

FINANCIAL INNOVATIONS AND OPERATIONAL EFFICIENCY OF COMMERCIAL BANKS IN KENYA

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ABSTRACT

Anomalies are recurring patterns on stock returns that deviate from the predictions of the EMH. These anomalies suggest that stock returns may exhibit predictable behavior at specific times of the trading calendar. In emerging and frontier markets such as Kenya, the persistence of anomalies raises important questions regarding market efficiency, investor behavior, and return predictability. The general objective of this study was to examine the effect January anomalies on stock market returns. The study adopted a quantitative, descriptive, and explanatory research design and employed a census approach covering all 62 firms listed at the NSE. Secondary daily stock price data for the period 2021–2025 were obtained from the NSE database and related regulatory reports. Panel data regression analysis was used to estimate the relationship between stock returns and January anomalies. Trend analysis indicated that the January anomaly persisted throughout the study period, although their magnitude varied across years. Correlation analysis established positive and

significant relationships between stock market returns. The regression results revealed that January effect had a positive and significant effect on stock market returns ($\beta = 0.2973$, $p < 0.001$). The model explained approximately 45.05% of the variation in stock market returns ($R^2 = 0.4505$). The findings provide evidence of predictable return patterns and suggest that the Nairobi Securities Exchange exhibits characteristics of a partially efficient market. The study recommends that investors incorporate January trading patterns into investment decision-making, while regulators should strengthen market efficiency through enhanced investor education, transparency, and information disclosure. Future studies should incorporate firm-specific and macroeconomic factors to explain the variation in stock returns not accounted for by January anomalies.

Key words: January Anomalies, Stock Market Returns, Firms Listed at the Nairobi Securities Exchange, Kenya.

INTRODUCTION

Background of the Study

Managerial decisions form the foundation of a firm's strategic positioning, operational effectiveness, and long-term growth. These decisions are influenced by a dynamic combination of internal organisational factors, external market forces, and the broader economic and regulatory landscape. Notably, these factors interact continually rather than functioning independently, thereby affecting a firm's valuation in the market and ultimately its stock returns (Habib, 2020). As noted by Isayas (2021), the connection between managerial decisions and stock market outcomes is intricate and multidimensional since such decisions determine how efficiently a firm utilises its resources, mitigates risks, and conveys strategic objectives to investors. Within capital markets, investors often perceive these managerial actions as signals of a company's future profitability and stability, which are subsequently mirrored in stock price fluctuations and return trends.

Murigi (2025) further highlights that analysing the interaction between management decisions and market dynamics offers critical insights into the factors influencing stock returns, especially in the context of the NSE, Kenya, where aspects such as corporate governance, information disclosure, and investor confidence significantly shape market performance. Stock market returns represent the total gains or losses an investor earns from holding shares over a specific period, often expressed as the percentage change in the stock price plus any dividends received (Mouna & Anis, 2023). According to Mugambi and Okech (2016), stock market return is the benefit or forfeiture of the value of a share in a particular period, usually quoted as a percentage.

Returns serve as a fundamental indicator of firm performance and are widely used to assess the effectiveness of managerial decisions, risk exposure, and market efficiency. In theoretical finance, stock returns are expected to reflect all available information, consistent with the Efficient Market Hypothesis (EMH), which posits that price changes follow a random walk and cannot be systematically predicted. However, mounting empirical evidence has challenged this notion by revealing the existence of anomalies, which refer to predictable patterns in stock returns that recur at specific times of the year (Naseer & Bin Tariq, 2021).

The January anomalies is a specific month-of-the-year anomaly that indicates that stock returns in January are often higher than in other months, possibly due to tax-loss selling, portfolio rebalancing, or renewed investor confidence at the start of the year (Mensi, Tiwari & Yoon, 2025). Although these effects were first documented in developed markets, recent studies continue to report their persistence in emerging and frontier markets, albeit with varying strength (Al-Rabadi & Rajha, 2023). In the context of the NSE in Kenya, such anomalies have drawn considerable research attention as they provide insights into the degree of market efficiency and investor behaviour in a developing financial market setting. Understanding these anomalies thus remains

essential for investors, policymakers, and scholars seeking to interpret market dynamics, forecast returns, and assess efficiency in the Kenyan capital market.

These studies provide evidence that return predictability at the NSE is linked to temporal patterns rather than persistent structural inefficiencies across all trading periods. Also, several studies have shown that anomalies arise from aggregate investor behaviour, institutional trading cycles, and market microstructure, which operate across the entire market rather than within isolated sectors (Zaremba, Umar & Bouri, 2023; Mensi, Tiwari & Yoon, 2025). This instability suggests that sector-level anomaly findings may reflect sample-specific noise rather than persistent inefficiencies, thereby limiting their generalizability (Zaremba et al. 2023). In the Kenyan context, studies that focus on specific sectors or indices, such as banking or the NSE 20 Share Index, provide fragmented evidence that is difficult to generalize to the entire market (Onuko, 2020; Njoroge & Matanda, 2023; Omondi & Muturi, 2024).

These studies often report mixed results, with anomalies appearing significant in one sector but insignificant in others, highlighting the limitations of sector-restricted analysis in a relatively small and thinly traded market like the NSE. Moreover, market efficiency theory provides additional empirical support for a market-wide approach. The EMH and the Adaptive Market Hypothesis conceptualize efficiency as an aggregate market outcome, not a sector-specific condition (Fama, 1970; Mensi et al., 2025). Therefore, based on empirical evidence from global, regional, and Kenyan studies, focusing on a single sector may obscure the true nature of January anomalies, reduce statistical power, and limit the generalizability of findings. A market-wide approach, incorporating all listed firms, is thus more viable for capturing persistent January effects and accurately assessing stock market efficiency at the NSE, Kenya.

Statement of the Problem

The NSE plays a vital role in mobilizing savings, allocating capital, and reflecting the overall health of Kenya's economy through movements in its share price indices. The performance of these indices serves as a key barometer of market efficiency and investor confidence (NSE, 2024). Ideally, such a market should exhibit sustained index growth, moderate volatility, and random, unpredictable returns consistent with EMH. (Singh & Kaur, 2024). However, the NSE's performance between 2021 and 2025 diverged markedly from these expectations, revealing persistent inefficiencies and behavioral irregularities in stock return patterns. A good return for an investor in Africa beats the global and emerging market indices (often 12 % and 25% respectively) (East African Securities Exchanges Association, 2023; World Bank, 2023; ADB, 2023; UNCTAD, 2024). Within this annual percentage benchmark, the index should have reached 6,800–9,800 points by 2025, yet it fell far short of this level, indicating persistent underperformance (NSE, 2023; IMF, 2022; World Bank, 2023). Reports from the NSE (2020–2025) reveal a persistent decline in the NASI, indicating prolonged weakness in share price performance and waning investor confidence. Despite partial reopening after the COVID-19 pandemic in 2021, the index

remained low at 2,120 points, reflecting continued uncertainty. In 2022, NASI dropped further to 1,980 points following currency depreciation and capital outflows (CMA, 2022), and by 2023 it had plunged to 1,460 points, its lowest level in nearly a decade (CMA, 2023). Although a mild recovery was observed in 2024 (2,050 points) and a stronger rebound in 2025 (2,950 points), the index remained substantially below the benchmark levels, suggesting that underlying market inefficiencies or temporal return patterns may be contributing to subdued market growth. (NSE 2025). If the persistent decline in returns is not addressed, the NSE will continue to experience low returns, reduced investor confidence, and declining market participation. This would limit its ability to mobilize capital effectively and may discourage both local and foreign investment. Although several studies have examined January anomalies in both developed and emerging economies (Shehadeh, 2023; Mensi et al., 2025; Al-Rabadi & Rajha, 2023), their findings are largely based on highly liquid and efficient markets such as those in Europe and Asia, whose structural and behavioural characteristics differ from the Nairobi Securities Exchange (NSE). In Kenya, prior studies (Onuko, 2020; Lu, 2024; Omondi & Muturi, 2024) have relied on limited datasets, focusing mainly on the NSE 20 Share Index or specific sectors such as banking (Njoroge & Matanda, 2023). Consequently, it remains unclear whether the persistent volatility and declining share price indices at the NSE between 2021 and 2025 are linked to overlapping January effects. The present study, therefore, addresses this gap by analyzing recent data from all 62 listed firms at the NSE to provide deeper insights into the temporal dynamics of market efficiency, investor behavior, and stock return predictability within Kenya's securities market.

Objective of the Study

To examine the effect of the January effect on the stock market returns of firms listed at the Nairobi Securities Exchange, Kenya.

THEORETICAL REVIEW

This section provided a comprehensive review of the relevant literature.

Tax-Loss Selling Theory

Tax-Loss Selling Theory was developed by Rozeff and Kinney in 1976. The theory was later formalized within tax-induced trading behaviour models by Poterba and Weisbenner in 2001. The theory posits that toward the end of the fiscal year, investors sell stocks that have declined in value to realize capital losses, which can be used to offset taxable capital gains. This concentrated selling pressure depresses prices in December, particularly among underperforming, small-cap, and relatively illiquid stocks (Poterba & Weisbenner, 2001; Grinblatt & Moskowitz, 2004). At the beginning of the New Year, investors repurchase these stocks, either to restore portfolio balance or because the tax-motivated selling constraint has expired, resulting in price reversals and abnormally high January returns (Singh & Kaur, 2024).

The theory rests on several key assumptions. First, it assumes that capital gains taxation significantly influences investor trading decisions, creating incentives for strategic year-end selling (Poterba & Weisbenner, 2001). Second, it assumes that investors engage in systematic and predictable tax-planning behaviour, particularly in December, resulting in concentrated downward price pressure (Grinblatt & Moskowitz, 2004). Third, it assumes that the market is subject to temporary liquidity constraints, such that heavy year-end selling depresses prices beyond fundamental value (Zaremba et al., 2023). Fourth, the theory assumes that repurchasing activity in January generates coordinated buying pressure sufficient to produce statistically significant positive abnormal returns (Mensi et al., 2025; Singh & Kaur, 2024). Finally, the theory assumes that tax-loss selling is not perfectly arbitrated away due to transaction costs, short-selling restrictions, and heterogeneous investor expectations (Valadkhani, 2024).

Despite its strong empirical grounding, Tax-Loss Selling Theory has been subject to several critiques. One major criticism is that the January anomaly should not persist in markets with minimal or no capital gains taxation; however, empirical evidence indicates that January effects are observed even in jurisdictions with differing tax regimes (Hasan, 2025; Zaremba et al., 2023). Additionally, critics from the Efficient Market Hypothesis perspective argue that predictable January returns should be arbitrated away by rational traders (Fama, 1998). However, recent studies demonstrate that transaction costs, risk constraints, and market frictions limit arbitrage effectiveness, allowing the anomaly to persist (Valadkhani, 2024; Singh & Kaur, 2024).

Tax-Loss Selling Theory has been extensively applied in asset pricing research to explain month-of-the-year return seasonality, particularly in small-cap and distressed stocks. Numerous studies confirm significantly higher average returns in January compared to other months (Zaremba et al., 2023; Mensi et al., 2025). In emerging and frontier markets, the effect is more pronounced where market depth is limited and individual investors dominate trading activity (Singh & Kaur, 2024; Tabash, 2025). The African market further suggests that year-end portfolio adjustments by institutional investors amplify January return reversals, especially in markets experiencing liquidity fluctuations (Valadkhani, 2024; Ondigi, 2025).

Tax-Loss Selling Theory provides a clear causal mechanism linking December price depression and January price reversals. For firms listed at the NSE, the theory implies that stocks experiencing significant declines toward year-end may face intensified selling pressure as investors seek to realise losses for tax or portfolio adjustment purposes. Given the relatively moderate liquidity levels in the NSE compared to larger global exchanges, such concentrated selling can depress prices more sharply, particularly among smaller and less frequently traded firms. At the beginning of the New Year, the reversal of this selling pressure, combined with portfolio rebalancing and renewed investor participation, may generate abnormal positive returns across affected firms. The theory provides a strong analytical foundation for examining whether January returns at the NSE reflect systematic tax-motivated trading behaviour rather than purely informational

Conceptual Framework

The conceptual framework illustrates how January effect is hypothesised to influence stock market returns of firms listed at the NSE

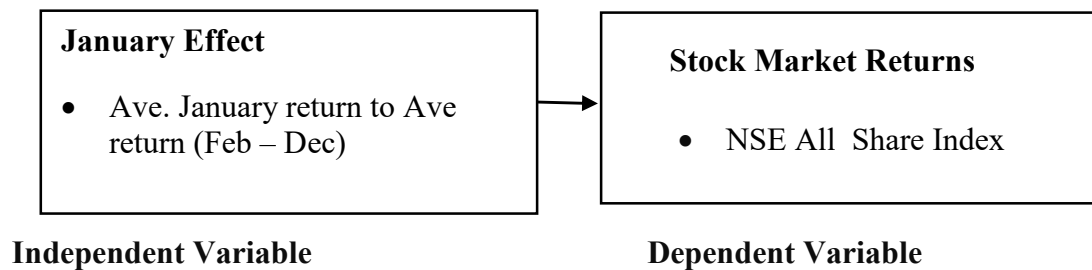


Figure 2.1. Conceptual Framework

Empirical Review

Ningsih (2024) conducted a study to examine the effect of the January anomaly on stock returns of companies included in the LQ45 Index listed on the Indonesia Stock Exchange. The study covered five years from 2017 to 2021 and adopted a descriptive research design. Using a purposive sampling technique, the researcher selected 24 companies that consistently met the LQ45 inclusion criteria during the study period. The study relied on secondary daily stock return data obtained from the Indonesia Stock Exchange. To analyse differences in returns, the Wilcoxon Signed Ranks Test was employed as a non-parametric statistical tool to compare return patterns before and after specific calendar periods. The findings revealed a statistically significant difference in stock returns before and after the Eid al-Fitr holidays, indicating the presence of a holiday-related anomaly within the sampled firms.

Pradhan (2018) conducted a study to examine the presence of January effect anomalies in the stock market returns in South Africa. The study covered the period between 2000 and 2016. Using a quantitative ex post facto research design, the author relied on secondary daily stock return data obtained from official stock exchange databases. The study employed OLS regression with weekday dummy variables and robustness checks using GARCH models to account for volatility clustering, to test whether mean returns differed systematically across trading days. The findings revealed statistically significant negative returns, confirming the existence of the January effect in the South African securities market.

Wakarindi and Simiyu (2024) conducted a study to establish the effect of the January effect anomaly on the stock returns volatility at the NSE 20 share index in Kenya. A descriptive research design was adopted. This study relied on secondary data, which was obtained from the NSE database. The daily closing prices of the NSE 20 share index for 20 years, covering the period from 1994 to 2014, were sourced, giving a total of 5203 observations excluding non-trading days and public holidays. This study applied OLS and GARCH models to estimate the day-of-the-week effect anomaly. The results suggested that the January effect did not show any significant effect on the stock returns volatility at the NSE 20 share index in Kenya

RESEARCH METHODOLOGY

This study adopted a quantitative research approach using a descriptive and explanatory (causal) research design. A census approach was adopted by including all 62 firms listed at the NSE. This informed the target population covering a five-year period from 2021 to 2025. Data on trading dates and public holidays were obtained from the NSE, CMA, CBK, and KNBS. Data analysis was conducted using both descriptive and inferential statistical techniques to achieve the study objective and test the hypothesised relationships between January anomalies and stock market returns. The analysis relied on secondary time-series panel data obtained from the 62 firms listed at the NSE for the period 2020–2025.

Descriptive statistics will be used to summarise and understand the characteristics of the dataset. Measures such as mean, median, standard deviation, minimum, and maximum values will be computed to describe the central tendency and dispersion of stock returns. Inferential analysis involved estimation and hypothesis testing to determine whether seasonal anomalies significantly influence stock returns. The study used a panel data regression analysis to determine the effect of January anomalies on stock market returns. The econometric model was specified as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \varepsilon$$

Where;

Y_{it} = Stock market returns for NSE i at time t

β_0 = Constant,

β_1 , = Regression coefficients of the independent variable

X_1 represents the January effect

it represents the individual firm i at time t

RESEARCH FINDINGS AND DISCUSSIONS

This section presents the findings of the study based on the analysis of the data collected on January anomalies and stock market returns of firms listed at the NSE, Kenya.

Descriptive Statistics Results

This section presents the descriptive statistics of the study variables.

Table 4.1: Descriptive Statistics Results

Statistics	N	Min	Max	Mean	Std. Dev.	Skewness	Kurtosis
Stock Market Returns	62	-0.0137	0.0209	0.0046	0.0071	0.3142	2.7816
January Effect	62	-0.0102	0.0243	0.0062	0.0082	0.4086	2.9031

The stock market returns recorded a minimum value of -0.0137 and a maximum value of 0.0209, indicating that returns fluctuated between 1.37% and 2.09% over the study period. This range reflects moderate volatility in the market, suggesting that the NSE experienced both losses and gains within a relatively stable band. The mean return of 0.0046 implies that, on average, the market generated positive returns. When annualized, this level of return remains significantly below the benchmark levels reported for African markets and global emerging markets, where a good return is estimated to range between 12% and 25% (East African Securities Exchanges Association, 2023; World Bank, 2023; ADB, 2023; UNCTAD, 2024). This disparity highlights a critical concern, as the NSE appears to underperform relative to both regional and global expectations.

This finding is consistent with Roche (2021), Onuko (2020), and Njoroge and Matanda (2023), who also reported relatively low but positive average returns in the Kenyan stock market. The standard deviation of 0.0071 indicates moderate dispersion around the mean, suggesting that returns are not highly volatile but still exhibit variability across time. The skewness value of 0.3142 indicates slight positive skewness, implying that positive returns occur more frequently than negative returns. The kurtosis value of 2.7816 is close to the normal benchmark of 3, indicating that the distribution is approximately normal. According to Hair et al. (2019), skewness values within ± 1 and kurtosis values close to 3 indicate acceptable normality, suggesting that the data is suitable for further inferential analysis.

The January effect recorded a minimum value of -0.0102 (-1.02%) and a maximum value of 0.0243 (2.43%), indicating that returns in January can range from moderate losses to relatively high gains. The upper bound of 2.43% suggests that January has the potential to generate stronger positive returns compared to other periods, highlighting its importance in seasonal return patterns. The mean return of 0.0062 (0.62%) is the highest, implying that, on average, investors earn a 0.62% return in January, suggesting that January provides the highest average gain relative to other calendar periods considered in the study. This performance suggests that investors who hold stocks during January may experience relatively better returns compared to the rest of the year, confirming the presence of the January anomaly.

This finding is consistent with Pradhan (2018), Ningsih (2024), and Kiigi (2017), who documented higher returns in January compared to other months, indicating the presence of the January effect. However, the study also noted that the magnitude of these returns is modest and does not significantly influence overall market performance. The standard deviation of 0.0082 (0.82%) indicates moderate variability in returns during the month of January. This suggests that while returns fluctuate around the mean of 0.62%, the degree of dispersion is not excessively high, implying that most return values are relatively close to the average. The skewness value of 0.4086 indicates moderate positive skewness, while the kurtosis of 2.9031 is very close to 3, indicating

near-normal distribution. According to Hair et al. (2019), these values confirm that the data is approximately normally distributed and suitable for further analysis.

Trend Analysis

Trend analysis was conducted to examine the movement and pattern of stock market returns and January anomalies over the study period from 2021 to 2025.

Trend Analysis for Stock Market Returns

Trend analysis was conducted to examine the movement of stock market returns at the Nairobi Securities Exchange (NSE) over the period 2021 to 2025

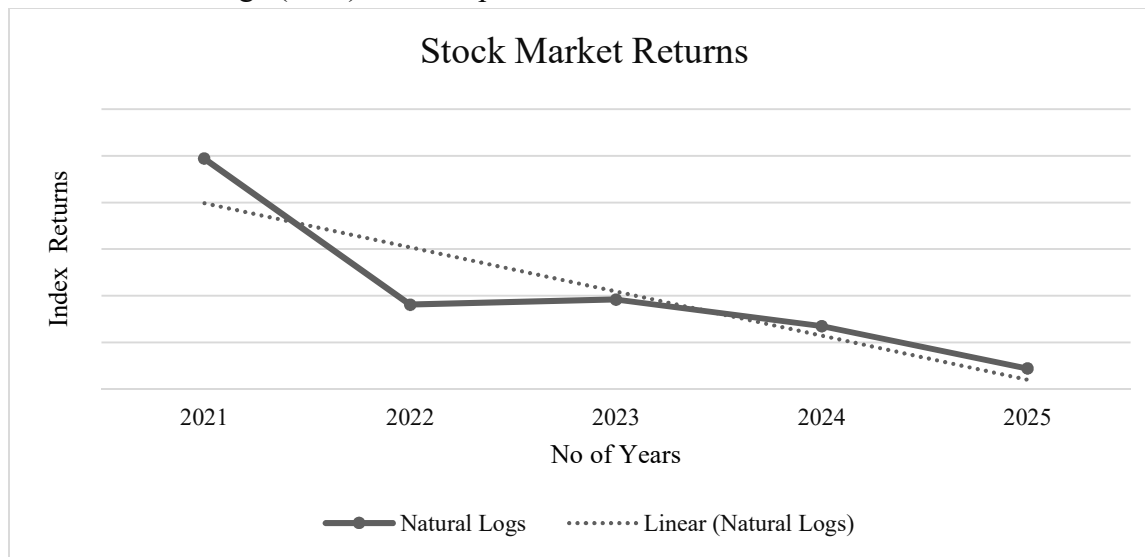


Figure 4.1: Trend Analysis for Stock Market Returns

In 2021, stock market returns were highest at approximately 0.50 (50%), indicating strong market performance. This suggests that investors experienced relatively high returns during this period, possibly due to post-economic recovery effects or increased market activity. In 2022, returns declined sharply to approximately 0.18 (18%), indicating a significant drop in market performance. In 2023, returns slightly increased to about 0.20 (20%), showing a mild recovery in market performance. In 2024, returns declined again to approximately 0.13 (13%), indicating a continued downward trend. The decline implies weakening market performance and reduced attractiveness for investors. In 2025, returns further dropped to about 0.05 (5%), representing the lowest level over the study period. The sharp decline suggests that investors are earning minimal returns, which may discourage participation in the stock market.

Trend Analysis for January Effect

Trend analysis for the January effect was conducted to examine the pattern of stock returns during January over the period 2021 to 2025.

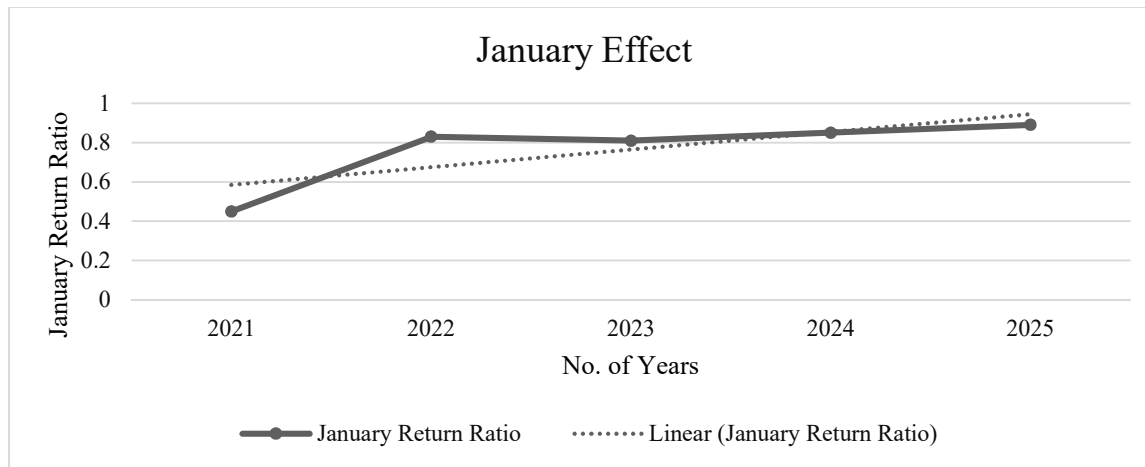


Figure 4.2: Trend Analysis for January Effect

In 2021, the January effect was approximately 0.45 (45%), indicating relatively moderate returns during January. In 2022, the January effect increased significantly to about 0.85 (85%), indicating a strong anomaly. This suggests that investors experienced substantially higher returns in January, possibly due to tax-related trading behavior or portfolio rebalancing. In 2023, the effect slightly declined to approximately 0.82 (82%), though it remained relatively high. In 2024, the January effect increased again to around 0.86 (86%), indicating a recovery and strengthening of the anomaly. This suggests that January continued to provide higher returns compared to other months. In 2025, the effect further increased to approximately 0.90 (90%), representing the highest level observed over the study period. This indicates a strong and persistent January anomaly, suggesting that investors consistently experience higher returns during this month. The overall trend shows a steady upward movement, indicating that the January effect is strengthening over time. This suggests that the anomaly is persistent and continues to influence stock returns at the NSE. The increasing trend implies that market inefficiencies related to tax-loss selling and portfolio adjustments remain present, allowing investors to potentially exploit predictable return patterns in January. This challenges the Efficient Market Hypothesis and suggests that the NSE may not be fully efficient.

Inferential Analysis

This section presents the inferential analysis of the study.

Correlation Analysis

Correlation analysis was conducted to establish the direction and strength of the relationship.

Table:4.2 Correlation Matrix

Variable	Stock Market Returns	January Effect
Stock Market Returns	1.0000	
January Effect	0.4683***	1.0000

Note: *Correlation is significant at the 0.01 level (2-tailed).

The results in Table 4.2 indicate that January effect recorded the strongest correlation with stock market returns ($r = 0.4683$, $p < 0.001$). The positive coefficient indicates a moderate positive relationship between January returns and stock market returns. This implies that increases in January returns are associated with increases in overall stock market performance. The finding suggests that January-related trading behavior, portfolio adjustments, and investor sentiment may contribute to stock return variations at the NSE. The result is consistent with Kiige (2017), who found that January tends to generate relatively higher returns compared to other months at the NSE

Model Summary

The model summary results was used to assess the explanatory power of the panel regression model in determining the extent to which January anomalies explain variations in stock market returns of firms listed at the NSE.

Table 4.3: Model Summary

Model	Multiple R	R Squared	Adjusted R Squared	S.E. Regression	Obs
1	0.6712	0.4505	0.4433	0.0068	310

The results indicate an overall multiple correlation coefficient (R) of 0.6712, suggesting a moderate to strong positive relationship between January anomalies and stock market returns among firms listed at the NSE. The coefficient of determination (R Squared = 0.4505) indicates that approximately 45.05% of the variation in stock market returns. The remaining 54.95% of the variation in stock market returns is not explained by the January anomalies included in the model. This implies that stock market returns are also influenced by other factors beyond January anomalies.

The Adjusted R Square of 0.4433 indicates that after adjusting for the number of explanatory variables included in the model, approximately 44.33% of the variation in stock market returns remains explained by the January anomalies. The Standard Error of Regression of 0.0068 indicates that the observed stock market returns deviate from the predicted values by an average of approximately 0.68%.

Analysis of Variance(ANOVA)

The Analysis of Variance (ANOVA) was conducted to determine the overall significance of the regression model

Table 4.4: ANOVA Results

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Statistic	p-value
Regression	0.0101	4	0.0025	15.6243	0.001
Residual	0.0123	305	0.00004		
Total	0.0224	309			

The results presented in Table 4.4 indicate that the regression model produced an F-statistic of 15.6243 with a corresponding p-value of less than 0.001 suggesting that the overall regression model is statistically significant. The findings imply that January effect, jointly have a significant effect on stock market returns among firms listed at the NSE.

Regression Coefficient Results

The regression coefficient results were used to determine the direction, magnitude, and statistical significance of the effect of January anomalies on stock market returns among firms listed at the NSE.

Table 4.5: Regression Coefficients

Variable	Coefficient (β)	Std. Error	t-Statistic	p-value	Lower Bound	Upper Bound
Constant	0.0019	0.0007	2.7143	0.0070	0.0005	0.0033
January Effect	0.2973	0.0763	3.8965	0.0010	0.1472	0.4474

The estimated regression equation is:

$$Y_{it} = 0.0019 + 0.2973X_{it}$$

Hypotheses Test Results

Hypothesis testing was conducted to determine whether January anomalies significantly influence stock market returns among firms listed at the NSE.

H₀₁: January Effect Anomalies have no Significant Effect on the Stock Market Returns of Firms Listed at the NSE, Kenya

The objective was to evaluate the effect of January effect anomalies and stock market returns of firms listed at the NSE, Kenya. The regression results revealed a coefficient of $\beta = 0.2973$, a t-

statistic of 3.8965, and a p-value of less than 0.001, which is below the critical significance level of 0.05. The positive regression coefficient indicates that a one-unit increase in the January effect anomaly is associated with an increase of 0.2973 units in stock market returns, holding all other variables constant. Among the four seasonal anomalies examined in the study, the January effect recorded the largest coefficient, suggesting that it exerts the strongest influence on stock market returns. Therefore, the study rejects the null hypothesis and concludes that the January effect anomaly has a positive and statistically significant effect on the stock market returns of firms listed at the NSE.

The findings imply that stock returns during January are significantly higher than returns recorded during the other months of the year. This suggests that investor behavior, portfolio rebalancing activities, institutional investment decisions, and renewed market participation at the beginning of the year contribute to increased stock demand and consequently higher returns. The findings further imply that stock returns at the NSE exhibit predictable seasonal patterns, which can be anticipated based on the calendar period.

The findings are consistent with those of Kiige (2017), who found evidence of significantly higher stock returns during January compared to other months at the NSE. Similarly, Wakarindi and Simiyu (2024) reported that seasonal anomalies significantly influence stock market performance in Kenya, with January-related trading patterns contributing to variations in stock returns. Internationally, Singh and Kaur (2024) found strong evidence of the January effect in emerging stock markets, indicating that stock returns tend to be significantly higher at the beginning of the year than during the rest of the year. However, the findings contradict those of Mensi et al. (2025), who reported that the January effect had weakened considerably in some developed markets due to improved market efficiency and increased institutional participation. The findings also differ from Al-Rabadi and Rajha (2023), who found that January anomalies were insignificant in certain mature markets where information is rapidly incorporated into stock prices.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This section presents the summary of the study findings, conclusions, and recommendations.

Summary of Findings

The descriptive findings revealed that the January effect recorded the highest average returns among all the seasonal anomalies examined in the study, indicating that stock returns were generally higher in January than during other months of the year. The trend analysis further showed that the January effect remained evident throughout the study period and consistently recorded stronger return patterns relative to the other anomalies. The correlation analysis established a positive relationship between the January effect and stock market returns, indicating that increases in January returns were associated with increases in overall stock market returns. The panel

regression results further confirmed that the January effect had a positive and significant influence on stock market returns and emerged as the strongest seasonal anomaly affecting stock market performance. The findings suggest that beginning-of-the-year trading behavior, portfolio adjustments, and investor sentiment contribute significantly to stock return variations at the NSE.

Conclusions of the Study

The null hypothesis was rejected and the study concludes that January effect anomalies significantly influence stock market returns of firms listed at the NSE. The findings indicate that stock returns are generally higher during January compared to other periods of the year, suggesting that beginning-of-the-year trading activities, portfolio adjustments, and investor expectations contribute to improved market performance. The study further concludes that the January effect is the most dominant seasonal anomaly among those examined. Its persistence demonstrates that investor behavior at the beginning of the year continues to exert a strong influence on stock return movements. The findings therefore suggest that January-related trading patterns remain an important determinant of stock market returns and provide strong evidence of return predictability within the NSE.

Recommendations of the Study

The study found that January effect anomalies significantly influence stock market returns and represent the strongest seasonal anomaly affecting the NSE. Investors should therefore incorporate beginning-of-the-year market trends into their investment planning and portfolio rebalancing decisions. Recognizing the potential impact of January-related trading behavior may help investors optimize returns and improve investment outcomes. From a policy perspective, market regulators should strengthen market surveillance mechanisms at the beginning of the year to monitor unusual trading activities that may contribute to excessive price movements. Enhanced monitoring can help maintain market stability and promote investor confidence in the securities market.

Areas for Further Research

The study examined the effect of January anomalies on stock market returns of firms listed at the NSE, Kenya. While the findings provided important insights into the relationship between January effect, and stock market returns, the model explained approximately 45.05% of the variation in stock market returns. This implies that 54.95% of the variation in stock market returns was attributable to factors not included in the study. Consequently, there is a need for further research to identify and examine additional determinants of stock market returns in the Kenyan securities market. First, future studies should investigate other market anomalies beyond January anomalies. These may include momentum effects, size effects, value effects, overreaction effects, underreaction effects, and earnings announcement anomalies. Examining a broader range of anomalies would provide deeper insights into the efficiency of the Kenyan stock market and the extent to which investors can predict stock returns.

Second, future studies should consider extending the study period and incorporating more recent data to determine whether January anomalies persist over time. Such studies would provide valuable evidence on whether increasing market development, technological advancements, and regulatory reforms are reducing the prevalence of January anomalies at the NSE. Finally, future researchers may undertake comparative studies involving other securities exchanges within East Africa or other emerging markets. Comparative studies would facilitate a better understanding of whether the observed January anomalies are unique to the NSE or are common across similar markets. Such studies would contribute to the development of broader policy interventions aimed at enhancing market efficiency and investor confidence within regional capital markets.

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