Behavioral Factors Affecting Investment Decision-Making in the Banking Sector: Evidence from the Colombo Stock Exchange

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***Abstract*—This study explores the influence of behavioral factors on investment decision-making in bank stocks listed in the Colombo Stock Exchange (CSE). The research utilizes a quantitative approach, analyzing data from 100 active investors. Results indicate that demographic factors such as age and education significantly impact investment behavior, while behavioral biases like overconfidence and herding behavior play a critical role in decision-making. This study suggests strategies to mitigate the effects of these biases, contributing to a more efficient market. The findings are significant for financial institutions, investors, and policymakers aiming to enhance market stability and investor results.**

***Keywords*— behavioral finance, Colombo Stock Exchange, investment decision-making**

I. INTRODUCTION

Investment decision-making has been traditionally grounded in the principles of rational choice theory [22], which assumes that investors make decisions by logically assessing available information to maximize their utility. Classical financial theories like the Efficient Market Hypothesis (EMH) and the Capital Asset Pricing Model (CAPM) rest on the idea that markets are efficient, and prices reflect all relevant information [9]. However, real-world observations often contradict these models, as investors frequently exhibit behaviors that deny rational logic. This deviation has led to the emergence of behavioral finance, which integrates insights from psychology to explain why investors sometimes act irrationally.

Behavioral finance is particularly important in emerging markets, where factors like information asymmetry, limited financial literacy, and market volatility can amplify irrational behavior [12]. The CSE has been a cornerstone of Sri Lanka's economic development, playing a crucial role in mobilizing capital and facilitating investment. Among the various sectors, banks' stock stands out due to their significant role in economic stability and growth. Understanding how and why investors make decisions in this sector is essential, not only for improving investment outcomes but also for ensuring market efficiency and financial stability.

The study aims to bridge the gap between traditional finance and behavioral insights by exploring the factors that influence investment decisions in the CSE, particularly in the banking sector. Through an examination of behavioral biases such as overconfidence, loss aversion, and herding, as well as demographic and economic factors, this research provides a comprehensive understanding of investor behavior in Sri Lanka.

II. MATERIALS AND METHODOLOGY

A. Materials

1) Investment Decision-Making in Financial Markets

Blending theories on investment decisions show that investment decisions depend on several factors such as economic factors, market factors and investor factors. The neoclassical theories bring it forth that the business decision-making process is rational with the primary objective of achieving higher returns with lower risks. However, according to behavioral finance, decisions are also based on psychological factors which result in irrational behavior of decision makers [11], [13]. Such complexity is exacerbated by factors such as the market mood, events, and communication in social networks.

There are several heeds that are cognitive and emotional that influence investments. For instance, overconfidence and anchoring cause investors to misunderstand estimates of risks and returns, while fear and greed result in unnecessary trading behaviours [8], [16]. Such biases can lead to irrational investment actions like over trading, copying others, and inadequate control of risks and these are capable of having negative impact on portfolio performance and overall market efficiency [3].

Decision in bank stocks involves several considerations since the sector is dominated by complexities and equally volatile to the prevailing macroeconomic factors. Stocks of a bank are comparatively riskier and need lot of analysis, so they are highly vulnerable to behavioral biases [17]. Such challenge risks tend to magnify biases and have severe implications for investors such as Regulatory shifts, Interest rate volatility and Geopolitical factors that affect the sector. Awareness of these factors enables successful

investment decisions as well as the achievement of a specific financial goal.

2) Introduction to Behavioral Finance

Behavioral finance is the branch of study that aims to identify the behavioral patterns and psychological characteristics that impact decisions made by consumers in the fiscal market and also deviate from the normative style of financial theories that assumes that people behave rationally. It considers the effects of emotions, heuristics, and social effects on investors' decisions; thus, it offers a better representation of the market environment [1], [4]. As it will be explained in the following sections, behavioral finance is important as it provides information that cannot be understood by using efficiency of markets explaining why markets may not be efficient all the time, also referring to some anomalies such as overreaction and underreaction of prices [2].

3) Overconfidence Bias

Overconfidence bias is one of the heuristics in the cognition area because people are likely to overclaim their expertise, efficiency, or accuracy of the information that they possess. This bias is rife in the investor with self-assessed high information or high forecasting ability, making them underpredict risk, and overtrade [5], [14]. Arrogance in investment leads to high turnover, which is caused by the investor's view that they can beat the market every time, thus incurring high transaction costs hence, lowering portfolio returns [5].

4) Loss Aversion

The theory related to the loss aversion is the prospect theory that aims at illustrating, that people prefer to avoid losses more than they would prefer to gain similar gains. This psychological bias makes investors give more importance to potential loss rather than the potential gain and therefore is a major reason for risk aversion [6], [5]. In financial markets, the loss aversion leads to situations such as the capital asset pricing model where investors are likely to cling to stocks with a view of earning back their misfortune as well as selling back performing stocks to avoid making more profits [21].

5) Herding Behavior

Herding behavior in financial markets refers to the tendency of investors to follow the actions of others rather than rely on their independent analysis. This behavior is driven by social influences and the perceived safety of conforming to the crowd, often leading to market trends that deviate from fundamental values [19]; [21]. Herding can result in the rapid escalation of asset prices during booms and steep declines during busts, contributing to the formation of bubbles and crashes [13].

6) Anchoring Bias

Anchoring bias is a cognitive distortion where individuals rely too heavily on initial information or reference points when making decisions. In investment contexts, this can lead to skewed valuations and decisions based on irrelevant or outdated data [7], [10]. Anchoring affects investors' ability to accurately assess new information and adjust their strategies, accordingly, often resulting in persistent mispricing of assets [13].

7) Research Gap

Despite the extensive research on behavioral biases in investment decision-making, significant gaps remain, particularly concerning emerging markets like Sri Lanka. Much of the existing literature predominantly focuses on developed markets, where the dynamics and impacts of biases such as overconfidence, herding, and anchoring are well-documented [1], [15]. However, the unique socio-economic and cultural contexts of emerging markets can significantly alter how these biases manifest and affect investor behavior.

B. Methodology

1) Research Design

This study employs a quantitative research design to investigate the factors influencing investment decision making in bank stocks on the CSE. A quantitative approach is suitable for this research as it allows for the statistical analysis of relationships between variables, helping to identify patterns, correlations, and causations. By using structured surveys, the study can collect numerical data that can be analyzed to draw insights into how behavioral, demographic, and economic factors impact investment decisions.

The research follows a descriptive correlational design, which is appropriate for understanding how different variables interact with each other. Descriptive research helps in identifying the characteristics of the population, while correlational analysis helps in determining the strength and direction of relationships between variables.

2) Hypotheses

Based on the conceptual framework, the following hypotheses are proposed:

H1: There is a significant impact of overconfidence bias on investment decision-making in bank stocks on the Colombo Stock Exchange.

H2: There is a significant impact of loss aversion on the investment decisions of investors in the Colombo Stock Exchange's banking sector.

H3: There is a significant impact of herding behavior on the investment decision-making process of investors in bank stocks on the Colombo Stock Exchange.

H4: There is a significant impact of anchoring bias on the investment decision-making process of investors in bank stocks on the Colombo Stock Exchange.

H5: There is a significant impact of risk perception on the investment decision-making process of investors in bank stocks on the Colombo Stock Exchange.

III. DATA ANALYSIS AND FINDINGS

A. Sample Collection

1) Research Population & Sample Size

The research population consists of individual investors actively trading bank stocks on the CSE. A sample size of 100 respondents was targeted to ensure robust and reliable data. The sample was selected using a non-probability sampling technique, specifically convenience sampling, where participants were selected through online platforms, investment forums, and social media.

2) Data Collection

Data was collected through an online survey, which included structured questions designed to capture relevant information on investment behavior. The survey consisted of four sections: Demographic Information with questions on age, gender, education level, and income; and Behavioral Biases with statements related to overconfidence, loss aversion, herding, and anchoring rated on a 5-point Likert scale.

B. Sample Analysis

1) Demographic Data

1. Age

Table 1: Age distribution of respondents [Source: Primary data collected by researchers]

Age Group	Frequency	Percent	Valid Percent	Cumulative Percent
18-24	18	18.0	18.0	18.0
25-34	21	21.0	21.0	39.0
35-44	16	16.0	16.0	55.0
45-54	26	26.0	26.0	81.0
55 and above	19	19.0	19.0	100.0
Total	100	100.0	100.0	

The participants are distributed across diverse age categories. The majority of respondents (26%) are from the 45-54 age category, while 21% are from 25-34, and 19% are from 55 and above age category.

2. Education Level

Table 2: Education level of respondents [Source: Primary data collected by researchers]

Education Level	Frequency	Percent	Valid Percent	Cumulative Percent
High School or Below	28	28.0	28.0	28.0
Bachelor's Degree	24	24.0	24.0	52.0
Master's Degree	23	23.0	23.0	75.0
Doctorate or Higher	9	9.0	9.0	84.0
Total	100	100.0	100.0	

The educational level demographic data reveals a good educational background of respondents, with most having higher education qualifications.

3. Occupation

Table 3: Occupation of respondents [Source: Primary data collected by researchers]

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
Student	23	23.0	23.0	23.0
Professional	20	20.0	20.0	43.0
Clerical	19	19.0	19.0	62.0
Managerial	19	19.0	19.0	81.0
Other	19	19.0	19.0	100.0
Total	100	100.0	100.0	

Most respondents (23%) are students, while 20% are in professional backgrounds. Other occupational categories are distributed equally.

4. Income Level

Table 4: Income level of respondents [Source: Primary data collected by researchers]

Income Level	Frequency	Percent	Valid Percent	Cumulative Percent
Less than LKR 50,000	15	15.0	15.0	15.0
LKR 50,000 - LKR 100,000	22	22.0	22.0	37.0
LKR 100,000 - LKR 200,000	14	14.0	14.0	51.0
LKR 200,000 - LKR 300,000	24	24.0	24.0	75.0
More than	25	25.0	25.0	100.0

LKR 300,000			
Total	100	100.0	100.0

Respondents belong to different income groups, with most (25%) belonging to the "More than LKR 300,000" income group.

2) Reliability Test

Table 5: Reliability test results [Source: Primary data collected by researchers]

Variable	Cronbach's Alpha
X1 – Overconfidence	0.783
X2 – Loss Aversion	0.752
X3 – Herding Behavior	0.728
X4 – Anchoring Bias	0.744
X5 – Risk Perception	0.769

All variables present Cronbach's Alpha values greater than 0.7, indicating good internal consistency among the variables.

3) Validity Test

Table 6: KMO and Bartlett's test results [Source: Primary data collected by researchers]

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.781
Bartlett's Test of Sphericity - Approx. Chi-Square	6.794
df	6
Sig.	0.040

The KMO value is greater than 0.7 and the significance value is lower than 0.05, validating the sample for further analysis.

4) Descriptive Statistics

Table 7: Descriptive statistics for behavioral factors [Source: Primary data collected by researchers]

Variable	Mean	Standard Deviation	N
X1 – Overconfidence	3.94	0.761	100
X2 – Loss Aversion	3.82	0.845	100
X3 – Herding Behavior	3.69	0.891	100
X4 – Anchoring Bias	3.61	0.804	100
X5 – Risk Perception	3.71	0.862	100

The mean scores indicate that overconfidence is the most prevalent behavioral factor (3.94), followed by loss aversion (3.82).

5) Correlation Analysis

Table 8: Correlation analysis for behavioral factors [Source: Primary data collected by researchers]

Variable	Investment Decisions	p-value
Overconfidence	0.211*	0.035
Loss Aversion	0.017	0.868
Herding Behavior	0.000	0.997
Anchoring Bias	-0.100	0.321
Risk Perception	0.021*	0.035

*Correlation is significant at the 0.05 level (2-tailed).

The correlation analysis shows that only overconfidence and risk perception have significant relationships with investment decisions.

6) Regression Analysis

Table 9: Model summary [Source: Primary data collected by researchers]

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	F Change	Sig. F Change
1	0.211	0.044	0.035	0.21566	4.550	0.035

The model has a 4.4% ability to explain the dependent variable (investment decision) using behavioral factors.

7) Hypothesis Testing

Table 10: Hypothesis test summary [Source: Primary data collected by researchers]

Hypothesis	P Value	Decision
H1 – Overconfidence and investment decision	0.035	Accept - Significant relationship
H2 – Loss aversion and investment decision	0.940	Reject - No significant relationship
H3 – Herding behavior and investment decision	0.659	Reject - No significant relationship
H4 – Anchoring bias and	0.300	Reject - No significant relationship

investment decision		
H5 – Risk perception and investment decision	0.027	Accept - Significant relationship

Only overconfidence and risk perception show significant relationships with investment decisions in bank stocks on the Colombo Stock Exchange.

Regression Equation: Investment decision = 4.735 + 0.115 × Overconfidence + 0.235 × Risk Perception

IV. DISCUSSION AND CONCLUSION

A. Discussion

This study confirms that behavioral factors significantly influence investment decisions on the Colombo Stock Exchange (CSE), particularly overconfidence and risk perception. In line with previous studies [5], [13], overconfidence appears to lead investors to overestimate their skills and underestimate risks, often resulting in excessive trading and reduced portfolio performance. Risk perception also plays a significant role, consistent with [11], indicating that subjective risk evaluations influence decision-making beyond traditional rational models.

Conversely, commonly recognized behavioral biases such as herding behavior, loss aversion, and anchoring bias did not show a statistically significant influence. This finding contradicts the results of earlier research (e.g., [16], [6], [19], which highlight these factors as strong predictors of investor behavior in various markets. One possible explanation could be the unique characteristics of the Sri Lankan banking sector and the investor profile—such as higher financial literacy, cultural attitudes toward independent decision-making, and trust in established financial institutions—which may moderate the effects of such biases.

Anchoring bias, which involves reliance on initial reference points [7], also lacked significance in this study. This could suggest that bank stock investors in Sri Lanka are less dependent on outdated or irrelevant information when making investment decisions, possibly due to greater awareness or better access to market data.

Overall, the results highlight that investment decisions are shaped not only by cognitive biases but also by contextual and cultural factors. The influence of investor attitudes, shaped by education and local norms, suggests a behavioral pattern that differs from those observed in Western or other emerging markets. Thus, while the findings align with established literature in some areas, they also reveal context-specific variations, underscoring the importance of localized behavioral finance research.

B. Recommendations for the Field

Financial institutions can focus on addressing overconfidence bias through targeted education programs. Investment platforms could include features that help investors make more objective risk assessments. Policymakers should consider the unique behavioral patterns of Sri Lankan investors when designing market regulations.

C. Recommendations for Future Research

Future research should expand the sample size and include other sectors beyond banking. Qualitative studies could provide deeper insights into why traditional behavioral biases are less prominent in Sri Lanka. Cross-country comparisons could help identify whether these patterns are unique to Sri Lanka or common across emerging markets.

D. Limitations of the Study

The study's reliance on self-reported data and convenience sampling may limit generalizability. The relatively small sample size may have affected the detection of weaker relationships. Future studies should consider these limitations when designing research methodology.

E. Closing Remarks

This study contributes to behavioral finance literature by highlighting unique patterns in an emerging market context. The finding that traditional behavioral biases may not universally apply across all markets provides valuable insights for both researchers and practitioners in the field of behavioral finance.

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