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Earnings Quality and Stock Returns of Commercial Banks Listed on the Nairobi Securities Exchange in Kenya

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Abstract

The banking sector accounts for 40.3% of Kenya's Nairobi Securities Exchange (NSE) market capitalization, yet the relationship between earnings quality and stock returns remains underexplored despite the sector's systemic importance. During 2017-2023, NSE-listed banks experienced negative mean stock returns (-0.67%) with substantial volatility, operating within a context of regulatory interventions and economic uncertainty. This study analyzed the relationship between earnings quality dimensions (persistence, predictability, and volatility) and stock returns for 11 commercial banks listed on the NSE from 2017 to 2023. Anchored on agency theory, signaling theory, and efficient market hypothesis, the study employed a descriptive correlational design using secondary data from audited financial statements and NSE records. Data was analyzed through descriptive statistics, correlation analysis, and panel regression with fixed effects models and robust standard errors. Results revealed that individual earnings quality attributes had statistically insignificant direct effects on stock returns; earnings persistence had a positive but insignificant effect (coefficient = 0.0976, p = 0.540), earnings predictability exhibited a negative but insignificant relationship (coefficient = -0.0544, p = 0.651), and earnings volatility showed low positive but insignificant impact (coefficient = 0.0004, p = 0.840). However, their joint effect was statistically significant ($F(3,10) = 16.32$, p = 0.0004), explaining 6.98% of within-bank stock return variation. The study found significant mean reversion (30.7% correction) in stock returns and exceptional temporal stability in earnings persistence (97.31%). The study recommends comprehensive earnings quality policies addressing multiple dimensions simultaneously, holistic improvement programs for bank managers, alternative analytical frameworks for investors exploiting mean reversion patterns, and enhanced regulatory disclosure requirements with early warning systems based on earnings quality patterns.

Keywords: *Earnings Quality, Earnings Persistence, Earnings Predictability, Earnings Volatility, Stock Returns, Nairobi Securities Exchange (NSE), Commercial Banks.*

1. Introduction

Stock returns represent a fundamental measure of investment performance and firm valuation in financial markets, reflecting investor perceptions of a firm's financial health and future prospects. For commercial banks listed on the Nairobi Securities Exchange (NSE), stock returns are particularly significant as they signal the sector's resilience to economic shocks and regulatory changes while supporting financial intermediation, a cornerstone of economic activity. The banking sector commanded a dominant 40.3% of the NSE's total market capitalization as of June 2025, underscoring its systemic importance to Kenya's financial system. Earnings quality, encompassing earnings persistence, predictability, and volatility, serve as critical signals for investors, as high-quality earnings reduce information asymmetry, enhance valuation accuracy, and stabilize returns according to Agency Theory, Signalling Theory, and the Efficient Market Hypothesis.

Despite the banking sector's prominence, the relationship between earnings quality and stock returns for NSE-listed commercial banks remained underexplored. Existing studies provided partial insights but revealed significant gaps. Oluoch and Gichaiya (2015) found high earnings persistence among NSE-listed commercial banks but did not directly link persistence to stock returns, while Yusuf and Mutunga (2021) focused on book value rather than stock returns. Orenge and Ondiwa (2024) examined earnings quality's moderating effect on stock return volatility, but did not comprehensively address all three earnings quality dimensions in the banking context. The inconsistent findings across markets, such as Hung et al. (2020) reporting positive relationships in Vietnam while Aguguom et al. (2019) found insignificant effects in Nigeria, suggested that emerging market dynamics like Kenya's warranted sector-specific investigation. The banking sector's exposure to regulatory shifts, including IFRS 9's expected credit loss model and interest rate cap policies from 2016 to 2019, coupled with economic volatility from the COVID-19 crisis, necessitated examining how earnings quality shaped stock returns in this unique context.

This study thus aimed to analyze the relationship between earnings quality and stock returns for commercial banks listed on the NSE over the period 2017 to 2023. Specifically, the research investigated whether earnings quality, measured through persistence, predictability, and volatility, significantly influenced stock returns for NSE-listed commercial banks. The study tested the hypothesis that earnings quality significantly influenced stock returns for commercial banks listed on the NSE, against the null hypothesis that earnings quality had no statistically significant relationship with stock returns. The findings are expected to provide evidence-based insights for investors seeking to understand earnings signals, regulators aiming to enhance market transparency, and policymakers working to strengthen financial stability in Kenya's banking sector.

2. Literature Review

The relationship between earnings quality and stock returns for commercial banks listed on the Nairobi Securities Exchange was grounded in established theoretical frameworks and empirical evidence from diverse market contexts. This review examined theoretical underpinnings explaining how earnings quality influenced investor perceptions and market outcomes, followed by empirical studies investigating specific relationships between earnings persistence, predictability, volatility, and stock returns.

2.1 Theoretical Literature

Three complementary frameworks addressed information asymmetry, market efficiency, and corporate governance dynamics. Agency Theory, developed by Alchian and Demsetz (1972) and formalized by Jensen and Meckling (1976), explored conflicts of interest between principals and agents, emphasizing how governance mechanisms ensured high-quality financial reporting. The separation of ownership and control created inherent conflicts, as shareholders sought to maximize firm value while managers might prioritize personal objectives (Jensen & Meckling, 1976; Wambua, 2018). This misalignment manifested in earnings management, where managers manipulated financial reports to present favorable performance (Juma, 2022). Earnings persistence could be undermined when managers inflated short-term performance, introducing volatility and reducing predictability (Fatma & Hidayat, 2019). For NSE-listed commercial banks, persistent and predictable earnings signaled lower agency costs and greater manager-shareholder alignment, fostering investor confidence and potentially higher stock returns, while high earnings volatility reflected earnings management that exacerbated agency conflicts and reduced investor trust (Oluoch & Gichaiya, 2015; Chepkwony, 2018).

Signalling Theory, pioneered by Spence (1973) with contributions from Arrow (1972) and Ross (1977), addressed information asymmetry by positing that firms used financial statements as signals conveying financial health and future prospects to stakeholders. Spence (1973) introduced signal equilibrium, where high-quality entities distinguished themselves through costly or credible signals difficult to fake. High-quality earnings characterized by persistence and predictability acted as positive signals of sustainable performance, fostering investor confidence and potentially higher stock returns, while high earnings volatility signaled instability or managerial opportunism, negatively impacting investor perceptions (Kangea, 2023; Hussein, 2021). Financial reporting served as a primary signalling mechanism, with earnings quality reflected in accounting reports serving as crucial signals of firm success that influenced market trust and stock returns (Kangea, 2023; Oktavia & Susanto, 2022). For NSE-listed commercial banks, persistent and predictable earnings signaled sustainable profit generation ability that reduced uncertainty and attracted investor capital (Chepkwony, 2018; Wangui, 2017; Yusuf & Mutunga, 2021).

The Efficient Market Hypothesis, developed by Fama (1970) and advanced by Fama and French (2015), provided a critical framework by positing that stock prices fully reflected all available information. The semi-strong form suggested that high-quality earnings characterized by persistence, predictability, and low volatility should be rapidly incorporated into stock prices, providing reliable information about firm financial health and future prospects (Fama & French, 2015; Hussein, 2021). Earnings persistence signaled consistent performance, reducing uncertainty and potentially stabilizing stock returns, while earnings predictability allowed accurate expectations about future performance, and high earnings volatility indicated lower earnings quality, introducing information risk that could lead to mispricing or increased return variability (Chepkwony, 2018; Kangea, 2023). For NSE-listed commercial banks, EMH suggested that earnings persistence and predictability should enhance market efficiency, leading to more accurate stock pricing and potentially higher returns, while high earnings volatility disrupted this process by introducing uncertainty that markets might not fully process, particularly in less efficient markets (Yusuf & Mutunga, 2021; Hussein, 2021).

2.2 Empirical Literature

Empirical evidence demonstrated both consistencies and variations across market contexts. Kormendi and Lipe (1987) laid foundational work examining US firms using 32 years of data

for 145 firms, finding that firms with more persistent earnings exhibited stronger stock return responses to earnings news, suggesting investors placed greater value on sustainable performance. Hung et al. (2020) investigated Vietnamese companies from 2010 to 2018 using GLS regression, reporting an average earnings persistence coefficient of 0.844 and finding positive relationships between earnings persistence and predictability with stock returns, while earnings variability negatively affected returns by signaling uncertainty. Perotti and Wagenhofer (2014) explored US non-financial firms from 1988 to 2007, finding higher earnings persistence negatively associated with stock mispricing, implying persistent earnings reduced market uncertainty and enhanced valuation accuracy, while higher earnings volatility was associated with greater mispricing as volatile earnings obscured true performance.

In the Kenyan context, Oluoch and Gichaiya (2015) examined earnings persistence among NSE-listed commercial banks from 2001 to 2012, finding high persistence coefficients indicative of robust earnings quality, though persistence varied significantly across bank size portfolios with smaller banks displaying lower persistence. While not directly regressing earnings persistence on stock returns, the study posited that high persistence reduced investor uncertainty, particularly for larger commercial banks, implying an indirect positive influence on stock returns (Oluoch & Gichaiya, 2015). Yusuf and Mutunga (2021) found that earnings persistence positively influenced book value, a component closely related to market valuation, suggesting persistent earnings enhanced investor confidence, indirectly supporting higher stock returns. Orenge and Ondiwa (2024) directly examined earnings quality and stock return volatility among NSE-listed firms, finding that earnings quality including low volatility had a significant positive moderating effect on the relationship between idiosyncratic risks and stock return volatility, suggesting low earnings volatility mitigated risk factor impacts and supported stable market valuations.

Contrasting results emerged from other markets. Aguguom et al. (2019) investigated Nigerian listed companies from 2000 to 2016, finding earnings persistence had a negative and statistically insignificant effect on firm performance measured by Tobin's Q, with leverage and firm size proving more influential, though acknowledging theoretical importance of earnings persistence for forecasting and valuation. Fatma and Hidayat (2019) examined Indonesian consumer goods firms from 2010 to 2014, finding a significant but negative relationship between earnings persistence and equity valuation, attributing this to increased investor interest driven by demographic trends, contrasting with positive relationships reported by Hung et al. (2020) and Yusuf and Mutunga (2021) and suggesting industry-specific dynamics might influence the persistence-valuation linkage. Yusuf and Mutunga (2021) and Gworo (2019) reported an unexpected positive effect of earnings volatility on market value for NSE-listed firms from 2011 to 2015, explaining 24.9% of variations alongside dividend payout ratios, suggesting that volatile earnings might reflect growth opportunities investors rewarded, though the authors recommended reducing earnings volatility.

Additional studies provided complementary insights. Saliu and Taqi (2023) found that sustainable earnings marked by high predictability contributed to better stock market valuations by reducing investor uncertainty. Jia and Li (2022) linked earnings predictability to cash flow forecasting, finding corporate social performance enhanced predictability of future cash flows, implying predictable earnings were key components of high-quality financial reporting that positively influenced stock returns. Pirveli (2020) assessed earnings persistence and predictability among Georgian private sector entities, finding relatively low persistence that limited valuation usefulness but emphasizing theoretical importance of persistence for stock return predictability based on international literature demonstrating bilateral associations between earnings and stock returns (Saliu & Taqi, 2023; Jia & Li, 2022; Pirveli, 2020).

Wijesinghe and Kehelwalatenna (2017) found supportive evidence for a positive relationship between lagged earnings and stock returns, suggesting earnings with strong predictive power for future performance were associated with higher stock returns, though finding no significant relationship between earnings quality and stock return volatility, attributing this to investors' lack of awareness about earnings quality. These findings collectively underscored the importance of earnings quality dimensions in shaping stock returns across diverse contexts, though variations highlighted the need for context-specific investigation in the NSE banking sector where unique regulatory frameworks, economic conditions, and investor behaviors might yield distinct patterns.

3. Methodology

This study adopted a descriptive correlational research design to examine the relationship between earnings quality and stock returns for commercial banks listed on the NSE. The design was appropriate because it enabled the identification and measurement of the nature and strength of relationships between earnings quality metrics and stock returns without manipulating variables, facilitating investigation of how earnings quality influenced stock performance in Kenya's banking sector. The target population consisted of all commercial banks listed on the NSE as of December 31, 2023, encompassing the study period from January 1, 2017, to December 31, 2023, during which 11 commercial banks were publicly listed. This population was chosen to ensure comprehensive representation of Kenya's listed banking sector, which operated under standardized IFRS reporting requirements enforced by the Central Bank of Kenya, ensuring data consistency and reliability.

The study relied on secondary data collected from audited financial statements and NSE stock price records for the period 2017 to 2023. Annual reports of NSE-listed commercial banks provided data on net income, earnings per share, and cash flow from operations, while year-end stock prices were obtained from NSE records. The data collection procedure involved obtaining institutional approvals from the postgraduate office, ethical clearance from the Institutional Scientific and Ethical Review Committee and the National Commission for Science, Technology, and Innovation, extracting year-end stock prices from NSE records, downloading annual reports from bank websites, and organizing all data into a panel dataset with each bank-year observation recorded systematically. A standardized data collection sheet captured all variables including stock returns calculated as the percentage change in stock prices and earnings metrics used to derive persistence, predictability, and volatility measures.

The study employed a panel regression model to estimate the relationship between earnings quality and stock returns across NSE-listed commercial banks over 2017 to 2023. The general regression model was specified as:

$$SR_{i,t} = B_0 + B_1PERS_{i,t} + B_2PRED_{i,t} + B_3VOL_{i,t} + \epsilon_{i,t}$$

$SR_{i,t}$ = Stock returns of bank i in year t.

$PERS_{i,t}$ = Earnings persistence of bank i in year t.

$PRED_{i,t}$ = Earnings predictability of bank i in year t.

$VOL_{i,t}$ = Earnings volatility of bank i in year t.

B_0 = Intercept term

ϵ_{it} = Error term

where SR represented stock returns, PERS represented earnings persistence measured by the autoregressive coefficient from regressing current earnings per share on lagged earnings per share, PRED represented earnings predictability measured by the standard deviation of forecast errors, and VOL represented earnings volatility measured by the standard deviation of the ratio between net income and cash flow from operations. Panel regression was suitable as it accounted for both cross-sectional and time-series variations, controlling for unobserved heterogeneity through fixed effects estimation. Robustness checks included autoregressive models to address potential autocorrelation concerns and alternative specifications to validate the main findings.

Data analysis focused on quantifying the relationship between earnings quality and stock returns using descriptive and inferential statistics. Descriptive statistics summarized central tendencies, variability, and distributions of stock returns and earnings quality variables, while inferential analysis tested hypothesized relationships through Pearson correlation analysis and panel regression analysis with fixed effects to control for bank-specific heterogeneity. Diagnostic tests were conducted to ensure model validity, including normality tests using the Shapiro-Wilk test to assess residual distribution, stationarity tests using the Fisher-type unit root test to confirm stable statistical properties, multicollinearity tests using variance inflation factors to assess independent variable correlations, heteroscedasticity tests using the Breusch-Pagan test to evaluate residual variance constancy, model specification tests using the Ramsey RESET test to confirm correct specification, and autocorrelation tests using the Durbin-Watson statistic to examine residual independence over time. These diagnostic procedures enhanced the robustness of empirical findings and ensured reliable statistical inferences regarding the relationship between earnings quality and stock returns for NSE-listed commercial banks.

5. Results

The panel data analysis examined 11 commercial banks listed on the Nairobi Securities Exchange over the period 2017-2023, yielding 77 observations in a strongly balanced panel structure. Descriptive statistics revealed substantial volatility in the banking sector with mean stock returns of negative 0.67% and a standard deviation of 26.71%, reflecting significant economic disruption particularly during the 2020 COVID-19 pandemic period. Earnings quality measures displayed considerable variation across institutions and time periods, with earnings persistence exhibiting a mean essentially equal to zero by construction with standard deviation of 0.435, earnings predictability showing a negative mean of negative 0.093 with standard deviation of 0.585, and earnings volatility demonstrating high variability with mean of 3.83 and standard deviation of 10.18.

Diagnostic tests confirmed the appropriateness of the analytical approach. Fisher-type unit root tests revealed mixed stationarity results, with stock returns and earnings persistence showing evidence of non-stationarity while earnings predictability and volatility demonstrated strong stationarity. The Modified Wald test provided evidence of groupwise heteroscedasticity, justifying the use of robust standard errors clustered at the bank level. The Breusch-Pagan test indicated homoscedastic residuals in the basic specification, while serial correlation analysis revealed significant negative first-order autocorrelation with a coefficient of negative 0.297. The Ramsey RESET test confirmed correct model specification with no evidence of omitted variable bias. Multicollinearity assessment through variance inflation factors showed moderate correlation among independent variables with mean VIF of 2.45, below concerning thresholds but indicating some overlap between earnings persistence and predictability measures.

Correlation analysis provided preliminary insights into bivariate relationships. Earnings persistence showed a positive but statistically insignificant correlation with stock returns of

0.1808. Earnings predictability exhibited a statistically significant negative correlation with stock returns of negative 0.2688, while earnings volatility demonstrated a weak negative correlation of negative 0.1195 that was not statistically significant. Among the independent variables, strong negative correlation existed between persistence and predictability at negative 0.7439, moderate positive correlation between predictability and volatility at 0.3250, and weak negative correlation between persistence and volatility at negative 0.1260.

The fixed effects panel regression with robust standard errors yielded coefficients that revealed complex relationships between earnings quality dimensions and stock returns. The model specification controlled for time-invariant bank-specific heterogeneity through the fixed effects approach.

$$StockReturns_{it} = -0.0200 + 0.0976\ PERS_{it} - 0.0544\ PRED_{it} + 0.0004\ VOL_{it} + \varepsilon_{it}$$

Table 1:

StockReturns	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
PERS	0.098	0.154	0.630	0.540	-0.245	0.440
PRED	-0.054	0.117	-0.470	0.651	-0.314	0.206
VOL	0.000	0.002	0.210	0.840	-0.003	0.004
_cons	-0.020	0.012	-1.600	0.140	-0.048	0.008
R^2	6.98%					

Earnings persistence showed a positive coefficient of 0.0976 with robust standard error of 0.1538, producing a t-statistic of 0.63 and p-value of 0.540, indicating no statistically significant relationship at conventional levels. Earnings predictability exhibited a negative coefficient of negative 0.0544 with robust standard error of 0.1167, yielding a t-statistic of negative 0.47 and p-value of 0.651, also statistically insignificant. Earnings volatility demonstrated a minimal positive coefficient of 0.0004 with robust standard error of 0.0017, generating a t-statistic of 0.21 and p-value of 0.840, equally insignificant. The model's R-squared within value of 0.0698 indicated that earnings quality variables explained approximately 6.98% of within-bank variation in stock returns over time.

Despite the statistical insignificance of individual coefficients, the joint F-test revealed fundamentally different conclusions regarding the collective influence of earnings quality measures. The joint test statistic of F(3,10) equals 16.32 with associated p-value of 0.0004 provided strong evidence rejecting the null hypothesis that all coefficients simultaneously equal zero. This finding established that earnings quality measures, when considered collectively rather than individually, demonstrate a statistically significant relationship with stock returns in Kenya's banking sector. The contrast between individual insignificance and joint significance represents the study's most important empirical contribution, suggesting that market participants evaluate earnings quality holistically rather than responding to individual dimensions in isolation.

Supplementary autoregressive analysis provided crucial insights into temporal dependencies underlying the main relationships. Stock returns exhibited significant mean reversion with a lagged returns coefficient of negative 0.307, indicating that approximately 30.7% of deviations from mean returns correct in subsequent periods. Earnings persistence demonstrated exceptional temporal stability with autoregressive coefficient of 0.731 and R-squared of 97.31%, establishing persistence as a highly stable firm characteristic. Earnings predictability showed cyclical patterns with negative autocorrelation coefficient of negative 0.378,

suggesting that high predictability periods tend to be followed by lower predictability. Earnings volatility displayed modest mean-reverting tendencies with lagged coefficient of negative 0.053, indicating temporary rather than persistent nature of extreme volatility episodes.

Table 2:

Hypothesis	Findings	Decision
H_{01}: There is no significant relationship between earnings persistence and stock returns for commercial banks listed on the NSE	Coefficient: β = 0.0976 Standard Error: 0.1538 t-statistic: 0.63 p-value: 0.540 F (1,10) = 0.40 Prob > F = 0.5398	**Fail to reject H_{01}:** The relationship between earnings persistence and stock returns is positive but statistically insignificant at the 5% level of significance.
H_{02}: There is no significant relationship between earnings predictability and stock returns for commercial banks listed on the NSE	Coefficient: β = -0.0544 Standard Error: 0.1167 t-statistic: -0.47 p-value: 0.651 F(1,10) = 0.22 Prob > F = 0.6510	**Fail to reject H_{02}:** The relationship between earnings predictability and stock returns is negative but statistically insignificant at the 5% level of significance.
H_{03}: There is no significant relationship between earnings volatility and stock returns for commercial banks listed on the NSE	Coefficient: β = 0.0004 Standard Error: 0.0017 t-statistic: 0.21 p-value: 0.840 F(1,10) = 0.04 Prob > F = 0.8400	**Fail to reject H_{03}:** The relationship between earnings volatility and stock returns is positive but statistically insignificant at the 5% level of significance.
H_0: Earnings quality (persistence, predictability, volatility) has no significant relationship with stock returns for commercial banks listed on the NSE	Joint F-test: F(3,10) = 16.32 Prob > F = 0.0004 R^2 (within) = 6.98%	**Reject H_0:** The joint test reveals that earnings quality measures collectively have a statistically significant relationship with stock returns, despite individual coefficients being insignificant.

6. Discussion

The finding that earnings quality demonstrates statistically significant joint effects on stock returns despite individual dimension insignificance carries profound theoretical and practical implications for understanding market dynamics in emerging economies. This result fundamentally challenges simplistic interpretations of earnings quality influence and suggests that investors synthesize multiple information dimensions to form comprehensive assessments of banking institution quality and prospects. The collective significance provides empirical validation for theoretical frameworks emphasizing multidimensional nature of financial information processing while simultaneously revealing limitations of traditional linear modeling approaches in capturing complex market responses.

From a theoretical perspective, the joint significance finding strongly supports Agency Theory's central proposition that earnings quality serves as a crucial mechanism for reducing information asymmetry between management and external stakeholders. However, the study extends traditional agency theory by demonstrating that this mechanism operates through composite signals rather than individual metrics. Investors appear to recognize that no single earnings quality dimension provides complete information about underlying firm performance and governance quality. Instead, they evaluate persistence, predictability, and volatility

collectively to form holistic assessments that individual measures cannot capture. This finding suggests that agency problems are addressed through multifaceted information evaluation rather than reliance on isolated quality indicators.

The results also advance Signalling Theory by establishing that earnings quality functions as a composite signal whose credibility and informativeness emerge from the interrelationships among its constituent dimensions. The strong negative correlation between persistence and predictability combined with their joint significance suggests that these measures provide complementary rather than redundant information. Markets appear to value the overall configuration of earnings quality attributes rather than responding mechanistically to individual components. This nuanced signaling process indicates that sophisticated market participants can distinguish between genuine quality signals emerging from fundamental business characteristics and potentially manipulated signals arising from individual metric optimization.

The documented mean reversion in stock returns presents compelling evidence challenging the weak-form Efficient Market Hypothesis within Kenya's banking sector context. The finding that approximately 30.7% of return deviations self-correct in subsequent periods directly contradicts the random walk hypothesis fundamental to market efficiency theory. This predictability suggests that past price movements contain information about future returns, creating potential opportunities for trading strategies based on historical patterns. However, this market inefficiency must be interpreted within the broader context of emerging market characteristics including limited liquidity, information asymmetries, institutional constraints, and market microstructure peculiarities that may prevent rapid arbitrage of predictable patterns.

The exceptional temporal stability of earnings persistence, with 97.31% persistence over time and autoregressive coefficient of 0.731, establishes this metric as a fundamental firm characteristic rather than transient performance measure. This finding has important implications for understanding the observed lack of significant linear relationship between persistence and stock returns in the main specification. If earnings persistence changes very slowly over time and represents deeply embedded organizational capabilities, its influence on stock prices may occur primarily through long-term valuation adjustments rather than short-term return responses. Markets may already incorporate information about firm-specific persistence characteristics into baseline valuations, making cross-sectional variation in persistence less relevant for explaining annual return fluctuations. This interpretation reconciles the apparent contradiction between theoretical expectations of persistence importance and empirical insignificance in linear models.

The counterintuitive negative coefficient for earnings predictability, while statistically insignificant, deserves careful interpretation in light of the cyclical temporal patterns revealed through autoregressive analysis. The finding that predictability exhibits negative autocorrelation with coefficient of negative 0.378 suggests that periods of high forecast accuracy tend to be followed by lower accuracy, creating inherent instability in this metric. If investors recognize that current predictability levels are unlikely to persist, they may rationally discount the value of this information when making investment decisions

The study's findings must be interpreted within the specific context of Kenya's banking sector and broader emerging market characteristics. The regulatory environment, market development stage, investor sophistication levels, and institutional factors all influence how earnings quality information is processed and incorporated into stock prices. The significant joint effect despite individual insignificance may partly reflect the relatively nascent stage of Kenya's capital market, where investors are still developing frameworks for processing complex financial information. As markets mature and analytical capabilities strengthen, the relationships

between individual earnings quality dimensions and stock returns might become more pronounced and more consistent with developed market patterns.

The practical implications for market participants are substantial. The joint significance finding indicates that comprehensive earnings quality assessment considering multiple dimensions simultaneously provides more valuable insights than isolated metric evaluation. Investors should develop holistic frameworks incorporating persistence, predictability, and volatility collectively when evaluating banking institutions. The documented non-linearities and threshold effects suggest that sophisticated analysis recognizing optimal ranges and inflection points will yield superior investment decisions compared to simplistic linear interpretations. Portfolio managers and analysts should incorporate these findings into valuation models and investment strategies, recognizing that earnings quality influences returns through complex mechanisms inadequately captured by traditional linear approaches.

For bank management, the findings suggest that optimizing individual earnings quality metrics in isolation may be counterproductive if such optimization distorts the overall configuration of earnings characteristics. Management should focus on maintaining balanced earnings quality profiles with moderate persistence, reasonable predictability, and controlled volatility rather than maximizing any single dimension.

Regulatory implications center on the need for comprehensive frameworks addressing multiple earnings quality dimensions simultaneously. The finding that collective effects matter more than individual components suggests that regulatory standards and supervisory practices should evaluate overall earnings quality profiles rather than focusing narrowly on isolated metrics. Early warning systems incorporating multiple dimensions and recognizing threshold effects could provide more effective tools for identifying institutions with deteriorating earnings quality requiring supervisory attention. The exceptional temporal stability of earnings persistence also suggests that significant deviations from established persistence patterns might serve as valuable early warning indicators of fundamental changes in bank operations or emerging problems.

7. Conclusion

This study examined the relationship between earnings quality and stock returns for commercial banks listed on the Nairobi Securities Exchange over the period 2017-2023, contributing important insights to the understanding of market dynamics in emerging economies. The research employed fixed effects panel regression with robust standard errors to analyze how three dimensions of earnings quality: persistence, predictability, and volatility influenced stock market performance in Kenya's banking sector. The findings reveal complex relationships that challenge conventional theoretical expectations while providing crucial insights for investors, management, regulators, and policymakers.

The central finding of this research is that earnings quality demonstrates statistically significant influence on stock returns when evaluated as a composite construct rather than through individual dimensions in isolation. While earnings persistence, predictability, and volatility each showed statistically insignificant linear relationships with stock returns in individual tests, the joint F-test revealed that these measures collectively exert significant influence with F-statistic of 16.32 and p-value of 0.0004. This finding establishes that market participants in Kenya's banking sector evaluate earnings quality holistically, synthesizing information across multiple dimensions to form comprehensive assessments of institutional quality and prospects. The result validates theoretical frameworks emphasizing the multifaceted nature of earnings

quality while demonstrating that traditional linear models examining individual dimensions may fail to capture the full complexity of market responses.

The study documented several important subsidiary findings that provide context for understanding the primary result. Stock returns exhibited significant mean reversion with approximately 30.7% of deviations self-correcting in subsequent periods, challenging weak-form market efficiency assumptions. Earnings persistence demonstrated exceptional temporal stability with 97.31% persistence over time, establishing it as a fundamental firm characteristic rather than transient performance measure. Earnings predictability showed cyclical patterns with negative autocorrelation, suggesting inherent instability in forecast accuracy. Earnings volatility displayed mean-reverting tendencies, indicating temporary rather than persistent nature of extreme fluctuations.

The theoretical contributions of this research advance understanding of how earnings quality influences market outcomes in emerging economies. The joint significance finding extends Agency Theory by demonstrating that information asymmetry reduction occurs through composite signals rather than individual metrics. The result refines Signalling Theory by establishing that signal credibility emerges from the configuration of multiple attributes rather than isolated dimensions. The documented market inefficiency in the form of return predictability challenges universal applicability of the Efficient Market Hypothesis, suggesting that institutional and structural factors in emerging markets create dynamics distinct from developed market contexts. The identification of non-linear relationships and optimal thresholds provides nuanced understanding of market responses that linear theoretical frameworks often overlook.

The practical implications for various stakeholders are substantial and actionable. Investors should adopt comprehensive analytical frameworks evaluating earnings quality holistically rather than focusing on individual metrics in isolation. Recognition of non-linearities and threshold effects can enhance investment decision-making and portfolio performance. Bank management should pursue balanced earnings quality profiles rather than optimizing individual dimensions, recognizing that excessive manipulation of any single metric may be counterproductive for market valuation.

Future research should pursue several promising directions emerging from this study's findings. Explicit modeling of non-linear relationships through quadratic specifications or threshold regression models could provide more precise understanding of optimal earnings quality levels and inflection points. Investigation of the documented stock return mean reversion through analysis of market microstructure, institutional factors, and behavioral biases could reveal underlying mechanisms and inform market efficiency enhancement initiatives. Development and testing of early warning systems based on earnings persistence deviations could provide valuable tools for financial stability monitoring. Expansion of scope to non-listed institutions and other financial entities would enable comprehensive understanding of earnings quality dynamics across the broader financial sector. Longer-term studies incorporating additional years of data could capture cyclical patterns and structural changes not apparent in the current timeframe.

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