SYSTEMATIC REVIEW

Behavioral Finance in the sphere of investment: Systematic Review of Literature between 2020 and 2025

[version 1; peer review: 2 approved with reservations]

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Abstract

Background

Behavioral finance is a growing field that explores how cognitive biases and psychological factors—such as emotions, heuristics, and social influence—affect financial decision-making. This paper investigates how behavioral biases have evolved and influenced investment behavior in light of recent technological and market developments.

Methods

A Systematic Literature Review (SLR) was conducted, focusing on peer-reviewed publications from 2020 to 2025. A total of 30 studies were analyzed, selected from databases such as Scopus, ScienceDirect, and Emerald using criteria including relevance, recency, and empirical focus. The selected literature was categorized based on psychological biases, methodological approaches, and emerging themes in investor behavior.

Results

The findings highlight that traditional biases such as overconfidence, herding, anchoring, and loss aversion continue to dominate investment behavior. Moreover, the review identifies automation bias—a newer bias arising from investor over-reliance on AI and fintech platforms. Studies show that technological innovation, the COVID-19 pandemic, and rising retail investor activity have intensified behavioral distortions.

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Any reports and responses or comments on the article can be found at the end of the article.

Conclusion

Behavioral finance remains essential for understanding real-world investment behavior. Enhancing financial literacy, incorporating behavioral nudges, and updating regulatory frameworks are critical for mitigating the negative effects of these biases. The study offers a forward-looking perspective on integrating behavioral insights into investment strategies and calls for future research into AI-driven finance, cross-cultural effects, and the role of fintech in shaping investor psychology. This study conducts a Systematic Literature Review (SLR) of research published between 2020 and 2025.

This review identifies key behavioral biases, such as overconfidence, herding, anchoring, and loss aversion, that continue to dominate investor behavior. It also highlights emerging biases, including automation bias, resulting from increased reliance on artificial intelligence (AI) and fintech platforms. This study analyzed 30 peer-reviewed articles using various methodologies, including surveys, experiments, and econometric models.

Keywords
Behavioral finance, financial, decision making, Systematic Literature Review (SLR).

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Background

What is behavioral finance? Behavioral finance is an interdisciplinary field that integrates insights from psychology and cognitive science to explain how emotional and cognitive biases influence financial decision making. Unlike traditional finance theories, like the Efficient Market Hypothesis (EMH) and Modern Portfolio Theory (MPT), which assume that investors are rational decision makers, behavioral finance recognizes that emotions, biases, and heuristics often lead to irrational investment behaviors. When it comes to behavioral finance, it should be noted that Tversky and Kahneman (1974) demonstrated that the decision-making process of individuals in situations of uncertainty is affected by heuristics and cognitive biases. As a result, individuals are not rational, as indicated by traditional financial theories. Kahneman (2011) presented a research device based on the progressive approximation of a problem, where each step is provisional and biases are demonstrated as systematic errors. Investors behave irrationally due to their emotions, biases, and heuristics. This behavior leads to losses and creates problems for investment analysts, portfolio managers, and risk managers.

The expected utility theory was strongly criticized by Kahneman and Tversky (1979), who developed a new prospect theory that describes how individuals choose between alternatives that involve risk. The probabilities of the results are uncertain, and heuristics and biases are considered. It is discussed that individuals are risk averse in situations of gains but risk prone in situations of guaranteed losses. Interestingly, investors are risk-averse when they wish to secure their gains but risk-seeking when they wish to recover their losses. This leads to decisions that deviate from rational traditional models. This contradicts traditional finance theories that are based on the idea that investors always make rational financial decisions. In addition, losses generate a greater emotional impact on people than gains. This theory shows that investors asymmetrically perceive gains and losses. Barberis and Thaler (2003) mentioned that behavioral finance began in the 1980s, when research developed models of financial markets that did not consider rational agents. Shefrin and Statman (1985) presented a tendency for investors to sell "winning" shares or assets much faster than "losing" stocks or assets, which tend to decline in value. Therefore, investors will retain "losing" assets for longer period of time due to their emotions. Although more than 40 years have passed since, Kahneman and Tversky's (1979) prospect theory has been actively discussed in academia. Current articles dealing with prospect theory and new research ideas include Jiao (2017) and Kohsaka et al. (2017).

Behavioral finance is an interdisciplinary field that draws on insights from psychology and cognitive science to better understand how emotional and cognitive biases affect financial decision-making. In contrast to traditional financial theories—such as the Efficient Market Hypothesis (EMH) and Modern Portfolio Theory (MPT), which assume that investors are fully rational actors—behavioral finance acknowledges that human behavior is often influenced by heuristics, emotions, and systematic biases, leading to deviations from rationality. Seminal work by Tversky and Kahneman (1974) revealed that individuals rely on cognitive shortcuts, or heuristics, when making decisions under uncertainty. These heuristics frequently lead to predictable and systematic biases, suggesting that actual investor behavior often diverges from the assumptions of rational choice models. Kahneman (2011) further developed these ideas by demonstrating how problem-solving is guided by a sequence of provisional steps prone to bias, resulting in consistent decision-making errors in financial contexts.

Kahneman and Tversky's (1979) Prospect Theory represents a fundamental challenge to the traditional Expected Utility Theory. It explains how individuals evaluate risk and make choices between uncertain outcomes. Prospect Theory shows that people tend to be risk-averse when dealing with potential gains, but risk-seeking when attempting to avoid losses. This behavior is asymmetrical; losses have a greater psychological impact than equivalent gains—a phenomenon known as loss aversion. Consequently, investors may make suboptimal decisions, such as holding onto losing investments for too long while selling winning assets too quickly. This behavioral pattern was empirically examined by Shefrin and Statman (1985), who documented what is now known as the disposition effect—the tendency of investors to prematurely sell assets that have gained in value, while retaining those that are losing. These decisions are often driven by emotional reactions rather than rational evaluation, complicating the work of portfolio managers, analysts, and risk professionals. Barberis and Thaler (2003) highlighted the emergence of behavioral finance in the 1980s, a period during which models of financial markets began to incorporate the reality of non-rational investor behavior. Despite the passage of several decades, Prospect Theory remains highly influential and continues to inspire research in behavioral economics and finance. More recent contributions, such as those by Jiao (2017) and Kohsaka et al. (2017), expand on these foundations by applying behavioral insights to contemporary market phenomena. In sum, behavioral finance challenges the core assumption of investor rationality in traditional financial theory, providing a more nuanced and empirically grounded understanding of how real-world financial decisions are made.

Irrational investment decisions are influenced by heuristics, which represent a systematic distortion in the information process but can lead to rapid decision-making processes. Heuristics can influence information perception, processing, and decision-making.

Four major biases can be identified that influence investors' decisions:

- **Overconfidence Bias** – investors overestimate their knowledge and predictive abilities, leading to excessive trading and increased risk taking (Shunmugasundaram & Sinha, 2024; Talwar et al., 2021).

- **Herding Behavior** – Investors follow the actions of others rather than conduct independent analysis, often exacerbating market volatility (Talwar et al., 2021).

- **Anchoring Bias**: Investors rely too heavily on the first piece of information they receive when making financial decisions, even if it is irrelevant (Mahmood et al., 2024; Jain et al., 2021).

- **Loss Aversion**: The tendency to avoid losses rather than acquire equivalent gains, which often results in suboptimal investment choices (Jain et al., 2021; Talwar et al., 2021).

Beyond individual biases, behavioral finance has implications for corporate finance, investment strategies, risk management, and policymaking. For example, understanding investor psychology can help financial institutions design better investment products, assist policymakers in crafting effective financial regulations, and enable investors to make informed decisions.

As financial markets evolve owing to globalization, digital finance, and Artificial Intelligence-driven trading, behavioral finance continues to play a critical role in understanding investment behavior. This study builds on the recent literature (2020–2025) to analyze emerging trends and their implications for modern financial markets. This study shapes the view on behavioral finance in the sphere of investment by employing the most recent high-quality papers and adds to the literature by finding new biases such as automation biases. The practical and theoretical implications of studies conducted between 2020 and 2025 are discussed in this study. The current study is important because it discovers new implications, innovations, and biases in the existing literature.

Research gap and contribution

Behavioral finance has been a rapidly evolving field, particularly in the past two decades, as scholars and practitioners have attempted to understand the role of cognitive biases, emotional influences, and psychological factors in the investment decision-making process. Existing studies have extensively examined behavioral biases, such as overconfidence, herding, anchoring, and loss aversion, demonstrating their impact on financial decision-making across different investor demographics and economic contexts. However, a significant gap remains in the understanding of how recent global events, technological advancements, and changing market structures between 2020 and 2025 have influenced investor behavior. There is hardly any research on the period 2020-2025, or no active research was carried out in this period.

Despite the growing body of research, most prior literature reviews have primarily focused on historical perspectives (pre-2020) or examined behavioral finance through a limited regional or sector-specific lens. Few studies have systematically analyzed the latest trends in behavioral finance research, particularly in response to unprecedented financial disruptions, such as the COVID-19 pandemic, the rise of artificial intelligence (AI) in investment strategies, and the increasing role of fintech innovations. A systematic review of literature (SLR) focuses on the results of papers in a particular sphere. In addition, SLR is centered on the critical analysis of existing studies in a particular sphere. Furthermore, while numerous empirical studies exist on individual biases, there is a lack of a comprehensive synthesis exploring the interplay between multiple biases and their cumulative effect on investment decisions.

This study aims to address these gaps by conducting a systematic literature review (SLR) covering the period 2020 to 2025. The focus of this research is on this period, as some studies that used an SLR covered the period up to 2019 and 2020, such as Savitha (2021). By synthesizing the findings from the latest research, this study contributes to the existing body of knowledge in three key ways.

1. **Identifying new trends**: It studies highlights how emerging behavioral biases, such as digital overconfidence and algorithmic bias, shape investment decisions in the modern financial landscape.

2. **Bridging theoretical and practical insights**: It study examines the implications of behavioral finance research on investment strategies, financial literacy programs, and regulatory frameworks.

3. **Predicting future research directions**: By assessing the trajectory of behavioral finance research, this study offers insights into potential areas for future investigation, including the role of big data, behavioral nudging, and AI-driven financial decision-making.

Through this comprehensive review, the study not only consolidates existing findings, but also provides a forward-looking perspective on behavioral finance, ensuring that both researchers and practitioners can navigate the evolving financial landscape more effectively. This study provides a thorough review of the literature for the period 2020–2025 by focusing on behavioral finance in the sphere of investments.

Main aim of the study

The primary objective of this study is to provide an updated and comprehensive review of the recent literature (2020–2025) on behavioral finance, particularly in the context of investment decision-making. As behavioral finance continues to challenge traditional finance theories by incorporating psychological and cognitive biases, this study seeks to bridge the gap between theoretical models and real-world investor behavior.

Specifically, this study aims to:

1. **Identify Key Psychological Factors influencing investment decisions** – By analyzing recent literature, this study explores the most prevalent behavioral biases affecting individual and institutional investors, including overconfidence, herding, anchoring, and emerging biases driven by digital and algorithmic finance.

2. **Evaluate the Practical Implications of Behavioral Finance** – This study assesses how behavioral insights are applied in financial markets, investment strategies, and regulatory policies. It also explores how financial literacy and investor education can mitigate the adverse effects of such biases.

3. **Highlight Research Gaps and Future Directions** – By systematically reviewing the latest studies, this study identifies underexplored areas in behavioral finance, such as the influence of fintech, AI-driven decision-making, and the role of behavioral nudging in investment strategies. This also outlines the potential directions for future research.

Furthermore, this study not only enhances the understanding of behavioral finance, but also provides actionable insights for investors, policymakers, and financial professionals navigating modern financial markets.

Research methodology

This study employs a Systematic Literature Review (SLR) approach to analyze recent research on behavioral finance and its impact on investment decision making. The SLR method ensures a structured and replicable review process, allowing for a comprehensive synthesis of existing studies.

Data collection and selection criteria

The research process involved a structured search across reputable academic databases including Scopus, Emerald Insight, Elsevier, Sage, Wiley, Google Scholar, and ScienceDirect. To ensure the inclusion of high-quality relevant studies, the following inclusion criteria were applied:

- Studies published between 2020 and 2025
- Peer-reviewed journal articles, book chapters, and conference proceedings
- Studies written in English
- Research focusing on the relationship between behavioral finance and investment decisions
- Studies providing empirical, theoretical, or conceptual insights into behavioral finance

To refine the search, key terms were used, such as “behavioral finance,” “investment psychology,” “cognitive biases in finance,” and “decision-making in investment.”

Data analysis and categorization

The selected studies were analyzed and categorized based on key research themes, including:

- Psychological Biases – Overconfidence, herding, anchoring, loss aversion, etc.
- Investor Behavior Trends – Market reactions to crises, fintech and AI-driven investment decisions, and emerging global patterns in behavioral finance.
- The methodologies used in Behavioral Finance Research include surveys, experiments, case studies, and econometric models.

Scope and limitations

This study is global in scope, and does not focus on specific regions or countries. However, they are limited to publicly accessible studies and do not include proprietary or restricted financial reports. Additionally, while the Systematic Literature Review (SLR) method ensures comprehensive coverage, it does not conduct primary data collection and relies solely on secondary sources. The period includes the period from 2020 to 2025.

Results and discussion

The systematic literature review identified 30 relevant studies published between 2020 and 2025 that analyzed behavioral finance and its influence on investment decision-making. These studies were examined on the basis of research themes, methodologies, and key findings. The results indicate that investor psychology continues to play a dominant role in financial decision making, with biases shaping investment behaviors across different economic and technological contexts.

Overview of recent literature

A summary of the key studies analyzed in this study is presented in Table 1. It includes details on the author, journal, research topic, and publisher, and provides an overview of the latest contributions to the field of behavioral finance. Table 2 is devoted to all types of investment biases, their examples, and authors as well. Methodologies were also discussed in Table 2.

The abovementioned studies explore a range of behavioral biases affecting investor decision-making, with a particular emphasis on how psychological factors such as overconfidence, herding, and emotional responses influence behavioral finance. All research articles were carefully studied, and key biases were discussed using their respective methodologies.

Table 1. The most popular journal in the sphere of behavioral finance.

Journal	Best Quartile (Scopus)	Best Quartile (JCR)	
Google Scholar	Journal of Behavioral and Experimental Finance	Q1	–
	Journal of Behavioral Finance	Q3	Q3
Web of Science	Journal of Behavioral and Experimental Economics	Q1	Q3
	Journal of Behavioral Finance	Q3	Q3
	Journal of Behavioral and Experimental Finance	Q1	–
	Review of Behavioral Finance	Q3	–
Scopus	Journal of Economic Psychology	Q1	Q2
	Journal of Behavioral and Experimental Economics	Q1	Q3
	Journal of Behavioral Finance	Q3	Q3
	Review of Behavioral Finance	Q3	–

Table 2. Summary of key behavioral finance studies (2020-2025).

Author(s) & Year	Journal/Publisher	Research focus	Key biases studied	Methodology
Rasool & Ullah (2020)	Journal of Economics, Finance and Administrative Science	Financial literacy and biases in Pakistan Stock Exchange	Financial literacy, Overconfidence	Survey (300 investors)
Raheja & Dhiman (2020)	Rajagiri Management Journal	Emotional intelligence and behavioral biases	Overconfidence, Loss Aversion	Survey (500 finance specialists)
Fujii et al. (2021)	Journal of Capital Markets Studies	Equity crowdfunding & financial literacy in Japan	Risk Aversion, Overconfidence	Empirical study (96 companies)
Ahmad & Shah (2022)	SAGE Open	Overconfidence heuristic & risk perception	Overconfidence, Risk Perception	Survey (450 investors)
Majewski & Majewska (2022)	Procedia Computer Science	Behavioral portfolio strategies	Herding, Anchoring Bias	Experimental Study

Dominant behavioral biases in investment decisions

Behavioral finance research between 2020 and 2025 highlights several recurring psychological biases that significantly affect investors' decision-making. Some of the most frequently studied biases include the following.

- **Overconfidence Bias**: Investors overestimate their knowledge and predictive abilities, leading to excessive trading and increased risk taking (Shunmugasundaram & Sinha, 2024; Talwar et al., 2021).
- **Herding Behavior:** Investors mimic the actions of others rather than conduct independent analyses, which can exacerbate market bubbles or crashes (Talwar et al., 2021).
- **Anchoring Bias:** Investors rely too heavily on initial information when making decisions, often ignoring new and more relevant data (Mahmood et al., 2024; Jain et al., 2021).
- **Loss Aversion:** Investors are more sensitive to losses than to equivalent gains, leading to irrational decision-making such as holding onto losing stocks for too long (Jain et al., 2021; Talwar et al., 2021).

What is new to our study? We discovered a new type of bias, automation bias. Only the four biases mentioned above were analyzed in advance. However, because of new innovations in the market, we see new types of bias, such as automation bias. This is linked to the development of Artificial Intelligence (AI), which makes it easier to make choices or decisions relevant to investment today. Automation bias is associated with an over-reliance on AI and automated trading tools. Nowadays, investors do not analyze and make decisions because they rely fully on Artificial Intelligence and automated trading tools. Shukla and Shukla (2023) studied the presence and impact of automation bias and status-quo bias on the capital market investment decisions of Indian retail investors. According to the authors, automation bias is the excessive dependency of investors on automated or computer-generated information for stock selection decisions. The study took place in India, and 496 retail investors of the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) participated in this study. Questionnaires were distributed to the respondents. The results of this study confirm the presence of an automation bias in the investment decisions of investors in India. Moreover, there is a strong and statistically significant impact of automation bias on Indian investors' investment decisions. In addition, the study concludes that investors must take certain steps to avoid behavioral biases in investment decisions and prevent mistakes and losses. According to Mosier et al. (1996), automated procedural and decision aids may paradoxically increase errors.

A detailed categorization of these biases, including their presence across different studies, is presented in Table 3. The definitions and their impacts on investment are presented here.

Table 3. Categorization of behavioral biases in investment decisions (2020-2025).

Bias type	Definition & Impact on investment decisions	Key studies referenced
Overconfidence Bias	Investors overestimate their knowledge, leading to excessive risk-taking	Shunmugasundaram & Sinha (2024), Talwar et al. (2021) Retnoning Ambarwati, Ika Yoga (2025)
Herding Behavior	Investors mimic others instead of conducting independent analysis	Talwar et al. (2021), Ah Mand et al. (2021)
Anchoring Bias	Investors rely too heavily on initial information, even if irrelevant	Mahmood et al. (2024), Jain et al. (2021), Zhang (2025)
Loss Aversion	Fear of losses leads to suboptimal investment decisions	Jain et al. (2021), Talwar et al. (2021)
Automation Bias	Over-reliance on AI/automated trading tools	Emerging trend (2023-2025), Mosier et al. (1996), Shukla and Shukla (2023)

Emerging trends in behavioral finance (2020–2025)

Beyond traditional biases, several new trends have emerged in behavioral finance research:

- **Impact of the COVID-19 Pandemic**: Increased uncertainty has led to heightened risk aversion, panic selling, and short-term speculation. COVID-19 has affected investors worldwide.
- **Influence of Fintech and Artificial Intelligence**: The rise of algorithmic trading has introduced new biases, such as automation bias (over-reliance on AI recommendations) and digital overconfidence (over-trust in online trading platforms).
- **Retail Investor Behavior**: The growth of commission-free trading and social media-driven investing (e.g., meme stocks) has intensified herding behavior and overconfidence, particularly among younger investors.

Research methodologies in behavioral finance

The reviewed studies used various research methodologies, which can be categorized into four main approaches.

- **Survey-Based Research**: The common method, with sample sizes ranging from 200 to 900 respondents, primarily focuses on retail investors.
- **Experimental Studies**: Used controlled environments to analyze how biases affect investment choices.
- **Econometric Models**: Statistical tools were employed to quantify the impact of biases on market trends.
- **Qualitative Case Studies**: Focused on institutional investor behavior and corporate finance decisions.

A summary of the methodologies used along with their results is presented in Table 4.

Table 4. Research methodologies in behavioral finance (2020-2025).

Research approach	Description & Application	Example studies
Survey-Based Research	Structured questionnaires analyzing investor psychology	Rasool & Ullah (2020), Ahmad & Shah (2022)
Experimental Studies	Controlled environments testing bias impact on decisions	Majewski & Majewska (2022)
Econometric Models	Statistical analysis of behavioral factors in markets	Fujii et al. (2021)
Qualitative Case Studies	In-depth study of institutional investor behavior	Raheja & Dhiman (2020)

Table 5. Review of Literature: Studies, samples, and populations.

Author(s) & Year	Sample size	Population studied	Data collection method
Rasool & Ullah (2020)	300	Retail investors and sub-accounts	Questionnaire
Raheja & Dhiman (2020)	500	Ludhiana Stock Exchange finance specialists	Questionnaire
Aren & Nayman Hamamci (2020)	446	Turkey's investor population	Questionnaire
Haritha & Uchil (2020a)	875	Indian stock exchange individual investors	Questionnaire
Haritha & Uchil (2020b)	366	7,669 firms analyzed	Questionnaire
Fujii et al. (2021)	96	Japanese companies engaging in ECF campaigns	Secondary Data
Ah Mand et al. (2021)	-	Conventional stock investors in Malaysia	Secondary Data
Ritika & Kishor (2022)	274	Individual investors	Questionnaire
Ahmad & Shah (2022)	450	Stock traders in Pakistan	Questionnaire
Andriamahery and Qamruzzaman (2022)	795	950 women-owned SMEs	Questionnaire
Hanaffy & Widyastuti (2022)	350	Top 10 best securities firms	Questionnaire
Van Nguyen et al. (2022)	601	669 investors	Questionnaire
Majewski & Majewska (2022)	-	Warsaw Stock Exchange firms	Experimental Study
Ahmed et al. (2022)	450	Pakistan stock market investors	Questionnaire
Weixiang et al. (2022)	450	Stock market investors	Questionnaire
Adil et al. (2022)	253	Individual investors in Delhi-NCR region	Questionnaire
Schuhen et al. (2022)	212	Respondents from real-life financial scenarios	Digital Questionnaire

Table 6. Behavioral finance papers: Journal categorization.

Year	Journal	Scopus	Web of science	Quantity of papers
2023-2025	*Journal of Behavioral Finance*	Q2	SSCI	22
2023-2025	*Journal of Behavioral and Experimental Finance*	Q1	SSCI	13
2022-2025	*Journal of Economic Behavior & Organization*	Q1	SSCI	12
2021-2024	*Journal of Economic Psychology*	Q1	SSCI	11
2022-2025	*Review of Finance*	Q1	SSCI/SCIE	9
2023-2025	*Quantitative Finance*	Q1	SSCI	8

Table 5 provides an overview of the sample sizes and populations analyzed in these studies, demonstrating the broad geographical scope of recent behavioral finance research. Table 5 focuses on the most recent research articles, and the most popular data collection method was questionnaires. The table shows numerous authors who presented their studies in different countries and continents. Table 6 demonstrates categories of journals and their influence.

Interpretation and implications

The results reaffirm that behavioral biases significantly influence investment decisions, often leading to suboptimal financial outcomes. However, it is recommended that certain interventions help mitigate these biases.

- **Financial Literacy Programs**: Studies show that increasing financial knowledge reduces susceptibility to common biases (Ahmad & Shah, 2022).
- **Behavioral Nudges:** Small interventions, such as default investment options and risk-awareness prompts, can help investors make rational choices (Madrian, 2014).
- **Regulatory Measures:** Given the growing role of fintech, policies should ensure that digital investment platforms do not exploit cognitive biases through aggressive marketing strategies (Brenncke, 2018).

During the period studied, the *Journal of Behavioral Finance* published the largest number of papers in the sphere of behavioral finance and investments. The second most influential journal is the Journal *of Behavioral and Experimental Finance* and the *Journal of Economic Behavior & Organization.* It was discovered that other journals published a limited number of papers.

Conclusions and further recommendations

Conclusion

The findings of this study confirm that behavioral biases play a critical role in shaping investment decisions, often leading to suboptimal financial choices. Psychological factors, such as overconfidence, herding behavior, anchoring, and loss aversion continue to influence investor behavior, sometimes overriding rational decision-making models. Recent research (2020–2025) has also highlighted the growing impact of technological advancements, including algorithmic trading and digital finance platforms, on shaping modern investment behaviors.

While traditional finance assumes that investors act rationally, behavioral finance demonstrates that emotions, cognitive biases, and heuristics often drive financial decision making. This study reinforces the need for a holistic approach that combines behavioral insights with financial literacy, regulatory measures, and structured decision-making frameworks to improve investor outcomes.

Implications for investors, regulators, and financial institutions

1. For Individual Investors:
    - Increasing awareness of behavioral biases can help investors make more rational financial decisions.
    - Diversification strategies and structured decision-making processes can mitigate impulsive investment behaviors.
    - Financial literacy plays a significant role in the protection and safety mechanism for investors.
2. For Regulators and Policymakers:
    - Regulatory frameworks should incorporate behavioral insights to protect retail investors from biased decision making (e.g., regulating gamified trading apps and social media-driven investments).
    - “Nudging” policies, such as default investment options or mandatory risk disclosures, can encourage better financial choices.
3. For Financial Institutions and Fintech Platforms:
    - The ethical design of digital trading platforms should ensure that investor bias is not exploited for profit.
    - Artificial Intelligence (AI)-driven recommendations should be transparent, with mechanisms in place to prevent over-reliance on algorithmic decision-making.

Future research directions

Despite recent advancements in behavioral finance, several potential topics can be mentioned:

- The role of Artificial Intelligence and big data in investment decisions – Future studies should explore how AI influences investor psychology and decision-making biases.
- Cross-Cultural Comparisons – Most behavioral finance studies focus on specific markets; comparative studies across different economic and cultural settings can provide deeper insights.
- The Long-Term Impact of Digital Finance – With the rise of decentralized finance (DeFi) and algorithmic trading, understanding how these innovations affect investor behavior over time remains an important area of research.

Final remarks

Behavioral finance has transformed the way investment decisions are understood, challenging rational market theories and emphasizing the human element in behavioral finance. As technology and financial markets evolve, integrating behavioral insights into investment strategies, policymaking, and financial education will be crucial in ensuring a more stable and informed financial environment. This study serves as an avenue for further research.

The behavioral finance sphere is growing and developing, and there are many research opportunities in this area. In the era of digitalization and Artificial Intelligence (AI), the issue of behavioral finance continues to grow. Artificial Intelligence may influence investors' decision-making processes. Artificial Intelligence may help investors make rational decisions in the future. New forms of investment also appear in the market today, such as cryptocurrency. Further research should focus on cryptocurrency and further innovations. Behavioral finance may incorporate new methods, forms, and ways because of the digitalization and transformation of society today. Further research may significantly improve current studies and present new innovative approaches. In addition to behavioral finance, financial literacy should be studied further. This topic is global and indiscriminately affects investors worldwide. Further research may employ longer periods and better approaches. Further studies should focus their attention only on particular variables and methodological approaches. In addition, further studies should focus on particular countries and continents. It would be interesting to see a new study covering a longer period. This study provides a promising basis for future research.

Data availability

There is no any data associated with this paper. The paper is based on a review of existing literature in the sphere of behavioral finance.

Reporting guidelines

PRSIMA 2020 checklist is available on figshare repository, title: PRISMA_2020_CHECKLIST, DOI: https://doi.org/10.6084/m9.figshare.29994556.v1

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Open Peer Review

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Vitaly Schetinin
University of Bedfordshire, Luton, UK

Reviewer Report

Overall Assessment
The manuscript provides a Systematic Literature Review (SLR) of the literature on behavioural finance published between 2020 and 2025. It addresses a highly relevant and emerging topic, particularly the role of psychological biases, fintech adoption, and the rise of automation in financial decision-making. The topic is timely and valuable. However, the paper requires significant revisions to improve methodological rigour, analytical depth, clarity, and theoretical integration. The current version is overly descriptive, lacks transparency in its systematic review methodology, and includes substantial redundancies and inconsistencies.

Overall recommendation: Major Revision.

Major Strengths
1. Timely focus: Exploring behavioural finance in the context of digital finance, AI, and post-pandemic changes is relevant and significant.
2. Clear structure: The paper is organised using a recognisable SLR structure, which improves readability.
3. Extensive background: The manuscript provides a comprehensive overview of classical behavioural finance theories.
4. Useful descriptive tables: Tables summarising biases, methodologies, and journals are informative and enhance the descriptive component of the review.

Major Weaknesses and Required Revisions
1. Limited and insufficiently justified sample size The review includes only 30 studies, which is not representative of the rapid expansion of behavioural finance research from 2020–2025. No strong justification is provided for this limited scope and important relevant studies are missing.
Recommendations
• Expand the dataset by incorporating additional high-impact journals.

• Provide explicit criteria for assessing the quality of the study.
• Justify exclusions and ensure comprehensive coverage.

2. Insufficient methodological transparency
The methodology section does not provide the necessary details required in a PRISMA- compliant SLR.
Issues:
• No full search strings or Boolean operators.
• No PRISMA flow diagram.
• Vague inclusion/exclusion criteria.
• There was no explanation of how duplicates or low-quality studies were filtered.
Recommendations
• Add a PRISMA flowchart summarising the screening process.
• Provide complete search terms and database-specific strategies.
• Clearly define inclusion/exclusion criteria and study quality assessments.

3. Overly descriptive analysis with limited critical synthesis
The paper mostly lists biases and summarises individual studies, but does not offer more detailed comparative information.
Recommendations
• Introduce cross-country, cross-methodology, and cross-sector comparisons.
• Discuss patterns, contradictions, or gaps among studies.
• Include a synthesis matrix mapping biases against methodologies, findings, and regions.

4. Redundancy and repetition
Several concepts, especially Prospect Theory and core behavioural biases, are repeated. Tables 1 and 6 overlap significantly.
Recommendations
• Streamline and condense the background.
• Remove duplicated content and consolidate overlapping tables.

5. Unsupported claim regarding “discovering” automation bias
The claim that the paper “discovered a new bias” is inaccurate, as automation bias has been discussed since the 1990s. Please provide more details.
Recommendations
• Reframe the contribution as identifying the increased relevance of automation bias in contemporary financial contexts.
• Provide a stronger justification for its inclusion as an emerging trend.

6. Inconsistent integration of theory and evidence
In general, the foundational behavioural theories are reviewed, the manuscript does not adequately integrate them with the results of the SLR.
Recommendations
• Explicitly link findings with Prospect Theory, Bounded Rationality, and other behavioural frameworks.
• Discuss how recent studies support or challenge these theories.

7. Language quality and clarity
There are several grammatical errors, awkward phrasing, and informal expressions that are not suitable for a scientific paper.
Recommendation: A thorough professional language edit is needed to improve clarity, tone, and academic style.

Minor Issues
• Improve consistency in citation style.
• Add clearer table captions and ensure non-redundancy.
• Provide DOIs for references where possible.
• Improve transitions between sections for better narrative flow.

Are the rationale for, and objectives of, the Systematic Review clearly stated?
Yes

Are sufficient details of the methods and analysis provided to allow replication by others?
Partly

Is the statistical analysis and its interpretation appropriate?
Not applicable

Are the conclusions drawn adequately supported by the results presented in the review?
Partly

If this is a Living Systematic Review, is the 'living' method appropriate and is the search schedule clearly defined and justified? ('Living Systematic Review' or a variation of this term should be included in the title.)
Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: AI and Machine Learning with applications

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 25 September 2025

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Bashar Yaser Almansour

Muscat University, Muscat, Oman

- The review is based on only 30 papers, which is limited considering the rapid growth of behavioral finance research in recent years. Important studies, including those by Almansour and colleagues (https://scholar.google.com/citations?hl=en&user=mRxrCKAAAAAJ&view_op=list_works), have not been included. Broadening the coverage will strengthen the comprehensiveness and representativeness of the findings.
- Provide more detail on the systematic review process, including the exact search strategy, databases used, keywords applied, and inclusion/exclusion criteria.
- Add a PRISMA-style flow diagram to show how the initial set of studies was narrowed down to the final 30.
- Clarify whether and how the quality of the included studies was assessed.
- Move beyond description by critically comparing and contrasting findings across countries, sectors, and methodologies.
- Link the results more explicitly to established theories such as Prospect Theory and Bounded Rationality to enhance theoretical depth.
- Certain themes (e.g., COVID-19, fintech, automation bias) are discussed in depth, while others (e.g., cross-cultural factors, institutional investors) are only mentioned briefly. A more balanced treatment across themes would improve coherence.
- Some tables overlap (e.g., Tables 1 and 6). Consider consolidating to avoid redundancy.
- Add a synthesis matrix that maps key biases against methodologies and findings for quick reference.
- Current suggestions (AI, DeFi, cross-cultural studies) are broad. Provide more specific guidance, such as recommended methodologies, data sources, or theoretical frameworks that future scholars could adopt.
- The paper is generally clear, but some sections contain repetition (e.g., background on Prospect Theory) and minor grammatical errors. A thorough language edit would enhance readability.

Are the rationale for, and objectives of, the Systematic Review clearly stated?

Yes

Are sufficient details of the methods and analysis provided to allow replication by others?

Partly

Is the statistical analysis and its interpretation appropriate?

Not applicable

Are the conclusions drawn adequately supported by the results presented in the review?

Yes

If this is a Living Systematic Review, is the 'living' method appropriate and is the search schedule clearly defined and justified? ('Living Systematic Review' or a variation of this term should be included in the title.)

Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Behavioral Finance

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 01 Oct 2025

Maya Katenova

30 papers of high quality were reviewed
The quality of studies was identified based on the quality of journals.
We cannot link our results to Prospect Theory and Bounded Rationality because we did not discuss it in our paper.
In terms of countries, sectors, and methodologies, we will improve our paper.

Competing Interests: There is no conflict of interest associated with this paper.