

# Behavioral Finance in the Banking Industry : Trends, Challenges, and Research Perspectives

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## ABSTRACT

This study conducts a comprehensive bibliometric analysis of behavioral finance research within the context of banking and management from 2001 to 2025. Drawing on a dataset of 1,626 peer-reviewed publications retrieved from Scopus, the analysis utilizes VOSviewer to map publication trends, country and journal contributions, collaboration networks, and evolving research themes. The results reveal a sustained and accelerating growth in scholarly output, with the field transitioning from foundational studies of cognitive biases and market anomalies to contemporary topics such as digitalization, FinTech adoption, and risk management in financial institutions. The United States, India, China, and the United Kingdom emerge as leading contributors, while specialized journals such as the Journal of Behavioral Finance and the Journal of Banking and Finance play central roles in scholarly dissemination. Cluster and keyword analyses highlight the expanding intellectual structure of the field, identifying major research streams on cognitive biases, digital transformation, investor sentiment, and the intersection of behavioral finance with new technologies. The findings underscore the importance of behavioral insights for improving decision-making, risk management, and financial product innovation in the banking industry. The study also emphasizes the growing need for interdisciplinary collaboration and advanced analytical methods to address emerging challenges in a rapidly evolving financial landscape.

**Keywords:** Behavioral finance, Banking, Bibliometric analysis, Risk management

## INTRODUCTION

Behavioral finance has fundamentally reshaped our understanding of decision-making in financial markets by challenging the long-standing assumptions of rationality embedded in classical finance theory (Shiller, 2003). While traditional models posit that market participants act with full information and logical consistency, a growing body of research demonstrates that cognitive biases, emotions, and social factors frequently drive financial decisions, leading to market anomalies and inefficiencies (Hirshleifer, 2015). Over the past two decades, behavioral finance has evolved from a focus on investor psychology in equity markets to a broader examination of its implications across various domains, including the banking sector and financial institutions.

In banking and management, behavioral finance research explores how biases such as overconfidence, loss aversion, herding, and mental accounting affect decision-making at both the individual and organizational levels (Ho et al., 2016; Chen et al., 2016; Hirshleifer, 2015). These biases can influence loan approvals, risk assessment, credit allocation, and even the adoption of financial technologies (Aftab et al., 2025). For instance, evidence shows that not only individual customers but also bank managers and executives are susceptible to behavioral biases, which can contribute to excessive risk-taking, poor lending decisions, and increased vulnerability to financial crises (Ho et al., 2016; Bacha & Azouzi, 2019).

With the rapid digital transformation of banking and the emergence of FinTech services, the intersection of behavioral finance and banking management has gained renewed scholarly attention (Aftab et al., 2025; Corzo et al., 2024). Contemporary research addresses how digitalization amplifies or mitigates traditional biases, the impact of financial literacy on technology adoption, and the potential for new forms of herding and sentiment-driven behavior in online banking environments (Kirimhan et al., 2024).

Despite the expanding volume and scope of the literature, few studies have systematically mapped the intellectual landscape and research frontiers of behavioral finance within the banking and management context. Bibliometric analysis, by leveraging advanced mapping tools and quantitative techniques, offers a systematic approach to identify publication trends, major research clusters, influential journals, and emerging themes in the field (Paule-Vianez et al., 2020; Corzo et al., 2024).

The present study aims to provide a comprehensive bibliometric overview of behavioral finance research in banking and management from 2001 to 2025, using a dataset extracted from Scopus and analyzed with VOSviewer. By mapping publication output, geographic contributions, journal distributions, and keyword networks, this analysis seeks to clarify the evolution, structure, and future directions of behavioral finance scholarship in the banking industry.

## LITERATURE REVIEW

The intellectual roots of behavioral finance lie in the challenge posed to the classical efficient markets hypothesis. Foundational research demonstrated that market prices often deviate from fundamentals due to investor psychology, and that discoveries in the late twentieth century, from speculative bubbles to underreaction and overreaction, spurred the emergence of behavioral finance as a distinct research tradition (Shiller, 2003). This foundational critique set the stage for integrating psychological insights into the models traditionally used to explain banking and financial market phenomena.

A broad literature has documented how individual-level cognitive biases, including overconfidence, loss aversion, and mental accounting, affect not only retail investors but also the strategies of bankers, managers, and executives. These behavioral biases are not limited to “unsophisticated” market participants but also distort resource allocation and risk assessment in high-stakes institutional settings. Recent research continues to expand the field’s theoretical boundaries by emphasizing the role of emotions and social networks in financial decisions (Hirshleifer, 2015).

Empirical studies provide compelling evidence that behavioral biases are pervasive in banking behavior. There is clear evidence of the gambler’s fallacy among bank loan officers, with even experienced credit professionals making lending decisions that are negatively autocorrelated, approving or rejecting loans based not solely on applicant quality but also on streaks of prior decisions. This systematic error impairs rational risk assessment and points to the relevance of behavioral finance insights for real-world banking operations (Chen et al., 2016).

The influence of managerial psychology is further highlighted by research into overconfidence and bank risk, showing that U.S. banks led by overconfident CEOs systematically weakened lending standards and increased leverage prior to the 2007–2009 crisis (Ho et al., 2016). These banks were more vulnerable to losses and defaults during periods of financial instability, demonstrating the potential for executive biases to amplify systemic risk within the banking sector.

Other recent work examines the intersection of demographic and emotional factors with credit decision-making, showing that both cognitive and emotional biases, influenced by the gender and affective state of bank managers, shape credit risk management in Tunisian banks. Notably, research finds that female managers displaying overconfidence or optimism are generally more conservative in lending practices and more likely to centralize decision-making (Bacha & Azouzi, 2019).

The expansion of digital banking and financial technology services has introduced new dimensions to behavioral finance in banking. There is evidence that customer biases such as risk aversion, overconfidence, and anchoring significantly deter the adoption of FinTech solutions, while financial literacy can mitigate some of these effects

(Aftab et al., 2025). These findings underline the importance of targeted education programs for the success of digital financial services.

At the market level, research explores herding behavior among investors in U.S. bank stocks, particularly during the COVID-19 pandemic, and distinguishes between fundamental-driven herding and herding based on psychological factors, documenting a shift toward the latter amid heightened uncertainty and policy tightening. These findings highlight the potential for external shocks and collective psychology to influence stability and pricing in the banking sector (Kirimhan et al., 2024).

Given the rapid growth and diversification of behavioral finance research, bibliometric and mapping studies have become essential for understanding the field's structure and thematic evolution. Mapping analysis tools show that behavioral finance literature has expanded rapidly over the past three decades, with investor sentiment emerging as a major research cluster and with growing prominence of topics such as cognitive biases, market anomalies, and experimental finance (Paule-Vianez et al., 2020). Similarly, comprehensive keyword analysis across major journals shows that experimental methods have become increasingly central to the field, and distinguishes between research streams focused on collective behaviors and those addressing individual psychological traits, while also documenting the integration of psychology into financial services research and the emergence of new topics such as FinTech behavior (Corzo et al., 2024).

## METHODOLOGY

This study employs a bibliometric analysis to examine the evolution, trends, and thematic structure of research on behavioral finance in the context of banking and management. The data for this analysis were collected from Scopus, one of the most comprehensive and widely recognized abstract and citation databases for peer-reviewed literature.

The search strategy was designed to capture scholarly output related specifically to behavioral finance as applied to banking and financial management. The following search query was used in the Scopus database:

TITLE-ABS-KEY ( "behavioural finance" OR "behavioral finance" ) AND ( "bank" OR "banking industry" OR "financial institution" OR "bank management" OR "financial management" )

This query was restricted to documents published in English. The search was conducted in July 2025 and included all document types (articles, reviews, conference papers, book chapters, etc.) indexed by Scopus between 2001 and 2025. The resulting dataset comprised 1,626 peer-reviewed documents.

The bibliometric data were exported in compatible formats for further analysis. Core indicators such as annual publication counts, country and institutional contributions, journal distribution, keyword co-occurrence, and citation metrics were extracted and analyzed using VOSviewer. The analysis covered the temporal evolution of the field, identified leading journals and authors, mapped global research contributions, and explored major research clusters and emerging themes.

This systematic approach ensures a comprehensive and reproducible overview of the development of behavioral finance research within the banking and management literature.

## RESULT AND ANALYSIS

### 4.1. Publication by year

The rise of behavioral finance as a major research theme in banking and management is evident in both the steady increase in annual publications and the breadth of scholarship now available. In total, 1,626 peer-reviewed documents were identified between 2001 and 2025, mapping a trajectory from early experimentation to mainstream acceptance (see Figure 1). Annual publications were extremely limited in the early 2000s, with just one paper in 2001 and only a gradual increase to 20 by 2007. During this incubation period, the efficient markets paradigm and traditional risk frameworks dominated both scholarship and industry practice. Although the

foundational work began to circulate, behavioral finance was still seen as an intriguing but largely peripheral approach within regulated banking (Barberis & Thaler, 2003; Kahneman, 2003).

The aftermath of the 2008 global financial crisis, however, marked a distinct turning point. The crisis exposed significant gaps in rational-agent models and underscored the role of overconfidence, herding, and liquidity mispricing within banks and financial institutions. As a result, research counts doubled, with annual publications rising from 20 in 2007 to 36 by 2011. Scholars began to address behavioral explanations for the observed failures in risk assessment and market stability, lending new legitimacy to the field (Akerlof & Shiller, 2009; Altunbaş, Gambacorta, & Marqués-Ibáñez, 2012).

From 2012 to 2019, the field experienced a period of consolidation and thematic diversification. Annual publication counts rose steadily from 52 in 2012 to 87 in 2019. During this time, the scope of behavioral finance research in banking expanded to include managerial overconfidence, credit cycles, the influence of organizational culture, and the psychological underpinnings of risk-taking in financial institutions (Kumar & Goyal, 2015; Statman, 2019). By the end of this phase, a scholarly consensus was emerging: cognitive biases were not only observable in retail investors but also in the decisions of bank managers and regulators, shaping outcomes at the institutional and systemic level (Statman, 2019; Singh, 2021).

Meanwhile, this period of steady growth gave way to rapid acceleration with the onset of the COVID-19 pandemic and a parallel surge in banking digitalization. Annual publication output jumped from 87 in 2019 to 118 in 2020, ultimately peaking at 224 in 2024. This acceleration reflected both the uncertainty introduced by the pandemic—which focused attention on fear-driven decision making and stress responses in banks—and the growing importance of digital technologies, which offered researchers new data sources and methods for behavioral analysis (Goodell, 2020; Baker et al., 2020). Studies in this period examined volatility spikes, remote decision-making under stress, and the impact of digital transformation on behavioral risk (Baker et al., 2020; Zhu & Jin, 2023).

For 2025, the record shows 133 publications as of the end of June, confirming that momentum is being sustained. Since this figure represents only half a year, it is highly likely that 2025 will match or exceed the previous peak set in 2024. This mid-year data further demonstrates that behavioral finance has become fully mainstreamed within banking and management research, with current topics exploring AI-driven credit scoring, ESG-related behavioral risk, and the ethical implications of data-driven nudges. The consistent, high output observed through 2025 strongly supports the view that behavioral approaches are now an integral, permanent fixture of research and practice in the banking industry.

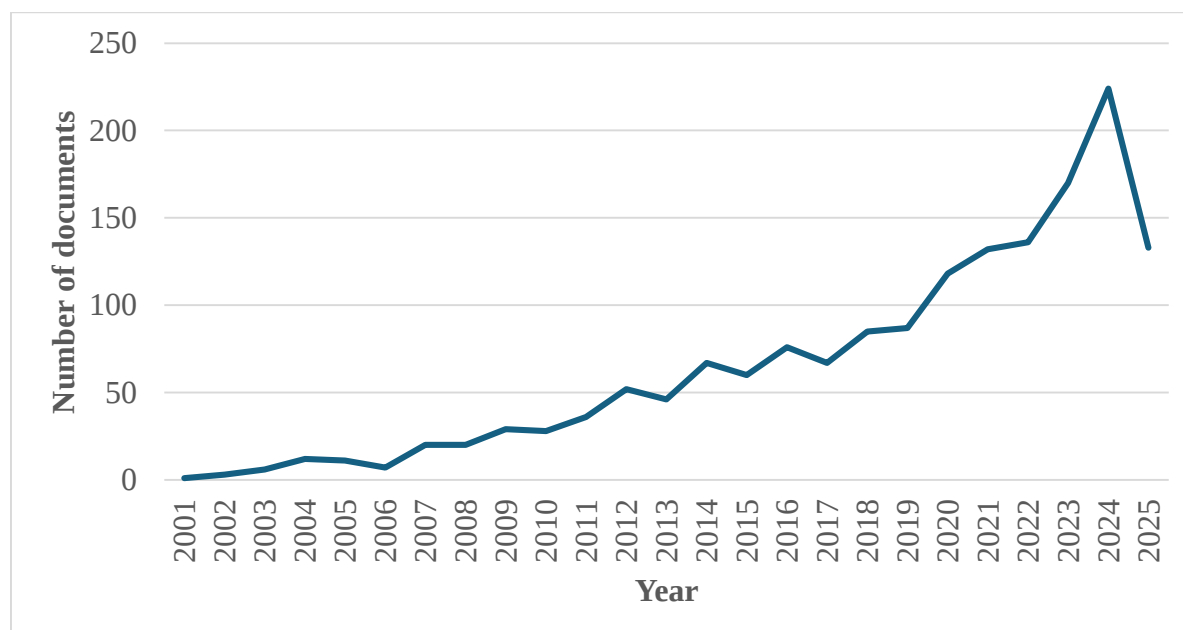


Figure1. Yearly number of peer-reviewed documents on behavioral finance in banking and management (2001–2025)

## 4.2. Country analysis

The global landscape of research on behavioral finance in banking and management spans 96 countries, reflecting the truly international nature of the field. However, as demonstrated in Table 1 and visualized by the international co-authorship network in Figure 2, research activity and collaboration are predominantly concentrated among a handful of leading countries.

Table 1. Top 10 countries by scientific output and citations in behavioral finance research in banking and management

| Country        | Documents | Citations |
|----------------|-----------|-----------|
| United States  | 298       | 10,828    |
| India          | 228       | 2,770     |
| China          | 154       | 1,915     |
| United Kingdom | 148       | 4,112     |
| Germany        | 90        | 2,156     |
| Malaysia       | 76        | 775       |
| Australia      | 71        | 1,670     |
| Spain          | 60        | 1,072     |
| Pakistan       | 48        | 882       |
| Turkey         | 48        | 634       |

The United States stands out as the principal contributor, producing 298 publications and garnering more than 10,800 citations, alongside the highest total link strength (138), which highlights both prolific output and extensive global collaboration. This leadership mirrors findings from recent bibliometric analyses, which emphasize the central position of the U.S. in finance research, supported by substantial research infrastructure and funding (Li & Xu, 2021; Fang et al., 2022).

India ranks second with 228 documents and is highly prominent in the collaboration network, as indicated by its strong node and broad inter-country connections in Figure 2. This dynamic corresponds with studies that have charted the rapid development of finance scholarship across India, driven by its expanding academic sector and increased international engagement (Kumar & Goyal, 2015). China and the United Kingdom are also pivotal actors, with 154 and 148 documents respectively, both characterized by high citation counts and significant link strength (China: 90; United Kingdom: 123). Their roles as major hubs in the global network are well documented in recent research on the geography of financial innovation and behavioral finance (Li & Xu, 2021).

Further down the list, countries such as Germany, Malaysia, Australia, Spain, Pakistan, and Turkey make significant contributions to the literature. Germany and the United Kingdom are notable for their high citations relative to output, indicating strong academic influence. Malaysia's inclusion in the top ten emphasizes its growing specialization in Islamic finance, a research area where behavioral approaches are increasingly visible (Abdulla & Ebrahim, 2022).

The co-authorship network depicted in Figure 2 underscores not only the concentration of research output but also the deep interconnectedness of the global scholarly community. Dense clusters of collaboration are observed between the United States, the United Kingdom, and Australia, as well as among emerging research economies

across Asia, including India, China, and Malaysia. The extensive web of connections highlights the increasingly integrated and multidisciplinary character of research in this domain.

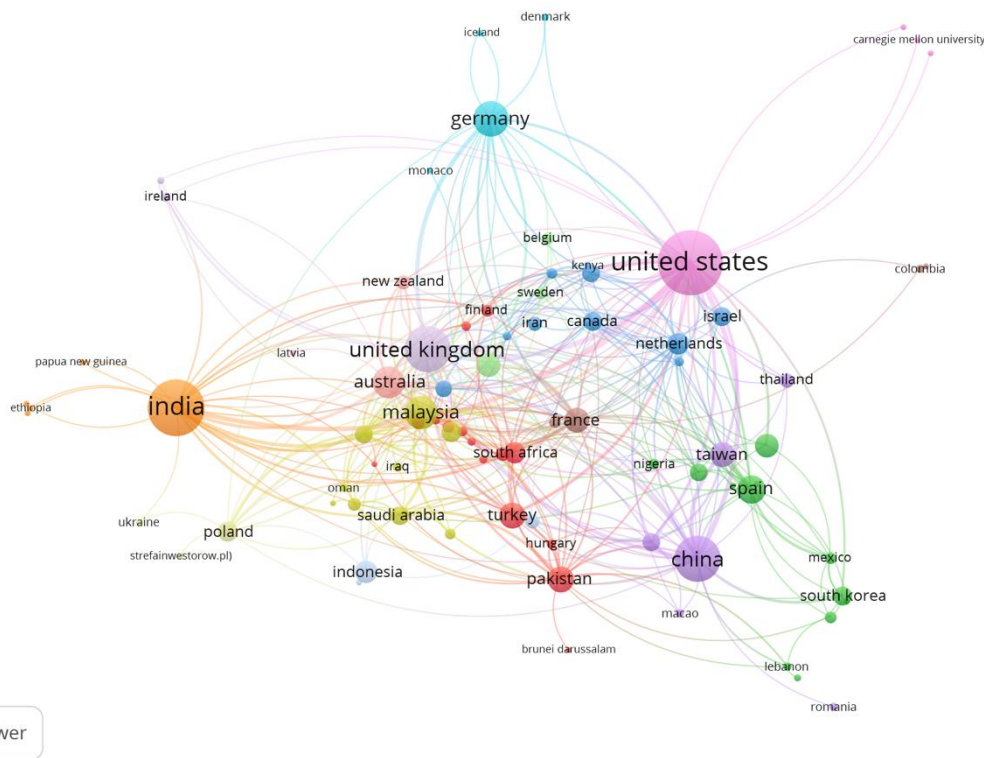


Figure 2. International co-authorship network in behavioral finance research in banking and management

### 4.3. Journal analysis

The diversity of publication sources in behavioral finance research in banking and management is underscored by the fact that a total of 697 different journals have contributed to the literature in this field between 2001 and 2025. However, as shown in Table 2, a relatively small subset of specialized journals accounts for a substantial portion of the scholarly output.

Table 2. Top 15 journals by publications and citations in behavioral finance in banking and management (2001–2025)

| Source                                         | Documents | Citations |
|------------------------------------------------|-----------|-----------|
| Journal of Behavioral Finance                  | 51        | 673       |
| Journal of Banking and Finance                 | 48        | 2,256     |
| Journal of Behavioral and Experimental Finance | 43        | 1,439     |
| Review of Behavioral Finance                   | 41        | 542       |
| Journal of Risk and Financial Management       | 24        | 106       |
| Finance Research Letters                       | 23        | 428       |
| Qualitative Research in Financial Markets      | 22        | 580       |

|                                                 |    |     |
|-------------------------------------------------|----|-----|
| International Review of Financial Analysis      | 21 | 979 |
| Research in International Business and Finance  | 21 | 676 |
| Investment Management and Financial Innovations | 20 | 105 |
| Quantitative Finance                            | 19 | 575 |
| Cogent Economics and Finance                    | 17 | 220 |
| European Journal of Finance                     | 16 | 192 |
| Pacific Basin Finance Journal                   | 15 | 516 |
| Managerial Finance                              | 14 | 165 |

The Journal of Behavioral Finance leads the field with 51 published documents, reflecting its longstanding position as a core outlet for foundational and innovative work in behavioral finance. This is followed closely by the Journal of Banking and Finance (48 documents), which, despite its broader focus, demonstrates the centrality of behavioral topics within mainstream finance scholarship. The Journal of Behavioral and Experimental Finance (43 documents) and the Review of Behavioral Finance (41 documents) also emerge as prominent sources, each providing a dedicated platform for the advancement of behavioral approaches within the finance community.

Other key journals in the top tier include the Journal of Risk and Financial Management, Finance Research Letters, and Qualitative Research in Financial Markets, each of which not only contribute significant numbers of articles but also attract substantial citations and high link strengths, indicating influential and collaborative research. For instance, Qualitative Research in Financial Markets stands out with a particularly high total link strength (87), highlighting its role in fostering cross-institutional and interdisciplinary work.

In terms of academic impact, the Journal of Banking and Finance distinguishes itself by accumulating the highest number of citations (2,256), underscoring its dual status as both a high-volume and high-impact journal. Similarly, the Journal of Behavioral and Experimental Finance and the International Review of Financial Analysis have both made considerable contributions to the field, reflected in their respective citation counts (1,439 and 979).

The presence of journals such as the Pacific Basin Finance Journal, European Journal of Finance, and Research in International Business and Finance in the top 15 further illustrates the global and interdisciplinary reach of behavioral finance scholarship. This breadth of coverage supports the observation that behavioral approaches are now well integrated not only in specialized outlets but also in broader, high-impact finance and management journals.

#### 4.4. Keyword analysis

The author keyword network, visualized in Figure 3, captures both the intellectual structure and the evolving priorities of behavioral finance research in banking and management. At the center of the map, “behavioral finance” remains the most dominant and interconnected keyword, serving as the conceptual hub for the field.

Around this nucleus, the network reveals strong, persistent connections to foundational topics such as “investments,” “financial markets,” “investor sentiment,” “overconfidence,” and “decision making.” The concentration of blue nodes near the core indicates that these themes have been at the forefront since the inception of behavioral finance, shaping much of the early research in the discipline.

What sets Figure 3 apart is the temporal overlay, where the color gradient from blue (older) to green/yellow (more recent) visually demonstrates the evolution of research interests over time. In recent years, the map shows

a notable shift toward keywords such as “investor sentiment,” “financial literacy,” “digitalization,” and “FinTech adoption,” evidence of the field’s dynamic response to new developments.

For example, the growing prominence of “investor sentiment” and its co-occurrence with market uncertainty is reflected in current studies demonstrating its amplifying effect on returns during periods of instability (Seok, Cho, & Ryu, 2024). Likewise, the intersection of behavioral biases with digital transformation and financial technology is now a focal point of investigation; recent research highlights how biases such as loss aversion and overconfidence influence the adoption of FinTech services, particularly among individuals with varying levels of financial literacy (Aftab, Fazal, & Andleeb, 2025).

The keyword “overconfidence” continues to attract scholarly attention, especially in its interaction with financial literacy and poor financial behaviors, as shown by Tahir (2025), who finds that overconfident yet underinformed individuals are more prone to risky borrowing and financial fragility. Meanwhile, research on financial literacy is increasingly moving from diagnosis to intervention, with studies quantifying the causal impact of education initiatives on financial health (Frees, Gangal, & Shaviro, 2024).

Another emerging trend in the yellow-green clusters is the impact of digitalization and digital bank transformation on both customer and managerial behaviors, a topic recently substantiated with large-scale empirical evidence (Zhu & Jin, 2023). This indicates that behavioral finance is not only addressing classic psychological constructs but also adapting to rapid technological changes in the banking sector.

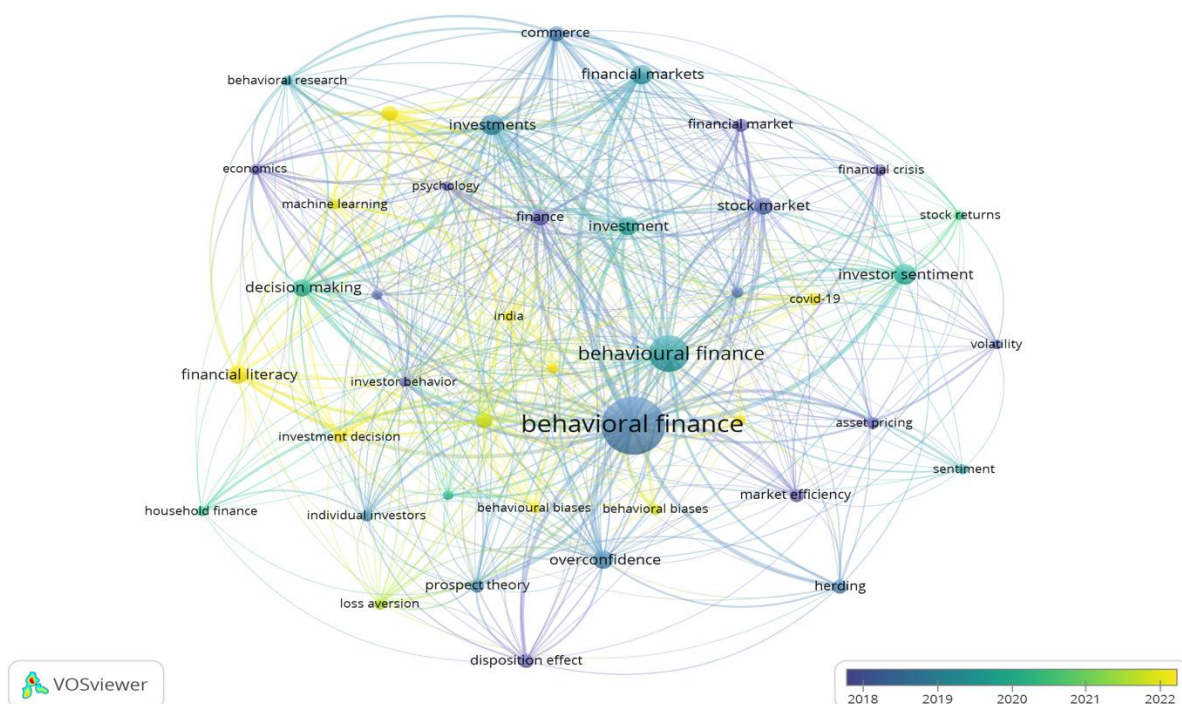


Figure 3. Temporal mapping of keyword co-occurrences in behavioral finance in banking and management

#### 4.5. Cluster analysis

The VOSviewer keyword map shown in Figure 4 reveals five distinct but interrelated research clusters that define the intellectual structure of behavioral finance in banking and management. Each cluster not only groups similar topics, but also reflects the evolution of scholarly thinking and the interplay of theory, empirical focus, and interdisciplinary expansion in the field.

##### Cluster 1: Market Dynamics and Systemic Risk

This area encompasses the study of how collective behaviors drive market outcomes and the stability of financial systems. Research in this cluster explores the amplification of volatility and contagion during financial crises,

the influence of sentiment-driven bubbles, and the role of behavioral signals during uncertainty or disruption, such as the COVID-19 pandemic and the proliferation of digital assets. Behavioral finance has become a central framework for understanding how inefficiencies and asset mispricings arise, particularly during turbulent times (Barberis & Thaler, 2003; Statman, 2019; Assoe & Mbengue, 2025). Recent empirical work highlights how herding and shifts in investor sentiment can intensify volatility and lead to market instability (Seok, Cho, & Ryu, 2024).

### **Cluster 2: Foundations, Methodologies, and Interdisciplinary Expansion**

This cluster includes the conceptual and methodological bedrock of behavioral finance, linking economics and psychology with new analytical approaches. Increasingly, machine learning and bibliometric analysis are being adopted to map out research trends and to analyze patterns in financial behavior using big data (Li & Xu, 2021). The adoption of computational and systematic literature mapping techniques signals the field's maturity and its openness to cross-disciplinary approaches. Scholars are also critically re-examining classical assumptions and integrating behavioral insights into structural models for more realistic representations of financial decision-making (DellaVigna, 2018).

### **Cluster 3: Cognitive Biases and Individual Decision-Making**

This stream focuses on the psychological and cognitive underpinnings of financial choices. Persistent research themes include overconfidence, heuristics, and the role of financial literacy in shaping investment outcomes (Kumar & Goyal, 2015; Barberis & Thaler, 2003). International comparative studies reveal that while certain biases are universal, their impact can differ across cultural and market contexts. The expansion of digital financial services has intensified the need to address gaps in financial knowledge, which, when left unchecked, can amplify biases and expose consumers to greater risk (Tahir, 2025).

### **Cluster 4: Household Finance, Investor Typologies, and Behavioral Effects**

This cluster delves into how behavioral phenomena such as loss aversion, the disposition effect, and prospect theory play out among individual and household investors. Research in this area moves beyond macroeconomic effects to the micro-foundations of financial behavior, examining demographic differences and the diversity of investor profiles. Theoretical models are tested empirically with large datasets, and new evidence continues to emerge on how personal psychology drives recurring mistakes and persistent anomalies in retail investing (Barberis & Thaler, 2003; Shefrin & Statman, 2011).

### **Cluster 5: Commerce, Digitalization, and the New Behavioral Frontier**

Here, the analysis captures the ongoing transformation brought by technological innovation, fintech, and the blending of finance with e-commerce and global markets. Scholars are exploring how digital transformation is changing the behavioral landscape in finance, influencing everything from the spread of new payment systems to the development of real-time behavioral prediction tools (Aftab, Fazal, & Andleeb, 2025; Zhu & Jin, 2023). The intersection with consumer psychology, commerce, and financial education is becoming increasingly important, especially as digital literacy and inclusivity gain traction. New research is beginning to quantify the impact of educational interventions on financial health, demonstrating the real-world implications of behavioral research (Frees, Gangal, & Shaviro, 2024).

### **Interconnections and Scholarly Evolution**

Across these clusters, there is strong evidence of cross-pollination. Behavioral finance is no longer focused solely on the irrational investor, but has grown into a pluralistic and policy-relevant field that leverages advances in data science, psychology, and economics. Systemic risk analysis often incorporates micro-level psychological insights, while methodological clusters are driving the adoption of innovative research tools and interdisciplinary collaboration. The rapid evolution of the field is also visible in the thematic shifts documented in recent literature, with a heightened focus on the causal effects of education, the behavioral implications of fintech, and the

importance of comparative international research (Aftab et al., 2025; Seok et al., 2024; Frees et al., 2024; Tahir, 2025).

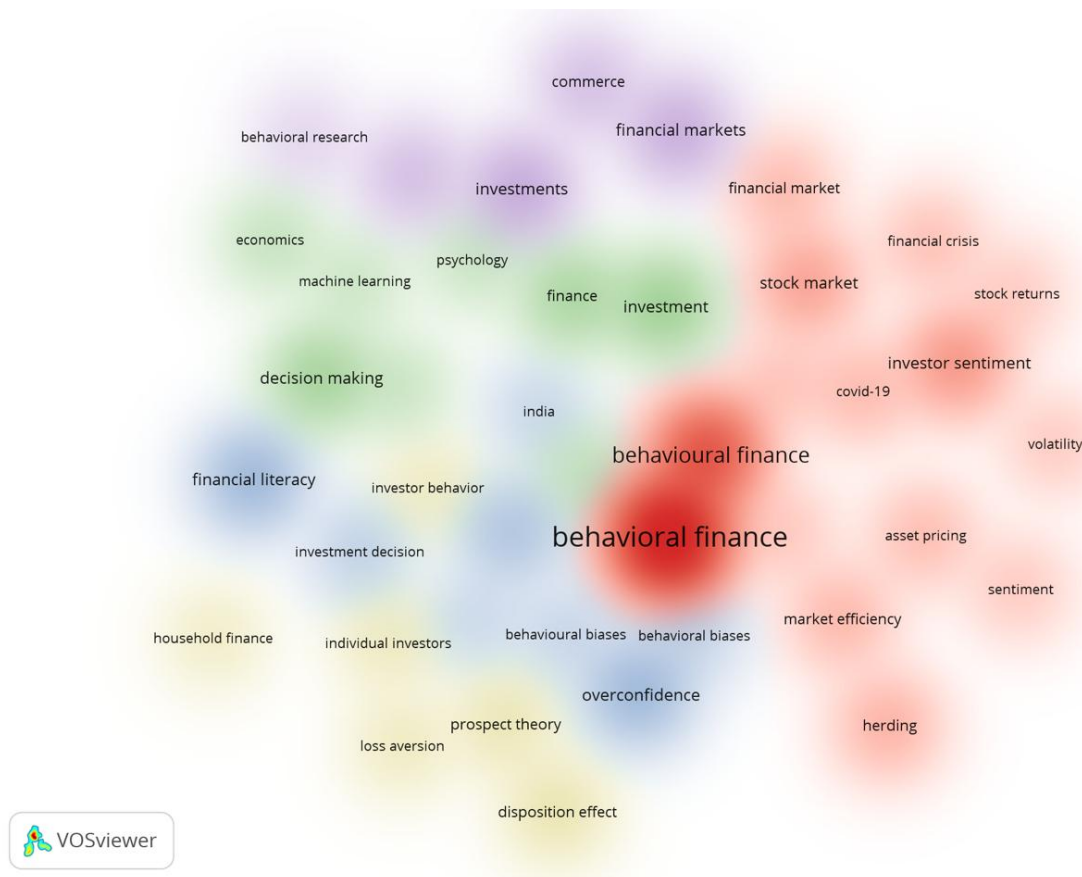


Figure 4. Visualization of thematic clusters in behavioral finance and banking literature

## CONCLUSION

This bibliometric analysis systematically maps the evolution, thematic landscape, and intellectual structure of behavioral finance research as it applies to banking and management. The study reveals a sustained and accelerating growth in scholarly output over the past two decades, reflecting the increasing relevance of behavioral perspectives in understanding financial decision-making processes. Thematic mapping and cluster analysis demonstrate that research in this domain is both broad and dynamic, covering key topics such as cognitive biases, risk perception, overconfidence, investor sentiment, digitalization, and the integration of financial technology into banking practices.

The analysis highlights how behavioral finance moves from its theoretical origins, challenging the rationality assumptions of classical finance, to become a central paradigm in explaining phenomena ranging from loan approval and credit allocation to the adoption of digital banking and FinTech. Findings indicate that biases influence not only individual investors but also professional bankers and executives, affecting everything from risk management strategies to organizational culture. In recent years, the literature increasingly focuses on the impact of digital transformation, with a growing body of work exploring how behavioral biases interact with technological change, financial literacy, and regulatory innovation. Moreover, the bibliometric approach makes it possible to identify leading journals, influential countries and institutions, and the emergence of new research streams at the intersection of behavioral science and banking innovation.

While this analysis provides a comprehensive quantitative overview, some limitations remain. The reliance on Scopus as the sole data source, along with the focus on English-language publications, means that relevant research published in other languages or indexed in alternative databases may be underrepresented.

The practical implications of these findings are substantial for both researchers and practitioners. For the banking industry, recognizing and addressing behavioral biases in decision-making can lead to improved risk management, more effective policy interventions, and enhanced financial product design. For policymakers and educators, the results underscore the importance of promoting financial literacy and fostering adaptive organizational cultures that are resilient to cognitive pitfalls. The emphasis on digitalization further suggests that successful adoption of new financial technologies requires both technological readiness and a deep understanding of behavioral factors among both staff and customers.

Future research should expand the analytical scope by integrating additional databases, incorporating non-English sources, and employing mixed-method approaches to capture richer qualitative insights. There is also a pressing need to investigate the role of artificial intelligence, machine learning, and big data in shaping behavioral outcomes in banking, as well as the intersection of behavioral finance with sustainable and ethical banking practices. As the field continues to evolve, ongoing collaboration among researchers, industry professionals, and policymakers proves essential to advancing knowledge and translating behavioral insights into tangible benefits for the financial sector.

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