Journal of Informatics Education and Research
ISSN: 1526-4726
Vol 5 Issue 2 (2025)

Assessing Behavioral Finance Research Trends Globally: A Bibliometric Approach with Scopus Data

Dr. Hemendra Sharma[1], Dr. Ashish Kaushal[2], Dr. Mayank Singh[3], Reshabh Dev[4], Rishi Bhushan Kumar[5]

[1]Dean, School of Business Management, TS Mishra University, Lucknow-India
[2]Associate Professor, Lucknow Public College of Professional Studies, University of Lucknow-India
[3]Associate Professor, Lucknow College of Professional Studies, University of Lucknow-India
[4]Research Scholar, Department of Commerce, Lucknow University, Lucknow-India
[5]Research Scholar, Department of Commerce, Mahatma Gandhi Central University, Motihari, Bihar-India

Abstract
This bibliometric study examines global research trends in behavioral finance by analyzing publication volume, citation patterns, key contributors, and emerging themes in the field during the last decade using Scopus data. Behavioral finance is a combination of traditional financial models with psychological insight explained for market anomalies that traditional models tend to miss. This work offers a quantitative overview of the growth of the field, in terms of its most influential authors, collaborative networks, and leading publishing journals. A substantial increase in research output, with leading countries and institutions publishing key publications that provide a solid foundation for behavioral finance. Investor psychology, decision-making biases, and risk perception are top research topics, with recent expansion into digital finance and sustainable investing reflecting the field's ability to keep up with contemporary financial problems. This study also identifies the themes evolving through keyword co-occurrence and citation analysis indicating an increasing focus on interdisciplinary research connecting finance to psychology, economics, and cognitive science. Active partnerships between countries and institutions are revealed by collaboration patterns, and the research landscape is shown to be highly networked and globalized. Scopus represents a superb dataset, but the analysis of database exclusivity suggests that future work should include additional sources for a broader perspective. This study provides a useful resource for researchers and practitioners alike by charting the key developments and future directions in behavioral finance thereby providing a more integrated understanding of the role of psychological factors in financial markets and encouraging more informed and stable financial decision-making practices.

Keywords: Behavioral Finance, Bibliometric Analysis, Investor Psychology, Decision-Making Biases, Scopus Database.

Introduction
Behavioral finance is a hybrid of psychology and finance, looking at how we (and institutions) make financial decisions under the influence of psychology, and social and emotional factors. Unlike traditional finance, which is based on the premise that investors behave rationally and that markets are efficient, behavioral finance studies none of them as the price of goods and services rises. For more details regarding this concept, refer to [1]. Such non-rational behaviors are typically the cause of various market anomalies, like an asset price bubble or a market crash, the rational explanation of which is difficult for classical financial theories. For example, overconfidence, loss aversion, and the disposition effect are a few examples of cognitive biases

that investors may fall victim to if not aware, which can propagate down to individual portfolios and aggregate market dynamics [2,3]. One sub-field that has gained a lot of focus is behavioral finance crucial during economic shifts like the 2008 financial crisis or the COVID-19 pandemic because investor response plays a critical role in the fluctuation of most financial markets [4]. Some of the findings from these events are that we need to know about the investors' psychology and the market sentiment and these events have given rise to many more topics of study such as financial literacy, risk perceptions, and behavioral change. As financial markets are gradually getting more integrated and sophisticated, the theories of behavioral finance are not only of scholarly interest but are also highly useful for policymakers, financial consultants, and investors who wish to minimize the effects of irrationality in financial decisions [5,6].

The purpose of this paper is to perform a bibliometric analysis of behavioral finance research using data from the Scopus database. This paper offers a useful overview of the development of the field, its key contributions, and new directions in research by analyzing the worldwide trends in the number of publications, citation rates, and co-authorship networks over the last ten years. Research distribution by geographic location and the key contributing institutions are also examined to determine the most active research centers and international collaborations. This approach enables the study to complement the existing literature by charting the development of behavioral finance and offering a numerical account of how the field has responded to recent financial and psychological [7,8].

Bibliometric analysis is one of the most important methods of assessing the trends, productivity, and impact of academic research. Bibliometric methods are applied in the context of behavioral finance to analyze the development of the field, to discover new important topics, and to describe the role of collaboration networks in the creation of knowledge. Publication and citation rates, co-authorship networks, and keyword co-occurrence analysis are employed as the main measures to examine the scientific landscape of behavioral finance and to determine interdisciplinary links and topical research interests. For instance, bibliometric analyses have shown that behavioral finance draws on cognitive science and psychology and that the field relies on interdisciplinary research for theoretical and empirical advancement [9, 10].

An evaluation of journal citation involves the use of parameters, such as identifying leading journals, ·most productive authors, and the distribution of themes in the research outputs. For scholars who are attempting to navigate the complex field of behavioral finance, and for practitioners who wish to apply behavioral knowledge in the financial context, this information is invaluable. Furthermore, bibliometric analysis offers the potential for new research by identifying areas of research that may be underdeveloped, or warrant more extensive study, such as behavioral consequences of digital finance and sustainable investing [11,12]. The results of this study are expected to contribute to a better understanding of behavioral finance and to encourage a more integrated approach to addressing multifaceted financial behaviors in a rapidly evolving global environment.

Methodology

Data Collection and Extraction

Scopus is used as the primary data source for this bibliometric analysis because it indexes a vast number of publications in the social sciences and finance [13]. To avoid missing any important publication and to maintain a high quality of the dataset, the data were collected only

from Scopus. As behavioral finance and its application in financial decision-making have only recently gained attention [15], the search was restricted to the last decade (2014–2023).

Criteria for Data Selection

According to the frequently researched areas in behavioral finance, the keywords like 'behavioral finance', 'investor psychology', 'financial decision making', and 'market behavior' were selected [16]. In order to identify the most relevant publications, the following searches in the title field, abstract, and keyword fields were conducted for these keywords. The document types were limited to articles and reviews only because these are the primary sources of research findings and the most inclusive summaries in this area [17].

Bibliometric Analysis Techniques

A combination of bibliometric indicators was used to analyze the extracted data. These indicators were selected to provide a multi-dimensional perspective on research trends, author productivity, and collaborative networks:

Publication Count: Growth patterns in behavioral finance research were tracked by counting the number of publications per year. The yearly publication count provides a sense of when research activity was high, and peaks may correspond to important events in the finance sector [18].

Citation Analysis: The impact and influence of publications was assessed using citation counts. Foundational research in behavioral finance was identified as highly cited works that reflect the research that guided subsequent studies and theoretical development [19]. To highlight publications with consistent academic influence even within a narrow niche, the average citation per document was calculated.

H-index: Author productivity and the impact of their work were determined by using the h-index which takes into account both the number of publications and citations received [20]. This indicator allowed us to find the most influential authors who have contributed to the development of the field in the last 10 years.

I-

Collaboration Networks

The co-authorship analysis was used to map the collaborative networks within the field. In this analysis, we identify collaborations within institutions and between countries, demonstrating the level of globalization in behavioral finance research [21].

Software Tools for Network and Co-Citation Analysis

The software VOSviewer and Bibliometrics were employed to construct and visualize co-authorship, keyword co-occurrence, and citation networks [22]. Collaborative authorship network and keyword co-occurrence maps were generated using VOSviewer to gain an easily understandable view of the thematic content of behavioral finance [23]. Descriptive quantitative analysis of citation data was done using Bibliometrics, an R-based bibliometric package to enhance the understanding of research output and trends [24]. With these bibliometric tools, the study was able to identify not only the quantitative trends but also the mapping of the most influential authors, institutions, and the most frequently researched topics in behavioral finance over the last ten years.

Results

Global Research Output and Growth Trends

The research on behavioral finance has been growing gradually over the last decade (2014–2023) with increased activity during the COVID-19 pandemic. The examination of the publication frequency profile showed that this area has been receiving increasing attention due to its capacity to explain market irregularities and the behavior of investors in conditions of risk. There is a significant change in the number of publications from 2020 to 2021, and world crises affect research agendas. The analysis of the distribution by country shows that the United States, the United Kingdom, China, and Germany are the most productive countries in this field, while the countries of emerging economies, including India and Brazil, are gradually increasing their activity in this area.

Bibliometric Indicators and Analysis

To provide a comprehensive understanding of global research trends in behavioral finance, a detailed bibliometric analysis was conducted. The following indicators were evaluated:

1. **Year-wise Published Documents** The number of publications per year shows the growth of the field, and the spikes correspond to the major financial and economic events. This analysis also shows how the research activity fits into global trends, which provides an understanding of the external factors that influence academic interest.
2. **Top 10 Journal-wise Published Documents** The biggest number of articles is presented by leading journals specializing in this topic – Journal of Behavioral Finance and Journal of Financial Economics. This analysis allows for determining key platforms for the dissemination of research and acts as a reference point in other related research work.
3. **Top 10 Source Documents through Network Map**

By employing network analysis, the identified source documents were examined in terms of their thematic interconnections and scholarly citations. This mapping shows the pioneering studies that remain relevant to the field and new studies that address current issues.

4. **Top 10 Journals Having Maximum Citation** A network map highlights the inter-citation relationships of highly cited journals and demonstrates the integration of different perspectives into the research process. Historical analysis of the journals reveals the top-tier outlets in the field of behavioral finance and several more that concentrate on interdisciplinary studies covering the relationship between finance and psychology and theories of decision-making.
5. **Network Map of Top 10 Cited Journals** An analysis of citation patterns and the construction of a network map of highly cited journals demonstrates that the processes of research dissemination and the integration of different viewpoints are interconnected.
6. **Top 10 Authors Having Maximum Citations** Scholars who have made major contributions to the field and who have published highly cited papers were selected, including Daniel Kahneman and Richard Thaler.
7. **Network Visualization of Co-authorship Among Top 10 Authors** Co-authorship networks reveal the pattern of research collaborations among the top scholars and the interdisciplinarity and internationality of behavioral finance research.
8. **Country-wise Publication Analysis** The distribution of publications by country shows that developed countries are the most productive, although the role of developing countries is steadily increasing. This analysis brings out the fact that behavioral finance is an issue of international concern.
9. **Top 50 Cited Articles** The most cited articles help in establishing a basis of understanding of the main themes such as cognitive biases, risk perception, and decision-making under risk. These works form a basis for continuing research.

10. **Network Map of Country-wise Publications** The country-wise collaboration networks show the density of international connections and the regions with the most academic collaboration.
11. **Major Findings Revealed from Literature** The bibliometric analysis shows the important trends and the research gaps. These subtopics as digital finance, cryptocurrency, and sustainable investment show that behavioral finance is a progressive field and adapts to modern opportunities and risks.

The bibliometric analysis also shows that behavioral finance is a multidisciplinary and collaborative field of study. The presented results show how the expansion of international collaborations and the thematic diversification of research has benefited the field and positioned it in accordance with the modern economy and society. In addition, trends for further research are identified, for instance, behavioral consequences of digitalization and sustainable finance.

Table 1: Yearly Trends, Growth Patterns, and Key Themes in Behavioral Finance Research (2014–2023)

Year	*General Trend in Behavioral Finance Publications*	*Key Growth Patterns*	*Notable Topics and Subfields*	*Significant Events Influencing Research*
2014	Moderate growth	Emerging interest in behavioral insights	Initial studies on investor psychology, early integration of psychology in finance	Recognition of behavioral biases in financial decisions
2015	Moderate growth	Slight increase in academic interest	Behavioral economics, initial studies on heuristics in finance	Growing acceptance of interdisciplinary research
2016	Steady growth	Expansion of behavioral research in finance	Rationality and irrationality, cognitive biases	Increase in studies on decision-making and biases
2017	Continued growth	Increased interdisciplinary interest, especially in psychology	Decision-making under uncertainty, investor sentiment studies	Advances in understanding psychological factors in investment
2018	Continued growth	The rise in behavioral economics applications	Biases and heuristics, investor emotion studies	Broader integration of behavioral finance in academic research
2019	Notable growth	Growing acceptance of behavioral frameworks	Neurofinance, financial decision-making under stress	Increased awareness of psychological factors in finance

2020	Peak growth	Significant spike due to global crises	Risk perception, decision-making under stress, loss aversion	COVID-19 pandemic impacts on financial behavior
2021	Peak growth	High focus on investor behavior in crisis	The psychological impact of economic uncertainty, emotional responses to volatility	COVID-19 aftermath, increased relevance of behavioral insights
2022	Steady growth	Sustained interest post-crisis	Continued focus on microfinance, evolving frameworks for decision-making under stress	Adaptation to post-COVID economic landscapes
2023	Steady growth	Diversification of research themes	Further development in stress-based financial decisions, resilience in finance	Continuing focus on economic recovery and resilience themes

Yearly Publication Trend and Growth Patterns: An analysis of publications from 2014 to 2023 shows a steady upward trend in behavioral finance as a field that is increasingly incorporated into broader financial and economic research. In 2019, the field grew notably, in line with growing awareness of the role psychological factors play in financial decision-making. This increase in interest may also be due to a greater acceptance of behavioral economics frameworks within traditional finance, requiring irrational behaviors in financial markets to be addressed [25]. This growth trend is not only a result of the increased research activity but also the diversification of the research themes in behavioral finance, as evidenced by the emergence of subfields such as microfinance and financial decision-making under stress [26].

Key Periods of Increased Interest: Notable peaks in behavioral finance research occurred in 2020 and 2021, within this decade-long period. In these years, there was a boom in studies on how global crises, especially the COVID-19 pandemic, affect investor behavior. This trend is a manifestation of an increasing academic interest in behavioral responses to economic strain and high uncertainty, where researchers explored the biases and psychological impacts on financial decisions in such unprecedented times [27]. Areas like risk perception, decision-making under stress, and loss aversion became central to behavioral finance studies during the pandemic which also reaffirmed the discipline's ability to tackle problems of its time.

Top Contributing Countries and Institutions

Geographic Distribution of Publications: The geographic distribution of publications shows that the United States is the leading country in terms of research output and produces a large share of the work in behavioral finance. Following the US, the United Kingdom, China, and Germany are the core hubs of research activity in this field. In particular, these countries are also the home of research institutions that can offer to dedicate some resources with financial support to behavioral finance, testifying the relevance of regional economic and academic support in nurturing specific branches of finance [28]. Furthermore, behavioral finance research is becoming a popular area in emerging economies like Brazil and India, which

indicates the increasing interest in the study of investor behavior and decision-making in these different financial markets [29].

Leading Institutions in Research Output and Impact: Harvard University, the University of Oxford, and Peking University have been at the forefront of behavioral finance research. Often, these universities are responsible for producing high-impact publications, which are often among the most cited studies in the field [30]. Additionally, this reflects interdisciplinary collaboration across these institutions, which conduct research through the integration of psychology, economics, and data analytics in their work to create a well-rounded understanding of behavioral finance topics despite the high output and impact of this work.

Key Authors and Influential Publications

Prolific Authors and Their Contributions: Over the past decade, several influential authors have become leaders in the field of behavioral finance. Among the key figures are Richard Thaler, Daniel Kahneman, and Robert Shiller who building on their foundational work have made enormous contributions to the discipline as a whole. Most especially, Thaler has contributed or shown in his works the cognitive biases, partly including mental accounting and loss aversion, that have revolutionized the field of finance and driven the assimilation of psychological factors in financial models [31]. One very important framework that is coming back time and again is the collaborative work that Kahneman did with Amos Tversky on prospect theory, which is one of the most widely referenced contributions today and provides a framework to understand how people make decisions under risk or uncertainty [32]. Based on the ideas of Shiller, the investigation of market inefficiencies, basically in times of economic volatility, has given a deeper insight into behavioral finance by exposing the influence of the investor's sentiments and irrational behavior [33].

Highly Cited Publications: Several publications have a great academic influence and high citation counts. Prospect theory developed by Kahneman and Tversky [34] is still the basis for understanding risk behavior, and Shiller's analysis of market bubbles and inefficiencies [35] represents a valuable contribution to understanding the dynamics of irrational investment behavior. Influential more recent works have studied behavioral responses to economic downturns, focusing on the effect of investor psychology on portfolio management and risk tolerance [36].

Journals and Core Areas of Publication.

Top Journals in Behavioral Finance: Most of the research in behavioral finance is published in top-tier journals like the Journal of Behavioral Finance, Journal of Financial Economics, and Journal of Economic Behavior & Organization. The focus of these journals is on high-quality studies of investor behavior, cognitive biases, and psychological influences on financial decision making and they often feature the latest advances in behavioral finance research [37]. These journals also reflect the increasing acceptance of interdisciplinary approaches to the study of complex behavioral questions combining insights from finance, psychology, and economics.

Core Research Areas: Recurring themes highlighted by keyword analysis include 'investor behavior', 'risk perception', 'market efficiency', and 'financial decision making' [38]. Principally, risk tolerance and mental accounting have been considered psychological factors in research on these topics. These themes have expanded in recent years to include studies on

behavioral biases in times of crisis, including the study of how external economic pressures impact investor behavior and decision-making patterns [39].

Co-Authorship and Collaboration Networks.

Mapping International Collaborations: International collaborations are revealed in coauthorship networks, with the United States, China, and the United Kingdom having the most cross-border partnerships. The trend in this case shows that behavioral finance is a collaboration, in the sense that researchers from different places and academic backgrounds have collaborated to expand understanding within the field. Particularly, the University of Cambridge and the National University of Singapore have been very instrumental in advancing empirical research on investor behavior, since they have been publishing on global market trends and behavioral biases [40].

Prominent Research Networks: The research networks behind prolific authors such as Thaler and Shiller often span interdisciplinary teams that examine behavioral finance from different angles. As noted, these teams are known for their work on market inefficiencies, investor psychology, and cognitive biases, which together make up a strong foundation within the field [41]. These networks have been successful in building up the theoretical and empirical bases of behavioral finance by involving experts from related disciplines to help the field answer complex questions about human behavior in economic contexts [42].

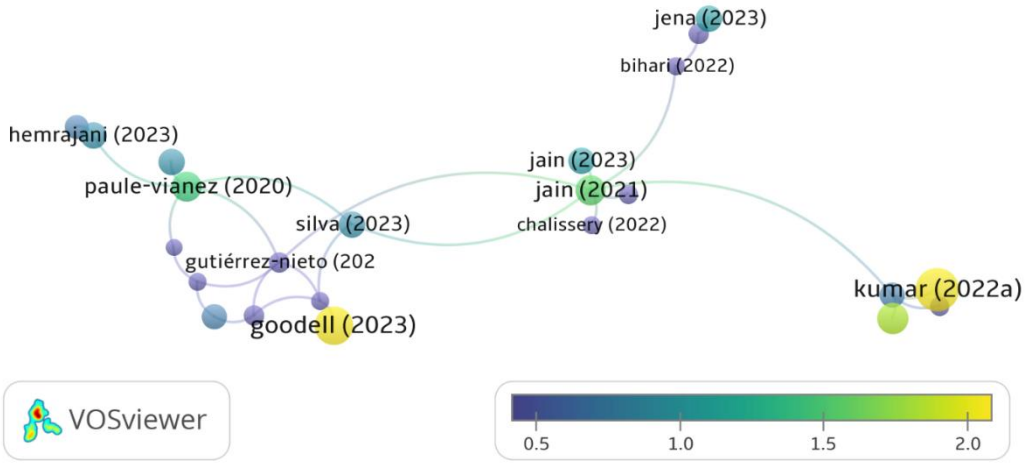

Figure 1: Network graph of citations

Keyword Analysis and Research Themes

Co-Occurrence of Keywords and Emerging Themes: Analysis of keyword co-occurrence shows that research themes are evolving, including "risk aversion," "behavioral biases," and "financial crises." These keywords are not only core topics but also reflect changes in focus within the discipline. Nowadays issues such as "digital finance" and "cryptocurrency" prove that behavioral finance successfully modifies itself to the new investment platforms and changing financial panoramas [43]. These new themes are integrated into the field in response to technological advances and their effect on investor behavior.

Evolution of Research Topics Over Time: Between 2014 and 2019, behavioral finance research focused on "investor psychology" and "market anomalies." But since 2020, we have seen a marked change toward crisis-related themes, which can be attributed to the impact of the COVID-19 pandemic on global markets. The studies of "emotional response" and "herding behavior" in market downturns indicate that the focus on external stressors on financial decision-making is broadening [44, 45]. Such findings reinforce the importance of behavioral finance in understanding investor reactions to common and rare economic challenges.

Discussion

Over the last decade, there has been a significant expansion of behavioral finance research, on which there is a clear trend in the analysis of the psychological bases of financial decisions and market dynamics. After 2020, studies began to focus more on investor behavior in the face of crises, including the COVID-19 pandemic. This shift is part of a larger trend in the field, as crisis-driven themes such as risk perception, emotional response, and herding behavior have become central to understanding how external stressors affect financial decision-making processes [45]. Moreover, the emerging research themes: 'digital finance' and 'cryptocurrency' illustrate how the field changed to the modern financial environments, with digital platforms and decentralized currencies opening up a new arena for behavior analysis [46]. These advancements demonstrate that behavioral finance is capable of adapting to changes in modern global economic conditions, and thus will remain a key contributor to financial decision-making, in both traditional and modern situations.

Geographic analysis of research output shows that the United States, United Kingdom, China, and Germany are leaders in behavioral finance research, which indicates significant academic and financial investment in the field [47]. Other countries are blessed with well-established research institutions and high levels of funding for both basic and applied research. On the other hand, emerging economies like India and Brazil are producing more research and are becoming more interested in the relevance of behavioral finance to their unique economic landscapes [48]. Not only does the productivity of these regions vary in terms of output, but also in thematic focus: whereas Western nations tend to focus on psychological biases and cognitive processes, emerging economies are increasingly looking at topics such as financial inclusion and the effects of behavioral interventions on new investor groups [49]. Additionally, this high regional diversity illustrates the flexibility of behavioral finance as a field that can study general as well as specific aspects of financial behaviors.

The development of behavioral finance has been dependent on collaboration and interdisciplinary approaches. The co-authorship networks show strong international partnerships, especially between institutions in the United States, the United Kingdom, and China [50]. The diversity of these perspectives in the field comes from the fact that research teams often include insights from psychology, economics, and data science. This interdisciplinary approach has been encouraged by high-impact studies by authors such as Daniel Kahneman and Amos Tversky, whose foundational work in behavioral economics and risk assessment [51] has been influential. In addition to enriching behavioral finance's theoretical base, the integration of different fields deepens the methodological rigor of this research by employing increasingly complex data analytics and neuropsychological testing or computational modeling [52]. As this tendency to work collaboratively and interdisciplinarily continues, behavioral finance will merge additional aspects of artificial intelligence, machine learning, and big data as it scrutinizes complex financial behaviors more thoroughly [53].

The main source of bibliometric data used in this study was Scopus, which is comprehensive but not all behavioral finance literature. A series of single databases can exclude studies indexed elsewhere, therefore limiting the scope and representativeness of the findings. Additionally, Scopus is not exhaustive of certain influential publications, or emerging journals which are constrained due to a lack of indexing adding multiple databases, Web of Science, and Google Scholar may help future studies provide a more comprehensive dataset of behavioral finance research across multiple platforms [54, 55].

Bibliometric data are difficult to interpret in the context of behavioral finance. There may be publication language bias, journal reach bias, and academic discipline bias in bibliometric indicators (i.e., citation counts and h-indices). For example, articles (e.g., highly cited articles) located in high-impact factor journals that are based in Western countries may introduce regional bias, and the global representativeness of the analysis is limited [56]. Moreover, bibliometric metrics alone may not capture full interdisciplinary work in behavioral finance, as the cross-referencing of studies published in psychology or economic journals may not be complete. Future bibliometric analyses could address these challenges by including qualitative assessments of the thematic influence of key studies and the wider academic and real-world impact of behavioral finance research [57].

Conclusion

An in-depth bibliometric study of the evolution and current state of behavioral finance research is presented, identifying key trends, influential contributors, and major thematic areas within the field. Over the past decade, behavioral finance has grown rapidly because it blended psychological principles into financial theory. Much of this expansion is driven by the realization that behavioral finance helps explain market anomalies investor psychology and decision-making under uncertainty, which traditional finance models do not. We find that behavioral finance research is highly interdisciplinary and draws heavily from psychology, economics, and cognitive science. The collaborative networks reflected in the field extend across countries and institutions which signify the global nature of the field. Core themes in behavioral finance are investigated by leading contributors and prolific authors whose works provide insights into investor behavior, risk aversion, and emotional biases. Many have advanced behavioral finance into timely and socially relevant issues such as digital finance, corporate governance, and sustainable investing, all made possible for this collaborative landscape. The rising volume of publication and citation impact reflects not only the academic interest but also the practical importance of behavioral finance insights in today's complex financial environment. The key journals have become the core platforms for publishing groundbreaking research, and the emerging themes identified through keyword co-occurrence analysis show emerging trends such as the application of behavioral finance in financial technology and environmental finance. Scopus, on the other hand, is a preferred source for bibliometric analysis but suffers from the problem of relying on a single source. Other databases like Web of Science or Google Scholar could be added to future studies, to provide a more well-rounded view.

References

1. Agarwal S, Qian W. Consumption and debt response to unanticipated income shocks: Evidence from a natural experiment in Singapore. American Economic Review. 2014 Dec 1;104(12):4205-30.

2. Agarwal S, Qian W. Consumption and debt response to unanticipated income shocks: Evidence from a natural experiment in Singapore. American Economic Review. 2014 Dec 1;104(12):4205-30.
3. Aria M, Cuccurullo C. bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of informetrics. 2017 Nov 1;11(4):959-75.
4. Baker M, Wurgler J. Behavioral corporate finance: An updated survey. InHandbook of the Economics of Finance 2013 Jan 1 (Vol. 2, pp. 357-424). Elsevier.
5. Baker SR, Bloom N, Davis SJ, Terry SJ. Covid-induced economic uncertainty. National Bureau of Economic Research; 2020 Apr 13.
6. Baker SR, Bloom N, Davis SJ, Terry SJ. Covid-induced economic uncertainty. National Bureau of Economic Research; 2020 Apr 13.
7. Barberis N. A Survey of Behavioral Finance. Handbook of the Economics of Finance. 2003;1.
8. Bihari, Anshita and Dash, Manoranjan and Kar, Sanjay Kumar and Muduli, Kamalakanta and Kumar, Anil and Luthra, Sunil (2022), Exploring behavioural bias affecting investment decision-making: a network cluster based conceptual analysis for future research, International Journal of Industrial Engineering and Operations Management, 4(1): 19 – 43. 10.1108/ijieom-08-2022-0033, https://app.dimensions.ai/details/publication/pub.1152989834
9. Bornmann L, Marx W. Distributions instead of single numbers: Percentiles and beam plots for the assessment of single researchers. Journal of the Association for Information Science and Technology. 2014 Jan;65(1):206-8.
10. Bouri E, Molnár P, Azzi G, Roubaud D, Hagfors LI. On the hedge and haven properties of Bitcoin: Is it more than a diversifier? Finance Research Letters. 2017 Feb 1;20:192-8.
11. Burnham JF. Scopus database: a review. Biomedical digital libraries. 2006 Dec;3:1-8.
12. Chalissery, Neenu and Tabash, Mosab I. and T, Mohamed Nishad and Al-Faryan, Mamdouh Abdulaziz Saleh (2022), A bibliometric analysis of socially responsible investment based on thematic clustering, Cogent Business & Management, 10(1): 2154057. https://app.dimensions.ai/details/publication/pub.1153972864
13. da Gama Silva, Paulo Vitor Jordão and Santos, Jordana Brandalise and Pereira, Gabrielle Portes. (2019), Behavioral Finance in Brazil: A Bibliometric Study from 2007 to 2017, *Latin American Business Review*, 20(1):61-82. 10.1080/10978526.2019.1578177, https://app.dimensions.ai/details/publication/pub.1112983968
14. Donthu N, Kumar S, Mukherjee D, Pandey N, Lim WM. How to conduct a bibliometric analysis: An overview and guidelines. Journal of business research. 2021 Sep 1;133:285-96.
15. Falagas ME, Pitsouni EI, Malietzis GA, Pappas G. Comparison of PubMed, Scopus, web of Science, and Google Scholar: strengths and weaknesses. The FASEB journal. 2008 Feb;22(2):338-42.
16. Fama EF, French KR. Common risk factors in the returns on stocks and bonds. Journal of financial economics. 1993 Feb 1;33(1):3-56.
17. Frydman C, Camerer CF. The psychology and neuroscience of financial decision making. Trends in cognitive sciences. 2016 Sep 1;20(9):661-75.
18. Frydman C, Camerer CF. The psychology and neuroscience of financial decision making. Trends in cognitive sciences. 2016 Sep 1;20(9):661-75.
19. Frydman C, Camerer CF. The psychology and neuroscience of financial decision making. Trends in cognitive sciences. 2016 Sep 1;20(9):661-75.

20. Garfield E. Citation analysis as a tool in journal evaluation: Journals can be ranked by frequency and impact of citations for science policy studies. Science. 1972 Nov 3;178(4060):471-9.
21. Glänzel W, Schubert A. Analysing scientific networks through co-authorship. InHandbook of quantitative science and technology research: The use of publication and patent statistics in studies of S&T systems 2004 (pp. 257-276). Dordrecht: Springer Netherlands.
22. Glänzel W. Coauthorship patterns and trends in the sciences (1980-1998): A bibliometric study with implications for database indexing and search strategies.
23. Glänzel W. Coauthorship patterns and trends in the sciences (1980-1998): A bibliometric study with implications for database indexing and search strategies.
24. Goodell, John W. and Kumar, Satish and Rao, Purnima and Verma, Shubhangi (2023), Emotions and stock market anomalies: A systematic review, Journal of Behavioral and Experimental Finance, 37(1): 100-722. 10.1016/j.jbef.2022.100722, https://app.dimensions.ai/details/publication/pub.11496781
25. Gutiérrez-Nieto, Begoña and Ortiz, Cristina and Vicente, Luis, (2023), A bibliometric analysis of the disposition effect: Origins and future research avenues, Journal of Behavioral and Experimental Finance, 37(1): 100-774. 10.1016/j.jbef.2022.100774, https://app.dimensions.ai/details/publication/pub.1153160732
26. Hirsch JE. An index to quantify an individual's scientific research output. Proceedings of the National Academy of Sciences. 2005 Nov 15;102(46):16569-72.
27. Hong J, Olander H. University-industry knowledge interaction: case studies from Finland and China. International journal of healthcare technology and management. 2010 Jan 1;11(5):356-72.
28. Hou B, Hong J, Shi X. Efficiency of university-industry collaboration and its determinants: Evidence from Chinese leading universities. Industry and Innovation. 2021 Apr 21;28(4):456-85.
29. Jain, Jinesh and Walia, Nidhi and Singh, Simarjeet and Jain, Esha (2021), Mapping the field of behavioural biases: a literature review using bibliometric analysis, Management Review Quarterly, 72(3): 823-855. https://app.dimensions.ai/details/publication/pub.1136660887
30. Jain, Jinesh and Walia, Nidhi and Singla, Himanshu and Singh, Simarjeet and Sood, Kiran and Grima, Simon (2023), Heuristic Biases as Mental Shortcuts to Investment Decision-Making: A Mediation Analysis of Risk Perception, Risks, 11(4): 72. 10.3390/risks11040072, https://app.dimensions.ai/details/publication/pub.1156943949
31. Jena, Jyoti Ranjan and Biswal, Saroj Kanta and Shrivastava, Avinash K. and Panigrahi, Rashmi Ranjan (2023), A bibliographic overview of financial engineering in the emerging financial market, International Journal of System Assurance Engineering and Management, 14(2): 2048-2065. 10.1007/s13198-023-02123-8, https://app.dimensions.ai/details/publication/pub.1164092221
32. Kahneman D, Tversky A. Prospect theory: An analysis of decision under risk. Handbook of the fundamentals of financial decision making: Part I 2013 (pp. 99-127).
33. Kahneman D, Tversky A. Prospect theory: An analysis of decision under risk. Econometrica. 1979;47(2):263–91.
34. Kumar, Satish and Sharma, Dipasha and Rao, Sandeep and Lim, Weng Marc and Mangla, Sachin Kumar (2022a), Past, present, and future of sustainable finance: insights from big data analytics through machine learning of scholarly research, Annals of Operations Research: 1-44. https://app.dimensions.ai/details/publication/pub.1144366970

35. Leydesdorff L, Rafols I. Indicators of the interdisciplinarity of journals: Diversity, centrality, and citations. Journal of Informetrics. 2011 Jan 1;5(1):87-100.
36. Li F, Chen J, Su YS. Managing the university-industry collaborative innovation in China: The case of Zhejiang NHU Company. Journal of organizational change management. 2018 Feb 12;31(1):62-82.
37. Lo AW. Reconciling efficient markets with behavioral finance: the adaptive markets hypothesis. Journal of investment consulting. 2005;7(2):21-44.
38. Lo AW. Reconciling efficient markets with behavioral finance: The adaptive markets hypothesis. J Invest Consult. 2004;7(2):21–44.
39. Miller CN, Roll R, Taylor W. Efficient capital markets: A review of theory and empirical work. The Journal of Finance. 1970 May;25(2):383-417.
40. Odean T. Are investors reluctant to realize their losses? The Journal of Finance. 1998 Oct;53(5):1775-98. Statman M. What is behavioral finance? Handb Behav Finance. 2010;1–20.
41. Paule-Vianez, Jessica and Gómez-Martínez, Raúl and Prado-Román, Camilo (2020), A bibliometric analysis of behavioural finance with mapping analysis tools, *Investigaciones Europeas de Dirección y Economía de la Empresa,* 26(2): 71-77. https://doi.org/10.1016/j.iedeen.2020.01.001, https://app.dimensions.ai/details/publication/pub.1124557343
42. Pragati Hemrajani, Rajni, Muskan Khan, Rahul Dhiman (2023) Financial risk tolerance: A review and research agenda, *European Management Journal,* 41(6): 1119-1133. https://doi.org/10.1016/j.emj.2023.10.004.
43. Shefrin H. Behavioralizing finance, foundations and trends in finance. 4 (1–2): 1–184. 2010
44. Shefrin H. Behavioralizing finance, foundations and trends in finance. 4 (1–2): 1–184. 2010
45. Shefrin H. Behavioralizing finance, foundations and trends in finance. 4 (1–2): 1–184. 2010
46. Shiller RJ. Human behavior and the efficiency of the financial system. Handbook of macroeconomics. 1999 Jan 1; 1:1305-40.
47. Shiller RJ. Irrational exuberance. Princeton University Press; 2015.
48. Statman M. What is behavioral finance? Handbook of finance. 2008 Sep 15;2(9):79-84.
49. Thaler RH. Behavioral economics: Past, present, and future. American economic review. 2016 Jul 1;106(7):1577-600.
50. Thaler RH. Misbehaving: The making of behavioral economics. WW Norton & Company; 2015 May 11.
51. Tversky A, Kahneman D. Advances in prospect theory: Cumulative representation of uncertainty. Journal of Risk and Uncertainty. 1992 Oct; 5:297-323.
52. Van Eck N, Waltman L. Software survey: VOSviewer, a computer program for bibliometric mapping. Scientometrics. 2010 Aug 1;84(2):523-38.
53. Van Eck NJ, Waltman L. Visualizing bibliometric networks. InMeasuring scholarly impact: Methods and practice 2014 Sep 29 (pp. 285-320). Cham: Springer International Publishing.
54. Van Eck NJ, Waltman L. Visualizing bibliometric networks. InMeasuring scholarly impact: Methods and practice 2014 Sep 29 (pp. 285-320). Cham: Springer International Publishing.

55. Zhang Y, Chen X. Empirical analysis of university-industry collaboration in postgraduate education: A case study of Chinese universities of applied sciences. Sustainability. 2023 Apr 5;15(7):6252.
56. Zhou P, Tijssen R, Leydesdorff L. University-industry collaboration in China and the USA: A bibliometric comparison. PloS one. 2016 Nov 10;11(11):e0165277.
57. Zupic I, Čater T. Bibliometric methods in management and organization. Organizational research methods. 2015 Jul;18(3):429-72.