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Profit Announcements, Market Efficiency and Equity Values in the Nairobi Securities Exchange Banking Index

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Abstract

This Independent Study Paper aims to analyse the effect of profit announcements on equity values to assess the level of informational efficiency within the Kenyan banking sector for the 2024 financial year. Grounded in the Efficient Market Hypothesis (EMH), the study seeks to investigate whether the Nairobi Securities Exchange (NSE) Banking Index exhibits semi-strong form efficiency by instantaneously incorporating profit information into stock prices. The Index, while formally effective from October 2025, comprises the same eleven banking stocks that traded throughout the 2024 financial year, enabling historical analysis of their price behaviour. The research will employ an event study methodology to calculate abnormal returns and analyse trading volume for the eleven banks in the Banking Index surrounding their official profit announcement dates. It will further examine investor sentiment, proxied by trading volume volatility, as a mediating variable and firm size (market capitalization) as a moderating variable in the relationship between profit announcements and equity values. The analysis intends to determine the direction and magnitude of abnormal returns, the change in trading volume, the speed of price adjustment, and the differential impact based on firm size. The anticipated findings will provide empirical evidence on the current state of market efficiency in Kenya's pivotal banking sector. This study is designed to offer significant insights for investors in formulating trading strategies, for corporate managers in planning investor communications, and for capital market regulators in evaluating market transparency and fairness.

Keywords: returns, equity, efficiency, liquidity

Vol. 10, No.04; 2026

ISSN: 2456-7760

1. Introduction

1.1 Introduction of the Problem

The relationship between corporate earnings disclosures and stock price movements is central to financial theory, particularly the Efficient Market Hypothesis (EMH) (Fama, 1970). The EMH asserts that in an informationally efficient market, security prices instantaneously reflect all publicly available information, leaving no opportunity for abnormal returns from trading on such news post-announcement. Globally, event studies in developed markets often corroborate this, while research in emerging markets like Kenya's presents mixed evidence on the speed and completeness of price adjustments, suggesting potential market inefficiencies influenced by local structural factors (Omondi & Muturi, 2021).

Within the Kenyan context, the banking sector's performance, largely tracked by the Nairobi Securities Exchange (NSE) Banking Index, is a critical determinant of overall market activity. However, academic inquiry into how this sector processes value-relevant information like profit announcements has yielded inconclusive evidence regarding market efficiency. While some studies suggest the NSE exhibits pockets of inefficiency that allow for abnormal returns post-announcement (Ochieng & Olweny, 2020), other research indicates a trend toward greater informational efficiency over time, though not uniformly across all sectors (Mbugua, 2021). This persistent ambiguity in the literature, particularly concerning the dominant banking sector, underscores a clear gap. A focused investigation into the index's reaction to profit announcements is therefore necessary to provide contemporary evidence on the specific relationship between these disclosures and equity value movements, thereby clarifying the current state of informational efficiency in Kenya's most pivotal market segment.

Although the NSE Banking Index was formally launched in October 2025, its constituent banks - the eleven listed commercial banks - were actively traded throughout the 2024 financial year. This study therefore analyses the price and volume behaviour of these same eleven banks during the 2024 calendar year, using their profit announcement dates as event points.

1.2 Importance of the Problem

The Nairobi Securities Exchange (NSE) banking sector represents the most capitalized and liquid segment of Kenya's capital market, accounting for a substantial proportion of total market turnover and serving as a critical barometer for investor sentiment and economic health (Capital Markets Authority, 2023). Profit announcements by these listed banks are therefore high-impact information events, eagerly anticipated by investors, analysts, and regulators as signals of corporate performance and broader financial sector stability. Theoretically, in a semi-strong form efficient market, such publicly disclosed profits information should be instantaneously and fully incorporated into equity values, leaving no opportunity for abnormal returns post-announcement (Fama, 1970). The extent to which the NSE banking sector approximates this ideal of informational efficiency has profound implications for investor confidence, capital allocation decisions, regulatory oversight, and the overall credibility of Kenya's financial markets.

Vol. 10, No.04; 2026

ISSN: 2456-7760

Despite the sector's undeniable importance, empirical evidence on how the NSE banking sector processes profit information remains fragmented, inconclusive, and increasingly dated. While some studies suggest that the NSE exhibits some inefficiency that allow for abnormal returns following profit disclosures (Ochieng & Olweny, 2020). Another research points toward gradual improvements in market efficiency over time, though not uniformly across all sectors (Owino, Jagongo, & Onono, 2021). More critically, existing studies have largely treated the banking sector as a homogeneous group, failing to account for firm-specific characteristics that may moderate market reactions. (Mwangi & Owino, 2018) provided initial evidence that bank size influences announcement effects, yet this line of inquiry remains underexplored. Furthermore, the mechanisms through which profit announcements translate into equity value changes - specifically, the mediating role of investor sentiment as reflected in trading behaviour - have received scant attention in the Kenyan context, leaving a significant gap in understanding the full transmission process from information disclosure to price formation.

This gap in knowledge is particularly problematic given the dynamic nature of Kenya's financial landscape. Since the publication of most existing studies, the NSE has undergone significant regulatory and technological transformations, including enhanced disclosure requirements, the introduction of new trading platforms, and increased retail investor participation through mobile-based investment applications. These developments may have materially altered how information is disseminated and processed by market participants. Consequently, findings from earlier research may no longer accurately reflect current market conditions. There is, therefore, an urgent need for contemporary, sector-specific investigation that not only updates evidence on the basic price reaction to profit announcements but also systematically examines the mediating mechanisms and moderating conditions that shape this relationship. Without such nuanced understanding, investors cannot optimize trading strategies, corporate managers cannot effectively time and structure their investor communications, and regulators lack the empirical foundation needed to design policies that enhance market transparency and fairness.

This study is therefore motivated by the pressing need to address these interconnected gaps. It seeks to provide a comprehensive analysis of profit announcements and equity values in the NSE banking sector for the 2024 financial year, explicitly testing for the mediating role of investor sentiment and the moderating influence of firm size. By doing so, the research aims to generate contemporary evidence on the state of market efficiency in Kenya's most pivotal market segment, offering insights that are both academically rigorous and practically relevant for diverse stakeholders in the financial ecosystem.

1.2.1 Operational Definition of Key Constructs

To ensure conceptual clarity and measurement validity, the following constructs are operationally defined for this study:

Investor Sentiment: For the purposes of this research, investor sentiment refers to the aggregate attitude or behavioural disposition of market participants toward banking sector stocks, as reflected in their trading activity surrounding profit announcements. Following Baker and

Vol. 10, No.04; 2026

ISSN: 2456-7760

Wurgler (2007) and Mungiria and Jagongo (2022), sentiment is not directly observable but is proxied by trading volume volatility—the standard deviation of daily trading volume normalized by its mean over the estimation period. This proxy is justified on the grounds that heightened sentiment (whether optimistic or pessimistic) manifests as increased trading activity and greater volume dispersion around information events (Rupande et al., 2019).

Trading Volume Volatility: This is operationalized as the coefficient of variation of daily trading volume, calculated as the ratio of the standard deviation of daily volume to the mean daily volume over a specified window. Abnormal trading volume is computed as the percentage deviation of actual volume from the expected volume estimated during the pre-event estimation window. This approach follows Beaver (1968) and Chen et al. (2024), who established trading volume as a valid signal of investor response to profit information.

Equity Values: Equity value is operationalized as the market price of a bank's ordinary shares, with changes in equity value measured through cumulative abnormal returns (CARs) calculated using the market model. This approach isolates the component of price movement attributable to the announcement event rather than general market movements.

Abnormal Returns: The difference between the actual return of a bank's stock on a given day and the expected return predicted by the market model, where expected return = $\alpha + \beta(Rm)$, with Rm representing the return on the NSE All Share Index.

1.3 Relevant Scholarship

1.3.1 Profit Announcements and Abnormal Returns

The relationship between profit announcements and abnormal stock returns has been extensively investigated across various markets, with studies consistently documenting significant price reactions to profit disclosures. MacKinlay (1997), in his seminal methodological work on event studies, synthesized evidence from multiple markets demonstrating that profit announcements generate measurable abnormal returns, confirming that these disclosures contain value-relevant information not fully anticipated by the market. The study established that the magnitude of abnormal returns is positively associated with the profit surprise component - the difference between announced profits and market expectations. This foundational finding has been replicated and refined in subsequent research across developed and emerging markets.

Tavor (2025) conducted a comprehensive investigation of announcement effects in emerging markets, employing both parametric and non-parametric tests to assess the impact of corporate announcements on stock market profitability. The study, examined how announcements affect cumulative abnormal returns (CAR) patterns, finding a distinct pattern of negative CAR before announcements and positive CAR afterward. This pattern suggests that informed investors strategically position themselves before announcements, potentially exploiting information leakage or superior analytical capabilities. The regression analysis further revealed that stock index returns and macroeconomic factors influence CAR before announcements, while GDP

Vol. 10, No.04; 2026

ISSN: 2456-7760

growth affects CAR afterward. Notably, the study found that announcements pertaining to emerging economies exert a more pronounced impact on stock indices compared to city-specific announcements, with COVID-19 period announcements demonstrating greater significance in abnormal returns than non-COVID-19 periods. These findings highlight the contextual nature of announcement effects and the importance of considering macroeconomic conditions when analysing market reactions.

Mwangi and Owino (2018) conducted an analysis of profits announcements and their impact on shareholder value among commercial banks listed on the Nairobi Securities Exchange. The study employed event study methodology to examine price reactions to annual profit announcements over a multi-year period. The findings revealed that banking stocks exhibited pronounced price reactions to profit disclosures, with the magnitude of reaction varying based on the unexpected component of profit. Specifically, positive surprises generated positive abnormal returns, while negative surprises led to corresponding price declines. Importantly, the study documented that profit announcements in the banking sector generate cumulative abnormal returns that persist for several days post-announcement, indicating that the information content of these disclosures is not instantaneously and fully incorporated into prices. This suggests that potential market inefficiency and provides opportunities for traders to generate abnormal returns by acting on announcement information after its public release. The study also found that bank size influenced the magnitude of reaction, with smaller banks experiencing more pronounced abnormal returns, attributed to lower pre-announcement information availability and greater surprise when formal profit were disclosed.

Ochieng and Olweny (2020), examined the effect of profit announcements on share prices of firms listed at the Nairobi Securities Exchange. Their research, covered multiple sectors including banking, found statistically significant abnormal returns surrounding announcement dates, confirming that profit disclosures influence equity values in this market. The study revealed that positive earnings surprises generated positive abnormal returns, while negative surprises led to corresponding price declines, consistent with theoretical predictions and findings from more developed markets. However, the study also documented patterns of delayed price adjustment, suggesting that the NSE may not be fully efficient in the semi-strong form. The authors recommended that investors incorporate profit announcement timing into their trading strategies and that regulators continue efforts to enhance information dissemination infrastructure to improve market efficiency.

1.3.2 Trading Volume Response to Profit Announcements

Trading volume represents a complementary dimension of market response to profit announcements, providing insights into investor disagreement, attention, and sentiment that price movements alone cannot capture. Beaver (1968), in his foundational work on the information content of profit announcements, demonstrated that both price changes and trading volume increase significantly around announcement periods, establishing volume as a valid indicator of information arrival and investor response. This dual-signal approach has since become standard in event study research examining market reactions to corporate disclosures.

Vol. 10, No.04; 2026

ISSN: 2456-7760

Chen et al. (2024), conducted an international study examining profit and trading volume reactions around profit announcements across 23 countries. Using a sample of 177,264 firm-year annual profit announcements from 1995 to 2014, the study decomposed trading volume into two components: one related to differential interpretation of the profit signal and another related to pre-event differential information precision. The findings revealed significant cross-country variations in how investors trade in response to earnings quality. In countries with stronger investor protection, less corrupt governments, and more liquid stock markets, a noisier profit signal increased differential interpretation of the signal but decreased investors' incentive for information acquisition before profit announcements. Conversely, these trading patterns flipped in countries with weaker investor protection, more corrupt governments, and less liquid stock markets. The study also found that institutional investors in countries with stronger institutions benefit more from their superior information processing skills, leading to more information acquisition both at and before profit announcements. These findings have important implications for the current study, suggesting that Kenya's institutional environment likely shapes how investors trade around banking sector profit announcements.

Loang (2025), examined the impact of investor sentiment and attention on trading volume across markets in China, India, and Singapore, with a specific focus on the moderating role of news sentiment. The study analysed panel data from 2018 to 2023, the study found that investor sentiment and attention significantly affect trading volume in China and Singapore, with more pronounced effects observed in high ESG groups, particularly in response to positive and negative news. Although the effects in India were less significant, news sentiment played a crucial moderating role. These results suggest that investor behaviour is strongly influenced by sentiment and attention factors, consistent with behavioural finance predictions that psychological factors affect trading decisions. For the current study, this research supports the inclusion of investor sentiment (proxied by trading volume volatility) as a mediating factor in the relationship between profit announcements and equity values.

Gebka and Wohar (2025), investigated the causality between trading volume and stock returns, addressing the gap in literature as to why such causality has previously been found to be of varying signs and magnitudes. Using US data from October 1973 to December 2018, the study employed quantile regressions to empirically examine if volume-return causality is driven by informed trading, investors' liquidity needs, sentiment, or uncertainty. The analysis revealed that sentiment and the prevalence of informed trading, especially on good news, significantly explain the observed cross-quantile volume-return causality pattern. Specifically, trading volume causes future stock returns positively for high return quantiles and negatively for low return quantiles. The study concluded that investor sentiment and informed trading drive these patterns, highlighting the importance of investor irrationality and information asymmetry for asset price behaviour.

Mungiria and Jagongo (2022), conducted a systematic review examining the relationship between macroeconomic variables, sectoral index volatility, and investor sentiment among listed firms at the Nairobi Securities Exchange. The study employed a systematic review research

Vol. 10, No.04; 2026

ISSN: 2456-7760

design to trace, gather, and appraise relevant studies addressing the relationship between the dependent and independent variables. The outcomes revealed the existence of a conceptual framework gap, as empirical literature does not offer conclusive results on sectoral index volatility and how it is influenced by macroeconomic variables and investor sentiment. The study noted that previous research was majorly conducted at different time periods in other markets, presenting geographical gaps, and without factoring sectoral perspective. The study recommended that future research incorporate investor sentiment as a key variable in understanding sectoral index behaviour and market reactions to information events.

1.3.3 Market Efficiency and Speed of Price Adjustment

The speed with which stock prices adjust to new information is a direct test of market efficiency, with faster adjustment indicating greater efficiency. Fama (1991) revisited the efficient markets literature, noting that event studies provide the most direct evidence on market efficiency because they measure the speed of price adjustment to specific information events. The review concluded that while developed markets generally exhibit rapid adjustment to profit announcements, anomalies such as post-profit announcement drift suggest that adjustment is not always instantaneous or complete.

Owino et al (2021), conducted a comprehensive examination of capital market reforms and microstructure performance of the Nairobi Securities Exchange. The study, which analysed data from 2004 to 2017, employed multiple regression analysis to establish how reforms affected efficiency, volatility, and liquidity at the NSE. The findings revealed that demutualization of the Nairobi Securities Exchange influenced stock market liquidity, efficiency, and overall market microstructure performance. However, the two measures of demutualization were found to influence performance in opposite directions: whereas an increase in ownership concentration improved liquidity, efficiency, and overall market microstructure, an increase in ownership composition led to a decrease in performance. Dematerialization of securities achieved its desired results as it improved liquidity, volatility, and efficiency. The study also found that although the size of the market had no significant effect on the relationship between capital market reforms and microstructure performance, the passage of time was important as it influenced the relationship between the study variables.

Griffin et al (2010), conducted a study examining how quickly stock prices in emerging markets incorporate information from various sources, including profit announcements. Using data from multiple emerging markets, the study found that while emerging markets generally exhibit slower price adjustment than developed markets, there is substantial variation across countries based on market infrastructure, investor protection, and information dissemination mechanisms. The study documented that markets with higher liquidity, better disclosure requirements, and stronger legal institutions tend to exhibit faster price adjustment to profit news. These findings are relevant to the Kenyan context, as they suggest that the efficiency of the NSE in processing profit announcements depends on these institutional and market structure factors, many of which have been subject to reform efforts documented by Owino et al (2021).

Vol. 10, No.04; 2026

ISSN: 2456-7760

Khalid (2024), provided a comprehensive guide to event study methodology with specific attention to applications in business market research. The study highlighted that event studies testing market efficiency around profit announcements must carefully consider the precise identification of announcement dates and the selection of appropriate event windows. The research noted that in emerging markets, including those in Africa, information dissemination infrastructure may introduce lags between announcement time and broad market access, potentially contributing to observed inefficiencies. The study recommended that researchers employ multiple event windows to capture the full adjustment process and conduct robustness checks using alternative estimation models.

1.3.4 Firm Size as a Moderating Factor

Firm size has emerged as a significant moderating variable in the relationship between corporate announcements and equity value responses, with theoretical foundations rooted in information asymmetry and analyst coverage arguments. Bhattacharjee and De (2024), examined price and volume reactions to corporate news on the National Stock Exchange of India, explicitly testing for firm size effects. Their research, which employed event study methodology on a sample of Indian firms, revealed striking size-based differentials: small firms experienced, on average, 1.12% higher positive abnormal returns than large firms on days of positive news flow, and conversely, 1.1% more negative abnormal returns on days of negative news. These findings demonstrated that firm size significantly moderates market reaction to corporate disclosures, with smaller firms exhibiting amplified price responses in both directions. The study further documented that volume reactions also differed across size groups, though with more complex patterns depending on news sentiment. The authors attributed these findings to lower pre-announcement information availability for smaller firms, resulting in greater surprise when formal announcements are made.

Novitasari and Kholilah (2025), in a conference paper presented at the 11th International Islamic Economic System Conference, examined the moderating effect of company size on the relationship between profitability and stock prices among Indonesian listed firms. The study, which analysed 36 companies listed on the Indonesia Stock Exchange with complete financial statement data from 2019 to 2024, employed panel data regression analysis. The results indicated that company size moderated the relationship between earnings per share and stock prices, indicating that larger companies with higher asset sizes tend to be more valued by the market when they have good profitability. However, firm size could not moderate the relationship between return on assets and stock prices. These findings suggest that the moderating effect of size may depend on the specific profitability metric examined, highlighting the need for careful variable selection in moderation analysis. For the current study, this research supports the examination of firm size as a moderating factor while suggesting that the effect may vary based on how profitability and equity values are measured.

Mwangi and Owino (2018), examined whether bank size influenced the magnitude and duration of market response to profit announcements. The research found that smaller banks within the NSE banking index exhibited more pronounced abnormal returns following profit

Vol. 10, No.04; 2026

ISSN: 2456-7760

announcements compared to their larger counterparts. This finding was attributed to lower pre-announcement information availability for smaller banks, resulting in greater surprise when formal profit were disclosed. The study also documented that the duration of abnormal returns was longer for smaller banks, suggesting slower information dissemination and processing for these firms. This direct evidence from the Kenyan banking sector provides strong empirical support for including firm size as a moderating variable in the current study.

1.3.5 Investor Sentiment as a Mediating Factor

Investor sentiment, defined as the overall attitude of investors toward a particular security or financial market, has gained increasing attention as a mechanism through which information events affect equity values. Baker and Wurgler (2007), developed a framework for measuring investor sentiment and demonstrated its significant effects on stock returns. They found that when sentiment is high, stocks that are difficult to arbitrage (smaller, younger, more volatile firms) tend to earn lower subsequent returns, consistent with sentiment causing overvaluation that eventually corrects. Conversely, when sentiment is low, these same stocks earn higher returns as they bounce back from being undervalued. This foundational work established that sentiment is not merely a noise factor but a systematic influence on asset pricing.

Rupande et al (2019), examined investor sentiment and stock return volatility on the Johannesburg Stock Exchange. Using a GARCH methodology, the study found that investor sentiment significantly impacts stock return volatility, with the effect being more pronounced during periods of high sentiment. The study also documented asymmetric effects, with negative sentiment having a greater impact on volatility than positive sentiment. These findings from a major African stock exchange provide regional evidence supporting the role of sentiment in shaping market dynamics and are particularly relevant to the Kenyan context given the similarities between South African and Kenyan financial markets.

Sakariyahu et al (2021), examined sentiment-apt investors and UK sector returns, providing evidence on how sentiment affects returns across different market segments. Using multiple sentiment proxies, the study found that investor sentiment significantly influences sectoral returns, with the effect varying across industries based on their characteristics. The study also documented that sentiment effects are more pronounced during periods of market stress and uncertainty. While focused on a developed market, this research provides methodological guidance for examining sentiment effects and demonstrates that sentiment influences returns even in sophisticated markets with high levels of institutional participation.

Mungiria and Jagongo (2022), examined the relationship between investor sentiment and sectoral index volatility among listed firms at the Nairobi Securities Exchange. The study identified a significant gap in the literature, noting that previous studies had largely failed to incorporate investor sentiment when examining market reactions to information events in Kenya. The authors argued that sentiment - investors' overall attitude toward a security or financial market - can amplify or dampen price reactions to corporate announcements, particularly in emerging markets where retail investor participation is substantial and information asymmetry is high. The

Vol. 10, No.04; 2026

ISSN: 2456-7760

study concluded that future research should incorporate investor sentiment as a key variable in understanding sectoral index behaviour and market reactions to information events.

1.4 Hypotheses

The study will seek to test the following null hypotheses:

a) H_{01}: Profit announcements by banks do not have a significant effect on the magnitude of abnormal returns of the NSE Banking Index in the 2024 financial year.
b) H_{02}: There is no significant increase in trading volume activity for the NSE Banking Index surrounding profit announcement dates in 2024.
c) H_{03}: The price adjustment of the NSE Banking Index to profit announcements in 2024 is not instantaneous, indicating a deviation from semi-strong form market efficiency.
d) H_{04}: The market reaction to profit announcements, measured by abnormal returns, is not significantly stronger for mid-cap banks than for large-cap banks within the NSE Banking Index in 2024.
e) H_{05}: Investor sentiment (proxied by trading volume volatility) does not significantly mediate the relationship between profit announcements and equity values of the NSE Banking Index in 2024.
f) H_{06}: Firm size (market capitalization) does not significantly moderate the relationship between profit announcements and equity values, such that the effect is stronger for smaller market-capitalization banks within the NSE Banking Index in 2024.

1.5 Research Methodology

1.5.1 Research Design

This study adopts a quantitative event study methodology following MacKinlay (1997) and Khalid (2024), appropriate for measuring the impact of a specific information event—profit announcements—on security prices and trading volume.

1.5.2 Event Window and Estimation Window Specification

The event date (t=0) is defined as the official profit announcement date for each bank as published by the NSE and the bank's investor relations portal. The event window spans 21 trading days: 10 days before the announcement (-10), the announcement day (0), and 10 days after (+10). This extended window allows for capturing both pre-announcement information leakage and post-announcement drift.

The estimation window consists of 120 trading days, from t = -130 to t = -11, preceding the event window. This window length balances statistical reliability (sufficient observations for parameter estimation) with temporal relevance (avoiding contamination from prior announcements).

Vol. 10, No.04; 2026

ISSN: 2456-7760

1.5.3 Expected Return Model

The market model (a variant of the CAPM) will be employed to calculate expected returns:
$E(R_{it}) = \alpha_i + \beta_i * R_{mt} + \varepsilon_{it}$
Where:

$E(R_{it})$ = expected return of bank i on day t
R_{mt} = return on the NSE All Share Index on day t
α_i and β_i = estimated from the estimation window using ordinary least squares regression
ε_{it} = error term

The market model is selected because it removes the portion of return variation attributable to broad market movements, isolating firm-specific announcement effects (MacKinlay, 1997).

1.5.4 Abnormal Return Calculation

Abnormal returns (AR) are calculated as:

$AR_{it} = R_{it} - E(R_{it})$
Where R_{it} is the actual return of bank i on day t.
Cumulative abnormal returns (CAR) over the event window are:
$CAR_i(t1,t2) = \Sigma AR_{it}$ (from t=t1 to t=t2)

1.5.5 Trading Volume Analysis

Abnormal trading volume will be calculated following Beaver (1968):
$AV_{it} = V_{it} / \bar{V}_i$

Where V_{it} is trading volume on day t and $\bar{V}_i$ is mean daily trading volume during the estimation window. Volume volatility (the sentiment proxy) is the standard deviation of daily volume ratios over the event window.

1.5.6 Addressing Endogeneity Concerns

The relationship between trading volume and price reactions may be bidirectional, as price changes can induce volume (momentum trading) and volume can precede price changes (informed trading). To address potential endogeneity, this study will employ two robustness checks. First, Granger causality tests will be conducted to examine the directional relationship between abnormal returns and abnormal volume around announcement dates, following Gebka and Wohar (2025). Second, the analysis will separately examine the pre-announcement window (-10 to -2) and post-announcement window (+2 to +10) to distinguish between volume that anticipates price movements (potentially reflecting informed trading) and volume that responds to price movements (potentially reflecting sentiment-driven trading). These approaches do not eliminate endogeneity but provide diagnostic evidence on its presence and direction.

Vol. 10, No.04; 2026

ISSN: 2456-7760

1.5.7 Control Variables

To isolate the effect of profit announcements from contemporaneous market-wide influences, the following control variables will be incorporated into the analysis:

Market Index Returns: Daily returns on the NSE All Share Index will be used as the primary control, already integrated through the market model's R_mt term. For robustness, the analysis will exclude event days coinciding with major macroeconomic announcements (e.g., Central Bank Rate decisions, inflation reports) as identified from the Central Bank of Kenya and Kenya National Bureau of Statistics calendars.

Sectoral Volatility: To control for banking-sector-specific shocks unrelated to individual bank profits (e.g., regulatory changes, industry-wide events), the daily return volatility of the NSE Banking Index (excluding the announcing bank) will be included as a covariate in sensitivity analyses.

Temporal Controls: Day-of-week and month-of-year fixed effects will be included to account for known calendar anomalies in the NSE (e.g., Monday effects, January effects). Additionally, an indicator variable for the pre-COVID period versus the post-COVID period will be included, consistent with Tavor (2025)'s finding that announcement effects differ significantly between crisis and non-crisis periods.

1.5.8 Statistical Testing

The null hypothesis of no abnormal returns will be tested using both parametric (t-test) and non-parametric (sign test and Wilcoxon signed-rank test) methods to address potential non-normality in return distributions (Tavor, 2025). Significance will be assessed at $\alpha = 0.05$.

1.6 Expected Contribution to Knowledge

This study is designed to address four specific gaps in the existing literature:

First, it provides contemporary evidence on semi-strong form market efficiency in Kenya's banking sector, updating earlier findings from Mwangi and Owino (2018) and Ochieng and Olweny (2020) that may no longer reflect current market conditions following regulatory and technological reforms documented by Owino et al. (2021).

Second, it introduces investor sentiment (proxied by trading volume volatility) as a mediating variable in the profit announcement-equity value relationship—a mechanism previously unexamined in the Kenyan context despite calls from Mungiria and Jagongo (2022) for such analysis.

Third, it systematically tests firm size as a moderating variable, extending the preliminary evidence from Mwangi and Owino (2018) by examining whether size differentials produce predictable patterns in both the magnitude and speed of price adjustment.

Vol. 10, No.04; 2026

ISSN: 2456-7760

Fourth, by focusing exclusively on the banking index rather than treating all sectors homogenously, the study generates sector-specific insights relevant to the most capitalized segment of the NSE, addressing the sectoral gap identified in previous research.

1.7 Limitations and Future Research Directions

This study acknowledges several limitations. First, while control variables for market movements and temporal effects are included, unobserved macroeconomic shocks (e.g., currency fluctuations, political events) may confound announcement effects. Second, the proxy for investor sentiment—trading volume volatility—captures behavioural responses imperfectly, as volume can also reflect liquidity needs and portfolio rebalancing unrelated to sentiment (Gebka & Wohar, 2025). Future research should consider alternative sentiment proxies, such as survey-based measures or media sentiment analysis. Third, the focus on a single financial year (2024) limits generalizability; replication over multiple years would strengthen conclusions about market efficiency trends.

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Vol. 10, No.04; 2026

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