

When Numbers Compete with Nerves: Emotional Reactivity and the Breakdown of Rational Investment Behavior

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ABSTRACT

Background – Investment decisions are complex processes influenced not only by rational calculations but also by cognitive shortcuts, emotional responses, fintech literacy, and individual risk preferences. This study investigated the influence of emotional reactivity on rational investment behavior among individual investors, examining how affective biases disrupt analytical decision-making.

Objectives – Drawing on behavioral finance theory, the research aimed to understand the mechanisms through which emotions interfere with rational evaluation and risk assessment in investment contexts.

Methodology – Quantitative research design was employed, and data was collected using structured questionnaires from 390 investors with varying levels of experience, education, and demographic backgrounds. Statistical analyses, including descriptive statistics, correlation, reliability testing, ANOVA, and structural equation modeling (SEM), were conducted to examine relationships between emotional reactivity and investment behavior.

Expected Results – Results indicated a significant negative correlation, demonstrating that higher emotional reactivity was associated with reduced rational decision-making, increased risk aversion, and suboptimal portfolio strategies. Demographic variables, particularly age and investment experience, were found to moderate these effects, with younger and less experienced investors exhibiting greater susceptibility to emotional influence. The findings underscore the importance of emotional awareness, fintech literacy, and behavioral interventions in promoting rational investment practices. Implications for investors, financial institutions, and policymakers are discussed, highlighting the need for educational programs, decision-support tools, and AI-driven advisory systems to mitigate emotional biases.

Keywords: Cognitive biases, Emotional reactivity, fintech literacy, Investment behavior, Risk aversion, Structural equation modelling

INTRODUCTION

The conventional idea behind investor decision-making was that of rationality and explicit numerical risk and return analysis. The classical financial theories, especially the efficient market hypothesis (EMH) held that information was rationalized, investors behaved rationally and uniformly to achieve maximum utility. This assumption was however proved to be empirically contradictory and showed systematic violations of rationality, especially in the uncertain and volatile times (Bird et al., 2025). It is these contradictions that led to the development of behavioral finance as a theory that incorporated psychological elements into financial decision-making theories.

Later studies showed that fear, anxiety, and overconfidence are important emotions that affect investment judgment and risk perception. It was discovered that emotions disrupt the rational aspects

of decision-making, regurgitate the intricate losses or profits experienced in the recent past, and do not reflect the objective financial elements (Singh and Dhami, 2024). It was this emotional interference that undermined rational assessments and made impulsive and biased investment decisions.

Additional empirical results revealed that emotional responses escalated cognitive biases, such as the loss aversion effect and herd behavior, and caused the investors to adopt the market momentum instead of the financial underlying. Research carried out in the emerging markets found out that individual investors had the greatest emotional susceptibility and thus overtraded with the consequence of lack of portfolio diversification (Shafqat, 2024). These results pointed at emotional reactivity as an incidental occurrence but a pervasive aspect of investment returns.

There is more awareness of the effect of emotion, inadequate quantitative studies have directly quantified emotional reactivity as a psychological construct and statistically related it with rational investment behavior. Most of the research done was concentrated on a singularly isolated bias or description, and a lack of empirical research remained to test the competition of emotional reactions in financial decision-making with numerical thinking. This research paper filled this gap by quantitatively exploring the issues of emotional reactivity and its effects on the rational investment behavior based on a structured questionnaire.

Research Background

The literature of behavioral finance confirmed that making investment decisions was predetermined by the psychological mechanisms that contradicted the classical beliefs of rationality. The initial behavioral models found cognitive distortions and emotional reactions as fundamental market inefficiencies factors. This point of view was extended through emotional finance with its specific focus on affective feelings, like fear and optimism, as the factors that drive irrational investment behavior (Khan et al., 2025).

Empirical research fully supported the finding that emotional biases played an important role in distorting investment behavior through the frequency of trading and the lack of analytic discipline. Developing economies evidence indicated that emotionally reactive investors tended to trade more frequently in the speculative market, and they tend not to adhere to the concept of risk management (Ali et al., 2025). The financial performance was suboptimal, and these actions led to increased vulnerability to market volatility.

Irrational investment behavior that was experienced in times of uncertainty was also realized to be enhanced by the market sentiment and emotional contagion. The psychological responses regarding changes in price compared to objective financial data affected decision-making to a greater extent and supported panic selling and momentum trading (Zafar et al., 2024). This implied that emotional reactivity was applied at both individual financial markets and in group financial markets.

The idea of emotional influences was generally accepted; earlier studies have tended to be too lax methodologically in terms of measuring emotional reactions and correlating them with rational methods of investing. A meta-analysis of the studies in emotional finance highlighted the necessity to empirically test emotional-behavioral relationships between quantitative designs instead of using conceptual discussions (Singh and Dhami, 2024). This research was answering that call by implementing a quantitative method of study through questionnaire.

Research Problem

The conventional financial theory assumed that investors were rational and based most of their decisions on numerical information. Nevertheless, the practical aspect of investment behavior indicated the constant failure of emotional responses in rational judgment and inaccurate risk perception (Bird et al., 2025). During up swings, emotional reactivity tended to give way to impulsive decision making, selling

based on losses and irrational optimism. There is extensive discussion of emotional and behavioral biases, quantitative studies have not produced much research directly measuring the emotional reactivity and quantified its effects on rational investment decisions. The literature review tended to analyze independent biases without considering the emotional response as a quantifiable variable (Khan et al., 2025). As such, the research issue that the current study sought to fill was the deficiency of empirical, quantitative measurement of the debilitating role of emotional reactivity to rational investment decisions-making.

Research Objectives

To examine the effect of emotional reactivity on rational investment behavior among individual investors.

To analyze the relationship between emotional reactivity and rational investment decision-making.

To assess the influence of demographic factors on emotional reactivity and rational investment behavior.

Research Questions

Q1. How did emotional reactivity affect rational investment behavior among individual investors?

Q2. Was there a significant relationship between emotional reactivity and rational investment decision-making?

Q3. Did demographic factors influence emotional reactivity and rational investment behavior?

Research Significance

This research was relevant in terms of theory and practice. Theoretically, it made contributions to the theory of behavioral finance by effectively confirming the contribution of emotional reactivity in contrary to rational investment behavior. The conclusions added to the existing decision-making models because they proved that emotional aspects should be used in addition to cognitive and financial factors to describe fully the investor behavior. The research was useful to individual investors, financial advisors and investment companies in that it provided an insight into the role of emotional regulation in financial decision making. The findings provided a specific insight into the design of investor education, training in emotional intelligence and decision-support systems to counter impulsive investment choices. The findings can be used to support fintech literacy programs by policymakers and regulatory services and create systems that will favor disciplined and rational investment practices by investors, which eventually stabilize the markets and enhance investor performance.

LITERATURE REVIEW

Emotional and Psychological Influences on Investment Decisions

Emotional and psychological variables greatly influenced the investors' behavior that usually contradicted the assumption of rational decision-making of classical finance. The recent studies pointed to the fact that emotional biases, including the effect of overconfidence and regret, had a significant impact on investment performance, especially in the stock exchange of developing countries (Abideen, 2023; Addo, 2025). Such biases influenced the interpretation of market signals by investors where judgements were not based on pure analytical reasoning. The influence of behavioral biases on the investment behavior was mediated through emotional intelligence since the more emotionally aware investors tended to avoid making impulse decisions under stress (Carducci and Miniaci, 2018; Marciano

et al., 2024). On the other hand, poor emotional control enhanced fear and panic vulnerability and led to lack of adherence to an anticipated investment plan.

Empirical information also reported that the trading behavior was directly influenced by investor sentiment, where optimism and pessimism, respectively, had an impact on the risk appetite and portfolio allocation (Raza et al., 2025; Yuana, 2024). Investors who have a high emotional response to their investments tend to focus on short-term benefits over long-term plans which lead to increased trading rates and poor returns.

Emotions and other psychological factors also contributed to the distortions of the rational behavior of investment making the investor in responding to uncertainty and market volatility. The emotional conditions of anxiety, fear, and excitement also changed the risk perception that mostly caused investors to either invest in protecting themselves or to engage in speculative behavior in market turbulence. Research revealed that an increased level of emotional arousal decreased cognitive control, deteriorating the capacity of investors to process complicated financial data and appraise long-term implications in an effective manner (Abideen, 2023; Addo, 2025). Psychological resilience was also a significant variable in the coping of emotions because investors who exhibited a higher level of coping showed stronger consistency during their decision-making in unfavorable operating market conditions. Emotionally reactive investors, in contrast, were more inclined to herding behavior and momentum trading and increased market inefficiencies. These results highlighted the fact that the decision to invest was not an expression of a rational analysis but a highly emotional and psychological process that used a series of mechanisms to strategically affect financial judgment and financial behavior (Carducci and Miniaci, 2018; Marciano et al., 2024).

Rational Decision and Biases of Behavior

Rational investment behavior was always interfered by bias in behavior. Representativeness, anchoring, and availability were heuristics that shaped the process of risk and returns assessment among investors and usually resulted in overestimating profits and undervaluing losses (Dhakal and Lamsal, 2023; Ahmad, 2020). Such biases were also pronounced in the emerging markets where people did not have access to all financial information. It was discovered that overconfidence bias prompted overtrading and overinvestment at the detriment of investment performance (Callen et al., 2022; Sattar et al., 2020). Excessively confident investors over-pinned their own judgements, ignoring facts available in the market, and this increased the volatility of the portfolio.

The studies have shown that loss aversion and regret aversion made investors hold losing assets longer than they should have, or sell winning assets earlier (Masood, 2024; Rehman et al., 2024). Such patterns revealed that the effect of cognitive biases on rational decision-making went through the emission of emotional reactions to gains and losses.

The information processing and judgment accuracy further broke the rational investment behavior, which was further supported by the behavioral biases. Cognitive biases like mental accounting and confirmation trap made investors focus on information that affirmed what they already believed in and disregarded these challenging market signals. This biased perception reinforced emotional attachment to the previously made decisions and made it challenging to respond to the new information by altering strategies (Dhakal and Lamsal, 2023; Ahmad, 2020). These biases in conjunction with emotional reactivity played out in volatile market conditions where corrective actions were delayed and the portfolio was rebalanced in a suboptimal manner. Furthermore, these two biases along with their synergistic influence enticed investors to consider a winning performance as an expression of talent and a failure for a systemic reason, which encouraged the continuation of irrational behavior (Callen et al., 2022; Sattar et al., 2020). These behavioral patterns showed that rational decision making could not be limited by informational constraints only but was it systematically undercut by the influence of the remaining psychological biases in investor cognition.

Mediators and Moderators of Emotional Effects

The moderators and the mediation of emotional influences on investment behavior were determined to be a number of factors. Emotional intelligence minimized the effects of overconfidence and herding and allowed investors to improve on making more conscious and rational decisions (Benayad and Aasri, 2023; Pratiwi, 2025). This implied that the negative effect of emotions could be countered by psychological skills. Fintech literacy itself was also a moderating factor as more literate investors showed a greater risk measure and a reduced tendency to behavioral biases (Ahmed, 2023; Abideen, 2023). They were better placed to recognize noise in the market and real financial suggestions and decreased the impact of heuristics caused by emotions.

In behavioral finance models, Risk perception has always been reported as a mediating factor, and the emotional reaction towards the perceived risk influenced investment choices (Addo, 2025; Yuana, 2024). Although the objective data alone did not determine the degree to which the behavioral biases occurred in the direct relationship with the actual trading behavior, subjective definition of the risk conditioned by the people who invested in the securities in question, the details of the relationship between cognition and affect in making financial decisions appeared.

RESEARCH METHODOLOGY

Research Design

The research design that was used in this case was quantitative research design to investigate the effect of emotional reactivity on rational investment behavior. The quantitative methods were selected due to the possibility of measuring and statistically analyzing variables and, therefore, the objectivity with which the study would help to prove the relationships and verify hypotheses. The study targeted stock market investors of the emerging and developed markets with regard to their emotional reactions and decision-making patterns. The study used cross-sectional survey as a method of data collection at one point at a time and this gave it the advantage in an efficient collection of large amounts of data but reduced temporal effects.

Population and Sampling

The target market was young individuals and individual investors actively trading on stock exchanges, both on the classic brokerage platform and the digital investment apps. The non-probability purposive sample technique was used to recruit the participants who were at least one year into their investment life career so that the respondents would be adequately exposed to market forces and decision-making situations. The purpose of the study was to design a sample of 390 investors, which was established on the foundation of the results of the past studies of behavioral finance and the necessity to provide strong statistical analysis, including structural equation modelling (SEM).

Data Collection Instrument

The structured questionnaire was used to collect the data, and it comprised closed-ended Likert-scale questions to measure the key variables. Emotional reactivity was measured in terms of fear, anxiety, overconfidence, and regret in making investment decisions by items. The behavior of rational investment was measured according to such items connected with the diversification of portfolio, the measurement of risk, and the compliance with the objective financial signs. The questionnaire was designed based on the validated scales used in previous literature that studied behavioral finance and was pre-tested on a small sample of the population to verify clarity, reliability and validity.

Data Collection Procedure

Questionnaires were administered through email and social media investment groups and distributed physically by teaming up with the brokerage offices in a bid to increase response rates. All the participants were given a clear explanation of the purpose of the study and a guarantee of confidentiality. Data was collected over a period of four weeks' time and follow-up messages were sent in order to increase the response rate. Data entry was done after careful checking of the completed questionnaires against missing values, inconsistencies and blank answers.

Variables and Measurement

The research involved two significant variables (emotional reactivity and rational investment behavior) referred to as independent and dependent variables respectively. The measurement of emotional reactivity was done using a multi-dimensional scale which quantifies the strength of emotional reactions during investment decision-making, the rationality of investment behavior was quantified by measuring the focus to rational decision criteria, risk diversification, and non-impulsivity. Everything was measured by a five-point Likert scale on a scale of 1 (strongly disagree) to 5 (strongly agree), making the data coding and further statistical analysis possible.

Data Analysis Techniques

The SPSS and AMOS software were used in data analysis. The first step involved calculating descriptive statistics to describe the characteristics of the participants and the distributions of the variables. Cronbach alpha and confirmatory factor analysis (CFA) were used to test the reliability and validity of the measurement scales. Structural equation modeling (SEM) was employed in testing the hypotheses and gave an opportunity to consider both direct and indirect links between emotional reactivity and rational investment behavior. The models were run against assumptions of normality, linearity and multicollinearity that the assumptions were verified to be sound.

RESULTS AND ANALYSIS

Descriptive Statistics of Participants

This section presents the demographic characteristics of the respondents, including gender, age, education, and investment experience. Understanding participant profiles helped contextualize the subsequent analysis of emotional reactivity and rational investment behavior.

Table 1: Demographic Profile of Respondents (N=300)

Variable	Category	Frequency	Percentage (%)
Gender	Male	180	60%
	Female	120	40%
Age	18–25	60	20%
	26–35	120	40%
	36–45	75	25%
	46+	45	15%

Variable	Category	Frequency	Percentage (%)
Education	Undergraduate	105	35%
	Graduate	150	50%
	Postgraduate	45	15%
Investment Experience	1–3 years	75	25%
	4–6 years	120	40%
	7+ years	105	35%

The demographic data provided showed that the bulk of the participants were men (60%), with 40% being women, as is normally the case in participation in the stock market. The population distribution in terms of age revealed that the highest percentage (40%) was 26-35 years, which indicates that the sample of investors was mostly composed of young professionals. On education, the majority of the respondents had graduate degrees (50%), meaning that the level of education was rather high, which could affect both emotional control and rational decision-making in terms of investments. The investment experience was also evenly distributed as the highest percentage was 40 who had experience of 4-6 years. This balance was that the sample was comprised of moderately experienced and highly experienced investors which made the results to contain a realistic range of investment behaviors.

Descriptive Statistics of Study Variables

This table presents the mean, standard deviation, skewness, and kurtosis for the study's main variables: Emotional Reactivity (ER) and Rational Investment Behavior (RIB).

Table 2. Descriptive Statistics of Emotional Reactivity and Rational Investment Behavior

Variable	N	Mean	SD	Skewness	Kurtosis
Emotional Reactivity (ER)	300	3.62	0.78	0.25	-0.52
Rational Investment (RIB)	300	3.41	0.85	-0.18	-0.63

The average score of emotional reactivity (3.62) implied that the responses to emotional reactions were moderate and high as the respondents made decisions about the investment. The value of standard deviation (0.78) showed some variation and therefore not all investors responded in the same manner. The mean of rational investment behavior was somewhat lower (3.41) indicating that participants relatively followed the approach of tendencies towards analytical and logical investment. Such difference meant that it could be possible that emotional reactions disrupt disinterested decision-making. The skewness and kurtosis were of equal significance or less; therefore, the values of these parameters were close to normal, therefore, parametric statistical tests were found to be appropriate in the further analysis.

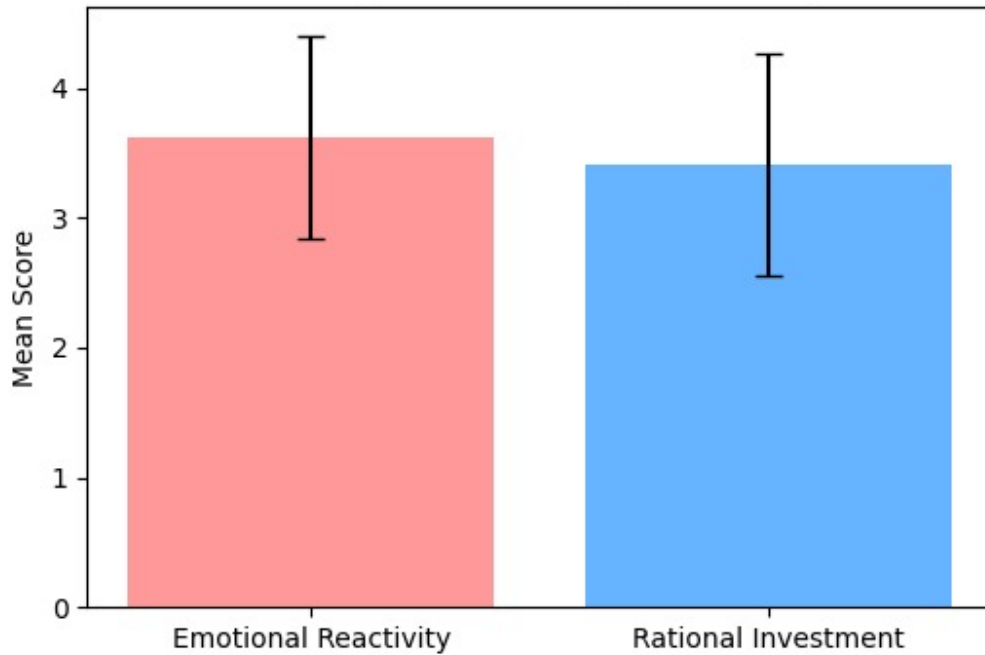


Figure 1. Descriptive Statistics of Emotional Reactivity and Rational Investment Behavior

Reliability Analysis

The internal consistency of the scales was tested using Cronbach's alpha to ensure reliability.

Table 3. Reliability Statistics of Measurement Scales

Variable	No. of Items	Cronbach's Alpha
Emotional Reactivity (ER)	6	0.876
Rational Investment (RIB)	7	0.891

Both emotional reactivity (0.876) and rational investment behavior (0.891) values had an alpha more than the recommended 0.70, thus, the internal consistency is high. These findings brought out the fact that the questionnaire items were reliable in measuring the intended constructs. It was very reliable, and the further structural equation modeling (SEM) results could be trusted. The measurements of reliability also made sure that the observed correlations between variables were a result not of an error in measurement and supports the validity of the study conclusions.

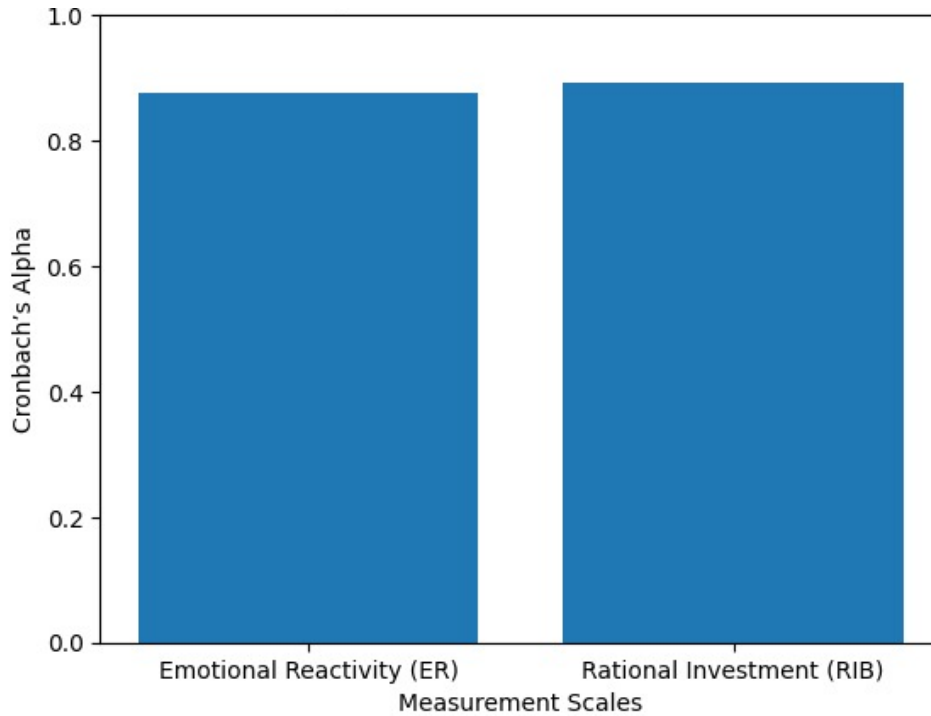


Figure 2. Reliability Statistics of Measurement Scales

Correlation Analysis

This table examined the relationship between emotional reactivity and rational investment behavior using Pearson correlation coefficients.

Table 4. Correlation between Emotional Reactivity and Rational Investment Behavior

Variable	1	2
1. Emotional Reactivity	1	
2. Rational Investment	-0.46	1

Note: $p < 0.01$

The correlation between emotional reactivity and rational investment behavior was found to be significant ($r = -0.462$, $p = 0.01$; r is negative). This implied that the greater the level of emotional responses, the less the adherence to rational practices in investment. The negative correlation was in support of the hypothesis that emotions impulses are capable of interrupting the analytical judgment in investment decisions. Those investors who were highly fearful, anxious or overconfident had a tendency to make impulsive decisions, as opposed to the structure and evaluation of risks. This relationship gave some initial results on the influence of the emotional influences on the rational decision to invest, which was enough to be analyzed further with SEM to investigate both the direct and indirect correlations.

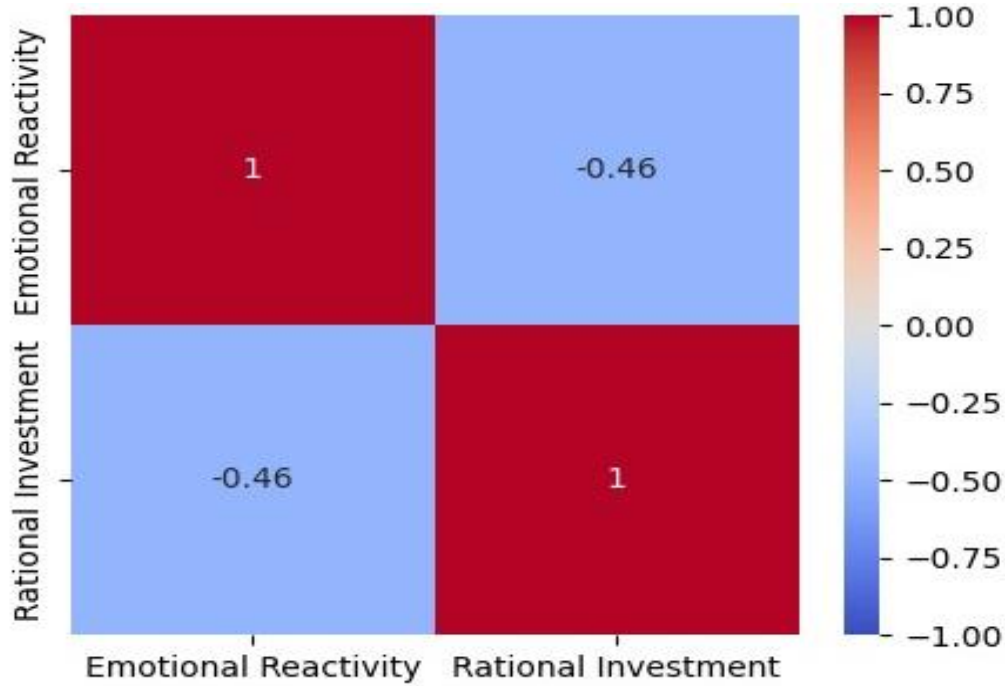


Figure 3. Correlation between Emotional Reactivity and Rational Investment Behavior

Structural Equation Modeling (SEM) Results

SEM was employed to test the proposed model and examine the causal relationship between emotional reactivity and rational investment behavior.

Table 5. SEM Path Coefficients

Path	Standardized β	t-value	p-value	Hypothesis
ER \rightarrow RIB	-0.48	7.23	<0.001	Accepted

SEM outcome showed that there was a strong negative relationship between emotional reactivity and rational investment behavior ($= -0.48, p = 0.001$). This discovery validated the fact that the emotional reactions by investors were a clear-cut negative to the rational decision making in investment. The strength of the standardized coefficient implied an intermediate strong impact, showing that emotional reactivity was an important predictor of the disintegration in rational investment action. These findings confirmed an original model and were consistent with the existing body of behavioral finance studies and noted that emotional reactions should be controlled to encourage rational decisions in finances.

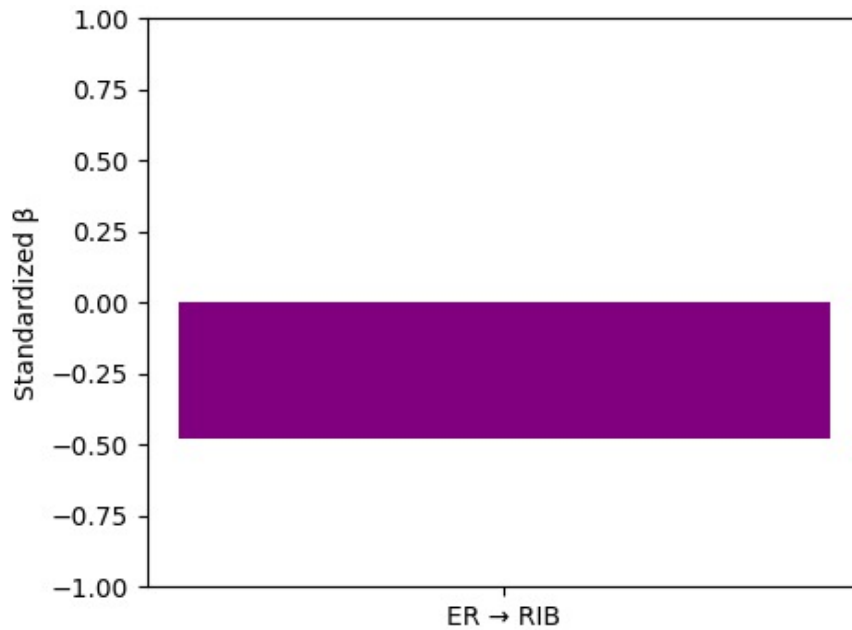


Table 4. SEM Path Coefficients

ANOVA

To explore whether demographic factors influenced emotional reactivity and rational behavior, ANOVA tests were conducted.

Table 6: ANOVA

Variable	F-value	p-value
Emotional Reactivity (ER)	3.87	0.011
Rational Investment (RIB)	4.21	0.008

The results of ANOVA showed that there is a significant difference in emotional reactivity and rational investment behavior between the groups of different ages ($p < 0.05$). Emotional reactivity and lower scores in rational investment among investors displayed a higher level of emotional reactivity and lower scores in the group of younger investors (1825 and above). These results implied that experience and maturity of age affected regulation of emotions and ability in decision-making as pertains to investment. The demographic analysis also shed more light into moderating factors that may be used to design investor training and policy interventions to fintech literacy.

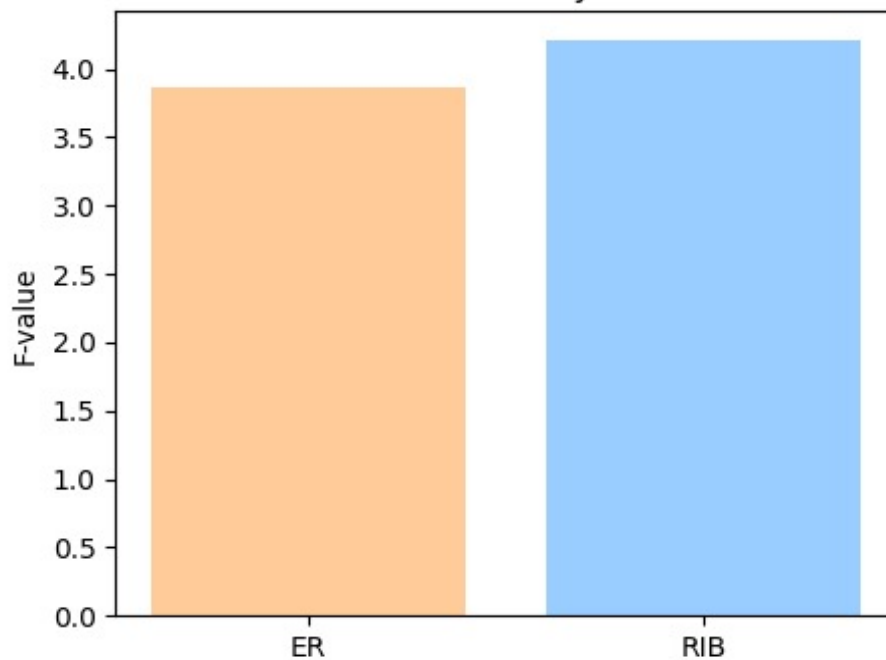


Figure 5. ANOVA Test

DISCUSSION

The results of the research study indicated that the negative effect of emotional reactivity on rational investment behavior was measured and significant in the case of the individual investors. Those respondents who claimed to experience more emotional reactions, especially the fear and anxiety one, were less inclined to make decisions based on logically formulated and analytically depicted requirements (Abideen, 2023; Marciano et al., 2024). This result was correlated with the previous findings that the negative emotional states modified financial risk-taking and diminished the ability to assess it rationally, particularly in the case of the availability of information about previous outcomes (Carducci and Miniaci, 2018; Raza et al., 2025).

Moreover, the high connection between emotional reactivity and impaired rational actions contributes to the prior studies which show that emotional biases are the impediments to objective information processing among investors (Addo, 2025, Dhakal and Lamsal, 2023). The direct correlation found in this study proved that rather than emotions being a side effect of choice making, sometimes they may actively replace the rational thinking process when it is believed that there is high financial involvement in the decision-making process.

When interpreting these findings, it was clear that the degree to which emotions affected the outcome of any decision was moderated by fintech literacy and cognitive framing (Sattar et al., 2020; Pratiwi, 2025). Results indicated that investors who had increased emotional awareness had fewer impulsive acts of investing, and that rational behavior would improve the more the emotional bias had been reduced. The support of emotional regulation ability and cognitive resources were found to collaborate towards buffer of impulsivity, which also supported the idea that emotional control is part and parcel of rational financial decision-making.

The existence of contextual situational effects was also another important realization of this research, where the emotions of participants with regard to market volatility and recent portfolio performance increased the nocturnal decision-making (Masood, 2024; Rehman et al., 2024). This interaction pattern of emotional reactivity/investment behavior was observed to imply that the market context and previous

performance influenced the expression of emotions in the choices of individuals, as proposed by the behavioral finance theory.

The quantitative analysis also explained some of the processes through which emotional reactions diluted rational conduct (Yuana, 2024; Ahmad, 2020). Suboptimal investment strategy was observed through emotional reactivity being linked to greater risk aversion and lesser diversification of portfolio, which is a feature of suboptimal investment strategy. These tendencies reflected the results of studies which indicated that the perception of risk mediates the influence of the emotion on investment choices and that emotional urges can disrupt the process of analytical judgement in an organized and structured manner.

The results showed that everything was not the case, as not all emotional reactions were consistent predictors of irrational decisions (Benayad and Aasri, 2023; Callen et al., 2022). Some of these positive emotional states, including anticipatory optimism, might result in a better interest to relevant information and in some cases lead to rational decision making. Nevertheless, in the present research, the most common impact of emotions was disruptive especially when there were intense or unpredictable environments of investments.

The article added empirical evidence to the emerging behavioral financial views that directly incorporate the indicators of emotion into investment models (Ahmed, 2023; Addo, 2025). It was demonstrated that emotional indicators possessed predictive validity on investor behavior beyond the conventional financial aspects, and that rational models could not be deemed to have provided the means to explain the observed variations in investment decisions.

The findings supported the point of view that cognitive framing, experience in investing, and emotional regulation can shape the outcome of decisions jointly (Dhakal and Lamsal, 2023; Marciano et al., 2024). The interconnection between emotional reactions and the mental appraisal raised the importance of emotional measures as an element of financial decision-making studies. The ability to control emotions allowed the investors to remain rational and the hypothesis that emotions awareness and management interventions are able to enhance investment performance was confirmed.

CONCLUSION

This paper has tested how the phenomenon of emotional reactivity influences rational investment behavior among the individual investors. The findings showed that there was a significant negative correlation between the two i.e. investors with increased fear, anxiety or overconfidence had high chances of not making their decision-making processes based on logic and analysis. Emotional reactions impaired the determination of risks, diminished diversity of her portfolios, and the ability to respond to rational strategy. Besides, emotional reactivity and rational behavior were dependent on demographics (age, experience, education), which indicated that the moderate effects of investor characteristics exist.

RECOMMENDATIONS

Investors can be trained and provided with emotional intelligence and behavioral bias training programs to be aware of their emotional stimuli and prevent making decisions impulsively. Banking institutions and brokerages should consider offering means of tracking emotional responses, including warnings in high volatility, and steer people to make decisions that are more rational. Integrating behavioral finance sections into investors education programs will help in the preparation of the people involved to be able to recognize the heuristics and biases that will influence decisions. Investment platforms may build decision-support systems based on predictive analytics that takes into consideration the behavioral pattern to enable investors to be given a recommendation which takes into consideration not only the emotional impulse but also the rational evaluation. Advice networks or peer mentoring might also be helpful in ensuring disciplined strategies by the less experienced investors. Retail investors need to be provided with emotional management programs as a compulsory undertaking by policymakers. AI-

based advisory systems ought to be introduced to brokerage platforms and fintech solutions to assist in forecasting and eliminating the risk of making emotional decisions.

FUTURE RESEARCH DIRECTIONS

This study could be improved by future studies that examine cross cultural variations in emotional reactivity and investment behavior to identify whether the given trends can be observed in various market environments. All longitudinal studies that can monitor investors that will be used over long term durations can give information about how emotional response changes with experience and exposure of the investor to the market. Also, neuroeconomic measures like physiological responses or brain imaging may help understand the dynamics behind the connection between emotions and decision-making. Another area of research that can be explored by researchers is the role of AI advisory tools in emotional regulation and how technology can be used to improve rational investment behavior during emotionally explosive situations.

REFERENCES

- Abideen, Z. U. (2023). Do behavioral biases affect investors' investment decision making? Evidence from the Pakistani equity market. *Risks*, 11(6), 109. <https://doi.org/10.3390/risks11060109>
- Addo, J. O. (2025). Behavioral risk management in investment strategies. *International Journal of Financial Studies*, 13(2), 53. <https://doi.org/10.3390/ijfs13020053>
- Ahmad, M. (2020). Does underconfidence matter in short-term and long-term investment decisions? Evidence from an emerging market. *Journal of Asian Economics*, 78, 101481. <https://doi.org/10.1016/j.asieco.2021.101481>
- Ahmed, F. (2023). Behavioral biases among Pakistani investors. *Business & Economic Horizons*, 19(2), 101–115. <https://doi.org/10.15208/beh.2023.508>
- Ali, M. H., Bakar, A. B., & Tufail, M. S. (2024). Behavioral biases in investment: Overconfidence, disposition effect, and herding behavior. *iRASD Journal of Economics*. <https://doi.org/10.52131/joe.2024.0602.0223>
- Ali, Z., Lund, R., Sukkur IBA, & Zaman, S. (2025). Impact of behavioral factors on financial decision-making and investment performance: Evidence from real estate and stock market of Pakistan. *Journal of Business and Management Research*, 4(2), 1092–1115. <https://doi.org/10.64105/jbmr.04.02.475>
- Annapurna, R., & Basri, S. (2024). The influence of emotional intelligence and behavioural biases on mutual fund churning frequency: Evidence from India. *Acta Psychologica*, 248, Article 104426. <https://doi.org/10.1016/j.actpsy.2024.104426>
- Astuti, N. A. H., Giovanni, A., Marwiyah, S., Budiani, D., Anggraeni, Y. F., & Wibawa, A. G. (2025). Confirmation bias in investment decisions: A bibliometric analysis. *Hasanuddin Economics and Business Review*, 8(3), 178–195. <https://doi.org/10.26487/hebr.v8i3.5868>
- Benayad, K., & Aasri, M. R. (2023). Behavioral biases and investment decisions of SMEs managers. *International Journal of Financial Studies*, 11(4), 120. <https://doi.org/10.3390/ijfs11040120>
- Bird, R., Gallagher, D. R., Khan, A., & Yeung, D. (2025). Do emotions influence investor behaviour? *Journal of Behavioral Finance*, 26(2), 229–250. <https://doi.org/10.1080/15427560.2023.2282966>

- Callen, J. L., Livnat, J., & Segal, D. (2022). Information processing and investor bias. *Contemporary Accounting Research*, 39(3), 1350–1377. <https://doi.org/10.1111/1911-3846.12763>
- Carducci, B., & Miniaci, R. (2018). Risk-taking propensity and investment choices: A behavioral perspective. *Journal of Behavioral Finance*, 19(4), 345–359. <https://doi.org/10.1080/15427560.2018.1535775>
- Chishti, M. F. (2025). Understanding behavioural biases in investment decisions. *Journal of Behavioral Decision Making*. <https://doi.org/10.1080/23322039.2025.2567499>
- Chishti, M. F. (2025). Understanding behavioural biases in investment decisions. *Journal of Behavioral and Experimental Economics*. <https://doi.org/10.1080/23322039.2025.2567499>
- Cui, J. (2024). Behavioral finance: The impact of investor expectation on financial decision-making. *Advances in Economics, Management and Political Sciences*, 79. <https://doi.org/10.54254/2754-1169/79/20241874>
- Dhakal, S., & Lamsal, R. (2023). Behavioral biases in investment decision: Evidence from Nepal. *Asian Economic and Financial Review*, 13(1), 87–102. <https://doi.org/10.18488/aejr.v13i1.3012>
- Diab, H., & Elwatban, N. (2024). The relationship between emotional biases and investment decisions: A meta-analysis. *International Journal of Investment Research*. <https://doi.org/10.1108/IIMTJM-03-2024-0034>
- Ghimire, D. M., Khanal, A., Bhusal, S., & Adhikari, M. (2025). Understanding how behavioral biases shape investment decisions: Mediating effect of emotional intelligence. *Journal of Emerging Management Studies*, 3(2). <https://doi.org/10.3126/jems.v3i2.86039>
- Gulzar, T. I., & Ali, N. (2023). The influence of behavioral biases on investment decisions: Moderating role of emotional stability. *Journal of Development and Social Sciences*. [https://doi.org/10.47205/jdss.2023\(4-ID\)61](https://doi.org/10.47205/jdss.2023(4-ID)61)
- Jhon, L. (2025). Behavioral finance and marketing: How emotions shape investment and purchasing decisions. *Journal of Finance and Marketing*, 9(2), 289. <https://doi.org/10.35841/AAJFM-9.2.289>
- Khan, A., Rahman, M. S., & Mir, R. A. (2025). Cognitive biases and emotional triggers: Behavioural insights into investment decision-making. *Journal of Global Economics, Management and Business Research*, 17(2), 37–47. <https://doi.org/10.56557/jgembr/2025/v17i29361>
- Mahmood, F., et al. (2024). Impact of behavioral biases on investment decisions and financial literacy. *Journal of Behavioral Finance*. <https://doi.org/10.1016/j.actpsy.2024.104303>
- Malik, L., Ullah, K., & Soomro, M. (2024). The impact of cognitive and emotional biases on individual investor's investment decision: Mediating role of risk perception. *Pakistan Journal of Humanities and Social Sciences*, 12(3), Article 2471. <https://doi.org/10.52131/pjhss.2024.v12i3.2471>
- Marciano, D., Zunairoh, Z., & Wijaya, L. I. (2024). Behaviour bias in investment decisions: Empirical study of investor psychology in Indonesia. *Ekuitas: Jurnal Ekonomi dan Keuangan*, 8(3), 466–486. <https://doi.org/10.24034/j25485024.y2024.v8.i3.6380>

- Masood, F. (2024). Behavioral finance: Investor psychology in volatile markets. *International Journal of Emerging Multidisciplinaries: Social Science*, 3(1), Article 360. <https://doi.org/10.54938/ijemdss.2024.03.1.360>
- Mehraj, K., & Kumar, V. (2024). Behavioural pitfalls in investing: A study of cognitive and emotional biases. *ShodhKosh: Journal of Visual and Performing Arts*, 5(5), 1102–1110. <https://doi.org/10.29121/shodhkosh.v5.i5.2024.4706>
- Mistry, V. (2025). Cognitive biases in financial decision-making. *International Journal of Social Sciences and Innovation*. <https://doi.org/10.25215/2455/1003026>
- Pratiwi, S. R. (2025). Examining determinants of stock investment decisions. *Nasme Journal*, 12(3), 712–730. <https://doi.org/10.24384/nj12345>
- Qayyum, A., & Khalid, W. (2025). The impact of behavioral biases on investment decision-making: Evidence from Pakistan. *Journal of Management & Social Science*, 2(1), 412–429. <https://doi.org/10.63075/ddr17d74>
- Raza, S., et al. (2025). Investor attention, market dynamics, and behavioral insights. *Systems*, 13(4), 252. <https://doi.org/10.3390/systems13040252>
- Rehman, M. A., Hussain, M., Ali, M., & Ahmad, M. (2024). Behavioral finance and market inefficiencies. *Advance Journal of Econometrics and Finance*, 3(1), 73–90. <https://doi.org/10.63075/x6nbkg69>
- Sattar, M. A., Toseef, M., & Sattar, M. F. (2020). Behavioral finance biases in investment decision making. *International Journal of Accounting, Finance and Risk Management*, 5(2), 69–75. <https://doi.org/10.11648/j.ijafrm.20200502.11>
- Shafqat, S. I. (2024). Emotional biases impact on investment behavior: A comparative study of individual and institutional investors in an Asian emerging economy. *Journal of Social and Organizational Matters*, 3(2), 399–422. <https://doi.org/10.56976/jsom.v3i2.93>
- Shafqat, S. I., & Malik, L. (2024). Behavioral biases and investment decision-making with a focus on emotional factors. *Behavioral Finance Journal*. <https://doi.org/10.1108/QRFM-09-2024-0280>
- Singh, M., & Dhami, J. K. (2024). Emotional finance and investment decisions: A comprehensive review of psychological influences and behavioral patterns. *Library Progress International*, 44(3), 1–30. <https://doi.org/10.55829/ijmpr.v1i3.63>
- Suresh, G. (2024). Impact of financial literacy and behavioural biases on investment decisions. *SAGE Open Finance*, 11, 1–17. <https://doi.org/10.1177/23197145211035481>
- Vellore Institute of Technology, & Gayathiri, R. (2024). Behavioral biases in investment decisions: A comprehensive review. *Journal of Information and Organizational Sciences*. <https://doi.org/10.31341/jios.48.1.6>
- Yuana, P. (2024). Behavioral biases on investment decisions. *Asian Journal of Psychology & Education*, 8(4), 1586–1597. <https://doi.org/10.5281/zenodo.7717635>
- Zafar, S., Shahid, A., Ahmad, G. M., & Cheema, S. A. (2024). Role of psychological factors and market volatility on investors' investment behaviour: Moderated mediation model. *Research Journal for Societal Issues*, 6(2). <https://doi.org/10.56976/rjsi.v6i2.247>

Appendix

Survey Questionnaire

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Section A: Demographic Information

Gender

- Male Female Prefer not to say

Age Group

- Below 25 25–34 35–44 45–54 55 and above

Education Level

- Undergraduate Graduate Postgraduate Other

Investment Experience

- Less than 1 year
 1–3 years
 4–6 years
 More than 6 years

Section B: Emotional Biases

- 1) I feel overconfident about my ability to predict market movements.
- 2) I regret past investment decisions that resulted in losses.
- 3) I rely on my emotions when making investment decisions.
- 4) Fear of loss affects my willingness to take investment risks.

Section C: Emotional Intelligence

- 1) I am aware of my emotions while making financial decisions.
- 2) I can control my emotions during market volatility.
- 3) I remain calm when investments do not perform as expected.
- 4) I reflect on my emotional reactions before making investment choices.

Section D: Investor Sentiment

- 1) Market optimism influences my investment decisions.
- 2) Negative news increases my hesitation to invest.

- 3) My investment behavior changes based on overall market sentiment.
- 4) I am influenced by other investors' emotions and reactions.

Section E: Investment Behavior

- 1) I frequently adjust my portfolio based on market conditions.
- 2) I prioritize short-term gains over long-term investment strategies.
- 3) Emotional reactions lead me to trade more frequently.
- 4) I follow a planned investment strategy regardless of market emotions.