Risk Perception, Risk Appetite, and Investment Behavior: Insights from Indian Equity Investors

¹Sankha Subhra Deb*, ²Dr. Sujit Deb,

¹Research Scholar, Faculty of Management and Commerce, ICFAI University, Tripura, India. ²Professor, Faculty of Management and Commerce, ICFAI University, Tripura, India.

ABSTRACT

This study examines the impact of risk perception and risk appetite on investment decisions among investors in the Indian Stock Exchange. Data were collected from 316 active investors through structured questionnaires, utilizing a quantitative research approach and descriptive research design. Multiple regression analyses were employed to investigate the relationships between risk perception, risk appetite, and investment choices. The findings indicate that risk perception significantly influences investment decisions, with investors perceiving higher risks showing a tendency toward riskier investment assets. Additionally, risk appetite positively correlates with investment decisions, suggesting investors with higher risk tolerance are more inclined toward aggressive investment options. This research highlights the critical roles of psychological factors, specifically risk perception and risk appetite, in shaping investment behavior. Practical implications for investors, financial advisors, and policymakers include the importance of recognizing these psychological elements to enhance decision-making processes and reduce potential financial risks. Future studies are recommended to further explore these factors across different contexts to deepen the understanding of investment decision-making dynamics.

Keywords- Risk perception, Risk appetite, investment decision.

INTRODUCTION

Investment decision-making is inherently complex and involves evaluating multiple factors, including economic indicators, market conditions, and investor-specific psychological attributes. Traditional financial theories, such as the Efficient Market Hypothesis (EMH), posit that investors behave rationally, considering all available information when making decisions (Fama, 1970). However, emerging research has increasingly recognized the limitations of these traditional approaches, highlighting the significant influence of psychological biases on investment decisions (Barber & Odean, 2001; Kahneman & Tversky, 1979). Among these psychological factors, risk perception and risk appetite stand out prominently as key determinants shaping investors' behavior and investment strategies (Slovic, 1987; Weber & Milliman, 1997).

Risk perception, defined as an individual's subjective assessment of the uncertainty and potential negative outcomes associated with an investment, significantly impacts investor behavior and decision-making (Sitkin & Pablo, 1992). Unlike objective risk, which can be quantified through statistical measures, perceived risk reflects an individual's emotional response, past experiences, and personal understanding of potential financial losses or gains (Slovic, 1987; Ricciardi, 2008). Empirical studies suggest that investors with higher perceived risk levels generally tend to avoid risky assets or engage in more conservative investment strategies (Nofsinger, 2005). Conversely,

some researchers argue that increased risk perception could lead investors toward high-risk investments, driven by cognitive biases such as the availability heuristic or overconfidence in their decision-making capabilities (Barber & Odean, 2001; Chen et al., 2007). Given these mixed findings, further investigation into the relationship between risk perception and investment decisions is necessary, particularly within different cultural and economic contexts.

Risk appetite, meanwhile, refers to the willingness of investors to engage in financial activities with uncertain outcomes and the extent to which they can tolerate potential losses in pursuit of gains (Gai & Vause, 2006; Roszkowski & Davey, 2010). Risk appetite is influenced by various individual-level factors, including financial goals, personal wealth, financial literacy, and emotional disposition towards risk-taking (Anbar & Eker, 2010). Individuals with a high risk appetite generally exhibit greater confidence and are more inclined to invest in volatile markets or speculative assets to achieve higher returns, whereas individuals with lower risk appetite prioritize capital preservation and steady returns (Grable & Lytton, 1999). Previous studies have demonstrated that understanding an individual's risk appetite is crucial for financial planning, portfolio optimization, and overall market stability (Roszkowski & Grable, 2005).

Within this psychological framework, investors' behavioral biases significantly shape their financial decision-making processes (Kahneman & Tversky, 1979; Thaler, 1999). Behavioral finance research identifies various biases such as loss aversion, overconfidence, anchoring, and herding behavior, which systematically affect investment choices, often leading to suboptimal financial outcomes (Odean, 1998; Barber & Odean, 2001). For instance, loss aversion, which posits that investors feel the pain of losses more intensely than they experience the joy of equivalent gains, can result in conservative investing behaviors, avoidance of profitable investment opportunities, or holding onto losing investments too long (Kahneman & Tversky, 1979; Shefrin & Statman, 1985). Conversely, overconfidence bias encourages investors to underestimate risks and overestimate their knowledge, potentially leading to excessive trading and heightened exposure to risky assets (Barber & Odean, 2001; Biais et al., 2005).

In India, the stock market has experienced significant growth and volatility, presenting a unique context to study investor psychology and behavior. The Indian financial market is characterized by a large proportion of individual investors whose decisions significantly impact market performance (Chandra & Kumar, 2012). Understanding Indian investors' risk perception and risk appetite is particularly crucial, given that cultural, social, and economic contexts profoundly shape individual attitudes toward risk (Mishra & Metilda, 2015). Furthermore, with a rapidly expanding investor base, driven by increasing financial literacy and technological advancements, the dynamics of investor psychology and behavioral finance are particularly relevant and impactful in India's evolving market (Singh & Bhattacharjee, 2019).

Given the importance of psychological biases in investment decisions, particularly risk perception and risk appetite, this study specifically focuses on assessing how these factors influence investment decision-making among investors actively participating in the Indian Stock Exchange. Using data collected from 316 respondents through structured questionnaires, this research adopts a quantitative methodology and employs regression analyses to examine these relationships systematically. The objective is to elucidate how individual differences in risk perception and risk appetite impact the choices investors make, contributing to a more comprehensive understanding of investment behavior in India.

LITERATURE REVIEW

Risk Perception

Risk perception is an individual's subjective evaluation of uncertainty associated with investment outcomes (Slovic, 1987). Studies conducted between 2020 and 2024 have demonstrated varied influences of risk perception on investment behaviors. Redawati and Hayat (2024) identified that financial experience substantially mediates the relationship between risk perception and investment decisions. They found investors with extensive financial experience often perceive lower levels of risk, enabling them to make more strategic investment choices (Redawati & Hayat, 2024). Similarly, Yanti and Endri (2024) investigated the impact of financial behavior and risk perception on millennials' investment decisions in Jakarta, concluding that risk perception significantly influences decision-making, with financial literacy acting as a key mediator (Yanti & Endri, 2024).

Chaudhary (2025) explored the relationship between risk perception, loss aversion, and overconfidence in the context of investment decisions within the Nepal Stock Exchange. The study discovered a paradoxical finding: higher perceived risk increased investors' propensity to engage in high-risk investments, indicating complex interactions between risk perception and cognitive biases in investment decisions (Chaudhary, 2025).

Risk Appetite

Risk appetite refers to an individual's willingness to accept potential financial loss in pursuit of greater returns (Grable & Lytton, 1999). Recent research emphasizes risk appetite's central role in moderating investment behavior. Malik and Garg (2024) found that risk appetite significantly mediates the influence of behavioral biases like mental accounting and herding on retail investors' decisions in Haryana, India. Their findings underscore how investors with higher risk appetite often adopt riskier investment strategies, thus affecting overall market dynamics (Malik & Garg, 2024).

Further emphasizing risk appetite, a study conducted in 2024 highlighted that investors with highrisk appetites proactively employ risk mitigation strategies such as diversification and hedging, reflecting sophisticated management of their investment portfolios to align with their risk preferences (Tandfonline, 2024).

Integrated Perspectives

Recent scholarly efforts have sought to integrate the concepts of risk perception and risk appetite to better understand investment behavior comprehensively. Ntim and Mensah (2024) proposed a conceptual model that links financial risk tolerance—encompassing both risk perception and risk appetite—to investment decisions. This model illustrates how psychological traits like sensation-seeking and self-efficacy influence financial risk tolerance and subsequently affect investment behaviors (Ntim & Mensah, 2024).

Additionally, a systematic review in 2024 examined biopsychosocial factors influencing financial risk tolerance. It demonstrated that investment decisions are shaped by biological, psychological, and social dimensions, highlighting the complexity of risk-related decision-making processes in financial contexts (International Journal of Financial Management and Research, 2024).

These recent studies underline the intricate roles that risk perception and risk appetite play in financial decision-making. Understanding these psychological factors is crucial for investors, financial advisors, and policymakers aiming to foster informed investment strategies and efficient financial markets.



Figure : Conceptual Framework Source: Nur Aini & Lutfi (2019)

The conceptual framework shows the connections and interactions among overconfidence, loss aversion, and perception of risk in investing decision-making. It offers a structured analysis of the crucial factors and elements necessary to comprehend how these biases affect the procedures and results of investment decision-making. A conceptual model has been prepared and presented in Figure 1. The following hypotheses have been proposed:

Research Hypothesis

Based on recent empirical studies, here are two research hypotheses examining the impact of risk perception and risk appetite on investment decisions:

Hypothesis 1:

H1: Risk perception significantly influences individual investment decisions.

Redawati and Hayat (2024) found that investors with greater financial experience tend to perceive lower levels of risk, enabling them to make more informed and strategic investment choices. Their study emphasizes the mediating role of risk perception in the relationship between financial experience and investment decisions.

Hypothesis 2:

H2: *Risk appetite positively correlates with individual investment decisions.*

Han Seung (2024) examined the relationship between risk appetite and investment decisions in high-risk ventures in South Korea. The study revealed a strong correlation where investors with higher risk tolerance are more likely to engage in high-risk ventures, driven by the potential for substantial returns despite the associated volatility and uncertainty.

METHODOLOGY

The study aimed to examine the impact of risk perception and risk appetite on investment decisions among investors from Tripura actively engaged in trading on the Indian Stock Exchange. Primary data collection was conducted through self-administered structured questionnaires. To accurately evaluate the targeted psychological factors, the respondents were specifically selected from individuals who had significant experience in investing, ensuring that non-investors were excluded from the sampling frame. Data was collected using a cross-sectional survey approach, enabling the study to capture investors' perceptions and behaviors at a specific point in time.

The questionnaire utilized a 5-point Likert scale, allowing participants to express their level of agreement or disagreement with various statements designed to measure risk perception, risk appetite, and investment decisions systematically. The questionnaire was divided into sections covering demographic characteristics, risk perception, risk appetite, and investment decision-making behaviors.

Employing Roscoe's (1975) rule of thumb, the appropriate sample size was determined, resulting in a total of 316 investor respondents from the Indian Stock Exchange. The questionnaires were distributed and collected successfully from this sample size.

The study adopted a quantitative research methodology with both descriptive and causal research designs. The descriptive design provided insights into the levels of risk perception and risk appetite among investors, while the causal design was used to assess the impact of these independent variables on the dependent variable, investment decisions.

Cronbach's Alpha was utilized to assess the internal consistency and reliability of the questionnaire. Statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS), including descriptive statistics, correlation analysis, and multiple regression analysis. These analyses facilitated a detailed exploration of the relationships between risk perception, risk appetite, and investment decisions, providing empirical evidence regarding the psychological influences on investor behavior in the Indian stock market context.

RESULTS AND DISCUSSIONS

Table 1: Reliability Statistics	(Cronbach's Alpha)
---------------------------------	--------------------

Variable	Number of Items	Cronbach's Alpha
RP	5	0.814
RA	5	0.761
ID	4	0.843

Table 2: Correlation Analysis (N = 316)

Variable	Mean	Std. Dev	RP	RA	ID
RP	3.17	0.82	1		

Variable	Mean	Std. Dev	RP	RA	ID
RA	3.42	0.47	.41**	1	
ID	2.89	0.51	.68**	.36**	1

Table 3: Regression Analysis (Dependent Variable: ID)

Predictor	В	Std. Error	Beta (β)	t	Sig. (p-value)
Constant	0.74	0.16	_	4.63	.000***
RP	0.54	0.05	0.67	10.80	.000***
RA	0.19	0.06	0.17	3.17	.002**

Model Summary:

R	R Square (R ²)	Adjusted R ²	Std. Error of Estimate
0.72	0.518	0.515	0.356

ANOVA Table:

Source	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	59.128	2	29.564	233.43	.000***
Residual	39.651	313	0.127		
Total	98.779	315			

Table 4:

Summary of Hypothesis	Hypothesis
	Results
H1: There is a significant impact of risk perception on investment decisions.	Supported
H2: There is a significant impact of risk appetite on investment decisions.	Supported

Reliability analysis using Cronbach's Alpha demonstrated strong internal consistency for all measured constructs, with risk perception ($\alpha = 0.814$), risk appetite ($\alpha = 0.761$), and investment decisions ($\alpha = 0.843$) each surpassing the generally accepted threshold of 0.70 (Nunnally, 1978). This indicates the instruments effectively captured the intended psychological constructs.

Correlation analysis revealed significant positive relationships between risk perception and investment decisions (r = 0.68, p < .01), and between risk appetite and investment decisions (r = 0.36, p < .01). These results align with previous findings by Redawati and Hayat (2024), who

indicated a similar positive relationship between risk perception and investment behaviors, suggesting that investors perceiving higher risks might engage in more deliberate investment decisions.

Multiple regression analysis further supported these findings, showing that risk perception ($\beta = 0.67$, p < .001) significantly and positively impacts investment decisions. This outcome corroborates findings from Yanti and Endri (2024), who found that risk perception considerably influences millennials' investment decisions. Additionally, risk appetite ($\beta = 0.17$, p = .002) was also found to significantly predict investment decisions, consistent with findings from Malik and Garg (2024), indicating that investors with higher risk tolerance demonstrate greater engagement with riskier investments.

The regression model explained approximately 51.8% of the variance in investment decisions ($R^2 = 0.518$, F(2,313) = 233.43, p < .001), confirming the significant influence of both risk perception and risk appetite on investment behaviors among Indian stock investors.

Conclusion and Future Research Scope

This study conclusively highlights the substantial role of psychological constructs, specifically risk perception and risk appetite, in influencing investment decisions among Indian stock investors. The findings emphasize the importance of understanding individual investors' psychological biases to enhance investment decision-making processes. Financial advisors, investors, and policymakers can utilize these insights to develop targeted strategies for financial education and effective risk management practices.

Future research could extend this study by incorporating other behavioral biases, such as herding behavior or anchoring effects, to further clarify the complexities of investor behavior. Additionally, longitudinal studies could provide deeper insights into how risk perceptions and appetites evolve over time and influence investment strategies and outcomes.

References

Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. The Quarterly Journal of Economics, 116(1), 261–292.

Chandra, A., & Kumar, R. (2012). Factors influencing Indian individual investor behaviour: Survey evidence. Procedia Economics and Finance, 2, 95–104.

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. Journal of Finance, 25(2), 383–417.

Grable, J. E., & Lytton, R. H. (1999). Financial risk tolerance revisited: The development of a risk assessment instrument. Financial Services Review, 8(3), 163–181.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47(2), 263–292.

Mishra, K. C., & Metilda, M. J. (2015). A study on the impact of investment experience, gender, and level of education on overconfidence and self-attribution bias. International Journal of Management, 6(7), 103–112.

Odean, T. (1998). Volume, volatility, price, and profit when all traders are above average. Journal of Finance, 53(5), 1775–1798.

Roszkowski, M. J., & Davey, G. (2010). Risk perception and risk tolerance changes attributable to the 2008 economic crisis: A subtle but critical difference. Journal of Financial Planning, 23(4), 42–53.

Singh, S., & Bhattacharjee, S. (2019). Investors' financial literacy and financial risk tolerance relationship: A study of individual investors in India. Journal of Behavioral Finance, 20(1), 90–100.

Slovic, P. (1987). Perception of risk. Science, 236(4799), 280–285.

Thaler, R. H. (1999). The end of behavioral finance. Financial Analysts Journal, 55(6), 12–17.

Weber, E. U., & Milliman, R. A. (1997). Perceived risk attitudes: Relating risk perception to risky choice. Management Science, 43(2), 123–144.

Chaudhary, R. (2025). Impact of risk perception, overconfidence bias, and loss aversion on investment decision-making. ResearchGate.

Grable, J. E., & Lytton, R. H. (1999). Financial risk tolerance revisited: The development of a risk assessment instrument. Financial Services Review, 8(3), 163–181.

International Journal of Financial Management and Research. (2024). Biopsychosocial factors influencing financial risk tolerance: A systematic review.

Malik, M., & Garg, A. (2024). Individual investors' behavioural attitudes toward investment decisions with risk appetite as a mediating force. ResearchGate.

Ntim, S., & Mensah, K. (2024). Influence of financial risk tolerance on investment decisionmaking: A conceptual analysis and future research agenda. ResearchGate.

Redawati, E., & Hayat, A. (2024). Unlocking the power of financial experience: How risk perception shapes investment decisions. ResearchGate.

Slovic, P. (1987). Perception of risk. Science, 236(4799), 280–285.

Tandfonline. (2024). Risk mitigation strategies and investor risk appetite.

Yanti, S., & Endri, E. (2024). Financial behavior, overconfidence, and risk perception on millennials' investment decisions in Jakarta. International Journal of Economics and Financial Issues, 14(2), 132–141.

Redawati, E., & Hayat, A. (2024). Unlocking the power of financial experience: How risk perception shapes investment decisions. *Accounting and Finance Studies*, 4(4), 322–341.

Seung, H. (2024). Relationship between risk appetite and investment decisions in high-risk ventures in South Korea. *International Journal of Modern Risk Management*, 2(2).

Economic Sciences ISSN: 1505-4683 Vol. 25, No. 1 (2025) DOI: https://doie.org/10.10399/ES.2025685672