

HOW COGNITIVE TRAPS SHAPE INVESTOR CHOICES: A CASE STUDY FROM THE PAKISTAN STOCK EXCHANGE INVESTORS.

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Abstract

Classical financial theories deal with investor rationality, but over time it has become clear that investors are not always rational and make decisions based on behavior, which can lead to financial losses. Therefore, in this study, we have investigated the impact of different behavioral biases, such as overconfidence, herding, loss aversion, and risk perception, on individual investors who invest in the stock exchange of Pakistan. For this purpose, convenience and snowball sampling techniques have been used to collect data from stock exchange investors via structured, adapted questionnaires. On this basis, we have collected data from 370 stock investors and investigated the influence of behavioral biases on the investment decision-making of individual stock exchange investors in Pakistan using a multiple linear regression model in SPSS, in which we have found that these behavioral biases (overconfidence, herding, loss aversion, and risk perception) have a significant influence on the investment decision-making of individual stock exchange investors in Pakistan. Further, it has given directions to new researchers to investigate new biases in investment decision-making with hierarchical or second-order models.

INTRODUCTION

In recent years, many research studies have focused on developing financial theories that guide investors toward a better understanding of the model of rational behavior (Malik, 2026). However, when it comes to stock exchange investments or financial markets, investors typically trade off risk and return in all types of financial decisions. Some financial theories argue that investors are rational and careful when making investment decisions. They are well aware of two of the main theories that play an important role: the Capital Asset Pricing Model (CAPM) and Modern Portfolio Theory, which also suggest that

investors are rational and not influenced by other behavioral factors because they are well-informed investors (Vidal, 2026). However, many financial theories globally claim that many of the phenomena of stock investments are not explained in a usual way. On the other hand, behavioral finance offers a new direction, suggesting that investors are not always well aware and rational, as claimed by the different finance theories given.

The domain of behavioral finance explores how individual investors are influenced by their behaviors and how these behaviors impact their decision-making in the stock exchange (Koilyenda,

2026). This study aims to identify the behavioral factors that affect individual investors' decisions and to propose ways to mitigate these influences for improved investment outcomes in the Pakistan stock exchange. Previous research has highlighted several key factors that significantly impact investment decision-making, including overconfidence, risk perception, herding behavior, and loss aversion.

When making investment decisions in the capital market, investors typically aim to maximize their wealth, often considering the timing of their investments. On the other hand, some investors are risk-averse, preferring to invest in stocks with minimal risk. Conversely, others are inclined to take higher risks in pursuit of greater returns, often with some level of diversification to reduce the inherent risks of the stock market. This highlights the importance of investigating how these factors influence the investment decisions of individual investors in the Pakistan stock exchange.

Statement of the problem

When discussing conventional theories of finance, we typically focus on the rationality of individual investors as explained by the Capital Asset Pricing Model (CAPM) and Modern Portfolio Theory. These frameworks assume that investors act rationally, making decisions based on the

information provided by reality. In contrast, behavioral finance theory presents a different perspective, suggesting that individual investors do not always make decisions rationally. Instead, they are often influenced by various behavioral factors, which can lead to irrational decision-making in the Pakistan stock exchange. This highlights the significant role of behavioral finance in identifying the factors that affect investors' decision-making processes and how understanding these influences can lead to better outcomes. That's why we have to investigate the effect of overconfidence, loss aversion, risk perception, and herding on the investment decision-making of individual investors in the stock exchange.

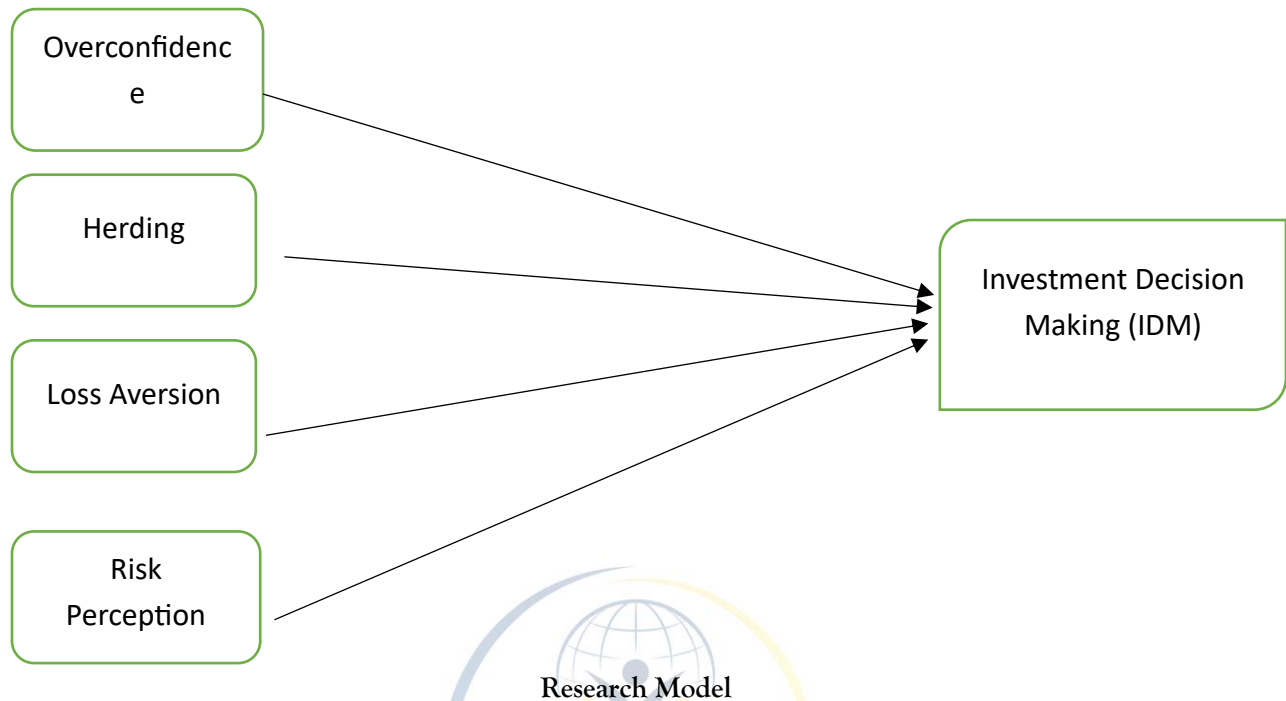
Hypotheses of the Research

H1: There is no significant effect of overconfidence on investment decision-making in individual stock exchange investors.

H2: There is no significant effect of herding on investment decision-making in individual stock exchange investors.

H3: There is no significant effect of Loss Aversion on investment decision-making in individual stock exchange investors.

H4: There is no significant effect of risk perception on investment decision-making in individual stock exchange investors.



THEORETICAL LITERATURE REVIEW

Behavioral Finance

Behavioral finance explores the psychological factors that influence investor behavior, providing insights into the inefficiencies present in the market (Tversky, 1972). This theory was pioneered by Kahneman and Tversky, who found that individual investors often forgo statistical methods when making investment decisions. Instead, they tend to rely on limited heuristics to guide their decision-making processes. Kahneman and Tversky are recognized as the founders of behavioral finance, having authored over 200 research papers and articles related to this field. (Bihari, 2022) argues that behavioral finance is closely linked to stock exchange investments, particularly concerning buying and selling concepts. According to other researchers, the behavior of individual investors is primarily driven by financial factors, which are essential for understanding their investment decisions on the stock exchange. These factors contribute to their behavior and cognitive biases.

FRAMEWORK

(Albert, 2023) emphasizes that several key factors impact the decision-making processes of individual investors in the realm of behavioral finance. Appiah examines how investors behave and how practitioners act when presented with various financial information, which subsequently affects the market. (Kanapickienė, 2024) introduces new dimensions to understanding how behavioral factors impact individual investors' decision-making processes.

(Sumantri, 2024) investigate investor behavior and the behavioral biases that can lead to market volatility. In the stock market, numerous factors—such as economic conditions, political influences, policy changes, and investor behavior—contribute to market volatility. During periods of volatility, investors must maintain control over their decisions to avoid choices that could lead to financial losses.

When market volatility occurs, many investors may panic-sell, resulting in significant financial losses (Bawalle, 2025). Investors need to make informed decisions during these turbulent times, rather than acting on emotion. Due to this factor,

there is a need to be aware of investors regarding their behavior, which leads them towards financial losses; that is why in this study we have focused on investigating the behavior factors that affect investors' decision-making in the investment of the stock exchange.

Overconfidence

Overconfidence bias relates to the tendency of investors' beliefs that their decision-making is better than others', even though their performance might be above average at best Nevins (2004)

It has been argued in his study that behavioral biases play a significant role in the factors influencing in the decision making of the investments in which overconfidence has so much importance for decision making process his study the literature of the different studies to find the impact of the overconfidence on investment decision making for this study thoroughly scrutinizes and consolidates the current research on overconfidence bias. To achieve the objective, this study performs a systematic review of literature utilizing the PRISMA approach and examines 92 journal articles published in the last 20 years. Researchers have found that overconfidence influences the process of decision-making of individuals. In the field of psychology, the finding of research is that most of the people make their decisions due to their overconfidence De Bondt, (1995). The overconfidence in CEOs leads to merger creation(Malmendier, (2008). The overconfidence arises in investors due to over placement, over precision, and overestimation of their abilities.

When investors consider themselves more skillful compared to others in the investment domain, they become overconfident and make excessive investments Odean, (1998). The studies illustrate that investors are overconfident when they overestimate their abilities and ignore the risk factor. Knight Durham, (2001) states that people who think that they are better decision makers are overconfident and take high risks. As risk is

uncertainty and uncertainty is probability, but all risks are uncertainties.

Herding

Fernandez, (2011)Argue that herding is one of the behavioral biases that has a non-rational attitude in the money market, which relates to the nonprofessional individual investor, whether they follow the herd behavior or not. Series, (2007) When an individual investor decides to copy other investors' behavior and not consider their own information that they have from the market, including their beliefs.

Individual investors' decision-making in the stock market is affected by the other investors, because they are thinking that these investors are more superior from them because they are more experienced. On that basis, their information is reliable in this situation; individual investors ignore their own information and beliefs.

Poshakwale, (2014) A study has been conducted regarding the presence of herding in individual investors and concluded that herding behavior of the herding is present in individual investors in bullish and bearish tendencies.

Loss aversion

Loss aversion is associated with the disposition effect; it inclined investor which cause to sell their stock and assets that have gained in value while they are holding that asset and stock which are losing value J. Montier, (2010). Investors are more afraid of losing the value of their investment compared to gaining on it Banerji, (2020).Investors who are related to this bias tend to make strategies that keep them away from loss instead of getting more benefits in the form of gains because they are more sensitive to loss instead of getting something profitable Barberis, (2016). On the other hand, further studies investigated how investors' age and gender affected their capacity to take risks, as well as how regret and loss aversion affected their choice of investments. According to the study, investors' age, gender, and risk-taking capacity are all

influenced by regret and loss aversion, which act as an intermediary variable.

Hwang and Satchell, (2010) Investigated the presence of behavioral bias of loss aversion in the financial markets of the United States and the United Kingdom. The findings demonstrated that investors who engage in financial markets are significantly impacted by loss aversion, and that investors become more sensitive to loss aversion during bull market periods than

Mbaluka, Muthama, and Kalunda (2012) investigated the impact of the framing effect and loss aversion among investors in the Nairobi Securities Exchange. They discovered that these investors were significantly influenced by both the framing effect and loss aversion. Additionally, they found that investors tended to reverse their decisions based on how problems were presented, showing a greater influence from potential losses than from gains in the market. Further, it has examined the existence and impact of behavioral biases, such as overconfidence and loss aversion, among investors in the Islamabad Stock Exchange.

Risk Perception

Risk perception basically deals with the investors perception in which investors normally think regarding behavior actually they have regarding trading in stocks. Perception is the process by which an individual is in search of preminent clarification of sensory information so that the investor can make a final judgment based on their level of expertise and experience. Risk perception refers to the subjective decision-making process individuals use to assess risk and manage uncertainty. This concept is best approached through an interdisciplinary and multidimensional lens when examining a decision, situation, activity, or event, as noted by Ricciardi (2004).

When individuals evaluate judgments related to financial instruments, their process incorporates both financial risk measurements and behavioral risk indicators (Ricciardi, 2004). Researchers define risk perception as the belief held by an individual, group, or society regarding the likelihood of a risk occurring, as well as its extent, magnitude, and timing of potential effects. From the perspective of behavioral study, it represents how people “see” or “feel” about a potential danger or hazard. Additionally, risk perception serves as a communication tool that can help investors align their understanding with the risks they are willing to accept (Rana et al., 2011).

RESEARCH METHODOLOGY

Investigation purpose of the effect of the behavioral biases on the investment decision making of the investors in stock exchange of Pakistan we have adopted structured questionnaire and share these questionnaire with more than 500 individual investors we get the data from the 479 data form out of 500 but many of them were not proper filled and incomplete data found only 370 data form were filled properly on that basis we have used them only for further investigation in the SPSS data file for multiple liner regression perspective. For the data collection, we have used the convenience and snowball sampling techniques in this study.

In the table, we have found the data of all our variables that are taken in our study with mean and Standard deviation SD respectively of IDM = 3.959 (SD=.8105), Herd = 3.641 (SD=.6568), Over = 4.162 (SD=.6296), Loss Aversion LV= 3.989 (SD= .7928), and Risk perception (RP) = 3.939 (SD= .8872).

Descriptive Statistics

Variables	Mean	Std. Deviation	N
IDM	3.959	.8105	370

HERD	3.641	.6568	370
OVER	4.162	.6296	370
LA	3.989	.7928	370
RP	3.935	.8872	370

IDM= Investment decision making, HERD= Herding, OVER= Overconfidence, LA= Loss Aversion and RP= Risk Perception

In the model summary table, the multiple correlation coefficient ($R = .897$) indicated a strong positive linear relationship between the dependent and predictor variables in this study. Further, the power of the explanation coefficient of determination ($R^2 = .839$) indicates 83.9% model predictive power.

If we look at R in the table of adjusted reliability, we find that the R^2 value is 0.837, indicating a stable model. On that basis, we can say that all the independent variables in this study indicate significant relationships.

Model Summary

Model R	R Square	Adjusted Square	Change Statistics					Sig. Change	F
			R Std. Error of the Estimate	Square Change	F Change	df1	df2		
1	.897 ^a	.839	.837	.3273	.839	474.538	4	365	.000

a. Predictors: (Constant), HERD, OVERC, LA, RP

In the below section of the table where we have found the ANOVA model, we can say that the multiple linear regression model significantly predicted the variable of this study which is investment decision making of the individual

stock exchange investors because the significant value is less than $P = 0.05$ (0.000) so we can say that all the behavioral biases significantly influence the investment decision making of the stock exchange investors.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	203.299	4	50.825	474.538	.000 ^b
	Residual	39.093	365	.107		
	Total	242.392	369			

a. Dependent Variable: IDM

b. Predictors: (Constant), HERD, OVER, LA, RP

CONCLUSIONS

In our study, we have concluded, based on the results presented in the tables above, that behavioral biases significantly impact investment decision-making among individual stock exchange investors in Pakistan. Specifically, we identified overconfidence, herding, loss aversion, and risk perception as key biases affecting these investors. To improve investment outcomes, individual investors at the ASE should maintain a moderate level of overconfidence, allowing them to leverage their skills and knowledge effectively in certain situations. In uncertain environments, overconfidence can be beneficial, enabling investors to tackle challenging tasks and forecast future trends.

Moreover, individual investors are highly influenced by their perceptions. When they form a particular view about stock trading, it often leads them to make decisions that may not be optimal, indicating that perception has a significant effect on their investment choices. Additionally, the study highlights the herding effect, where investors tend to follow the crowd, neglecting fundamental analysis, which also has a noteworthy impact on their decision-making processes.

Lastly, investors show sensitivity to news and exhibit caution when they are risk-averse. This research found that loss aversion plays a substantial role in the decision-making of individual investors at the stock exchange in Pakistan.

Limitation of the study

- The limitation of our study relates to the timing of the data collection; it had a limited time duration to collect the data it had to be a maximum time to work on the data for further analysis.
- There was a limited sample size among individual investors of the stock exchange; it can be diversified.

- Limited access to the investors due to many government policies that deal with the many individual investors; they were worried about the data given for the analysis.

RECOMMENDATIONS

- Moderated behaviors of the investors found with overconfidence, herding, loss aversion, and risk perception
- Overconfident investors have more capability to invest, but it needs to be mitigated, and it can be applied better for decision-making while investing in the stock exchange of Pakistan with consideration of its behaviors.
- There are many behavioral biases present that can be further integrated and taken with the type of investors to evaluate their effect on the investment decision-making, and after their findings it can also be, further directions can be given for mitigation of their effects on the decision-making of the investors in the stock exchange.
- Loss aversion of the investors is normally worried to decide making investment decisions due to their past loss experience; it can be mitigated with awareness and a fundamental basis of the stocks.
- Investors normally follow others to invest without knowing the fundamental analysis of the stocks; it can be further evaluated with the connectivity of financial literacy as a moderating variable.

Future Research

- Different demographic factors for the study of investors' behaviors can be taken for the future direction of the study.
- Mental Accounting, Fear of missing out (FOMO), Extraversion, Anchoring, confirmation bias, and many other behavioral biases could be part of a hierarchical model to investigate their

effect on the investment decision-making of individual investors.

- Financial literacy, information asymmetry, and type of investors can be taken as moderating variables of the study.
- Different types of sectors, like real estate and cryptocurrency investors, can be a part of future research.

REFERENCES

- Ahmad. (2021). The Roles of Mangroves in Sustainable Tourism Development. *Qualitative Research Financials*, https://doi.org/10.1007/978-981-16-2494-0_17.
- Ahmad, Y. (2020). THE INFLUENCE OF AUTHENTICITY AND BRAND ON THE PRICE AND CONSUMER SATISFACTION OF PANDANWANGI CIANJUR RICE. *AGRITA JOURNAL*, 2(2), 60–75., <https://doi.org/10.35194/agri.v2i2.1170>.
- Albert. (2023). INVESTIGATING STUDENTS' BEHAVIORAL BIASES REGARDING FINANCIAL DECISION-MAKING. *Studia Universitatis Babes Bolyai-Oeconomica*, .
- Ansari. (2022). How financial literacy moderate the association between behaviour biases and investment decision? *Asian Journal of Accounting Research*, <https://doi.org/10.1108/AJAR-09-2020-0086>.
- Antony. (2017). Influence of Behavioural Factors Affecting Investment Decision—An AHP Analysis. *A journal of management reserach*, <https://doi.org/10.1177/0972622517738833>.
- Arora. (2015). Self-esteem as determinant of investors' stock market participation: Mediating role of risk preferences and behavioral biases. *Psychologia: an international journal of psychology in the Orient*, 10.2117/psysoc.2015.115.
- Asif. (2026). Psychological drivers of investment decision making: A multi bias analysis of an emerging market's retail investors. *Contemporary Journal of Social Science Review*, 4(2), 677-688.
- Ates. (2016). Impact of financial literacy on the behavioral biases of individual stock investors: Evidence from Borsa Istanbul. . *Business and Economics Research Journal*, 7(3), 1. <https://doi.org/10.20409/berj.2016321805>.
- Bakar. (2016). The Impact of Psychological Factors on Investors' Decision Making in Malaysian Stock Market: A Case of Klang Valley and Pahang☆. *Procedia Economics and Finance*, [https://doi.org/10.1016/S2212-5671\(16\)00040-X](https://doi.org/10.1016/S2212-5671(16)00040-X).
- Baker. (2013). Portfolio theory and management. . Oxford University Press.
- Banerji. (2020). An empirical investigation into the influence of behavioral biases on investment behavior. *SCMS Journal of Indian Management*, 17 (1), 81-98.
- Bashir. (2024). Investor sentiment and stock price crash risk: The mediating role of analyst herding. *Computers in Human Behavior Reports*, <https://doi.org/10.1016/j.chbr.2024.100371>.
- Bawalle, A. A. (2025). Overconfidence, financial literacy, and panic selling: Evidence from Japan. *PLoS One*, 20(3), e0315622.
- Bell. (2022). *Business research methods*. Oxford University Press.
- Bhalla. (2015). Standardized vs unstandardized regression coefficient. <https://www.listendata.com/2015/04...>
- Bhandari. (2006). The Demographics of Overconfidence. *Journal of Behavioral Finance*, https://doi.org/10.1207/s15427579jpfm0701_2.

- Bihari. (2022). Exploring behavioural bias affecting investment decision-making: a network cluster-based conceptual analysis for future research. *International Journal of Industrial Engineering*.
- Bondt. (2013). Behavioral decision-making in finance: An overview and assessment of selected research. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad*, 42(157), 99–118.,
<https://doi.org/10.1080/02102412.2013.10779742>.
- Chaudhary. (2025). Heuristic bias and investment decision: Expl decision: Exploring the media the mediating role ting role of invest of investors' risk perceptions. *Investment Management and Financial Innovations*, Volume 22, Issue 1, .
- Clarke. (2014). Institutional herding and asset price: the role of information. . *Rotman School of Management Working Paper*, (1707868).
- Daniel. (2002). Investor Psychology and Security Market Under- and Overreactions. *The journal of finance*,
<https://doi.org/10.1111/0022-1082.00077>.
- Feng. (2004). Correlated Trading and Location. *The Journal of Finance*, 59: 2117-2144.
- Fogel. (2006). The disposition effect and individual investor decisions: the roles of regret and counterfactual alternatives . *The journal of behavioral finance*, 107-116.
- Gaur. (2019). How financial literacy and demographic variables relate to behavioral biases . *Managerial Finance*,
<https://doi.org/10.1108/MF-01-2018-000>.
- Gavrilakis, N. (2021). The impact of heuristic and herding biases on portfolio construction and performance: the case of Greece. *Review of Behavioral Finance*,
<https://doi.org/10.1108/RBF-11-2020-0295>.
- Gigerenzer, G. (2011). Heuristic Decision Making. *Annual Review of Psychology* ,
<https://doi.org/10.1146/annurev-psych-120709-145346>.
- Hunjra. (2017). Psychological Factors and Investment Decision Making: A Confirmatory Factor Analysis.
https://www.researchgate.net/publication/314284307_Psychological_Factors_and_Investment_Decision_Making_A_Confirmatory_Factor_Analysis.
- Iqbal. (2026). *The test of scale*. <https://jsil.com/wp-content/uploads/2026/01/JSIL-Investment-Outlook-2026.pdf>: JS INVESTMENTS .
- Isbanah. (2018). Pengaruh financial literacy, illusion of control, overconfidence, risk tolerance, dan risk perception terhadap keputusan investasi pada mahasiswa di Kota Surabaya. *Jurnal Ilmu Manajemen (JIM)*, 6(4).
- Kahneman, A. T. (1974). Judgment under Uncertainty: Heuristics and Biases. *American Association for the Advancement of Science*.
- Kanapickienė. (2024). . A comprehensive review of behavioral biases in financial decision-making: from classical finance to behavioral finance perspectives. *Journal of Business Economics and Management*, 25(5), 1006-1029.
- Kasoga. (2021). Heuristic biases and investment decisions: multiple mediation mechanisms of risk tolerance and financial literacy—a survey at the Tanzania stock market. *Journal of Money and Business*.
- Khan. (2024). Impact of Financial Knowledge and Investor's Personality Traits on Investment Intention: Role of Attitude and Financial Self Efficacy. *FWU Journal of Social Sciences*, Pages: 120 - 134.

- Khan. (2021). The impact of heuristic biases on investors' investment decision in Pakistan stock market: moderating role of long term orientation. *Qualitative Research in Financial Markets*, <https://doi.org/10.1108/QRFM-03-2020-0028>.
- Klapper. (2013). Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking & Finance*, 10.1016/j.jbankfin.2013.07.014.
- Koilyenda. (2026). The influence of behavioural finance biases on individual investment decisions: Evidence from the Dar es Salaam stock exchange, Tanzania. *Science Mundi*, 6(1), 96-107.
- Kumar, S. (2016). Evidence on rationality and behavioural biases in investment decision making. *Qualitative Research in Financial Markets*, <https://doi.org/10.1108/QRFM-05-2016-0016>.
- Lin. (2011). Elucidating rational investment decisions and behavioral biases: Evidence from the Taiwanese stock market. *African Journal of Business Management*, 5(5), 1630.
- Mahmood. (2018). Heuristic biases in investment decision-making and perceived market efficiency. *Qualitative Research in Financial Markets*, <https://doi.org/10.1108/QRFM-04-2017-0033>.
- Malik. (2026). Behavioural biases and investment decisions with mediating role of risk perception and moderating role of financial literacy. *Discover Psychology*.
- Malik. (2026). Behavioural biases and investment decisions with mediating role of risk perception and moderating role of financial literacy. *Discov Psychol*, 6, 122 (2026). <https://doi.org/10.1007/s44202-026-00669-9>.
- Metawa. (2019). "Impact of behavioral factors on investors' financial decisions: case of the Egyptian stock market". *International Journal of Islamic and Middle Eastern Finance and Management*, <https://doi.org/10.1108/IMEFM-12-2017-0333>.
- Montier. (2022). Applied behavioural finance: Insights into irrational minds and market. *Unpublished manuscript*.
- Moore. (2012). *Judgment in Managerial Decision Making, 8th Edition*. ISBN: 978-1-118-06570-9.
- Mushinada. (2019). Elucidating investors rationality and behavioural biases in Indian stock market. *Emerald Group Publishing Limited*, vol. 11(2), pages 201-219, June.
- Noctor. (1992). Financial Literacy, a report prepared for the National Westminster Bank. *National Foundation for Educational Research, London*.
- Palm. (2021). Anchor effects in appraisals: do information and theoretical knowledge matter?. *Journal of European Real Estate Research*, 14(2), 246-260.
- Pompian. (2007). Behavioral Finance and Wealth Management - How to Build Optimal Portfolios That Account for Investor Biases. *Financial Markets and Portfolio Management*, Volume 21, pages 491-492.
- Prosad. (2015). Behavioral biases of Indian investors: a survey of Delhi-NCR region. *Qualitative Research in Financial Markets*, DOI: 10.1108/QRFM-04-2014-0012.
- Quaicoe. (2021). Behavioral factors affecting investment decision-making in bank stocks on the Ghana stock exchange. *Qualitative Research in Financial Markets*, <https://doi.org/10.1108/QRFM-05-2020-0084>.

- Rasool, N. (2020). Financial literacy and behavioural biases of individual investors: empirical evidence of Pakistan stock exchange. *Journal of Economics, Finance and Administrative Science*, <https://doi.org/10.1108/JEFAS-03-2019-0031>.
- Sahi. (2013). An Exploratory Inquiry into the Psychological Biases in Financial Investment Behavior. *Journal of Behavioral Finance*, <https://doi.org/10.1080/15427560.2013.790387>.
- Shabarisha. (2015). Heuristic and Biases Related to Financial Investment and the Role of Behavioral Finance in Investment Decisions - A Study. *ZENITH International Journal of Business Economics & Management Research*, ISSN 2249- 8826, ZIJBEMR,.
- Shefrin. (2001). Behavioral Corporate Finance. *Journal of Applied Corporate Finance*, 14, 113-126.
- Shefrin. (2005). BEHAVIORAL CORPORATE FINANCE. *Journal of Applied Corporate Finance*, <https://doi.org/10.1111/j.1745-6622.2001.tb00443.x>.
- Shobha. (2017). Psychological Factors Contributing to the Financial Well-Being of an Individual : A Review of Empirical Literature. *Indian journal of finance*, <https://doi.org/10.17010/ijf/2017/v11i10/118775>.
- Shukla. (2020). CONCEPT OF POPULATION AND SAMPLE.
- Simon. (1955). A Behavioral Model of Rational Choice. *The Quarterly Journal of Economics*.
- Son, J. (2018). Effects of financial education on sound personal finance in Korea: Conceptualization of mediation effects of financial literacy across income classes†. *International journal of consumer studies*, <https://doi.org/10.1111/ijcs.12486>.
- Sumantri. (2024). Effect of representativeness bias, availability bias and anchoring bias on investment decisions. *Economics and Business Quarterly Reviews*, 7(2).
- Tversky, K. a. (1972). Revisiting representativeness heuristic classic paradigms: Replication and extensions of nine experiments in Kahneman and Tversky. *Quarterly Journal of Experimental Psychology*, 78(4), 707-73.
- Venturing, J. o. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Lowell W. Busenitz*, [https://doi.org/10.1016/S0883-9026\(96\)00003-1](https://doi.org/10.1016/S0883-9026(96)00003-1).
- Vidal. (2026). A review of capital asset pricing models in emerging markets.
- Wanyana. (2012). Investor awareness, perceived risk attitudes, and stock market investor behaviour. *Makerere University, Kampala.*, <http://hdl.handle.net/10570/3801>.
- Yoong. (2013). Improving financial education effectiveness through behavioural economics: OECD key findings and way forward. *OECD Publishing*, OECD Publishing, 1, 1926-1982.