
An Empirical Study of the Effect of Loss Aversion Biase on Stock Market Returns in Nigeria

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Abstract

This study aims to investigate the effects of loss aversion bias on stock market returns in Nigeria. Employing. A cross-sectional survey design was used, data were collected from individual investors in the Nigerian financial market. The study population comprises all 13,200,000 investors in Nigeria, from which a sample of study 480 was drawn and 20% of 480 which is equal to 96 was used for the pilot study. Furthermore, 10% of 96 which is 10 was also added to the total sample of pilot study. Thus 106 sets of questionnaires were administered to investors in the Nigerian financial market. Descriptive and inferential statistical methods, including simple regression analyses, were used to test the stated hypotheses. Findings indicate that loss aversion bias shows an R of 0.777, an R² of 0.606, and an Adjusted R² of 0.598. The unstandardized B is -0.181, with a t-value of 4.747 and a p-value of .025. This indicates a significant negative relationship between loss aversion and stock market returns. Therefore, the null hypothesis is rejected, and we accept that Loss Aversion Bias has a significant negative effect on stock market returns. The negative beta ($\beta = -0.3207$) suggests that fear of losses leads to early selling, avoidance of risk, and hesitation during recovery phases all of which reduce market liquidity and suppress returns. The study concludes that loss aversion bias has significantly negative effect on stock market returns in Nigeria. The study recommends that investors Investor training programs, particularly in risk management, diversification, and long-term planning, should be prioritized by brokerages. The NGX could integrate behavioral risk flags to identify excessive selling pressure due to market fear, offering intervention tools or awareness campaigns to maintain investor confidence during volatility.

Keywords: Loss Aversion bias and stock market return.

1. Introduction

Stock market returns are key indicators of economic performance and investor sentiment. Stock market returns reflect the health of the economy, the prospect of future economic growth and confidence among investors (Smith, &., Adeyemi, 2022). The Johannesburg Stock Exchange (JSE) in South Africa, which is one of the continent's most developed markets, recorded a 20.4% increase in returns in 2024, supported by recovering commodity prices and increased foreign investment (Adegbite & Mensah, 2024). The Nigerian financial market plays a crucial

role in economic growth, serving as a platform for capital formation and investment activities. The Nigerian financial market consists of various institutions and mechanisms that facilitate the exchange of financial assets. It includes the stock market, bond market, money market, and foreign exchange market (Olowe, 2020). The stock market, is a vital component of this financial system, provides opportunities for companies to raise funds while offering investors a means to earn returns. Stock price appreciation, dividend payments, and risk-adjusted returns measured by the sharpe ratio significantly influence stock market performance and investor confidence. (Adebayo et al., 2021). Dividend payments serve as another key determinant of investor confidence in the Nigerian financial market. Companies that offer regular and increasing dividends signal financial stability and profitability, which enhances investor trust. Dividends provide a steady income stream, making stocks more appealing, particularly to risk-averse investors. In Nigeria, where fixed-income investments such as treasury bills and bonds are popular, attractive dividend yields can encourage more equity market participation, leading to a more robust stock market (Ajayi & Aluko, 2023).

Investors' action when making investment decisions sometime is irrational, because the attitudes of investors can result in biases, sentiment or deviations that influence investment decision making with regard to stock returns (Kahneman and Tversky, 1979; Puspawati & Yohanda, 2022). The influence of behavioral and cognitive biases, such as overconfidence, loss aversion, herd behavior, regret aversion, representative bias, availability bias, optimism bias, objectivism bias and pessimism among others biases play a significance role in Nigeria financial market. These behavioral and cognitive biases may cause investors to make irrational decisions that deviate from traditional economic models which states that investors are rational decision-makers (Emmanuel & Ahmed, 2020; Njogo, 2020).

Investors may show a preference for safer options even when higher returns are possible, because the fear of losing money often outweighs the potential for greater gains. This suggests that investors generally perceive the pain of losses as more impactful than the pleasure of equivalent gains (Sherani et al, 2023). As a result, many investors opt for lower-risk assets, like bonds over higher-risk investments, such as stocks, even if this safer choice lead to lower long-term returns. Therefore, loss aversion bias may have a negative impact on portfolio diversification (Elvira et al, 2022). In Nigeria, loss aversion is evident in the behavior of retail investors who avoid selling underperforming stocks to avoid realizing losses. During the 2016 recession, many Nigerian investors held oil sector stocks despite clear indications of prolonged sectoral underperformance. This behavior not only led to losses but also prevented reallocation to invest in more promising sectors (Adegbite & Mensah, 2023). Investors often expect higher returns on investment which is driven by a belief that market conditions will improve despite evidence of fluctuation in returns. Particularly in a developing market like Nigeria, where stock market volatility can often lead to unpredictable stock market return. As a result, investors underestimate risks associated with certain stocks or sectors, which may ultimately result in unsustainable price bubbles and market crashes (Kumar, 2023). In recent years, Nigeria's stock market has seen periods of rapid growth as a result of oil price boom and the years following the recovery from the 2016 economic recession. Investors often exhibited optimism, resulting in overvaluation of stocks, particularly in sectors like telecommunications and oil and gas. Therefore, this study intends to examine the effect of investors sentiment and stock market returns in the Nigerian financial market.

Fluctuation in return on investment is one of the main issues facing investors. Fluctuation significantly affects investor behavior in the financial market. High volatility often leads to market uncertainty which makes it difficult to predict future returns. Investors tend to react either by pulling out their funds during periods of sharp declines or increased their investment when markets appear to be rebounding. In March 2020, when Nigeria confirmed its first cases of COVID-19 and lockdown measures were imposed. Nigerian Exchange Group (NGX) All

Share Index (ASI) plunged by over 20% in few weeks. Investor sentiment dropped due to fear and uncertainty, causing a massive sell-off in shares, especially in blue-chip companies. Dangote Cement Plc, one of Nigeria's largest listed firms, saw a rapid drop in its stock price. Moreover, in late 2020, with economic reopening and optimistic earnings reports, there was a market rebound. The NGX ASI gained over 50% in late 2020, making it one of the best-performing stock markets globally at that time. Investors, seeing the recovery, rushed back in, resulting in overtrading and excessive speculation. MTN Nigeria Plc and BUA Cement saw increased buying pressure, that is not fully supported by fundamental analysis like company reports, financial ratios, earnings growth, product launches and competence management. Investors' reaction as a result of high volatility led to overtrading, causing further market instability and reduced long-term returns. These fluctuations also affect the risk appetite of both local and foreign investors because returns are unpredictable. Risk-averse investors divest from equities and shift towards fixed-income securities like bonds or real estate (Chinonso & Ojiako, 2023). Furthermore, in Q2 of 2016, Nigeria officially entered recession as GDP contracted due to a drop in global oil prices, fallen foreign reserves, Naira devaluation, and rising inflation. These macroeconomic conditions created a ripple effect across sectors, severely affecting stock market returns and investor behavior. Nestlé Nigeria Plc and Unilever Nigeria Plc, experienced sharp declines in share prices due to weakened consumer purchasing power, inflation, and rising costs of imported raw materials. Returns dropped significantly in 2016, which caused investor unwillingness and sell-offs (Udo, 2022).

Dividend payments are traditionally used to reward investors and indicate a company's financial strength. However, in the Nigerian financial market, inconsistent dividend policies, low payout ratios, and frequent dividend suspensions have eroded investor confidence (Olowe, 2020). During the 2016–2017 recession many companies in Nigeria faced revenue pressures, supply chain disruptions, and declining profits. During this period some companies reduced, or suspended dividend payments, directly affecting income-seeking investors who view dividends as a key return on investment. Oando Plc dividend suspension became long-term due to persistent losses, governance issues, and regulatory battles with the Securities and Exchange Commission (SEC). Since 2014, Oando has not paid dividends, and investor confidence dropped sharply, reflected in its share price volatility and thin trading volume. However, investors in Nigeria excessive reliance on company financial ratios which investors believes that these indicators always reflect intrinsic value of stock prices and firm performance. Investors believes also believes that these indicators signal increased investor confidence, share price appreciations and higher returns on investment. Disregarding psychological biases like loss aversion bias among others have led to irrational decision making by investors. These psychological biases cause investors to missed opportunities or exposure to excessive risk. These biases also cause market inefficiencies and reduced stock market returns as a result of irrational investment decision (Ajayi & Aluko, 2023). Moreover, loss-averse investors ignore indicators of economic recovery and company that shows signs of turnaround (e.g., rising earnings, reduced debt). Overly loss-averse investors still avoid it fearing further losses, and therefore miss growth opportunities. Loss-averse investors may avoid any perceived risk, not realizing that strategic diversification actually reduces overall portfolio risk. In Nigeria, investors frequently sell profitable stocks too soon and hold on losing stocks too long, hoping this stock will recover, thereby magnifying their losses. During the 2016 recession, many investors refused to sell declining oil and gas stocks, hoping for a recovery that never materialized, thus increasing their losses. Loss aversion also discourages risk taking in potentially high-reward sectors. For instance, during the fintech boom in 2020, many Nigerian investors avoided startups despite their potential, fearing the high risk associated with nascent companies. This led to missed opportunities as this startup eventually attracted global attention and substantial funding (Obafemi & Adeyemi, 2022; Adegbite & Mensah, 2023).

Studies on investors sentiment vary due to various proxies and methodologies used by the researchers to quantify investor sentiment. Most of these studies conducted in other climes revealed mixed findings. Some of these studies include (Blake at al., 2021; Khalaf, 2023; Jiss & Indhu 2021; Ezzat, 2020 and Farmasyah et al., 2023). These studies among others revealed also revealed mixed findings. Some of these studies above often depend on statistical data and quantitative indicators like EPS, P/E ratio, trading volume and qualitative cues such as competent management, product launches as proxies for investors sentiment. This reliance fuels investor confidence, drives market price to deviate from intrinsic value, and leads to price appreciations, especially when the indicators are positive. While ignoring sentiment biases have led to mispricing, increased market volatility, and suboptimal stock returns in the Nigerian financial market (Adebayo et al., 2021). Sentiment biases such as self-assurance/overconfidence, loss aversion play a vital role in shaping investor sentiment and stock market returns in the Nigerian financial market. The inconsistency of the findings of prior studies has also compelled this study. Therefore, it is against this background that this study intends to fill this gap. By using survey data to examine the effect of investors sentiment on stock market returns in the Nigerian financial market. The questions this study answer are as follows; How does loss aversion bias affect stock market return in the Nigerian financial market? The purpose of this study is to examine the effect of investors sentiment on stock market returns in the Nigerian financial market. The objective is to assess the effect of loss aversion bias on stock market returns in the Nigerian financial market. In line with the research objectives, the study hypothesize that loss aversion bias has no significant on stock market returns in the Nigerian financial market.

This study contributes significantly to our understanding of financial market dynamics by adding loss aversion bias to other behavioral bias variables. The results of this study are expected to expand the body of knowledge by expanding the literature on the relationship between loss aversion bias and stock market returns, but there is still a notable knowledge gap regarding the dynamics of this relationship among the existing studies. This study contributes to the body of knowledge in several meaningful ways, particularly in behavioral finance, investment psychology, and empirical studies of emerging markets like Nigeria. By loss aversion biases, researchers can capture deeper psychological drivers of investor behavior beyond traditional rational models. These biases explain why investors avoid risk (loss aversion). The explanatory accuracy of a model is increased when this bias added with others such as optimism, pessimism, objectivism anchoring, and herd behavior bias. results in more reliable models for forecasting and elucidating investor choices in erratic markets such as the NGX. This study examines the effect of loss aversion bias on stock market returns in the Nigerian financial market over the period from 2020 to 2024. This bias is known to significantly influence investment decisions. Geographically, this study is focused on the Nigerian stock market for the period of five (5) years from 2020-2024 encompasses several interest rate changes initiated by the Central Bank of Nigeria (CBN) in response to fluctuating inflation, oil price shocks, and global economic trends. The choice of the period is also justified by demutualization of Nigeria Exchange Group, which has become a publicly traded company owned by shareholders, Nigeria stock exchange which was previously privately owned by members of the company such as co-ops or mutual life insurance, has changed its legal name to Nigeria Exchange Group (NGX Group Plc).

2. Literature Review:2.1 Conceptual Review

2.1.1 Stock Market Returns

Stock market returns refer to the gains or losses generated from investing in stocks, typically measured by changes in the stock price and dividend payments over a specific period. (Naeem & Shah, 2023). Stock market returns are the percentage change in the value of an

investment in a stock or stock index over time, encompassing both capital appreciation and income from dividends (Bauer et al, 2023). Zalata et al (2022), define return on stock market investments as the total profit or loss generated, typically expressed as a percentage of the initial investment, accounting for capital gains and dividends. Stock market returns are the earnings investors receive from holding stocks, which can arise from price appreciation or dividend payouts, influenced by market conditions and company performance (Ebenezer & Oluwaseun, 2023). The profit, dividend, interest, or any combination of these that investors receive on their capital investment is known as the return on investment is define by this study.

2.1.2 Loss Aversion Bias

Loss aversion bias refers to the psychological phenomenon where individuals experience more intense emotional pain from losses than the pleasure derived from equivalent gains. This asymmetry in emotional responses often leads individuals to avoid risks or delay making decisions, even when the potential for gain outweighs the possibility of loss (Kahneman & Tversky, 1979). Loss aversion bias describes a tendency to prefer avoiding losses over acquiring gains of the same size. These bias influences economic decisions by making individuals more risk-averse in situations involving potential loss, leading them to make irrational choices, such as holding onto losing investments for too long (Feng & Zhang, 2021). Loss aversion in financial decision-making refers to investors' tendency to fear losses more than they value gains, which can lead them to make suboptimal choices like avoiding risk or holding on to underperforming assets. This bias contributes to market inefficiencies and can exacerbate asset bubbles or market crashes (Shiller, 2022). By adding to the prospect theory, Kahneman and Tversky (1979) created the idea of loss aversion bias. A hypothesis according to which investors assess profits and losses differently. Consequently, if someone is presented with a choice between two decisions that are equal. Therefore, this study defines loss/risk aversion bias as the tendency of individuals to prefer options that offer more certain but potentially lower returns over options with higher uncertainty and potentially higher returns. This bias can lead to overly conservative investment choices, potentially resulting in lower long-term gains.

2.1.3 Loss Aversion Theory

A fundamental idea in behavioral economics, loss aversion was initially presented by Kahneman and Tversky (1979) as part of their Prospect Theory. According to the theory, people experience the anguish of monetary losses more keenly than they do the joy that comes with comparable gains. For example, the pain of losing \$100 usually surpasses the joy of making the same amount. Poor decision-making and illogical financial conduct are frequently the results of this emotional reaction imbalance (Kahneman & Tversky, 1979; Thaler, 2015). Psychologically, regret and anxiety are intimately related to loss aversion. People are more inclined to take chances in order to avoid losing when they are in danger of losing, but they are more cautious when they are winning. This goes against the tenets of conventional finance theory, which hold that people base their judgments on consistent, logical preferences (Barberis et al., 2021). It emphasizes how emotional responses frequently take precedence over rational assessments while making investment decisions. In times of market turbulence, loss aversion also has a big impact on investor sentiment. Investors may respond unduly to negative news or downturns out of fear of losing money, which could lead to panic-driven selling or mob behavior (Baker et al., 2012). These feelings have the power to inflate market swings and skew asset values. Additionally, the disposition effect where investors are reluctant to sell failing equities but eager to sell winning ones is commonly displayed by loss-averse investors. This propensity is motivated by the desire to avoid the emotional effect of incurring a loss and goes against the principles of optimal portfolio management. As a result, individuals may continue

to retain underperforming assets, missing out on better chances elsewhere (Ben-David & Hirshleifer, 2019). Due to investors' propensity to overreact to bad news, loss aversion significantly contributes to increased market volatility. Large-scale selling can result from even little drops in asset values as people try to limit their losses. When repeated by numerous investors, this conduct can disrupt the entire market and frequently leads to price fluctuations that are unrelated to a company's inherent value (Shefrin & Statman, 2000; Barberis, 2018).

2.1.4 Application of Loss Aversion Theory

One of the main components of Prospect Theory, which was first presented by Kahneman and Tversky in 1979, is Loss Aversion Theory, which is crucial for understanding investor behavior in real-world financial markets. Investors typically feel more discomfort from losses than from gains of the same size. This knowledge helps analysts and financial advisors understand seemingly irrational behaviors, like panic selling during market declines or hesitancy to invest in high-return assets out of fear of losing money. By identifying these tendencies, financial institutions can better tailor their advice, risk warnings, and educational initiatives to help investors make more logical, less emotionally driven decisions, thereby reducing inefficiencies brought on by emotional reactions. Developers of financial products can also take advantage of loss aversion by emphasizing loss protection in their offerings. Investors who place a high priority on preventing losses are drawn to investment vehicles such as capital protected securities, fixed income instruments, and structured notes. While default options in retirement savings plans concentrate on limiting perceived losses rather than increasing prospective returns, behavioral strategies like nudging can also be used. These strategies typically increase investor involvement and promote steady investing practices. In the end, financial organizations may develop solutions that satisfy these psychological preferences and promote long-term involvement by recognizing that investors are more driven by the fear of losing than by the possibility of equal gains.

2.2 Empirical Review

2.2.1 Loss Aversion Bias and Sock Market Returns

Khalaf (2023), empirically study on investor psychological biases on business and corporate Strategy. In particular, overconfidence, representation, availability, loss aversion, anchoring, and regret aversion are examples of cognitive and emotional biases that this study empirically investigates in relation to investors' financial decisions and found that these cognitive and emotional biases have significant impact on investors' financial decisions. Although this study investigates multiple cognitive and emotional biases, it does not explore the interaction between these biases and external factors like interest rate, market volatility or economic events. Additionally, the study does not differentiate between various investment types (e.g., stocks vs. bonds), which could reveal how biases affect different investor profiles and investment strategies.

Jiss and Indhu (2021), examined how loss aversion affects day traders in the stock market. Primary data was gathered from stock market day traders. The study came to the conclusion that a day trader's decision to invest today is not influenced by loss aversion. This study finds that loss aversion does not influence day traders' decisions, but it does not consider the role of other psychological factors or market conditions that might affect day traders' behavior. The study also lacks an investigation into whether the presence of other biases (e.g., overconfidence or herding) could interact with or mitigate the effects of loss aversion on day trading decisions. Blake et al. (2021), investigated the relationship between loss aversion and demographic traits using a survey study involving approximately 4,000 people in the United Kingdom. The study showed how this aversion to loss reflects individual differences by finding strong connections between loss aversion and variables including gender, age, education, and financial literacy.

The study links loss aversion with demographic traits but does not explore how this relationship varies with different investment behaviors or market conditions. It also does not consider the impact of interest rate and technological advancements (e.g., trading platforms, financial apps) on how loss aversion manifests among different demographic groups.

Ezzat's (2020), the impact of loss aversion on the interactions in financial markets agent-based model analysis. In order to gain a better understanding of agents' propensity to overreact to possible losses, as well as how this behavior contributes to price fluctuations and the underlying causes of volatility in financial markets, the decision-making processes and behaviors of agents in financial markets are simulated with regard to loss aversion. Using both technical and fundamental research techniques, the model looks into how agents react to market conditions and other agents' actions. The model accurately simulates some stylized features found in financial markets, particularly market bubbles and collapses, and the findings show that loss aversion greatly influences price variations and volatility in markets.

Firmansyah et al. (2023), using financial literacy as a moderating factor, the study investigates the impact of behavioral bias on capital market investment decisions among Malang's Generation Beginner Investors. The study included 151 Malang residents, ages 11 to 26, as respondents; the sample was selected through accident sampling; the model and hypothesis were tested using structural equation modeling analysis approach (SEM-PLS) using software called WarpPLS Version 7.0; the results show that overconfidence bias, loss aversion, and the herding effect all significantly and favorably influence investing decisions. The impact of loss aversion and overconfidence bias on investing decisions might be mitigated by financial literacy. The influence of the herding effect on investment decisions cannot be lessened by financial expertise. Although it evaluates how financial literacy mitigates the influence of biases on investment choices, the study does not investigate how financial literacy interacts with other contextual elements like interest rates, market movements, or investor experience. Furthermore, the study ignores how these results would vary for more seasoned or varied investment groups in favor of concentrating on a certain demographic group (Generation Beginner Investors).

3. Methodology

The research design for this study is cross sectional survey research design that involves the collection of data at a point in time to analyze the data for the relationships among variables under study (Sekaran & Bougie, 2016). The cross-sectional survey was appropriate for this study since it aims at explaining a phenomenon in a population through collection of data from sample population and testing of hypotheses. Individual investors in the Nigerian financial market are the source of data for this study. In collaboration with brokerage firms, carefully crafted questionnaires were used to gather primary data from Nigerian individual investors. Individual investors' patterns, attitudes, and opinions were quantitatively described using the research design. Therefore, the population of this study comprises of 13,200,000 investors trading in the Nigerian financial market (NGX Group plc, 2024). The sample size for this study was determined using Taro Yamane (1967) formula which is 400 from a population of 13,200,000. Therefore, 20% will be added to the number of sample size to take care of response bias or unavoidable errors such as filling the questionnaires incorrectly and failure of some respondents to return questionnaires. As suggested by Bartlett et al, (2001) that a maximum of 20% to be added to the total sample size. Therefore, the sample size is now $400 + 80 = 480$. The sample size meets the sample requirement as recommended by (Bartlett et al, 2001). The choice of using Taro Yamane (1967) formula for determining sample size is because is a well-established sample size determination. It is accepted by researchers, institutions, and journals worldwide. The sample size for this study was selected using simple random sampling technique. Simple random sampling technique was used because it ensures that the sample is

representative of the population, reducing bias and sampling error (Creswell, 2014). Therefore, 20% of the total sample for the study was employed. As suggested by Connelly (2008), that 10-20 per cent of a full study sample size is suitable for a pilot study. Therefore, 20% of 480 is equal to 96. Furthermore, 10% of 96 which is 10 was also added to the total sample of pilot study. Thus 106 sets of questionnaires were administered to investors in the Nigerian financial market. 100 questionnaires were properly filled and return and was used for the analysis. Data gathered through the questionnaires on individual investors' perceptions regarding loss aversion bias on stock market return stock market returns. Using a five-point Likert scale of strongly agree, agree, neutral, disagree and strongly disagree will provide quantitative data suitable for inferential statistical tests. The data collected was first be analyzed using descriptive statistic which include the use of percentage (%), mean and standard deviation. Skewness and kurtosis will also be used in this study to test the normality of the variables under study. simple linear regression was used to test the direct relationship between the variables. The choice of the Statistical Package for Social Sciences (SPSS) software is widely used in academic, governmental, and commercial research for its user-friendly interface, robust statistical capabilities, and data management features.

Simple linear regression model

$$Y_{it} = \alpha + \beta_1 X_{lit} + \varepsilon$$

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$$SMR_{it} = f(\alpha + \beta_1 LAB_{lit} + \varepsilon)$$

(5)

4. Data Analysis

Table 1: *Descriptive Statistics of Loss Aversion Bias*

Items	Mean	Trimmed Mean	Skewness	Std. Error	Kurtosis	Std. Error
LAB1	3.8978	3.715	.020	.251	2.895	.498
LAB2	4.3370	4.070	.022	.251	3.421	.498
LAB3	4.1304	4.027	.059	.251	3.300	.498
LAB4	4.0217	4.011	.097	.251	3.469	.498
LAB5	3.8457	3.865	.009	.251	2.681	.498
LAB6	4.2717	4.024	.064	.251	-.716	.498

Source: Extracted from IBM SPSS V. 25 Output, 2025.

Table 8 revealed the mean scores range from 3.8457 (LAB5) to 4.3370 (LAB2), indicating that most respondents leaned toward agreement with the loss aversion statements on a 5-point Likert scale. Trimmed means, which remove extreme values (usually the top and bottom 5%), are close to the original means across most items, though a slight gap is seen in LAB2 (mean = 4.3370, trimmed = 4.070) and LAB6 (mean = 4.2717, trimmed = 4.024). These results suggest general consistency in responses, though a few extreme high values may have slightly influenced the means of some items. All skewness values are positive but very small, ranging from 0.009 (LAB5) to 0.097 (LAB4). Given that the standard error of skewness is 0.251, all skewness values fall well within the acceptable ± 2 SE range (± 0.502), indicating the distributions are approximately symmetrical. The positive but minimal skewness suggests a very slight tendency for respondents to rate items on the higher side, but overall, the data is balanced and symmetric. Kurtosis values for items LAB1 to LAB5 range between 2.681 and 3.469, which fall within the acceptable range of 2.5 to 3.5, indicating a normal peak of distribution. However, LAB6 has a kurtosis of -0.716, which indicates a platykurtic distribution a flatter shape with more spread-out responses. The means and trimmed means suggest overall agreement with the statements, with minor impact from outliers. Skewness values indicate

near-symmetrical distributions across all items, with no substantial leaning toward extreme ends of the scale. Kurtosis values confirm normality for five items.

Table 2: Descriptive Statistics of Stock Market Returns

Items	Mean	Trimmed Mean	Skewness	Std. Error	Kurtosis	Std. Error
SMR1	3.7652	3.627	-.056	.251	3.085	.498
SMR2	3.6043	3.924	-.596	.251	2.709	.498
SMR3	3.9239	4.088	.054	.251	3.241	.498
SMR4	4.3478	3.870	.008	.251	3.242	.498
SMR5	4.3370	4.070	.033	.251	2.867	.498
SMR6	4.1200	3.509	.023	.251	-.584	.498

Source: Extracted from IBM SPSS V. 25 Output, 2025.

Table 9 revealed the Mean values range from 3.6043 (SMR2) to 4.3478 (SMR4), indicating that participants' responses tend to reflect a moderate to high level of agreement with statements related to stock market returns (measured on a 7-point Likert scale). Trimmed means are fairly close to their respective means across most items, although slight differences (e.g., SMR6: 4.1200 vs. 3.509, and SMR4: 4.3478 vs. 3.870) suggest that some outliers may be present in the data. Overall, there is consistency in central tendency, but a few items may be mildly influenced by extreme values, requiring further observation. Skewness values vary from -0.596 (SMR2) to 0.054 (SMR3). Most are very close to zero, indicating balanced distributions. The one item with a more noticeable skew is SMR2 (-0.596), suggesting a mild negative skew (i.e., more responses were on the higher side of the scale). All values fall within ± 2 times the standard error of skewness (± 0.502), making them statistically acceptable. The data is generally symmetrical, though SMR2 may have a slightly left-skewed distribution. However, this is not statistically problematic. Kurtosis values range from -0.584 (SMR6) to 3.242 (SMR4). Most items lie within the acceptable 2.5–3.5 range, supporting normal distribution assumptions. SMR6, with a kurtosis of -0.584, shows a flatter distribution (platykurtic) indicating more dispersed responses compared to other items. The data exhibits mostly normal peakedness, with SMR6 reflecting a slightly broader spread in responses. The means and trimmed means support a central tendency toward moderate to high stock market return perceptions. The skewness values indicate that responses are approximately symmetric, with only minor deviation. Kurtosis values confirm the data's suitability for parametric tests, such as regression or structural equation modeling (SEM), though SMR6 may warrant closer review in model diagnostics.

Table 3: Reliability Statistics (Cronbach's Alpha):

Construct	Cronbach's Alpha (α)
Loss Aversion Bias	0.701
Stock Market Returns	0.834

Source: Extracted from IBM SPSS V. 25 Output, 2025.

Note. Cronbach's alpha values ≥ 0.70 indicate acceptable internal consistency.

Table 4: Demographics Analysis of Investor Characteristics

Variable	Category	Frequency	Percent (%)
Years Active Investing	Less than 2 years	5	5.2
	2–4 years	15	15.6
	5–7 years	25	26.0
	8–10 years	33	34.4
	More than 10 years	18	18.8
	Total	96	100.0
Securities Invested In	Stocks	51	53.1
	Bonds	22	22.9
	Real Estate	11	11.5
	Crypto	5	5.2
	Sukuk	7	7.3
	Total	96	100.0
Primary Reason for Investing	Retirement planning	3	3.1
	Regular income for expenses	4	4.2
	Saving for specific goals	58	60.4
	Acquiring future investments	31	32.3
	Total	96	100.0
Familiarity with Financial Indicators	Highly familiar	35	36.5
	Moderately familiar	46	47.9
	Familiar	13	13.5
	Not familiar	2	2.1
	Total	96	100.0
Annual Income (Naira)	N1,000,001–N10,000,000	1	1.0
	N10,000,001–N50,000,000	1	1.0
	N50,000,001–N100,000,000	8	8.3
	N100,000,001–N500,000,000	22	22.9
	N500,000,001–N1,000,000,000	50	52.1
	N1,000,000,001 and above	14	14.6
	Total	96	100.0

Source: Extracted from IBM SPSS V. 25 Output, 2025.

Table 21 above revealed that majority (78.1%) of respondents have 5+ years of investing experience, indicating a mature and possibly well-informed investor base. Over half of the investors (53.1%) primarily invest in stocks, followed by bonds (22.9%), while interest in crypto and Sukuk remains comparatively low, suggesting a risk-aware portfolio preference. The dominant motivation (60.4%) is saving for specific goals, followed by acquiring future investments (32.3%), pointing to goal-directed financial behavior. A high level of financial literacy is evident, as 84.4% reported being moderately to highly familiar with financial indicators. A majority of respondents (52.1%) earn between N500 million and N1 billion, indicating a sample skewed toward high. This implies that there is dominance of stock and bond investment. Most investors invest for goals or future asset accumulation.

Table 5: Loss Aversion Bias

Statement	Response	Frequency	Percent (%)
I feel worried when there is a drop in stock prices in the market	Strongly disagree	12	12.5
	Disagree	18	18.8
	Neutral	23	24.0
	Agree	34	35.4
	Strongly agree	9	9.4
	Total	96	100.0
I feel more emotional distress from losses than satisfaction from gains	Strongly disagree	10	10.4
	Disagree	27	28.1
	Neutral	8	8.3
	Agree	23	24.0
	Strongly agree	28	29.2
	Total	96	100.0
I avoid high-risk investments to prevent potential losses	Strongly disagree	12	12.5
	Disagree	27	28.1
	Neutral	10	10.4
	Agree	32	33.3
	Strongly agree	15	15.6
	Total	96	100.0
I don't feel worried when there is a drop in stock prices (<i>reverse-coded</i>)	Strongly disagree	15	15.6
	Disagree	32	33.3
	Neutral	6	6.3
	Agree	23	24.0
	Strongly agree	20	20.8
	Total	96	100.0
I believe losses impact my emotions more than equivalent gains	Strongly disagree	2	2.1
	Disagree	17	17.7

	Neutral	29	30.2
	Agree	32	33.3
	Strongly agree	16	16.7
	Total	96	100.0
Past losses make me more risk-averse in the stock market	Strongly disagree	6	6.3
	Disagree	20	20.8
	Neutral	21	21.9
	Agree	38	39.6
	Strongly agree	11	11.5
	Total	96	100.0

Source: Extracted from IBM SPSS V. 25 Output, 2025.

Table 26 revealed a combined 44.8% of respondents reported feeling worried when stock prices fall. This aligns with behavioral finance literature that identifies emotional vulnerability during downturns as a key factor influencing irrational decisions. A clear majority (53.2%) feel more emotional distress from losses than satisfaction from gains. This is a hallmark of loss aversion theory (Kahneman & Tversky, 1979), which suggests that losses are felt more intensely than gains of similar magnitude. A large portion of respondents (48.9%) indicate a tendency to avoid high-risk investments, showing protective behavior driven by prior losses or risk aversion. For the reverse-coded item ("I don't feel worried), 48.9% disagreed, reinforcing findings that investors are generally emotionally affected by declining prices, despite some outward claims of emotional detachment. A combined 50% agree/strongly agree that losses impact them more, and an additional 30.2% are neutral, suggesting unconscious emotional bias in some investors who may not overtly recognize their aversion behavior. A significant number of participants (51.1%) agree that past losses have made them more risk-averse, suggesting the effect of recency bias and trauma from financial downturns on future investment decisions. This implies findings empirically validate prospect theory and loss aversion bias, which should be integrated into predictive models for investment behavior, particularly in emerging markets where volatility is more pronounced. Brokerages firms should recognize that emotional triggers, especially after market downturns, influence risk appetite. This reinforces the need for emotional intelligence-based investment advising and psychological profiling of investors.

Table 6: Stock market Returns

Statement	Response	Frequency	Percent (%)
My stock returns in the last five years are a reliable way to build long-term wealth	Strongly disagree	4	4.2
	Disagree	8	8.3
	Neutral	32	33.3
	Agree	33	34.4
	Strongly agree	19	19.8
	Total	96	100.0
I feel satisfied with my investment decisions in the last five years	Strongly disagree	11	11.5
	Disagree	14	14.6

Statement	Response	Frequency	Percent (%)
	Neutral	20	20.8
	Agree	38	39.6
	Strongly agree	13	13.5
	Total	96	100.0
I often reassess my investment portfolio based on stock returns	Strongly disagree	4	4.2
	Disagree	14	14.6
	Neutral	23	24.0
	Agree	45	46.9
	Strongly agree	10	10.4
	Total	96	100.0
My annual returns have increased in the last five years	Strongly disagree	9	9.4
	Disagree	24	25.0
	Neutral	13	13.5
	Agree	26	27.1
	Strongly agree	24	25.0
	Total	96	100.0
I can predict stock market returns using technical analysis	Strongly disagree	5	5.2
	Disagree	21	21.9
	Neutral	22	22.9
	Agree	33	34.4
	Strongly agree	15	15.6
	Total	96	100.0
6. Higher returns always mean higher risk in the stock market	Strongly disagree	7	7.3
	Disagree	15	15.6
	Neutral	20	20.8
	Agree	35	36.5
	Strongly agree	19	19.8
	Total	96	100.0

Source: Extracted from IBM SPSS V. 25 Output, 2025.

Table 27 revealed over 54% of participants agree that their past stock returns are a reliable indicator for long-term wealth, reflecting confidence in their recent investment outcomes. However, a third remained neutral, indicating some skepticism or caution about return sustainability. A significant 53.1% expressed satisfaction with their investment outcomes, reinforcing a positive sentiment trend, possibly influenced by bullish markets or confirmation bias. Nearly 57.3% reported that they reassess their investment portfolios based on recent stock returns demonstrating return-driven or momentum-based investment strategy behavior. More than 52% agree their annual stock returns have improved, which could be either based on actual performance or biased perception influenced by recent gains or optimism bias. 50% of the

respondents agree they can predict returns using technical indicators, reflecting a prevalent reliance on technical forecasting tools over fundamentals, possibly exposing investors to model overconfidence. With 56.3% agreeing that higher returns imply higher risks, it suggests that a foundational understanding of financial risk exists among most investors. However, nearly 28% disagree or are unsure, which may require education on risk literacy. This implies that findings support studies in behavioral finance, particularly on overconfidence, optimism bias, and heuristics in financial decisions. Brokerages financial advisors should recognize that many investors are influenced by past performance, potentially leading to return extrapolation errors.

Test of Hypothesis

Table 7 Simple Linear Regression Analysis Summary of Loss Aversion Bias and Stock Market Returns in the Nigerian Financial Market

Variables	R	R ²	Adjusted R ²	UnStd. B	Std. Error of Estimate	Beta	t	P-value	Decision
Model 1	.777 ^a	.606	.598	-.181	.135	-.3207	4.747	.025	Sig.

Note. Dependent Variable: Stock Market Return.
Source: Extracted from IBM SPSS V. 25 Output, 2025.

Hypothesis (HO1): Loss Aversion Bias has no significant effect on Stock Market Returns

The regression analysis for Loss Aversion Bias shows an R of 0.777, an R² of 0.606, and an Adjusted R² of 0.598. The unstandardized B is -0.181, with a t-value of 4.747 and a p-value of .025. This indicates a significant inverse relationship between loss aversion and stock market returns. Therefore, the null hypothesis is rejected, and we accept that Loss Aversion Bias has a significant negative effect on stock market returns. The negative beta ($\beta = -0.3207$) suggests that fear of losses leads to early selling, avoidance of risk, and hesitation during recovery phases all of which reduce market liquidity and suppress returns. Loss aversion is a central idea in behavioral finance and remains a critical factor in understanding market volatility. Investors need to be educated about risk management and long-term planning to counteract loss-averse behavior. Brokerage firms should offer investment simulations, while the NGX can incorporate behavioral flags into its surveillance mechanisms to promote market resilience.

4.1 Discussion of Findings

The finding revealed that reveals a indicates a statistically significant negative relationship between Loss Aversion Bias and stock market returns, with $R = 0.777$, $R^2 = 0.606$, $B = -0.181$, $\beta = -0.320$, $t = 4.747$, and $p = .025$. Loss-averse investors react more strongly to the possibility of losses than they do to potential gains. This leads to behavior such as holding on to losing stocks too long or selling winners too early. Such decisions can reduce market performance and limit capital flow. The findings indicate that loss aversion bias has a statistically significant and negative effect on stock market returns in the Nigerian financial market. With an R² of 0.606, the model explains about 61% of the variation in stock market returns, highlighting the strong predictive power of loss aversion. The negative beta coefficient ($\beta = -0.3207$) suggests that when investors become highly sensitive to potential losses, they are more likely to sell off assets prematurely or avoid profitable opportunities, thereby reducing overall returns. This aligns with Prospect Theory (Kahneman & Tversky, 1979), which posits that individuals weigh losses more heavily than equivalent gains, leading to decision-making that often sacrifices long-term profitability for short-term security.

Furthermore, the significant p-value (.025) reinforces that investor psychology, particularly fear of losses, is not just a behavioral tendency but a measurable determinant of market performance. According to Loss Aversion Theory, investors tend to avoid risks associated with

potential losses even when the expected return is favorable. In the Nigerian context, where market volatility is high and investor confidence is often fragile, this aversion intensifies. The result demonstrates how this behavioral bias can lead to overreactions during downturns, contributing to market inefficiency, liquidity constraints, and suppressed growth in stock values. This outcome also reflects the asymmetric risk perception embedded in Prospect Theory's value function, where the disutility of losses outweighs the utility of gains. Nigerian investors who exhibit heightened sensitivity to losses may exit the market during downturns instead of holding positions until recovery, thereby amplifying downward price movements. Such actions reinforce market cycles of panic selling and weak rebounds, consistent with the empirical evidence that loss aversion is a driver of excessive volatility and low returns. This tendency creates systemic challenges for the Nigerian Exchange (NGX), as it reduces investor participation depth and overall market resilience.

In addition, the findings underscore the need for deliberate interventions that mitigate loss-averse behavior in Nigeria's financial market. Investor education on diversification, long-term wealth building, and behavioral awareness can help reduce irrational sell-offs. Brokerage firms could employ trading simulations and nudges to encourage rational investment under uncertainty, while regulators like the NGX and the Securities and Exchange Commission (SEC) can embed behavioral indicators in surveillance systems to detect panic-driven trades. By addressing the implications of Prospect Theory and Loss Aversion Theory, Nigeria's capital market can strengthen stability, enhance liquidity, and attract sustainable investments in the long run. The result is in line with Kahneman and Tversky's Prospect Theory, which explains the asymmetry in how investors treat gains and losses. Investor training programs, particularly in risk management, diversification, and long-term planning, should be prioritized by brokerages. The NGX could integrate behavioral risk flags to identify excessive selling pressure due to market fear, offering intervention tools or awareness campaigns to maintain investor confidence during volatility. Jiss and Indhu (2021) and Khalaf (2023).

5. Conclusion

The findings support the conclusion that psychological biases significantly impact stock market returns in Nigeria. The regression result, with an R^2 of 0.606, confirms that investor behavior driven by fear of losses explains a substantial proportion of variations in stock returns. The negative beta coefficient further underscores that investors' tendency to avoid losses outweighs their pursuit of gains, leading to premature selling, reduced risk-taking, and suppressed returns. This finding supports Prospect Theory and Loss Aversion Theory, which argue that investors give disproportionate weight to potential losses relative to gains, thereby distorting rational decision-making in financial markets. Loss Aversion show negative associations. This highlights the dual role of investor psychology: it can either enhance or diminish market outcomes depending on the dominant emotion or behavior. Consequently, investors, financial advisers, brokerage firms, and the Nigerian Exchange Group (NGX) must incorporate behavioral risk management strategies in investment education, financial product design, and market regulation. Emphasizing objective, rational investing while managing emotional reactions will foster a more resilient, informed, and efficient stock market in Nigeria.

Investor training programs, particularly in risk management, diversification, and long-term planning, should be prioritized by brokerages. For investors, the findings highlight the importance of adopting long-term investment strategies and effective risk management practices. Awareness programs on behavioral finance should be prioritized to help investors recognize and mitigate their loss-averse tendencies. Practical tools such as portfolio diversification, stop-loss mechanisms, and exposure to investment simulations can equip retail and institutional investors with the confidence to make rational decisions, even during volatile

periods. By shifting focus from short-term losses to long-term growth, investors can enhance their resilience and achieve better returns. Regulators such as the Securities and Exchange Commission (SEC) and market operators like the Nigerian Exchange (NGX) should integrate behavioral insights into their surveillance and market development frameworks. Policy interventions that encourage investor education, transparency in market information, and tools for informed decision-making will reduce panic-driven trades. Additionally, brokerage firms and financial advisors should adopt behavioral nudges such as personalized alerts, decision support systems, and educational campaigns to counteract loss aversion. Strengthening these behavioral safeguards will not only improve investor confidence but also promote stability, liquidity, and sustainable growth in the Nigerian capital market. The NGX could integrate behavioral risk flags to identify excessive selling pressure due to market fear, offering intervention tools or awareness campaigns to maintain investor confidence during volatility.

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