

Behavioral Finance and Investors Decision Making: A Review of the Nigeria Stock Exchange

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Abstract

This research explores the impact of behavioral finance on investors' decision-making within the Nigerian Stock Exchange, focusing on overconfidence, herding, and blue-chip stock preferences as key behavioral variables. 350 questionnaires were distributed to respondents, with 340 valid responses representing a 90% retrieval rate. The data collected were analyzed using multiple regression analysis with the aid of Stata 2023 to assess how these behavioral factors impact investment decisions. Overconfidence was evaluated to understand its effect on trading volume and stock selection. Herding behavior was analyzed to explore investors' propensity to follow the crowd, potentially leading to market inefficiencies. The preference for blue-chip stocks was examined to determine its impact on portfolio diversification and risk management. The findings of this study aim to provide insights into the psychological drivers of investor behavior in emerging markets, with implications for financial education and policy-making to enhance informed decision-making processes. The study recommends that both institutional and individual investors be educated about the various Behavioral factors, such as overconfidence and herding, that can influence their investment decision-making processes.

Keywords: Behavioral Finance, Decision-Making Overconfidence, Herding and Blue-Chip.

I. INTRODUCTION

Behavioral finance looks at how psychology influences investors or financial analysts to act and its effects on the markets. It highlights that investors are prone to bias, have limitations to their self-discipline, and aren't always rational. Decisions are never made in a vacuum. You can't just rely on fancy models and resources that don't consider the context. Your manager's cognitive psychology helps you analyze the factors at play. A decision-making scenario goes beyond the

specific problem you're facing and includes your environment.

Choosing one option from a variety of alternatives is known as decision-making, a process that involves considerable thought and consideration. In today's competitive corporate environment, individuals must stay informed and adapt across various sectors. A deeper understanding of human behavior from a global perspective is essential, along with the development of refined skills and the ability to optimize investments. Additionally, investors

should cultivate positive foresight, persistence, and determination. Every investor is distinct, and shaped by numerous factors such as demographics, which include socioeconomic status, education level, age, race, and gender. The realm of investment decisions often presents the most significant challenges for investors.

There have been various opinions on the standard finance and behavioral finance schools of thought. Standard finance relies on traditional theories that assume rational behavior and efficient markets, suggesting that investors make decisions based on full information and optimal strategies. In contrast, behavioral finance challenges these assumptions, positing that psychological factors and cognitive biases influence investor behavior, leading to irrational decision-making and market inefficiencies. This divergence in perspectives has sparked considerable debate among scholars and practitioners about the nature of financial decision-making and the implications for investment strategies and market outcomes. Oshobuye, (2024), explains that standard finance operates on the premise that investors act rationally in their dealings and are equipped with adequate knowledge about the market at all times. This understanding allows them to make realistic investment decisions aimed at maximizing their gains while minimizing risks to the most acceptable levels. Additionally, standard finance assumes that all investors are solely responsible for their actions within the financial markets, meaning that the consequences of their decisions—whether positive or negative—will impact only the individual investors and not the market as a whole. This perspective underscores the belief in efficient markets and individual accountability. The market is generally found to be efficient, meaning that asset prices reflect all available information at any given time. However, this efficiency can be challenged by various factors, including investor psychology and behavior. Behavioral finance suggests that cognitive biases, such as overconfidence, loss aversion, and herding behavior, can lead to irrational decision-making, causing prices to deviate from their true values. Additionally, external influences, such as market news, economic indicators, and political events, can introduce volatility and affect investor sentiment, further complicating the notion of market efficiency. As a result, while markets may strive for efficiency, the human element can lead to inefficiencies that create opportunities for savvy investors. Baker, Nofsinger & Ricciardi, (2023), explain that behavioral finance critiques the traditional school of thought, asserting that the standard assumptions about the market and investors are fundamentally flawed and unrealistic. It recognizes that humans are inherently imperfect and prone to making mistakes, often due to specific behavioral or psychological biases. In essence, behavioral finance takes into account real-life situations and highlights how the human condition may lead to errors in judgment, particularly when it comes to making significant investment decisions. The framework of behavioral finance can be categorized into four main themes: Heuristics, Framing, Emotions, and Market Impact (Baker, 2019).

This initial gap was identified by the early proponents of behavioral finance, such as Gawande, (2023), who researched how the stock market tends to overreact. The findings demonstrated that investors often overreact to

information that deviates from the norm while disregarding predictive trends in the long run. Other researchers, including Ogunlusi & Obademi, (2021) have also validated these findings by exploring various behavioral biases that impact investors' decision-making processes. Their work highlights the complexities of investor behavior and underscores the importance of understanding these biases in the context of financial markets. (Ogunlusi & Obademi, (2021), explained that investor irrationality often stems from emotional sentiments and their inability to fully comprehend the information available to them due to perceptual difficulties. This can lead to a steadfast adherence to beliefs, even in the face of clear facts and truths. Another study, (Junianto & Kohardinata, 2021) highlighted the role of framing in shaping how individuals perceive investment opportunities, noting that investors tend to focus on a single perspective without considering other potential drawbacks during their decision-making process. One specific bias highlighted under heuristics is Overconfidence. Parapar (2023), defined Overconfidence as the tendency to boast or assume expertise in making sound investment decisions. Barber, (2020), further clarified that such behavior can exacerbate challenges for investors, often resulting in negative impacts on their returns. Since the emergence of Behavioral finance, several gaps have been addressed; however, this paper aims to explore Behavioral biases within the context of a developing country like Nigeria. Given its unpredictable environment, susceptibility to various threats, economic challenges, and political instability, many investors have limited education regarding the factors that influence their investment decisions. Therefore, the focus will shift to a specific generation within this demographic.

Bogunjoko, (2021) Examines the impact of behavioral finance on investment decisions, specifically investigating how psychological factors influence investment choices among millennial investors in Nigeria. However, none of the reviewed studies have focused on the Nigeria Stock Exchange. For this study, overconfidence, herding, and blue chips will be used as independent variables, while investment returns will serve as the dependent variable, in line with the framework provided by (Gao & Gao, 2016). To meet the study's objectives, the following research questions have been formulated: What impact does overconfidence have on investment decision-making in Nigeria? What impact does herding have on investment decision-making in Nigeria? What determinants do blue chips have on investment decision-making in Nigeria?

Based on the research questions outlined, the main objective of the study is to investigate the impact of behavioral finance on investors' decision-making in Nigeria. The specific objectives are as follows:

- To examine the impact of overconfidence on investment decision-making in Nigeria.
- To determine the impact of herding on investment decision-making in Nigeria.
- To evaluate the impact of blue chips on investment decision-making in Nigeria.

Following the objectives of the study, the following hypotheses are proposed in null form:

- H_{01} : Overconfidence has no significant impact on investment decision-making in Nigeria.

- H0₃: Herding has no significant impact on investment decision-making in Nigeria.
- H0₃: Blue chips have no significant impact on investment decision-making in Nigeria.

Given their stake and involvement in the investment decision-making processes, all stakeholders are concerned about the impact of behavioral finance on investment decisions in Nigeria. The findings of this study will contribute to a deeper understanding of how behavioral finance influences investment choices in the Nigerian context. This knowledge may help investors, financial analysts, and policymakers develop strategies that account for psychological factors in decision-making, ultimately improving investment outcomes and market efficiency.

The remainder of the paper is organized as follows: Section 2 presents relevant extant studies. Section 3 discusses the methodology employed for the study. In Section 4, the results of the data analysis are presented and discussed. Finally, Section 5 concludes the study by highlighting the findings and their policy implications.

II. LITERATURE REVIEW

This section reviews relevant studies on investors' decision-making, focusing on the various factors and psychological influences that shape the choices made by investors. It explores existing literature on behavioral finance, highlighting key concepts such as overconfidence, herding behavior, and the impact of blue-chip investments. By examining previous research findings, this literature review seeks to provide a comprehensive understanding of the dynamics involved in investment decision-making and how these factors are reflected in the Nigerian market context.

Behavioral finance, a branch of finance that explores the influence of psychological factors on financial decision-making, highlights a significant limitation in traditional finance models. Sanjay Bhanushali, (2023), argues that these models inadequately capture the irrational behavior exhibited by investors, which can result in suboptimal investment decisions. To address this shortcoming, behavioral finance theories emphasize the impact of cognitive biases—such as overconfidence, loss aversion, and herd mentality—on investors' decision-making processes. These biases can lead to irrational investment choices, further complicating the landscape of financial markets and impacting overall investment outcomes.

One critical aspect related to investment decision-making concerns how individuals perceive and evaluate the level of risk associated with investments. Researchers such as Elessa & Yassin, (2023), Thomas, (2022), and Budhiraja, (2018) have investigated risk perception and highlighted its multifaceted nature, influenced by various factors including individual characteristics, market conditions, and cognitive biases. By considering the impact of behavioral finance on investment decisions in Nigeria, this framework sheds light on the complexities involved in investors' decision-making processes. It emphasizes that individuals' decisions are not solely determined by objective factors; rather, they are also subject to biases and heuristics that can lead to deviations

from rational decision-making. The study of risk perception within the framework of behavioral finance offers valuable insights into the cognitive and psychological mechanisms behind investment decisions. According to Goyal (2020), the relationship between behavioral finance and investment decision-making can be explained by how investors perceive and evaluate risk. For instance, an overconfident investor may perceive a risky investment as less risky than it is, increasing the likelihood of making an unsuitable investment for their risk profile. Conversely, a loss-averse investor might view a low-risk investment as riskier than it truly is, resulting in missed opportunities for potential gains.

The literature on behavioral finance can be categorized into two main strands, each examining different aspects of investment decision-making. The first strand investigates the impact of overconfidence on investment decisions. Studies conducted by Relan, (2024), and Nareswari, (2021) have explored this relationship, while researchers such as (K Arjun Goud, (2024), and Yi, (2024) Have further delved into the effects of herding behavior on investment decisions. The second strand examines the influence of blue-chip stocks on investment choices, with scholars like. Budhiraja, (2018) Contributing to this area of study. Additionally, Elessa & Yassin, (2023) Have enhanced the understanding of the connection between overconfidence and investment decisions, providing valuable insights into how psychological biases affect investors' judgment. Overall, this body of literature underscores the complexities of behavioral finance, highlighting how various cognitive biases, including overconfidence and herding behavior, influence investment decisions within the context of financial markets. Moreover, it illustrates the importance of understanding these dynamics to improve investment strategies and outcomes.

➤ *The Impact of Overconfidence on Investment Decisions*

Overconfidence is a cognitive bias where investors tend to overestimate their investment abilities, leading to unnecessary risks (Ganesh, 2024). Such investors often have a positive perception of risk, making them more inclined to adopt a risky attitude in their investment decisions. The influence of behavioral biases—like herd bias, anchoring, mental accounting, and overconfidence—on investor decision-making is substantial. Alquraan, (2023) explores how emotional and psychological factors impact decisions in the securities market, highlighting biases such as conservatism, overconfidence, availability, herding, and risk-taking tendencies. Their findings indicate that appreciation significantly affects investors' psychology, followed by factors like tax reductions and income generation. Additionally, Guillaume Dinis, (2020), investigates the role of behavioral finance variables, including overconfidence, on stock investment decision-making at the Amman Stock Exchange, suggesting that this confidence leads investors to pursue higher-risk investments. In another study by Sanjay & Bhanushali, (2023), the impact of overconfidence on individual investment decisions is examined, revealing that those with overconfidence tend to make choices shaped by an inflated self-belief. Their results indicate that overconfidence is among the most significant behavioral factors influencing investment decisions. Furthermore, the relationship between

overconfidence and investment risk-taking is mediated by perceived risk (Elessa & Yassin, 2023).

➤ *The Impact of Herding Behavior on Investment Decision*

Herding behavior arises from the influence of risk perception on stock returns, as suggested by (Elessa & Yassin, 2023). Many investors tend to follow the crowd or exhibit overconfidence biases when making investment decisions. This herding behavior often results from investors' low-risk propensity or risk avoidance, driven by their desire to minimize the risk of financial loss. (Sanjay & Bhanushali 2023). During instances of herding, individuals who would typically be rational may start to act irrationally by relying on the judgments of others. This behavior can be attributed to a lack of investment knowledge or a tendency to follow the opinions and directions of others, as pointed out by (Ganesh, 2024).

Baker, (2019) Reveals a compelling connection between herding behavior and risk-return dynamics, noting that herding tends to increase during periods of high market uncertainty and volatility. This heightened herding behavior can amplify the potential risks associated with investments, as investors often base their decisions more on market sentiment than on objective risk assessments. Sattar, Toseef & Sattar, (2020) Also examines herding behavior concerning risk and uncertainty, finding its prevalence in the US stock market. Additionally, Nkukpornu, (2020), identifies that the relationship between behavioral factors and investment performance is significantly mediated by risk perception.

➤ *The Impact of Blue-chip Stocks on Investment Decisions*

Blue chip stocks are shares of well-established companies known for their stable financial performance over time. However, investors may develop a bias towards these stocks, influencing their investment decisions based on this perception. Almansour & Arabyat, (2017), investigate the relationship between overconfidence, risk perception, and the bias towards blue chip stocks. Their study finds that overconfident investors are more inclined to favor blue chip stocks, while investors with a high-risk perception are less likely to exhibit this bias.

➤ *Theoretical Framework*

Many theories on investors' decision-making have been developed, but for this study, we will use modern portfolio theory (MPT) and efficient market hypothesis theory to underpin the study.

➤ *Modern Portfolio Theory (MPT) and Efficient Market Hypothesis*

Modern Portfolio Theory (MPT) is a financial concept that aims to maximize returns by carefully choosing a diversified portfolio of assets while managing risk. It emphasizes the importance of investing in a variety of assets

to minimize the overall risk without sacrificing potential returns. Efficient Market Hypothesis (EMH) posits that financial markets are "efficient" in reflecting all available information in the prices of securities. According to this theory, it is nearly impossible for investors to consistently achieve higher returns than the overall market, as asset prices always incorporate and adjust to new information promptly.

Chaudhary (2016) Note that various financial models originated from the Efficient Market Hypothesis, including the Intertemporal Capital Asset Pricing Model developed by Roberts Merton in 1973. This model aimed to assist investors in managing risks by identifying market portfolios that can hedge against these risks. Additionally, Robert Lucas's 1978 model on asset prices in an exchange economy helps forecast the relationship between rational asset prices and consumption patterns.

Valaskova., (2019) Note that while portfolio theory provides a framework for optimal portfolio diversification, its underlying assumptions are often unrealistic, as investors make decisions based on their preferences, experiences, and beliefs. Nkukpornu, (2020) suggest that the first step toward achieving an optimal portfolio is developing an "Investment Strategy." This can involve fundamental analysis, which focuses on critical factors like financial statements or industry characteristics that influence stock prices, or technical analysis, which looks at trends and historical stock prices or relies on personal intuition. However, Khilar & Singh, (2020) Argue that investors who base their decisions on such analyses may end up selecting excessively risky portfolios, as they are inclined to take on more risk, contradicting the assumption that investors are generally risk-averse.

➤ *Prospect Theory*

Tversky, A., & Kahneman, (1981) describe the Expected Utility Theory and Prospect Theory as two approaches to decision-making under uncertainty. The Expected Utility Theory is primarily logical and normative, focusing on expected outcomes in risky situations, but it struggles to explain why individuals are drawn to both insurance and gambling simultaneously. In contrast, Prospect Theory seeks to align more closely with how investors think and their mental beliefs. Ritter (2003) elaborates that Prospect Theory centers on how individuals make choices when faced with uncertainty. He notes that this theory emphasizes concerns about gains and losses rather than the absolute levels of wealth, which is a key distinction from Expected Utility Theory.

➤ *Conceptual Framework*

The pictorial relationship between the IVs and the DV is stated below.

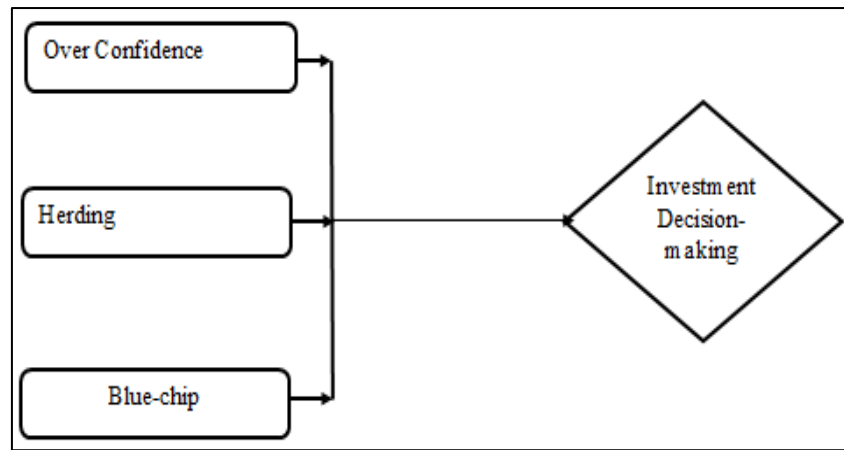


Fig 1 The pictorial relationship between the IVs and the DV

III. METHODOLOGY

The study employed a correlational research design, grounded in a positivist research paradigm. The population for this study comprises 350 Individual investors who had investments on the Nigerian Stock Exchange (NSE) as of Dec, 31st 2023. This serves as the study's unit of analysis. 350 questionnaires were distributed to sampled individual investors and stockbrokers on the Nigerian Stock Exchange. 330 completed questionnaires were distributed and returned, amounting to a 90% response rate. The targeted sample was drawn from the overall population of market participants on the Nigerian Stock Exchange. To measure the variables, a 5-point Likert scale was utilized, which was adapted from (Gawande., 2023). Overconfidence, herding, and blue chip have all been proposed as potential independent variables in investors' decision-making. The model outlined by Azam and Kumar (2011) was used in the study. Return on investment has been used as a proxy for investors' decisions, whereas behavioral finance characteristics like overconfidence, herding, and blue chip serve as independent variables. The reformulated model of Azam and Kumar (2011).

➤ Sampling Techniques

The sampling technique employed was based on convenience sampling methods, with the following criteria:

- The firm must have been listed on the Nigerian Stock Exchange (NSE) for at least one year before 2018.
- The firm must not have been delisted during the study period.
- There must be availability of data in the annual financial reports of the selected banks for the period under study, which spans from 2018 to 2023.

The financial data utilized for the study is secondary and obtained from the customers' reports. Panel regression analysis was conducted, given that the study incorporates both time series and cross-sectional data. The independent variables examined include overconfidence, herding, and blue-chip stocks, while the dependent variable is investment decision-making.

➤ Variables Measurement

The proxies used to underpin the study are shown in the table below:

Table 1 Variable Definition and Measurement

S/N	VARIABLES	VARIABLE TYPE	MEASUREMENTS	SOURCES
1	Investment Decision (CAPM)	Dependent	The Expected Rate of Return can be calculated using the formula: Expected Rate of Return = Risk-Free Rate + β (Market Return – Risk-Free Rate).	Roychowdhury, (2016) and Cohen (2018)
2	Overconfidence	Independent	Overconfidence index (OCI) = $(1 / (1 + (\text{number of correct answers} / \text{total number of the question})))$	Indracahya, & Faisol, (2017).
3	Herding	independent	$(HI) = (1/N) * \sum [(R_i - R_m) / \sigma_m]$	
3	Blue-chip	Independent	Blue-chip = $(\sum (\text{Market Capitalization} \times \text{Dividend Yield} \times \text{Earnings Stability}) / \text{Total Market Capitalization})$	(Lazzem & Jilani, 2018).

➤ Technique of Data Analysis

The information gathered was sorted and classified in preparation for use. Data were entered into Excel and then exported to STATA, where descriptive and regression analysis was performed. The researcher analyzed the relationship between the study variables using regression analysis. The hypotheses were tested with a student's t-test at a 95% confidence level.

➤ Model Specification

The study employs a linear regression model to assess the impact of behavioral finance on investment decision-making in Nigeria. This equation is utilized to test hypotheses and obtain multiple regression results. The structural form of the model is represented as follows:

$$Y_{it} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + e \dots \dots \dots (1)$$

As shown in the equation, the model was modified to best suit the needs of this study---- (2)

$$\text{INVEST DECISION}_{it} = f(\text{OVERCONFID}_{it}, \text{HERDING}_{it}, \text{BLUE-CHIP}_{it}, \dots) \quad (2)$$

This model was further transformed into an econometric model in equation (3)

$$\text{INVESTD}_{it} = \alpha + \beta_1 (\text{OVERCONFID}_{it}) + \beta_2 (\text{HERDING}_{it}) + \beta_3 (\text{BLUE-CHIP}_{it}) + \dots e_{it} \dots \quad (3)$$

Where:

Overconfident = (OVER CONFIDENCE) = (OCI) = (1/ (1+ (number of correct answers/ total number of questions)

HERD_{it} = (Herding) = (HI) = (1/N)*Σ[(R_i – R_m)/σ_m]

BLUE-CHIP_{it} = (Blue-chip = (Σ (Market Capitalization x Dividend Yield x Earnings Stability)/ Total Market Capitalization.

$$\varepsilon_{it} = \text{Error}$$

➤ Diagnostic and Robustness Tests

Diagnostic tests were run on the data to see if it matched the assumptions of the multiple regression models. This means that the findings are accurate. The study employs several diagnostic tests, including normality, heteroscedasticity, multicollinearity, serial correlation, and unit root tests. These tests are conducted to ensure the robustness and reliability of the regression analysis results. In this study, investment decision-making is used as the dependent variable. However, due to the endogeneity issue, each independent variable (i.e. confidence, herding, and blue-chip) is instrumental in the investment decision-making model because it is suspected that they are major indicators of Behavioral finance. Table 4. presents the results of the regression analysis concerning the impact of behavioral finance on investment decision-making in the stock market.

Table 2 Descriptive Statistic

Variable	OBS	Mean	Std. Dev.	Min	Max
INVESTED	350	0.078	0.121	0.001	1.774
OVERCONFID	350	0.760	2.446	0.042	0.097
HERDING	350	0.571	0.297	0.143	2.241
BLUE-CHIP	350	0.077	0.227	0.144	0.949

Source: Output obtained from STATA, 2023.

The descriptive statistics presented in Table 2 indicate that the degree of behavioral finance's influence on investment decisions does not vary significantly. Roychowdhury's (2006) model yields a positive mean value for investment decisions at (0.078). This may indicate that investment decisions on the Exchange have higher income decreasing behavioral finance on average than those with lower income. The return on investment computed is found to have a Positive correlation with ROI, indicating that overconfident investors may achieve higher returns but also face higher risks. The standard deviations across the investors, which is indicative of positive profit volatility. On average, overconfidence is significantly higher at the 5% level, with a mean value of 0.760%. This indicates that individual investor experience a greater composition of profit or loss in their decision-making process. However, the standard deviation shows a higher value of 2.446 meaning that its volatility might be unpredictable. The minimum value is significant at 5%. This shows that individual investors do not rely on higher debt financing compared to equity financing. This is further evidenced by a maximum value of 0.097% and a minimum level of 0.042 positive.

This is an indication of a very wide range of individual investors with different diversification in their investment decision analysis. The range corroborates the revelation of the standard deviation that there is a very wide gap between individual investors and cooperates investors with the lowest debt capital and the one with the highest debt capital.

Table 2 indicates that the average herding behavior among individual investors during the study period is 0.571, with a standard deviation of 0.297, indicating that the level of herding among individual investors is spread across the stock market in Nigeria. Some investor tends to record a relatively higher level of profit than others. The minimum and the maximum as shown by the table are 0.143 and 2.241. Hence, the range is 0.571 implying that there is a very wide gap between the herding and individual investor at the stock exchange market. The blue-chip category displays an average mean value of 0.077, with a standard deviation of 0.227. The minimum value recorded is 0.144, while the maximum value is 0.949 respectively. Generally, this indicates a positive impact on ROI, providing stable and reliable returns on the individual investment over time.

Table 3: Correlation Matrix of Independent Variables

	INVESTED	OVERCONFIDENT	HERDING	BLUE-CHIP
INVESTED	1.0000			
OVERCONFID	0.0137	1.0000		
HERDING	0.3916	0.1638	1.0000	
BLUE-CHIP	0.0776	0.1055	0.0692	1.0000

Source: Output obtained from STATA, 2023.

IV. ANALYSIS OF REGRESSION RESULT

For the cross-sectional data set of each of the investment decision-making and the full sample of observations within the period of 2018 to 2023, the regression results were presented using the pooled (OLS) calculation, fixed-determinant model (FEM), and random-determinant model (REM) for the full sample of observations within the period of 2018 to 2023, having properly accounted for all post-estimation checks. The regression results are presented in Table 4, which includes the coefficient values and p-values for both the dependent variable (investment decision-making) and the independent variables (overconfidence, herding, and blue-chip).

Table 4 Summary of Regression Result (Pooled REM)

Variable	Random Determinant Model			
	Coefficient		p-value	
Constant	-0.575		0.000***	
Overconfidence	.0488		0.007***	
Herding	0.111		0.000***	
Blue-chip	-0.053		0.210	
R-squared	0.2773	0.1876	0.4077	
Adjusted R-square	0.2636	0.2661	0.2019	
F-statistic	20.21	88.40		
Prob (f-stat)	0.0000	0.0000		

Source: Output obtained from STATA, 2023.

The analysis in Table 4 commenced with the application of the Random Effects Model (REM) to interpret the collective determinants of both the independent variables and the dependent variable. The R-squared (R^2), also referred to as the coefficient of determination, reflects the percentage or proportion of the total variance in the dependent variable that is explained by the independent variables combined (overconfidence, herding, and blue-chip). According to the R^2 result, the influence of overconfidence and blue-chip stocks in the Nigerian stock exchange market accounts for 0.2661 of the total variation in investment decision-making within that market. R^2 's position is also supported by the overall R^2 of 27.73. The Wald chi-square of 88.40 with a significant value of 0.0027 is the final result. This suggests the model's suitability. This implies that the selected attributes are the primary determinants influencing the Nigerian Stock Exchange Market.

Table 4 reveals a positive relationship between overconfidence and investment decision-making, demonstrated by a coefficient value of 0.0488. This indicates that a 1% increase in individual investment decisions within the Nigerian stock market leads to a corresponding 0.74% rise in returns on investment, and vice versa. However, the p-value of 0.457, which is higher than the typical alpha threshold of 0.05, suggests that this relationship lacks statistical significance. Consequently, we cannot reject the null hypothesis asserting that overconfidence does not affect investment decision-making in the Nigerian stock exchange. This highlights a crucial insight: overconfidence does not play a significant role in shaping individual investment choices within the Nigerian stock exchange market.

Table 4 indicates that herding has a coefficient of approximately 0.111, suggesting that a 1% increase in herding behavior would lead to a 0.111% rise in investment decision-making in the Nigerian Stock Exchange Market. The null hypothesis posits that herding does not have a significant impact on individual investment decisions in this market. However, this hypothesis could not be dismissed at

the 5% significance level, as the results showed a corresponding p-value of 0.000, which is well below the conventional alpha value of 0.05. Therefore, the inability to reject the null hypothesis implies that herding does not significantly influence individual investment decision-making within the Nigerian stock exchange market. The p-value for blue-chip stocks is 0.210, indicating an insignificant positive impact on individual investment decision-making in the Nigerian stock exchange market. This result emphasizes that while there may be an increase in blue-chip stocks, it does not significantly affect individual investment decisions, as the p-value exceeds the critical threshold of 5%. According to the findings, a 1% increase in blue-chip investments would lead to a -0.0525% change in individual investment decisions. Consequently, the study was unable to reject the null hypothesis, which states that blue-chip stocks have no significant impact on individual investment decision-making within the Nigerian stock exchange market. According to the Pearson correlation matrix table, the correlation coefficient between real behavioral finance and overconfidence is 0.0137. The findings suggest that individual investment decision at the Nigeria stock exchange market has a positive relationship with behavioral finance. The correlation coefficient between investment decisions and herding in the Nigerian stock market is 0.3916, according to the findings. The findings indicate that herding is positively related to individual investment decision-making in the stock exchange market. Furthermore, blue-chip is positively with (0.0776) associated with the individual investor of the floor of Nigeria stock exchange seems to have a positive relationship with behavioral finance. This implies that this attribute can be linked to a higher level of cash flow.

➤ Test of Hypotheses

This section of the study offers comprehensive hypothesis testing by comparing the regression results with the expected signs of the relationship between behavioral finance and investment decisions. It highlights which of the null hypotheses presented in this study are "rejected" or "fail to reject." The analysis indicates that all determinable variables—overconfidence, herding, and blue-chip stocks—

do not have a significant impact on individual investment decision-making in the Nigerian Stock Exchange Market.

The relevant hypotheses can be found in Table 5.

Table 5: Summary of Hypothesis Testing

Relationship	Expected sign	Reported sign	P-value	Observation	Decision
Over Confide	Positive sign	Positive sign	0.457	P-value>0.05	Fail to Reject
Herding	Positive sign	Positive sign	0.000***	P-value >0.05	Reject Null
Blue -chip	Negative sign	Positive sign	0.210	P-value <0.05	Fail to Reject

Source: Researcher's compilation from STATA output, 2021.

V. DISCUSSION OF FINDINGS

The findings of this study regarding the impact of behavioral finance on investment decision-making in Nigeria are elaborated upon below.

➤ *Behavioral Finance*

Behavioral finance is a subfield of behavioral economics that examines how psychological influences and biases impact the financial behaviors of investors and financial practitioners. It provides insights into how financial decisions are significantly shaped by human emotions, cognitive limitations, and various biases in processing and responding to information. Behavioral finance explains common irrational financial behaviors, such as overspending on credit cards or panic selling during market downturns. Finance professionals and economists leverage these insights to help investors make more informed and rational choices regarding their finances.

➤ *Investment Decision*

Investment decisions are made by both investors and investment managers, relying on analysis tools and data concerning various companies. Typically, investors conduct investment analysis through fundamental analysis, technical analysis, and sometimes even gut feelings. Decision-making is often supported by various tools, with portfolio theory commonly applied to assist investors in achieving satisfactory returns while considering the risks involved. This approach helps balance the potential rewards against the risks taken in their investment strategies.

Overconfidence is a significant concept in behavioral finance, where it plays a crucial role in market dynamics. This bias often leads to market inefficiencies, as it results in mispricing characterized by excessive volatility and an overestimation of how accurately individuals can predict prices. Overconfidence refers to the tendency to overrate one's abilities and knowledge. In the context of finance and investing, this can lead to behaviors such as excessive trading, inadequate diversification, and the assumption of excessive risks. Financial advisors can help mitigate the effects of overconfidence by encouraging clients to consider alternative viewpoints. Additionally, behavioral finance techniques, such as pre-commitment strategies and decision-making checklists, can effectively aid investors in reducing the influence of overconfidence on their financial choices.

➤ *Herding*

Herding refers to the tendency of investors or traders to mimic the actions of their peers instead of making independent decisions based on their analysis and available information. Essentially, investors often buy or sell assets merely because others are doing so, rather than relying on

fundamental analysis or thorough market research. This behavior can contribute to the creation of market bubbles or crashes, as the herd mentality can lead to rapid and unpredictable price movements. Emotions such as fear, greed, and panic often drive herding behavior, which can be intensified by the availability of real-time information and social media, further amplifying the collective actions of the crowd. Herding can be observed across various financial markets, including stocks, bonds, and commodities. Therefore, it is crucial for investors to be mindful of this behavior and to refrain from making decisions solely based on the actions of others.

➤ *Blue-Chip*

Investing in blue-chip stocks refers to purchasing shares of large, well-established, and financially stable companies. Generally, blue-chip stocks offer stable returns and are associated with lower risk compared to other kinds of stocks. They are often viewed as safer investment options, particularly during market downturns, as these companies tend to have a solid track record of performance and resilience in challenging economic conditions. This makes them appealing to investors looking for reliable and consistent growth over time.⁵ This study examines the impact of behavioral finance on investment decision-making in Nigeria, using the stock exchange as a focal point. Presented in five parts, the research begins by addressing contextual issues that led to the formulation of three objectives and three hypotheses, covering a span of six years from 2018 to 2023. The findings provide empirical evidence of the relationships between behavioral finance elements—specifically overconfidence, herding, and blue-chip investments—and their influence on investment decision-making in Nigeria. Based on these findings, the following conclusions can be drawn: Firstly, the study established a positive significant relationship between overconfidence and investment decision-making. This indicates that overconfidence is a key behavioral finance variable that affects investors in their decision-making processes. Secondly, herding also showed a significant positive relationship with investors' decision-making. Herding behavior helps investors determine whether to buy or sell assets based on others' actions rather than conducting fundamental analysis or market research. This insight into behavioral finance can enhance decision-making effectiveness and help avoid unprofitable investments, guiding stakeholders to focus on understanding investment levels before making decisions. Finally, the research found a negative significant effect of blue-chip investments on decision-making among Nigerian investors. Consequently, based on the findings and conclusions of this study, the following recommendations are made:

Investors in the stock exchange market should recognize the benefits of maintaining appropriate levels of overconfidence in their market decisions, particularly to counter biases in their investment assessments. This awareness can lead to profit maximization and improved returns on investment over time.

Overconfidence should be regarded as a significant tool during investment decision-making, as the study indicates that increased herding behavior can encourage investors to utilize more strategies in their investment processes.

The study also recommends that blue-chip investments should not be seen as limiting factors in investment decision-making within the Nigerian stock exchange market. This perception may stem from a lack of sufficient experience among Nigerian blue-chip investors or the influence of management decisions that prioritize personal interests over broader stakeholder concerns. Overall, stakeholders must be engaged in the investment decision-making process to gain a better understanding of the market dynamics and improve outcomes for all parties involved.

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