consistently above 0.58, indicating robustness of the models across sectors. The F-statistics for all segments were statistically significant ($p < 0.01$), confirming that the regression models fit the data well and that REV_{it} is a valid predictor of financial performance in each segment.

Table 5: Model Summary per Firm's Segment

Firms' Segments	R	R2	Adj.R2	F	Sig. F		
Commercial	0.87109	.7588	.6818	8.9087	.0027		
Manufacturing	0.88876	.7899	.7233	18.8047	0.007		
Energy	0.89677	.8042	.7424	11.9014	0.000		
Automobiles	0.87143	.7594	.5821	5.9475	0.001		
Construction	0.92585	.8572	.8163	20.6847	0.000		
Agriculture	0.87074	.7582	.6809	8.5874	.0003		
Investment	0.93118	.8671	.8053	20.7240	.000		
Coefficients' of the study variable per segment							
	Commercial	Manufacturing	Energy	Automobile	Construction	Agriculture	Investment
β₀	3.9837	4.5373	4.8542	4.6847	2.6012	1.8759	2.8746
Sig.	(0.0014)	(0.0001)	(0.0031)	(.0004)	(0.0039)	(0.0016)	(0.0041)
(X₂)	3.7795	2.5436	1.0851	1.8764	2.5341	2.6784	2.3541
REV_{it}							
Sig.	(.0032)	(0.0015)	(0.0076)	(0.0037)	(0.0047)	(0.0214)	(0.0211)

The coefficients provide further insights into how the effect of revenue earnings management varies by industry. The intercept values (β_0) ranged from 1.8759 in agriculture to 4.8542 in energy, all statistically significant, implying that baseline financial performance differs across sectors even in the absence of revenue earnings management. More importantly, the slope coefficients for REV_{it} were consistently positive across all segments, confirming that higher levels of revenue earnings management are associated with stronger financial performance. The magnitude of the effect varied: the commercial sector ($\beta = 3.7795$, $p = 0.0032$) recorded the strongest influence of REV_{it} on financial performance, while the energy sector ($\beta = 1.0851$, $p = 0.0076$) showed the weakest. The construction, manufacturing, agriculture, and investment sectors all reported moderate but statistically significant positive effects, with coefficients between 2.35 and 2.68.

9. Summary and Conclusions

The findings highlight clear sectoral differences in the influence of revenue earnings management. Commercial firms, with the highest coefficient, appear most sensitive to revenue management practices, suggesting that financial performance in this sector is heavily influenced by managerial discretion in reporting revenues. Construction and investment firms also show strong responsiveness, likely due to the nature of project-based accounting and investment flows that provide managers with leeway in timing recognition of revenues. In contrast, the energy sector demonstrates the weakest effect, reflecting its heavy regulation, capital-intensive operations, and relatively rigid revenue recognition structures that constrain opportunities for manipulation. Agriculture and manufacturing lie in the middle range, indicating moderate effects. Overall, while revenue earnings management enhances reported financial performance across all segments, the results suggest that commercial, construction, and investment firms are most at risk of performance distortions from earnings manipulation, whereas energy firms remain comparatively less susceptible.

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