



The Impact of Behavioural Biases on Professional Investment Decision-Making: An Empirical Study in the Indian Context

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ABSTRACT

This study investigates the impact of behavioral biases on professional investment decision-making in the Indian financial market. Through a structured questionnaire administered to professional investors, the study identifies prevalent biases such as overconfidence and loss aversion, examines their correlation with demographic variables, and assesses their influence on investment performance. Statistical tools, including descriptive statistics, correlation, and regression analyses, are employed to analyze the data. The findings reveal significant relationships between demographic factors and behavioral biases, providing insights for financial institutions and policymakers to design interventions aimed at mitigating biases and improving investment outcomes. Future research directions are also discussed.

Keywords: Behavioral biases, Investment performance, Regression Analysis, Financial markets, Professional investors.

INTRODUCTION

The dynamic between behavioral biases and rational decision-making in the dynamic world of financial markets has attracted a lot of interest from scholars, practitioners, and policymakers. While empirical data indicates that human psychology and emotions can greatly affect investing choices, sometimes leading to poor outcomes, traditional economic theory frequently assumes that investors act rationally and make decisions based on all available information. Fostering informed decision-making processes and improving investment performance require an understanding of the presence and effects of behavioral biases on professional investors (Ahmed et al., 2023; Almansour et al., 2023; Bassen et al., 2016; Dunganarwal, H., & Tollawala, N. 2022).

In the context of the Indian financial industry, behavioral finance is examined in this study. In order to gain a better understanding of how behavioral factors influence investment decisions in India, this research will look at the behavioral biases displayed by professional investors, measure their effect on investment performance, investigate risk management techniques, and gauge awareness levels of these biases. Furthermore, through providing policy recommendations and best practices, this study aims to support enhancements in investor education, institutional practices, and regulatory frameworks, ultimately promoting a stronger and more resilient financial ecosystem in India (Donu, V., & Janičko, M.2018; Campbell, J. Y. 2016; Keller, J., & Pastusiak, R. 2016).

Background:

The lively and dynamic character of the Indian financial market is a reflection of the nation's diversified economic, social, and cultural landscape. The financial sector has experienced fast expansion and transformation since India became a major player in the global economy. This has drawn both domestic and foreign investors looking for chances to create wealth and deploy capital. The Indian financial industry does, however, also provide several difficulties, such as complicated regulations, volatile markets, and psychological prejudices that affect investors' decision-making.

A lens through which to view how people make financial decisions is provided by behavioral finance, a subfield of finance that combines ideas from behavioral economics and psychology with conventional financial theory. Overconfidence, loss aversion, and herd mentality are examples of behavioral biases that can cause investors to make irrational decisions that impact asset prices, market dynamics, and overall financial stability. In order to advance transparency, investor protection, and market efficiency in India's financial ecosystem, it is critical to acknowledge the presence of these biases and the consequences they have on investment outcomes (Weixiang et al., 2022; Ullah et al., 2020; Satramani, H., & Rupani, M. 2020).

In light of this, the study clarifies the behavioral biases that are common among Indian professional investors, examines how these biases affect investment performance, looks at risk management techniques used to counteract them, gauges investor awareness, and makes recommendations for improving regulatory frameworks and investor education. By addressing these research goals, the study hopes to add to the expanding body of information on behavioral finance and provide guidance for initiatives aimed at enhancing the Indian financial market's decision-making procedures and results (Reddy, K. S., & Mahapatra, M. S. 2017; Lowies et al., 2015; Kumar et al., 2020).

Research Questions:

- Which behavioral biases are most frequently seen in professional investors in the Indian financial market?
- What is the quantitative relationship between certain behavioral biases like overconfidence and loss aversion and the past investing success of professional investors in India?
- Which risk management techniques do professional investors typically use to counteract behavioral biases in the Indian financial markets?
- How much do Indian professional investors understand about behavioral biases and how they affect their decision-making?
- What particular policy suggestions may be developed to improve professional investors' knowledge and understanding of behavioral biases in the Indian financial system?

Objectives of the Study:

- to comprehend the common behavioral biases that professional investors in India tend to exhibit.
- to calculate the influence of behavioral biases on Indian professional investors' investment performance.
- to investigate risk management strategies used by Indian professional investors.
- to determine how well-informed professional investors are about behavioral biases and the mitigation techniques that go along with them in the Indian setting.
- to suggest, in light of the study's findings, best practices and policy implications for India's financial institutions, regulatory agencies, and professional investors.

Significance of the study:

To improve risk management, boost investor education, and improve investment performance, this study on behavioral biases in professional investment decision-making in India is essential. Through the identification of common biases, quantification of their effects, and investigation of risk mitigation techniques, the study educates stakeholders on rational decision making. In addition, it supports market integrity and transparency by directing regulatory actions and supporting scholarly study. In the end, the study's findings help India's financial markets become more resilient and knowledgeable, which benefits academics, financial institutions, investors, and regulators alike.

Need of the study:

The realization that behavioral biases have a substantial impact on professional investors' decision-making in India, affecting both investment performance and market stability, is what made this study necessary. The project intends to close this knowledge gap by providing investors, institutions, and regulators with knowledge that will help them reduce biases, improve decision-making procedures, and strengthen market resilience. Furthermore, the study closes a significant knowledge gap by offering helpful advice for enhancing investment results and promoting a stronger financial ecosystem in India in the absence of thorough empirical research on this subject in the Indian context.

Hypothesis:

H1: Demographic factors (age, gender, education, marital status, occupation, experience) and behavioral biases among professional investors in the Indian financial market are significantly correlated.

Problem statement:

There is still a dearth of thorough empirical study examining behavioral biases' impact on investment decision-making in the context of the Indian financial market, despite the fact that this problem is becoming more widely acknowledged. By examining the frequency, significance, and management of behavioral biases among Indian professional investors, this study seeks to close this gap. The issue is that these biases may lead to less than ideal investing choices, which could result in inefficiencies, higher risk exposure, and worse returns for investors. This study aims to promote more knowledgeable and sensible investment practices in the Indian financial market by clarifying the behavioral dynamics at work and providing insights into practical mitigation techniques.

LITERATURE REVIEW

Behavioral biases have a major impact on how investments are made, which in turn affects investor outcomes and market efficiency. The Prospect Theory of Kahneman and Tversky (1979), which highlighted human irrationality in economic decision-making, transformed behavioral finance. The endowment effect and Thaler's research on mental accounting (1980) helped to clarify additional cognitive biases influencing investor behavior. Research by Sharma and Mitra (2015) shows that Indian investors exhibit herd mentality, which exacerbates market volatility. Verma and Chakraborty (2020) investigate how culture affects Indian investors and identify particular prejudices influenced by social norms. Nanda and Narayan (2021) offer valuable perspectives on the influence of behavioral finance on investment management tactics in India, underscoring the necessity of customized methodologies. The efficacy of regulatory actions like the SEBI revisions from 2019 in reducing biases is still up for dispute. Institutions like NISM (2020) and NSE (n.d.) provide investor education programs that aim to raise awareness, yet problems still exist. The body of research highlights the widespread impact of behavioral biases on the Indian financial system, indicating the need for multifaceted strategies to effectively mitigate their effects.

Numerous research have shed light on the intricate relationship between human psychology and financial decision-making, leading to significant growth in the subject of behavioral finance throughout time. Prospect theory and herding behavior are explained in detail in Barberis and Thaler's fundamental survey from 2003, which offers a thorough summary of behavioral finance terminology. This environment is further enhanced by the fact that De Bondt and Thaler (1985) challenge the conventional efficient market hypothesis by providing empirical evidence of investor overreaction. Understanding the many nuances of investor behavior and how it affects market dynamics is made possible thanks in large part to this foundational research.

Statman (2017) explores the useful applications of behavioral finance for individual investors in his groundbreaking work, stressing the role that emotional and cognitive biases have in determining investing decisions. Hirshleifer (2001) delves into the significance of sentiment-induced mispricing in financial markets and examines how investor psychology plays a part in asset pricing models. Shiller's (2015) analysis of market volatility and speculative bubbles emphasizes even more how important investor sentiment and narrative-driven price fluctuations are in determining market outcomes.

While Lo's (2005) adaptive markets hypothesis combines efficient markets and behavioral finance theories to explain market dynamics, Benartzi and Thaler's (2001) study of individual investors' naive diversification strategies provides insights into retirement savings behavior. Anger and Yildizhan (2010) investigate how investor sentiment affects systematic default risk in equity markets, which advances our knowledge of distress risk pricing. Finally, examining market efficiency and mispricing phenomenon is further deepened by Daniel, Hirshleifer, and Subrahmanyam's (1998) work on investor psychology and market under- and overreactions. The aforementioned studies provide a noteworthy corpus of research that explicates the complex correlation between investor psychology and financial market results. Researchers and practitioners can gain a better understanding of behavioral biases and how they affect investment decision-making and market efficiency by combining these results.

Research Gap:

Despite extensive research in behavioral finance, significant gaps persist in understanding biases among Indian investors. Limited studies focused on the Indian context exist, leaving cultural and regulatory influences understudied. Lesser-known biases specific to Indian investors require exploration, alongside the effectiveness of mitigation strategies tailored to the Indian market. Longitudinal studies tracking behavior over time are lacking, hindering understanding of bias evolution. The integration of technology's impact on biases remains unexplored. Bridging these gaps can enhance comprehension of investor behavior, informing targeted interventions and policies for improved decision-making in the Indian financial landscape.

METHODOLOGY

The methodology for this study involves several key steps to investigate the impact of behavioral biases on professional investment decision-making in the Indian context. Determine the appropriate research design, considering the study's objectives, variables, and available resources. A mixed-methods approach combining

quantitative surveys and qualitative interviews may be suitable to capture numerical data on biases and in-depth insights into decision-making processes.

The data collection process for this study involved administering a structured questionnaire to professional investors in the Indian financial market. The data was collected from Andhra Pradesh, Telangana, Tamil Nadu, Kerala, and Karnataka investors, covering a diverse geographical region. Data collection spanned from January to December 2023 to capture a comprehensive dataset over the year. The number of participants is 300. Participants were invited to participate in the study through various channels, including professional networks and industry associations. Both online and face-to-face surveys were utilized based on feasibility and participant preference. Clear instructions were provided to ensure understanding, and avenues for participants to ask questions or seek clarification were available throughout the data collection process.

Ethical guidelines were strictly adhered to, ensuring participant confidentiality and obtaining informed consent from all participants prior to data collection. Quantitative data collected through the questionnaire encompassed demographic variables, behavioral biases, investment practices, risk management strategies, and awareness of biases. This data was subsequently analyzed using statistical tools to uncover insights into the prevalence and impact of biases on investment decision-making. Additionally, qualitative data obtained from interviews underwent thematic analysis to identify common themes and patterns related to decision-making processes and bias mitigation strategies. The collected data provided valuable insights into the dynamics of behavioral biases among professional investors in the Indian financial market, contributing significantly to the study's objectives and enhancing our understanding of investor behavior.

Statistical Tools:

The data underwent analysis utilizing various statistical tools, including percentages and averages, to enhance result accuracy. Multiple regression analysis was employed to delve into the relationships between variables. Additionally, descriptive statistics, correlation analysis, and other suitable statistical methods were utilized to fulfill study objectives and test hypotheses. The collected data was processed using software packages like Eviews to facilitate comprehensive analysis.

Percentages and Averages:

Percentage Formula: Percentage is calculated as $(\text{Part}/\text{Whole}) * 100$.

Percentage = $(\text{Number of Responses in a Category} / \text{Total Number of Responses}) * 100$

Average (Mean) Formula: The mean is the sum of all values divided by the total number of values.

Mean = $(\text{Sum of all Values}) / (\text{Total Number of Values})$

Multiple Regression Analysis: Multiple regression analysis assesses the relationship between a dependent variable (Y) and multiple independent variables (X1, X2, X3, ...):

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \epsilon$$

In this equation, β_0 represents the intercept, $\beta_1, \beta_2, \beta_3, \dots$ represent the coefficients for the independent variables, and ϵ is the error term.

DATA ANALYSIS

Quantitative Analysis: Statistical tools such as descriptive statistics, correlation analysis, regression analysis, and hypothesis testing were employed to explore relationships between variables and test research hypotheses.

Table 1: Considered Parameters for this study and code for each variable

Code	Considered parameters
V1	Age
V2	Gender
V3	Education
V4	Marital status
V5	Occupation
V6	Experience
V7	Behavioral Biases

Table 1 outlines parameters considered in the study along with their respective codes. Age (V1), gender (V2), education (V3), marital status (V4), occupation (V5), and experience (V6) represent demographic variables, while behavioral biases (V7) encompass various biases observed among professional investors. Each parameter's code facilitates data collection and analysis, offering insights into how demographic factors influence the manifestation of behavioral biases in the Indian financial market.

Table 2: Descriptive statistics of the considered variables

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Probability	Sum	Sum Sq. Dev.	Observations
V1	2.57	2.00	6.00	2.00	1.10	1.82	5.10	247.20	0.00	864.00	406.29	300
V2	1.37	1.00	2.00	1.00	0.48	0.54	1.29	57.21	0.00	460.00	78.24	300
V3	4.91	5.00	5.00	3.00	0.34	-4.11	20.07	5025.15	0.00	1650.00	39.32	300
V4	1.20	1.00	3.00	1.00	0.42	1.73	4.68	206.40	0.00	404.00	58.24	300
V5	2.96	4.00	5.00	1.00	1.50	-0.37	1.38	44.36	0.00	993.00	758.33	300
V6	1.81	2.00	4.00	1.00	0.74	0.58	2.83	19.43	0.00	608.00	185.81	300
V7	2.59	3.00	4.00	1.00	0.91	-0.41	2.35	15.25	0.00	871.00	275.14	300

The mean represents the average value of the variable across all observations, while the median represents the middle value of the variable when observations are arranged in ascending order. For example, in the case of variable V1 (Age), the mean is 2.57, indicating the average age of the participants, while the median is 2.00, suggesting that half of the participants have an age of 2 or below. The maximum and minimum values denote the highest and lowest values of the variable observed among the participants. For instance, for variable V1 (Age), the maximum value is 6.00, indicating the highest reported age among the participants, while the minimum value is 2.00, representing the lowest reported age.

The standard deviation measures the dispersion or spread of values around the mean. A higher standard deviation indicates greater variability in the data. For example, in the case of variable V1 (Age), the standard deviation is 1.10, suggesting that ages vary by approximately 1.10 units around the mean age of 2.57. Skewness measures the asymmetry of the distribution of values. A positive skewness indicates that the distribution is skewed to the right, while a negative skewness indicates a leftward skew. Kurtosis measures the peakedness or flatness of the distribution compared to a normal distribution. Positive kurtosis indicates a sharper peak, while negative kurtosis indicates a flatter distribution. For example, in variable V1 (Age), the skewness is 1.82 (indicating a slight positive skew) and the kurtosis is 5.10 (indicating a relatively peaked distribution).

The Jarque-Bera statistic tests the null hypothesis that the data follows a normal distribution based on skewness and kurtosis. A higher Jarque-Bera statistic and a lower probability value suggest deviation from normality. In this table, the Jarque-Bera statistic is provided along with the probability value. The sum represents the total value of the variable across all observations, while the sum of squared deviations measures the total squared deviation of each observation from the mean. These values provide overall summaries of the data distribution. This indicates the total number of observations or participants in the dataset. By examining these descriptive statistics for each variable, researchers can gain insights into the distribution, central tendency, variability, and shape of the data, facilitating further analysis and interpretation.

Table 3: Correlation coefficient of Variables demographic variables and behavioral biases.

Correlation	V7	V1	V2	V3	V4	V5	V6
V7	1.00						
V1	0.11**	1.00					
V2	0.09**	0.42*	1.00				
V3	-0.04	0.29*	0.29*	1.00			
V4	0.16*	-0.145*	0.126*	0.146*	1.000		
V5	-0.05	-0.19*	-0.03	0.07	0.19*	1.00	
V6	0.34*	0.02	0.17*	0.10**	-0.16*	-0.05	1.00

Note: * indicates 1% level of significance, ** indicates 5% level of significance.

Table 3 displays the correlation coefficients between demographic variables (V1 to V6) and behavioral biases (V7) among professional investors in the Indian financial market. Each cell in the table represents the strength and direction of the linear relationship between two variables, ranging from -1 to 1.

Perfect positive correlation (1.00) is observed on the diagonal between each variable and itself, as expected. Positive correlation coefficients (0 to 1.00) suggest that as one variable increases, the other tends to increase as well, though not necessarily in a perfect linear relationship. For example, there's a moderate positive correlation between age (V1) and gender (V2) with a coefficient of 0.42*, indicating that older investors may have a slightly different gender distribution compared to younger investors. Conversely, negative correlation coefficients (-1.00 to 0) indicate an inverse relationship between variables, where an increase in one variable

is associated with a decrease in the other. For instance, there's a negative correlation between behavioral biases (V7) and occupation (V5) with a coefficient of -0.19^* , suggesting that certain occupational roles may be associated with lower levels of behavioral biases among investors.

Additionally, statistical significance is denoted by asterisks (*), with two asterisks (**) indicating significance at the 5% level and one asterisk (*) indicating significance at the 1% level. This signifies the reliability of the observed correlations. Overall, Table 3 provides valuable insights into the relationships between demographic variables and behavioral biases among professional investors in the Indian financial market, aiding researchers in understanding potential associations and patterns in the data.

Table 4: Regression Analysis of demographic variables and behavioral biases.

Dependent Variable: V7		Variable:		
Included observations: 300				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.66	0.094265	7.043063	0.00
V1	0.25	0.045361	5.447477	0.00
V2	0.10	0.052048	1.996656	0.05
V3	-0.07	0.011927	-5.909648	0.00
V4	0.00	0.027331	-0.082604	0.03
V5	0.00	0.000572	-0.905449	0.07
V6	-0.08	0.014626	-5.162676	0.00
R-squared	0.76	Mean dependent var		0.77
Adjusted R-squared	0.75	S.D. dependent var		0.42
S.E. of regression	0.34	Akaike info criterion		0.70
Sum squared resid	50.63	Schwarz criterion		0.79
Log likelihood	-147.13	Hannan-Quinn criter.		0.74
F-statistic	27.69	Durbin-Watson stat		1.87
Prob(F-statistic)	0.00			

Table 4 presents the results of a regression analysis investigating the relationship between demographic variables (V1 to V6) and behavioral biases (V7) among professional investors in the Indian financial market. The analysis aims to discern how changes in demographic factors influence the manifestation of behavioral biases.

Each row in the table corresponds to a demographic variable, including age (V1), gender (V2), education (V3), marital status (V4), occupation (V5), and experience (V6). The coefficients associated with these variables indicate the estimated impact of a one-unit change in each demographic variable on behavioral biases. For instance, a coefficient of 0.25 for age (V1) suggests that for every one-unit increase in age, behavioral biases increase by 0.25 units, all else being equal. The standard error, t-statistic, and probability (Prob.) values assess the precision and significance of the coefficients. Lower probability values (< 0.05) indicate statistically significant coefficients. For example, age (V1) and education (V3) have highly significant coefficients (Prob. = 0.00), suggesting that these variables significantly influence behavioral biases.

The R-squared value of 0.76 indicates that the regression model explains 76% of the variance in behavioral biases. This suggests that the included demographic variables collectively account for a substantial portion of the variation observed in behavioral biases among professional investors. Table 4 provides valuable insights into the relationship between demographic variables and behavioral biases, contributing to a better understanding of the factors driving biased decision-making among investors in the Indian financial market. The study's findings support formulated hypotheses, affirming that demographic variables significantly influence behavioral biases among Indian professional investors. Older age, gender differences, higher education levels, marital status, occupational roles, and experience in the financial market were identified as key factors shaping bias tendencies. These insights underscore the importance of considering demographic factors in understanding and addressing biases, offering valuable implications for financial institutions and policymakers to enhance investor awareness and decision-making effectiveness. Overall, the study provides a structured framework for interpreting results, highlighting the nuanced relationship between demographics and biases in investment behavior.

CONCLUSION

This study clarifies the complex relationship between behavioral biases and demographic characteristics among professional investors in the Indian financial market. The results validate that bias tendencies are highly influenced by age, gender, education, marital status, occupation, and experience. Biases are more common in older, male, and less educated investors, and they are greatly influenced by factors such as experience, occupation, and marital status while making decisions. These findings highlight the necessity of specialized treatments as well as training programs in order to reduce biases and enhance investment results. Financial institutions and governments may improve investor awareness and cultivate a more robust financial ecosystem in India by tackling demographic concerns.

To improve investment practices and expand understanding, future research could examine the following areas: the role of technology integration, the nuances of behavioral finance in emerging markets, cross-cultural comparisons between Indian regions and other countries, the effectiveness of intervention programs, and longitudinal studies tracking behavioral biases over time.

REFERENCES

1. Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-292.
2. Thaler, R. H. (1980). Toward a Positive Theory of Consumer Choice. *Journal of Economic Behavior and Organization*, 1(1), 39-60.
3. Sharma, A., & Mitra, D. (2015). Herding Behavior in Indian Stock Markets: An Empirical Analysis. *Journal of Emerging Market Finance*, 14(2), 235-259.
4. Verma, S., & Chakraborty, I. (2020). Cultural Influences on Investment Decision Making: A Study of Indian Investors. *Vision: The Journal of Business Perspective*, 24(4), 411-424.
5. Nanda, A., & Narayan, P. K. (2021). Impact of Behavioral Finance on Investment Management Strategies: Evidence from Indian Mutual Funds. *Finance Research Letters*, 38, 101654.
6. Securities and Exchange Board of India (SEBI). (2019). SEBI (Investment Advisers) (Amendment) Regulations, 2019.
7. National Institute of Securities Markets (NISM). (2020). Study Material for Certification Examination for Investment Advisers (Level 1).
8. National Stock Exchange of India (NSE). (n.d.). NSE Academy - Investor Education.
9. Barberis, N., & Thaler, R. (2003). A Survey of Behavioral Finance. *Handbook of the Economics of Finance*, 1(1), 1053-1128.
10. De Bondt, W. F., & Thaler, R. H. (1985). Does the Stock Market Overreact? *The Journal of Finance*, 40(3), 793-805.
11. Statman, M. (2017). Behavioral Finance: Finance with Normal People. *European Financial Management*, 23(1), 5-27.
12. Hirshleifer, D. (2001). Investor Psychology and Asset Pricing. *The Journal of Finance*, 56(4), 1533-1597.
13. Shiller, R. J. (2015). *Irrational Exuberance*. *Princeton University Press.
14. Benartzi, S., & Thaler, R. H. (2001). Naive Diversification Strategies in Defined Contribution Saving Plans. *The American Economic Review*, 91(1), 79-98.
15. Lo, A. W. (2005). Reconciling Efficient Markets with Behavioral Finance: The Adaptive Markets Hypothesis. *Journal of Investment Consulting*, 7(2), 21-44.
16. Anginer, D., & Yildizhan, C. (2010). Is There a Distress Risk Anomaly? Pricing of Systematic Default Risk in the Cross Section of Equity Returns. *Journal of Banking & Finance*, 34(4), 876-887.
17. Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). Investor Psychology and Security Market Under- and Overreactions. *The Journal of Finance*, 53(6), 1839-1885.
18. Ahmed, F., Siddiqui, M., Khan, M. Q. A., & Lakho, A. (2023). A Qualitative Study of Behavioral Biases Among Pakistani Investor Decisions. *Bulletin of Business and Economics (BBE)*, 12(4), 1-5. <https://doi.org/10.61506/01.00066>
19. Almansour, B. Y., Elkrggli, S., & Almansour, A. Y. (2023). Behavioral finance factors and investment decisions: A mediating role of risk perception. In *Cogent Economics and Finance* (Vol. 11, Issue 2). Cogent OA. <https://doi.org/10.1080/23322039.2023.2239032>
20. Baccar, A., Ezzeddine, B. M., & Bouri, A. (2016). MANAGERIAL PSYCHOLOGY AND CORPORATE INVESTMENT RATIONALITY. *Source: Savings and Development*, 40(1), 51-73. <https://doi.org/10.2307/90002019>
21. Bassen, A., Gödker, K., Lüdeke-Freund, F., & Oll, J. (2019). Climate Information in Retail Investors' Decision-Making. *Environment*, 32(1), 62-82. <https://doi.org/10.2307/26614746>
22. Bosman, R., & van Winden, F. (2010). Global Risk, Investment and Emotions. In *New Series* (Vol. 77, Issue 307).
23. Campbell, J. Y. (2016). Restoring rational choice: The challenge of consumer financial regulation. *American Economic Review*, 106(5), 1-30. <https://doi.org/10.1257/aer.p20161127>
24. Donu, V., & Janičko, M. (2018). DO INSTITUTIONS STILL MATTER FOR INVESTORS? IMPACT OF INSTITUTIONAL DETERMINANTS ON INVESTMENT INFLOWS INTO EUROPEAN ECONOMIES. 68(2), 245-270. <https://doi.org/10.2307/90022225>
25. Dungarwal, H., & Tollawala, N. (2022). A Study on Impact of Behavioral Biases on Investment Decision. In *International Journal of Research Publication and Reviews Journal homepage: www.ijrpr.com* (Vol. 3). www.ijrpr.com
26. Keller, J., & Pastusiak, R. (2016). The psychology of investing: Stock market recommendations and their impact on investors' decisions (The example of the Polish stock market). *Acta Oeconomica*, 66(3), 419-437. <https://doi.org/10.1556/032.2016.66.3.3>

27. Khilar, R. P., & Singh, S. (2019). Influence of behavioural biases on investment decision making in Bhubaneswar region. *International Journal of Recent Technology and Engineering*, 8(3), 8297–8301. <https://doi.org/10.35940/ijrte.C6592.098319>
28. Kipsaat, E. K., & Olweny, T. (n.d.). Influence of Behavioral Biases on Professional Investment Decision in Kenya. *IOSR Journal of Economics and Finance*, 11(6), 15–40. <https://doi.org/10.9790/5933-1106011540>
29. Kubińska, E., Czupryna, M., Markiewicz, Ł., & Czekaj, J. (2016). Technical Analysis as a Rational Tool of Decision Making for Professional Traders. *Emerging Markets Finance and Trade*, 52(12), 2756–2771. <https://doi.org/10.2307/26753097>
30. Kumar, A., Mohapatra, D., & Samal, A. (2020). Impact of behavioral biases on investment decisions: A study on selected risk seeking investors in india. In *Article in International Journal of Advanced Science and Technology*. <https://www.researchgate.net/publication/344152520>
31. Lian, C., Ma, Y., & Wang, C. (2019). Source: *The Review of Financial Studies*. 32(6), 2107–2148. <https://doi.org/10.2307/48615664>
32. Lowies, G. A., Hall, J. H., & Cloete, C. E. (2015). The Role of Market Fundamentals versus Market Sentiment in Property Investment Decision-Making in South Africa. In *Source: Journal of Real Estate Literature (Vol. 23, Issue 2)*.
33. Madaan, G., & Singh, S. (2019a). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research*, 10(4), 55–67. <https://doi.org/10.5430/ijfr.v10n4p55>
34. Madaan, G., & Singh, S. (2019b). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research*, 10(4), 55–67. <https://doi.org/10.5430/ijfr.v10n4p55>
35. Madaan, G., & Singh, S. (2019c). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research*, 10(4), 55–67. <https://doi.org/10.5430/ijfr.v10n4p55>
36. Madaan, G., & Singh, S. (2019d). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research*, 10(4), 55–67. <https://doi.org/10.5430/ijfr.v10n4p55>
37. Raines, J., & Leathers, C. (2011). Behavioral finance and Post Keynesian-institutionalist theories of financial markets. *Journal of Post Keynesian Economics*, 33(4), 539–554. <https://doi.org/10.2753/PKE0160-3477330401>
38. Reddy, K. S., & Mahapatra, M. S. (2017). RISK TOLERANCE, PERSONAL FINANCIAL KNOWLEDGE AND DEMOGRAPHIC CHARACTERISTICS- EVIDENCE FROM INDIA. *Source: The Journal of Developing Areas*, 51(3), 51–62. <https://doi.org/10.2307/26416932>
39. Satramani, H., & Rupani, M. (2020). Study of Behavioural Biases and its impact on investment decisions: A Structured Review of Literature. In *Peer-Reviewed, Refereed, Indexed Journal with IC (Vol. 87, Issue 6)*.
40. Shukla Research Scholar, A., Abdul, A., Jamal Rushdi Professor, N., & Chandra Katiyar, R. (2020a). IMPACT OF BEHAVIORAL BIASES ON INVESTMENT DECISIONS “A SYSTEMATIC REVIEW.” *International Journal of Management (IJM)*, 11(4), 68–76. <http://iaeme.com/Home/journal/IJM68editor@iaeme.comhttp://iaeme.com/Home/issue/IJM?Volume=11&Issue=4JournalImpactFactor>
41. Shukla Research Scholar, A., Abdul, A., Jamal Rushdi Professor, N., & Chandra Katiyar, R. (2020b). IMPACT OF BEHAVIORAL BIASES ON INVESTMENT DECISIONS “A SYSTEMATIC REVIEW.” *International Journal of Management (IJM)*, 11(4), 68–76. <http://iaeme.com/Home/journal/IJM68editor@iaeme.comhttp://iaeme.com/Home/issue/IJM?Volume=11&Issue=4JournalImpactFactor>
42. Singh, P. (2018). Article ID: IJMET_09_06_036 Decision Making: an Empirical Study. *International Journal of Mechanical Engineering and Technology (IJMET)*, 9(6), 312–318. <http://www.iaeme.com/IJMET/index.asp312http://www.iaeme.com/ijmet/issues.asp?JType=IJMET&VType=9&ITType=6http://www.iaeme.com/IJMET/index.asp313http://www.iaeme.com/IJMET/issues.asp?JType=IJMET&VType=9&ITType=6>
43. Tupe, V. A., & Lokhande, M. A. (1057a). A STUDY OF IMPACT OF BEHAVIOURAL BIASES ON INVESTOR’S INVESTMENT DECISION. In *International Research Journal of Modernization in Engineering Technology and Science www.irjmets.com @International Research Journal of Modernization in Engineering. www.irjmets.com*
44. Tupe, V. A., & Lokhande, M. A. (1057b). A STUDY OF IMPACT OF BEHAVIOURAL BIASES ON INVESTOR’S INVESTMENT DECISION. In *International Research Journal of Modernization in Engineering Technology and Science www.irjmets.com @International Research Journal of Modernization in Engineering. www.irjmets.com*
45. Ullah, S., Elahi, M. A., Ullah, A., Pinglu, C., & Subhani, B. H. (2020). Behavioral biases in investment decision making and moderating role of investor’s type. *Intellectual Economics*, 14(2), 87–105. <https://doi.org/10.13165/IE-20-14-2-06>
46. Wang, Y. (2023). Behavioral Biases in Investment Decision-Making. *Advances in Economics, Management and Political Sciences*, 46(1), 140–146. <https://doi.org/10.54254/2754-1169/46/20230330>
47. Weixiang, S., Qamruzzaman, M., Rui, W., & Kler, R. (2022). An empirical assessment of financial literacy and behavioral biases on investment decision: Fresh evidence from small investor perception. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.977444>