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Managerial Ownership, Audit Committee Effectiveness and Real Earnings Management: Evidence from Non-Financial Companies Listed in the Nairobi Securities Exchange.

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Abstract
Real earnings management has gained attention due to financial fraud stemming from distorted reporting and misrepresentation of firm value. Opportunistic managers may exploit reporting to enhance personal gain, making detection challenging as it involves legitimate operational decisions, like changing production or discretionary spending, which can mislead shareholders and hinder firm growth. To better understand and address this important issue, the study set out to investigate the mediating effect of audit committee effectiveness (ACE) on the relationship between managerial ownership structure (OS) and real earnings management (REM). The study's specific objectives were to determine the effect of managerial ownership structure and real earnings management, besides the mediating role of audit committee effectiveness on the link between managerial ownership structure and real earnings management. The study was guided by stakeholders' theory and it employed an explanatory research design alongside a panel data approach to survey non-financial firms listed on the NSE that met the set inclusion criteria. The research population included 40 listed non-financial firms, with the focus narrowed to 26 firms that operated continuously between 2008 and 2023, resulting in a total of 416 firm-year observations. Secondary data extracted from financial reports were analyzed using both descriptive and inferential statistical methods. Audit committee effectiveness was found to mediate the relationship between managerial ownership and real earnings management. The study results specifically indicate a positive and significant effect of managerial ownership on real earnings management ($\beta = 0.781$, $p<0.05$), and audit committee effectiveness partially mediates the relationship between managerial ownership and real earnings management ($\beta = -0.365$, $p<0.05$). The study finds that managerial ownership structure is associated with increased real earnings management. While audit committee effectiveness partially mediates the relationship between managerial ownership and real earnings management. These findings align with stakeholder theory, highlighting the critical role of ownership structure and governance mechanisms in enhancing financial reporting quality.
Keywords: Managerial Ownership, Real earnings management, Audit committee effectiveness
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Introduction

Real earnings management is an unethical managerial strategy of financial reporting that projects favorable short-term performance, often at the expense of long-term value and earnings quality (Roychowdhury, 2006). Managers use their discretion to alter day-to-day operational activities in ways that distort the economic reality of the organization, undermining the reliability and trustworthiness of disclosed financial reports (Fariha et al., 2022). Real activity Manipulation has gained significant academic attention among the different methods of earnings manipulation due to its subtlety and ability to go undetected while distorting how resources are allocated (Gunny, 2010; Roychowdhury, 2006).Following a series of high-profile accounting scandals, stakeholders such as investors, regulators, and accounting and audit professionals have become more doubtful

about the trustworthiness of financial statements (Singh et al., 2016). Recent cases such as Cronos Group Inc. (2019–2022), Luckin Coffee (2019), and Wirecard (Browne, 2020) highlight the connection between profit smoothing and weak audit committees, eroding investor confidence, and threatening economic stability. This concern is especially critical in today's globalized and rapidly evolving economic landscape. The issue is even more pronounced in emerging economies like Kenya, where weaker institutional structures and enforcement mechanisms increase the likelihood of managerial opportunism and threaten the credibility of financial reporting.

The study's main drive is to evaluate the intervening impact of the audit committee effectiveness on the association between managerial ownership and real earnings management among listed non-financial companies in the Nairobi Securities Exchange. In recent decades, despite significant global efforts to enhance corporate governance codes and accounting regulations aimed at increasing shareholder wealth, their effectiveness in limiting creative earnings practices remains questionable. Many major corporate failures and financial crises have occurred, often resulting from weaknesses in corporate governance. Well -functioning corporate governance is essential in limiting artificial earnings, thus the mediating effect of audit committee effectiveness on the association between managerial ownership and real earnings management has become an ongoing concern among policymakers, securities market regulators, investors, and academia(H. Kent Baker, 2018).

This study focuses on non-financial companies for a few key reasons. Financial companies, like commercial banks, play a significant role in the economy. However, they are heavily regulated by the Central Bank of Kenya and the Insurance Regulatory Authority. These regulations make financial data less accessible and impose strict disclosure requirements. Moreover, financial firms often use off-balance sheet reporting to present their financial assets and liabilities, which can make it hard to get a clear and accurate picture of their financial position. On the other hand, non-financial firms tend to be more directly involved in real earnings management. They generally have more flexibility in managing their operations and reporting their financial outcomes, making them more relevant for studying the relationship between managerial ownership structure, audit committee effectiveness, and real earnings management. For these reasons, this study specifically focuses on non-financial firms to ensure that the data is both transparent and relevant to the research objectives.

The current study makes important contributions. First, it is one of the few studies to investigate how audit committee effectiveness transmits the impact of managerial ownership on real earnings management. Second, it enhances theoretical insight and enriches the current literature on well -functioning audit committee, managerial ownership, and real earnings management, particularly within the Kenyan context. Unlike previous studies that focused on individual audit committee characteristics (Fakhfakh & Jarboui, 2022; Khudhair et al., 2019; Saidu & Aifuwa, 2020), this study takes a more holistic approach using a combined audit committee effectiveness index. Conducted in Kenya, an emerging economy in East Africa, it provides valuable insights for investors, board members, practitioners, academics, and policymakers.

This study will contribute to literature in several ways. Firstly, this study will contribute to the field of accounting and finance by giving more insight into corporate oversight, such as audit committee and managerial ownership. Secondly, it offers guidance on the standard operating procedures that non-financial companies listed on the Nairobi Securities Exchange should establish and follow to promote quality reporting and minimize real operational activity. Thirdly, the findings of this study will help contribute to future research and scholars in explaining the relationship between ownership structure and real earnings management and give more insight into the importance of proficient audit committee. It also highlights directions for future research, benefiting scholars by encouraging further investigation and discussion, which in turn broadens opportunities for critique and the advancement of knowledge. Finally, this study benefits owners by offering guidance on how to effectively oversee management, enabling them to coordinate efforts toward common goals and mutual interests in situations where ownership and control are held by different parties.

The rest of the paper is organized in the following manner: Section 2 discusses the theoretical framework on which the study has been conducted. Section 3 discusses the literature review and hypotheses development used in the study. Section 4 shows the research methodology of the study. Section 5 represents the analysis of the results from the descriptive and inferential. Analysis. Finally, Section 6 concludes the study and provides recommendations based on the findings

Theoretical Framework

The theory underpinning this study is stakeholder developed by Freeman, (1984) , which asserts that firms do not operate in isolation, but rather within a complex web of relationships that encompass both internal and

external stakeholders. These stakeholders include employees, shareholders, suppliers, contractors, business partners, investors, lenders, customers, and regulatory bodies. This theory emphasizes that managerial responsibility extends beyond the singular goal of maximizing shareholder wealth, encompassing the interests and well-being of all stakeholders who are directly or indirectly impacted by the firm's actions(Donaldson & Preston, 1995) . The corporate manager's ownership and the audit committee are internal control mechanisms that play a major role in monitoring managers' opportunistic activities H. Kent Baker, (2018). Real earnings management is a strategic distortion of operational decisions for financial reporting purposes, carrying significant implications for this broader stakeholder network. For internal stakeholders such as employees and shareholders, REM obscure the firm's true financial health, leading to misguided strategic decisions, reduced job security, or an inaccurate valuation of firm performance and for external stakeholders, including investors, creditors, suppliers, and government agencies, REM compromises transparency, erodes trust, and may result in inefficient capital allocation or regulatory penalties (Al-Shaer & Zaman, 2019).

Stakeholder theory, therefore, calls for a more inclusive governance framework that considers the needs and expectations of all affected parties in corporate decision-making. In this context, audit committees and other oversight bodies are expected not only to protect shareholder interests but also to uphold ethical standards, promote fair reporting practices, and serve the collective interests of all stakeholders. This multi-stakeholder perspective reinforces the need for corporate transparency, long-term value creation, and sustainable governance practices(Solomon, 2020)

Literature Review and Hypotheses Development

Managerial ownership and real earnings management

Prior studies postulate that managerial ownership affects real earnings management practices via discretionary accounting accruals and real activity manipulation (Abubakar *et al.,* 2021). However, a review of the literature on the relationship between managerial ownership and real earnings management showed mixed empirical results. Managerial ownership is a good way to align shareholders' and managers' interests and to address agency problems. As such, managers will be part of the firm's ownership and practically align interests with the owners. A stream of researchers has found that managerial ownership negatively influences real earnings management and supports the incentive alignment proposal (Dong et al., 2020). This is because when managers hold a significant ownership stake in the company, their interests become more closely aligned with those of shareholders. As a result, managers are less likely to engage in real earnings management practices that could harm the firm's long-term value, as they directly bear the financial consequences of reduced firm performance. Moreover, Akter et al. (2024) noted that managerial ownership significantly reduces aggressive earnings manipulations. Consequently, the management entrenchment school of thought proposes that higher levels of managerial ownership give managers more leeway for opportunistic behavior to meet their objectives rather than shareholders' interest(Aygun et al., 2014; Gopalan & Jayaraman, 2012).This perspective suggests that as managerial ownership increases, managers may feel secure enough in their positions to manipulate earnings or undertake decisions that benefit them personally, even if these actions compromise shareholder value.. According to Abubakar, Lawal, and Mohamed (2020). Ownership structure and real earnings management: Evidence from Nigeria. *Journal of Management Theory and Practice*, managerial ownership heightens the likelihood of earnings manipulation. Additionally, Shah and Shah (2014) found that the degree of real earnings management increases monotonically with the ownership percentage of a firm's directors, their spouses, children, and other family members. Aligned with stakeholder theory, the following hypothesis is proposed.

Ho: Managerial ownership has no significant effect on real earnings management

H1: Managerial ownership significantly increases real earnings management

The mediating effect of Audit Committee Effectiveness on the relationship between managerial ownership and Real Earnings Management

Globalization has brought about market expansion and increased dynamism, but it has also heightened performance pressure among prominent and well-established organizations. Moreover, recent global financial scandals have cast doubt on the dependability of financial statements (Salehi et al., 2022). These issues reflect ongoing conflicts of interest among owners, creditors, and managers, particularly where executives have

privileged to access classified information, thus prioritizing their interests over maximizing shareholder value (Adeneye & Kammoun, 2022).

Nonetheless, corporate governance mechanisms contribute significantly to maintaining the accuracy and trustworthiness of financial statements. Agreeing with stakeholder theory, Zalata et al., (2022) found an inverse relationship between audit committee characteristics, such as gender diversity, independence, size, and meeting frequency, and firm inefficiencies like information asymmetry and managerial opportunism. Similarly, Qeshta et al. (2021) highlight that an effective audit committee significantly contributes to reducing agency costs and enhancing the credibility of financial reports by reinforcing internal controls, improving oversight, and fostering transparency. High managerial ownership increases the risk of opportunistic behavior by managers, as they may prioritize personal gains over shareholders' interests. However, a well-functioning audit committee mitigates this risk by enhancing controls and monitoring. Consequently, the presence of a strong audit committee enhances earnings quality even in firms with a high concentration of managerial ownership. Therefore, the following hypothesis is proposed.

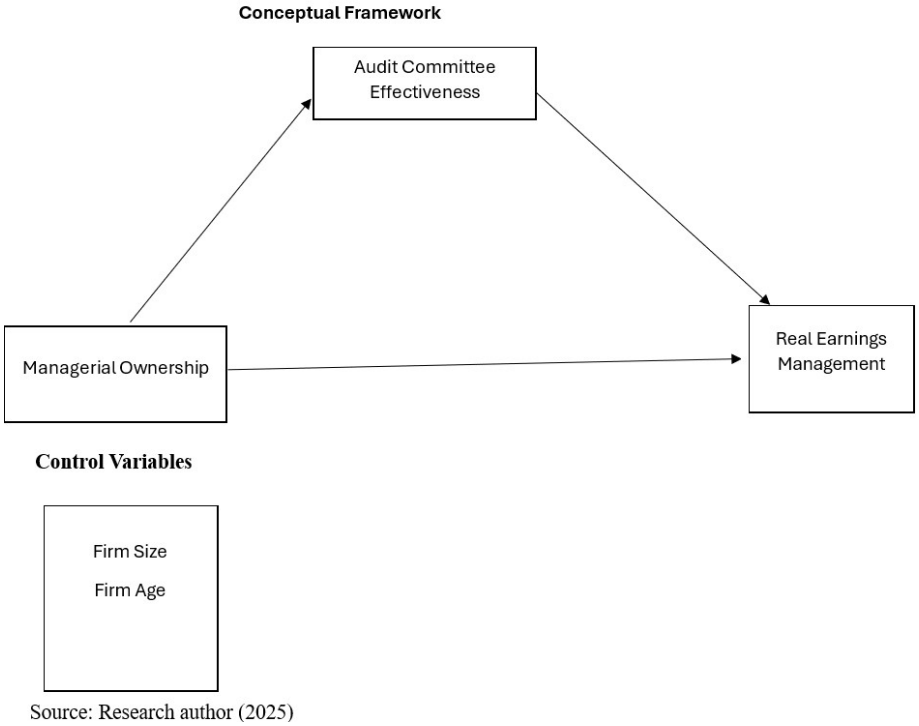
Ho: Audit committee effectiveness does not significantly mediate the association between managerial ownership and real earnings management.

Ho2: Audit committee effectiveness significantly mediates the association between managerial ownership and real earnings management.

Conceptual Framework

The main objective of the current study is to examine the indirect effect of managerial ownership on real earnings management via audit committee effectiveness. Hence, the outcome variable is real earnings management, mediating variable is audit committee effectiveness while the predictor variable is managerial ownership. Additionally, the study accounts for the variables of firm age and firm size. The theoretical relationship between the variables is depicted in the following conceptual framework.

Figure 1



Source: Research author (2025)

Research Design

This study is guided by explanatory research design since it seeks to establish a causal relationship between managerial ownership and real earnings management via audit committee effectiveness. The methodological issues are discussed in the following subsections.

Data and Sample

The study focused on publicly traded non-financial firms listed on the Nairobi Securities Exchange (NSE) in Kenya. The NSE was chosen as the research context because it is one of the fastest-growing securities exchanges within an emerging market. The target population includes 40 non-financial firms listed on the NSE, with data collected from the audited financial statements of companies that had consistently operated for sixteen years, from 2008 to 2023. Organizations that lack annual financial reports for any year within the specified period, and those listed after 2008, were excluded. As a result, 26 firms that were consistently operational on the NSE during the study period were included, yielding 416 firm-year observations across seven industries. The stock market provides an ideal scope as it enables the allocation of resources toward the most efficient investment opportunities, safeguarding an efficient allocation of resources in the economy.

Measurement of Variable

Table 1: Variable Operationalization and Measurement

Variables	Abbreviation	Measurement	Reference
Managerial Ownership	MO	The ratio of a company's shares held by its managers.	
AC Independence	AI	Ratio of non-executive members to the total members in the audit committee.	(Nguyen, et al., 2021; Piosik & Genge, 2020)
AC with Financial Experience	AFE	Ratio of audit committee members with financial expertise to the total members in the audit committee.	
Audit Committee Size	AS AM	Ratio of the number of audit committee members to the total members on the board committee.	
AC Meetings	AD	Ratio of the number of audit committee meetings held in a year.	
AC Diligence	AT	Ratio of the number of times members attended meetings to the total meetings held during the year.	
Audit Committee Tenure	MD	Ratio of the average length of tenure of audit committee members to the total years of service.	
Multiple Directorship	GD	Ratio of the number of directorship positions held by audit committee members to the total number of board positions.	
Audit Committee Gender Diversity	ACE	Ratio of female members to the total members of the audit committee. ACE=AI+ACFE+ACS+ACD+ACT$MD+ACM+ACD	DeFond *et al.,* 2005; Al-Musali *et al.,* 2019),
Audit Committee Effectiveness			
Real Earnings Management	REM	*REM = ABCFO (-1) + ABDISX (-1) + ABPROD*	(Roychowdhury 2006)
Firm Size	FS	Natural logarithm of firm total assets at the end of financial year	Qian (2021)
Firm Age	FA	is measured by the difference between the current year and the year in which a firm has been incorporated.	(Bouaziz et al., 2020)

Source: Research Author (2025)

Research Model

The hypotheses were evaluated using multiple regression analysis. Given the use of panel data, the decision between fixed effects and random effects regression models was guided by the Hausman test (robust version). Two regression models were employed: Model 1 tested the control variables, while Model 2 assessed the main effect. Additionally, Models 3 to 5 were used to examine the indirect effects, as outlined below.

Control Variable

$REM_{it} = \beta_o + \beta_1 FSZ_{it} + \beta_2 FA_{it} + Y_t + \mathcal{E}_{it}$ ……. Model 1

Direct Effect

$REM_{it} = \beta_o + C + \beta_3 MO_{it} + Y_t + \mathcal{E}_{it}$ …… ……Model 2

Indirect Effect

$ACE_{it} = \beta_o + C + \beta_4 MO_{it} + Y_t + \mathcal{E}_{it}$ ……Model 3

$REM_{it} = \beta_o + C + \beta'_5 MO_{it} + \beta'_6 ACE_{it} + Y_t + \mathcal{E}_{it}$ …….. Model 4

$REM_{it} = \beta_o + C + \beta'_7 MO_{it} + Y_t + \mathcal{E}_{it}$ ……Model 5

Where:

REM - Real Earnings Management
ACE - Audit Committee Effectiveness
MO – Managerial Ownership
FA - Firm Age
FS - Firm Size
C-control Variable
β-Coefficients
$\mathcal{E}$ - Error term
i - firm
t - time
Y- time dummy

Data Analysis

The data was analyzed using both descriptive and inferential statistical techniques, and the results were summarized using the mean, standard deviation, as well as the minimum and maximum values of the research variables. Furthermore, the nature and strength of the relationships among variables were presented through Pearson product-moment correlation coefficient analysis. Prior to hypothesis testing via regression analysis, several diagnostic tests were performed. The outcomes of these tests, displayed in Tables 2-5, confirm the data's suitability for multiple regression analysis

Panel Unit Root Test

The study tested for unit root to establish whether the variables were stationary with the aid of the Fisher unit root test(Maddala & Wu, 1999) and the Im, Pesaran, and Shin (IPS) test (Im, Pesaran, & Shin, 2003) in order to establish the presence or absence of unit root. The following null and alternative hypotheses were tested.

Test	**Hypothesis**
Fisher unit root test	Ho: All panel contain unit root
	Ha: Panel are stationary
Im-Pesaran-Shin (IPS) test	Ho: All panel contain unit root
	Ha: Panel are stationary

Keeping in view the p-values depicted in Table 2, the null hypothesis was rejected, which means that none of the variables had a unit root.

Table 2: Fishers unit root - Philliph -Perron Unit Root Test and Im-Pesaran-Shin

Variables	Fisher Unit Root Test-Phillips-Perron test	Im-Pesaran-Shin
Rem	-13.0969	-6.4488
p-value	(0.0000)	(0.0000)
Firm Size	-13.8934	-5.0568
p-value	(0.0000)	(0.0006)
Firm Age	-11.0454	-3.2623
P-value	(0.0000)	(0.0005)
MO	-14.1015	-6.4956
p-value	(0.0000)	(0.0000)
ACE	-13.5679	-5.5772
p-value	(0.0000)	(0.0000)

Source: Research Author (2025)

Test for Homoscedasticity Assumption

Heteroskedasticity test was run to find out whether the error terms were correlated across observations in the time series data. The study used the Breusch-Pagan-Godfrey test to detect heteroscedasticity. If the test statistic has a p-value below an appropriate threshold ($p<0.05$), then the null hypothesis of homoscedasticity is rejected and heteroscedasticity assumed (Breusch & Pagan, 2008; Godfrey, 1978). Table 3 results showed that the p-value was =18.63. Since the p value is less than 0.05, the study failed to reject the null hypothesis and concluded that there is presence of heteroscedasticity. To address the econometric issue, the study utilized robust standard errors. This approach ensures more reliable and consistent coefficient estimates, especially when model assumptions about constant variance are violated. The use of robust standard errors is well-supported in econometric literature, notably by Stock & Watson (2008) who advocate for the application of heteroskedasticity-robust standard errors for panel data regression.

Table 3: Breusch-Pagan-Godfrey Test for Heteroscedasticity

chi2(1) = 18.63
Prob > chi**2** = 0.000

Source: Research Study, 2024

Test for Autocorrelation

The current study employed the Wooldridge test to examine the presence of autocorrelation in the data, specifically to determine whether the residuals are serially correlated. The results of this test are presented in table 4. The findings reveal that estimated as F value 0.686 with one and 25degrees of freedom deriving p-value of 0.4513. Hence, the hypothesis of first-order autocorrelation is supported, and the study concludes that residuals are not autocorrelated.

Table 4: Wooldridge Test for Autocorrelation in Panel Data

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F (1, 25) = 0.686
Prob > F = 0.4153

Source: Research Study, 2024

Hausman Test (robust version)

The Sargan-Hansen statistics were employed to determine whether a fixed effects model or a random effects model is more appropriate for panel data regression. The test is a robust version of the Hausman specification test (Hansen, 1982; Sargan, 1958) that allows for heteroskedasticity-consistent standard errors and is particularly useful when using clustered or robust variance estimators. The standard hypothesis of this test is that the random effect model estimates the panel data, whereas the alternative hypothesis suggests that the fixed effect model is the appropriate estimator. Based on results in table 5 the chi-square value of 144.542 and p-value = 0.000 the null hypothesis was rejected, implying that the fixed effect model was the most appropriate model to test the hypotheses.

Table 5: Hausman Test Results

Test Description	Details
Model Used	Cross-section time-series model: xtreg re, robust cluster(firm)
Test Applied	Sargan-Hansen Statistic (robust Hausman test)
Chi-Square Statistic	144.542
Degrees of Freedom	8
P-value	0.0000
Decision Rule	Reject H_0 if $p < 0.05$
Conclusion	Reject null hypothesis — Fixed effects model is preferred

***Source*: Research Study, 2024**

Results and Discussion

As presented in table 6, the data illustrate that real earnings management has a mean of 0.010(minimum -0.6152 and maximum = 0.7531; standard deviation = 0.2201). The average value is consistent with the results documented by (Alghemary et al., 2024) and slightly lower than 0.029 reported by (Ahmad Abubakar, Ahmad Lawal & Mohamed, 2020), who measured REM as a total value of the standardized residuals of ABCFO, ABPROD, and ABDISX. This indicates that both upward and downward REM are used by non-financial firms listed in the Nairobi Securities Exchange to increase(reduce) earnings based on their set objectives.

According to Roychowdhury (2006), he noted that managers might give out too many discounts, reduce expenses and engage in overproduction leading to lower fixed per unit of a product hence to temporarily inflate reported earnings or excessive price discounts and revenue deferral, overstating expenses through increasing discrepancies spending, under production leading to higher fixed per unit of a product hence to temporary deflate reported earnings. Therefore, it indicates that non-financial firms engage in manipulation through inflating and deflating earnings. The vast range of REM from -0.6150 and 0.7531 serves as proof of this. However, most firms tend to lean toward upward earnings manipulation. This was consistent with the findings of (Zang,2012). Managers use a combination of real and accrual-based earnings management, depending on regulatory and market pressures. Al-Begali & Phua (2023) . Found that firms, including those in emerging economies, adjusted their REM practices in response to the pandemic's economic disruptions, often to meet short-term financial targets. The standard deviation of 0.2201 implies considerable variations in the degree of REM across firms, meaning some firms engage heavily in REM while others exhibit less or none.

The mean of managerial ownership is at 0.3161 (minimum = 0.0100 and maximum = 0.6000; standard deviation = 0.1023). The data indicates that managerial ownership is present in all firms, with concentrated ownership reaching a high of approximately 31.61%. This suggests that most non-financial firms listed on the Nairobi Securities Exchange encourage managers to own a portion of shares. This mean value was slightly higher than those documented by Akter *et al.,* (2024) 18.99% and close mean value of 30.20% reported by Al-Duais, Shaker Dahan, *et al.,* (2022) and slightly lower than the mean value of 32% for a sample of Malaysian firms reported by Saleh *et al.,* (2018).

Audit committee effectiveness 0.5057 (minimum=0.1275 and maximum = 0.8750, standard deviation = 0.1507). The highest score is 87.50%, and the lowest is 12.75%, suggesting that the non-financial firms are widely distributed concerning Audit governance strength. Typically, non-financial firms attain a score of approximately 50.57% on audit committee performance, which is slightly higher than the mean value of 49% reported by Al-Musali *et al.* (2019), suggesting that the audit committees in these firms tend to perform at a somewhat higher level than those observed in previous studies. The wide distribution of scores indicates that while some firms have highly effective audit committees, others may face challenges in ensuring strong governance, highlighting the need for further improvements and standardization in audit committee practices across the sector.

Firm age is defined by the number of years since its establishment. The results show an average of 37 years, using 2008 as the base year within the study period of 2008 to 2023 (minimum = 1, maximum = 73, standard deviation = 12.452). This shows that most firms in the sample are relatively mature, with an average age of 37 years. The study findings are in line with Odokwo et al., (2024) , finding on their study of "Corporate Attributes and Real Earnings Management: Evidence from listed non-financial firms in Nigeria", that firm age had a mean of 29.54.

Moreover, Firm size has a mean of 6.8270 (minimum 5.3032 and maximum = 8.3951; standard deviation = 0.5763). This indicates that non-financial firms at the NSE vary widely in size and are significantly spread out from the average. This highlights the importance of controlling for this variable in the study to prevent biased results. Consequently, Wayongah (2019) and Yadav et al. (2022) , noted the same disparity on firm size for their study conducted within non-financial firms listed in Asia-Pacific markets.

Table 6: Summary Statistics Table of Variables

Variables	Obs	Min	Max	Mean	Std. Dev.
REM	416	-0.6152	0.7531	0.0100	0.2201
FS	416	5.3032	8.3951	6.8270	0.5763
FA	416	1.0000	73.0000	37.0528	12.4520
MO	416	0 .0100	0 .6000	0.3161	0.1023
ACE	416	0.1250	0.8750	0.5057	0.1507

***Source*: Research Study, 2024**

Correlation Analysis

The study used correlation to examine the nature of the statistical relationship between real earnings management, managerial ownership, audit committee effectiveness, firm age, and firm size. The correlation matrix is illustrated in table 7 and the results showed that showed that firm age (-0.25) and audit committee effectiveness (-0.26), were significantly negative and moderate correlated to real earnings management. On the contrary, the relationship between firm size (0.18), and managerial ownership (0.19) were significantly positive and moderate, strongly correlated respectively.

Table 7: Correlation Results

	REM	FA	FS	MO	ACE
REM	1.000				
FA	-0.2520*	1.000			
FS	0.1771*	-0.0131	1.000		
MO	0.1914*	-0.0737	0.0109	1.000	
ACE	-0.2591*	-0.0002	0.0117	0.4033*	1.000

* Correlation is significant at the 0.05 level (2-tailed).
Source: Research Study, 2024

Regression Analysis

The null hypothesis was tested using a fixed effect with robust standard error regression analysis. It stated that managerial ownership has no significant effect on real earnings management. The findings reported a beta coefficient of 0.7807281 and ρ=0.000<0.05. Therefore, the null hypothesis was rejected, and the alternative hypothesis was adopted. Thus, a unitary change in managerial ownership led to a unit 0 .7807281 change in real earnings management. The overall regression model had an explanatory power of 0.7807, indicating that the model explained 78.07% of the variability in real earnings management among NSE-listed firms. The study found a positive relationship between managerial ownership and real earnings management.

Consistent with these findings, Abubakar *et al.* (2020) found that managerial ownership increases management's desire to manipulate the reported earnings due to management entrenchment that higher levels of managerial ownership give managers more leeway for opportunistic behaviour. Furthermore, the existence of high managerial ownership may give managers more leeway for opportunistic behaviors (Aygun *et al.,* 2014; Stulz, 1988) to influence firm's decisions and hence influence the reported earnings. This view is by the entrenchment hypothesis, which states that managers with large shareholdings are more likely to expropriate the resources of the shareholders.

Table 8: Results of the Fixed Effect with Robust Standard Error Regression Analysis

Fixed-effects (within) regression	Number of obs = 416
Group variable: firm	Number of groups = 26
R-sq: within = 0.1337	Obs per group: min = 16
between = 0.0867	avg = 16.0
overall = 0.0936	max = 16
F(8,25) = 102.39	
corr(u_i, Xb) = 0.0351	Prob > F = 0.0000

(Std. Err. adjusted for 26 clusters in firm)

REM	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
FA	-.0036524	.000437	-8.36	0.000	-.0045524	-.0027524
FS	.0745359	.0090813	8.21	0.000	.0558327	.0932391
MO	.7807281	.0869869	8.98	0.000	.6015753	.959881
ACE	-1.003033	.0460311	-21.79	0.000	-1.097836	-.9082306
Y	.0129942	.0053901	2.41	0.024	.001893	.0240954
cons	.2644783	.0905085	2.92	0.007	.0780726	.450884
sigma_u	.0699646					
sigma_e	.12747244					
rho	.23150697	(fraction of variance due to u _i)				

Source: Research Study, 2024

Table 9 presents linear regression model results 3 on the effect of managerial ownership, on audit committee effectiveness. The results showed that the overall model was significant (p-value=0.000), meaning that the model affects audit committee effectiveness. The results showed that both firm age and firm size were not significant to audit committee effectiveness with respective coefficients and probabilities of (β=0.000, ρ= 0.669) and (β= -0.00, ρ=0.987) respectively. Managerial ownership structure increases the robustness of the audit committee (β=0.609, ρ=0.000<0.05), that is a unit change in managerial ownership increases audit committee effectiveness by 0.609. The findings of this study are consistent with those of Al-Matari et al. (2014) , who documented a positive and significant relationship between managerial ownership and audit committee effectiveness in publicly listed firms on the Yemeni stock exchange. They found out that when managers hold a significant stake in the company, they are more likely to be aligned with shareholder interests, which enhances the functioning of monitoring mechanisms such as the audit committee. Additionally, the alignment hypothesis suggests that managerial ownership may motivate managers to ensure audit committees are composed of competent members and operate effectively, as effective oversight would directly impact their financial interests.

Table 9: Control, Independent Variables and Audit Committee Effectiveness

Fixed effects (within) regression		Number of obs	= 416
Group variable: firm		Number of groups	= 26
R-sq: within = 0.2136		Obs per group: min	= 16
between = 0.2465		avg	= 16.0
overall = 0.2159		max	= 16
		F (6,25)	= 67.26
corr(u_i, Xb) = 0.0027		Prob > F	= 0.0000

(Std. Err. adjusted for 26 clusters in firm)

ACE	Coef.	Robust Std. Err	t	P>t	[95%Conf.	Interval]
FA	.0002541	.0005876	0.43	0.669	-.000956	.0014643
FS	-.0001998	.0118177	-0.02	0.987	-.0245389	.0241393
MO	.6093816	.0548687	11.11	0.000	.4963774	.7223859
IO	-.3154965	.0501444	-6.29	0.000	-.4187708	-.2122221
FO	-.2372608	.0591282	-4.01	0.000	-.3590375	-.115484
Y	.0080995	.007672	1.06	0.301	-.0077013	.0239003
cons	.5613023	.0988395	5.68	0.000	.3577385	.7648661
sigma_u	.03327878					
sigma_e	.12505103					
rho	.06613683	(fraction of variance due to u_i)				

***Source*:** Research Data, 2024

Table 10 below displays the mediation analysis results, investigating the impact of managerial ownership on real earnings management, with audit committee effectiveness serving as the mediating variable (Model 4). The analysis is performed using Stata software, employing a series of regression models to evaluate the mediation conditions. In particular, for Path a, managerial ownership (the independent variable) is regressed on audit committee effectiveness (the mediator) to determine whether managerial ownership significantly influences audit committee effectiveness. Results in path a show that managerial ownership positively affects audit committee effectiveness (β=0.609, ρ=0.000<0.05). All the control variables are not significant. That is, both firm age and firm size had a positive but not significant effect on audit committee effectiveness with respective coefficients and probabilities of (β= 0.000, ρ= 0.570) and (β= 0.002, ρ= 0.823) respectively.

In Path b, audit committee effectiveness is found to have a significant negative effect on real earnings management (β = -0.599, ρ = 0.000 < 0.05). This means that a one-unit increase in audit committee effectiveness leads to a 0.599 unit decrease in real earnings management, highlighting the critical role of a robust audit committee in reducing earnings manipulation. In Path c′, the direct effect of managerial ownership on real

earnings management was tested, while controlling for the effect of audit committee effectiveness. The Average Direct Effect had a positive and significant relationship (β = 0.716, ρ = 0.000). This indicates that a one-unit change in managerial ownership structure results in a 0.716-unit increase in real activity manipulation. Both firm size and firm age were statistically significant (β=0.070, ρ= 0.000<0.05) and (β= -0.004, ρ=0.000<0.05) respectively.

To determine the presence of a mediation effect, the researcher applied the significance criteria for the indirect effect (a×b) as recommended by Zhao *et al.,* (2010). The coefficient for the indirect effect was calculated by multiplying the beta coefficient of Path a (managerial ownership → audit committee effectiveness) and Path b (audit committee effectiveness → real earnings management), using the Sobel test calculator developed by Preacher and Hayes (2004). The resulting statistics = -0.365, 95% CI = [-0.435, -0.295], and z = 10.25 > 1.96, indicate a statistically significant indirect effect at the 5% level (see Table 18). These findings suggest that audit committee effectiveness partially mediates the relationship between managerial ownership and real earnings management, as the direct effect of managerial ownership on real earnings management remained statistically significant even after accounting for the mediator. This indicates the presence of competitive mediation, where the mediating effect through audit committee effectiveness and the direct effect of managerial ownership on real earnings management operate in opposite directions, resulting in a net effect that reflects the interplay between these conflicting influences. This was consistence with (Bawuah, 2024), who suggests that in firms with highly concentrated managerial ownership, the alignment between management and shareholder interests strengthens the role of the audit committee in ensuring the reliability of financial statements. The alignment effect helps curb real earnings management, as the audit committee's oversight becomes more effective in such environments.

Path c provides the total effect c= (a_1*b_1+c') of managerial ownership on real earnings management is β=0.3520, CI= .0910385;.6120615, p-value=0.00<0.05). This implies that a one percent change in managerial ownership structure is explained by a 0.3520 percent change in real earnings management. Further, the results reveal that firm age and firm size remain significant (β= -0.004, ρ= 0.000) and (β= 0.073, ρ=0.002). The overall model accounts for 12.49% of the variance, which is statistically significant. This finding agrees with Aygun*, et al.,* (2014) that higher levels of managerial ownership give managers more leeway for opportunistic behavior. The results of this study reveal a competitive mediation effect, where the indirect effect of Audit Committee Effectiveness (ACE) on the relationship between Ownership Structure (OS) and Real Earnings Management (REM) is -0.3646, while the total effect remains positive at 0.3516. This finding indicates that while managerial Ownership Structure positively influences REM directly, the presence of an effective audit committee mitigates this positive effect, demonstrating a buffering role.

Table 10: Indirect Effect of ACE on the relationship between MO and REM

	Path a (Outcome ACE)		Path b and c' (Outcome REM)		**Mediation** (a*b)		Path c (Outcome REM)	
Predictors	B	p>z	β	p>z	β	p>z	β	p>z
Constant	0.2830	0.002	-0.2879	0.045			-0.4573	0.05
B					-0.3646	0.001		
FS	0.0004	0.570	0 .0740	0.000			0.0725	0.001
FA	0.0024	0.823	-0.0035	0.000			-0.0038	0.000
MO	0.6092	0.000	0.7162	0.000			0.3516	0.010
ACE			-0.5985	0.000				
R Square	0.1731		0.2778				0.1249	
Fe, robust Prob > F	0.000		0.000				0.000	

***Source*:** Research Data, 2024

Conclusion

The study concludes that managerial ownership has a positive and significant effect on real earnings management. This finding suggests that higher levels of managerial ownership may increase the likelihood of engaging in earnings manipulation. Therefore, it is crucial for firms to implement governance mechanisms that align managerial interests with long-term performance to mitigate the risk of opportunistic financial reporting.

The study found that audit committee effectiveness partially mediates the relationship between managerial ownership and real earnings management, indicating that managerial ownership indirectly enhances earnings quality through improved audit committee performance. This alignment reduces incentives for earnings manipulation, as managers with ownership stakes prioritize long-term sustainability.

Recommendations and Suggestions for Future Research

Non-financial firms listed on the Nairobi Securities Exchange should carefully manage managerial ownership concentration by issuing non-influencing shares and aligning managerial incentives with long-term performance. Additionally, increasing institutional and foreign ownership can enhance financial discipline, promoting transparency and sustainable performance.

Furthermore, audit committee effectiveness is a critical internal control mechanism. Strengthening audit committee independence, financial expertise, and oversight can mitigate the adverse effects of managerial ownership on earnings quality. Managing managerial ownership levels is essential to reduce the direct positive impact on real earnings management.

Future research should explore moderating factors such as board diversity and financial leverage to understand how they influence both the direct and mediated effects of managerial ownership on real earnings management. Additionally, longitudinal studies are recommended to assess how changes in managerial ownership and audit committee practices impact earnings manipulation over time. Investigating additional mediators, like corporate governance quality or executive compensation policies, would also provide deeper insights into the MO-REM relationship.

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