

A Bibliometric Analysis of Behavioral Finance Research: Investor Psychology, Marketing Cues, and Financial Literacy in Stock Market Investment Decisions

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ABSTRACT

This study aims to conduct a comprehensive bibliometric study of the literature related to behavioral finance, investor psychology, marketing cues, financial literacy and investment decisions in the stock market based on the literature collected from the Scopus databases from 2009 to 2026. The analysis includes 205 documents across 155 sources, authored by 585 authors (with an average of 3.08 co-authors per document) and performed by bibliometrix (R-package) and the Biblioshiny interface. At 21.91%, the annual growth of the field is significant, especially since 2020, showing an escalation of scholarly attention. The main findings are that the top producing countries are India ($n = 211$), Indonesia ($n = 111$) and Malaysia ($n = 40$) and that the countries with the highest citation impact are Turkey (mean citations per article = 44.5) and Pakistan (mean citations per article = 43.7). There are four nucleus journals in Bradford's Law and Lotka's law shows that 93% of authors had published one paper. Thematic mapping was used to outline 4 research clusters, investment decision and financial literacy are the most central themes, while marketing cues are conspicuously not identified as a separate theme, hence a research gap remains. The study offers a structured profile of the intellectual map and gap analysis in terms of integrated mediation models, marketing cues, and sub-national Indian contexts, which are the motivation for the upcoming empirical study among retail equity investors in Punjab.

Keywords: Behavioral Finance, Bibliometric Analysis, Financial Literacy, Investor Psychology, Marketing Cues, Risk Perception, Stock Market Investment Decisions, Scopus.

Introduction

It is one of the most fruitful subfields of financial research of the last 20 years and an area that has been the intersection of psychology, information environments, and financial markets. The behavioral finance strand of research, which began with prospect theory (Kahneman & Tversky, 1979) and the heuristics and biases program (Tversky & Kahneman, 1974), has since grown into a large and interdisciplinary field that studies how the investment decisions of individual actors are influenced by cognitive limitations, emotional states, and social factors (Baker & Ricciardi, 2014; Kumar & Goyal, 2015). Retail investors find themselves in a context where financial literacy is constantly changing, where marketing messages abound and are easily accessible, and where financial literacy is, to a large extent, heterogeneous (Choudhary et al., 2021; Dhingra et al., 2024).

Three constructs have been the focus of intense scholarly interest, and have been studied in relation to each other. Investor psychology, which includes the behavioral biases like overconfidence (Barber & Odean, 2001), herding, loss aversion (Kahneman & Tversky, 1979) and anchoring (Tversky & Kahneman, 1974), has been well established to be associated with suboptimal investment performance outcomes (Kumar & Goyal, 2015; Agarwal & Singh, 2024). Secondly, investor beliefs can be influenced by marketing cues, such as advertising messages, brokerage recommendations, social media content, and market news sentiment (MacKenzie & Lutz, 1989; Khan & Jan, 2019; Tetlock, 2007), which can result in herd behavior (Rachakonda et al., 2025; Hidayat et al., 2024). Thirdly, financial literacy (Lusardi & Mitchell, 2014; Dam & Hotwani, 2018) has been identified as a protective factor against behavioral biases, but is not fully incorporated into integrated models (Adil et al., 2022; Agarwal, 2025).

Bibliometric analysis is a scientifically sound and quantitative method for establishing the intellectual pattern of the scientific field (Donthu et al., 2021). The research sets out to: (a) map the growth of the field over time, as per performance analysis; (b) identify the most productive sources, authors, affiliations and countries, as per science mapping; (c) map thematic clusters and conceptual relationships as per science mapping; (d) test Bradford's Law and Lotka's Law; and (e) identify research gaps that motivate the next empirical study on retail equity investors in Punjab, India.

Theoretical Background

- **Behavioral Finance and Investor Psychology**

Rational and well-informed investors are the implicit assumption of classical finance theory which is based on expected utility maximization and the efficient market hypothesis (Fama, 1970). However, the orthodoxy is challenged by behavioral finance which has shown that systematic cognitive and emotional biases can cause predictable deviations from rationality. Prospect theory (Kahneman & Tversky, 1979) states that investors are loss averse and judge outcomes against a point of reference. Overconfidence bias encourages investors to trade too much, resulting in a loss of returns (Odean & Barber, 2001). Herding increases volatility of markets (Chiang & Zheng, 2010; Gupta & Kohli, 2021). Anchoring leads investors to rely too heavily on the first information they receive, and can cause them to misvalue later information (Tversky & Kahneman, 1974). All together, the biases form the psychological bases of sub-optimal investment habits (Baker & Ricciardi, 2014).

- **Marketing Cues and Information Environment**

MacKenzie and Lutz (1989) provided the seminal work providing an understanding of the relationship between advertising attitudes (belief in the credibility, relevance, and emotional tone of the ad) to intentions to act. This model also applies to brokerage advice, framing of market news and social media stories. Tetlock (2007) proved that media pessimism is measurably negative on stock prices and is a good predictor of high turnover. Khan and Jan (2019) created a validated social media marketing scale that consists of four dimensions: entertainment, interaction, trendiness and customization. Rachakonda et al. (2025) and Hidayat et al. (2024) show that digital marketing cues have a strong effect on herding and encourage speculative trading, especially for less financially literate investors.

- **Financial Literacy and Risk Perception**

Since Lusardi and Mitchell's (2011, 2014) "What is Financial Literacy?" reviews, financial literacy has been the focus of a massive policy and academic interest, capturing the attention of both practitioners and researchers. The authors of Van Rooij et al. (2011) also discovered that the investment literacy of the advanced type is correlated with diversification quality. In the Indian context, Choudhary et al. (2021) and Bhandari (2023) have demonstrated financial literacy as a moderating variable in the investment behavior. Risk perception is a psychological-to-behavioural link that can be defined as the investor's subjective evaluation of the degree of uncertainty and the likelihood of financial loss (Weber et al., 2002; Baird & Thomas, 1985). Almansour et al. (2023), Ahmed et al. (2022) and Waheed et al. (2020) have all pointed to the mediation of risk perception between biases and financial literacy and investment decision making.

Methodology

- **Data Source and Search Strategy**

The data was extracted from the Scopus database, which is considered to be the most comprehensive database covering social sciences, economics and management peer-reviewed journals. A systematic keyword search was conducted on the keywords: Investor psychology OR behavioural

finance OR behavioural finance OR in OR investment OR investor behaviour OR financial literacy OR risk perception OR marketing cues OR investment decision OR stock market OR financial literacy OR risk perception OR marketing cues OR investor behaviour OR in. The time range is from 2009 to May 2026. The types of documents were articles, book chapters, conference papers, reviews and books.

- **Analytical Tools and Techniques**

The bibliometrics analyses used the bibliometrix R-package (Aria & Cuccurullo, 2017) through the Biblioshiny web interface. The analytical framework (Donthu et al., 2021) combines (a) output and impact analysis of key actors, and (b) science mapping of the structural and dynamic relationships between intellectual constituents. The analysis methods are: annual scientific production analysis, Bradford's law, Lotka's law, keyword co-occurrence network analysis, thematic mapping based on centrality-density and country collaboration network analysis.

- **Dataset Characteristics**

Of this, 205 documents reflecting 155 distinct sources of information were published between 2009 and 2026, and written by 585 distinct authors (average 3.08 co-authors per document; 18.54% international co-authorship). Average document age was 2.89 years and average citations per document 11.44 with 19,524 total references. In terms of document type, the largest number are articles (n = 167, 81.5%) followed by book chapters (n = 18), conference papers (n = 15) and reviews (n = 3). Table 1 summarizes these indicators.

Table 1: Summary of Main Bibliometric Indicators

Indicator	Value
Timespan	2009–2026
Total Documents	205
Unique Sources	155
Annual Growth Rate (%)	21.91
Document Average Age (years)	2.89
Average Citations per Document	11.44
Total References	19,524
Total Authors	585
Authors of Single-Authored Documents	14
Co-Authors per Document	3.08
International Co-Authorships (%)	18.54
Author's Keywords (DE)	535
Keywords Plus (ID)	355

Note. Data retrieved from Scopus; analysis conducted using bibliometrix (Aria & Cuccurullo, 2017).

Results

- **Annual Scientific Production**

The overall annual growth rate of scientific production between 2009 and 2026 was 21.91%, showing outstanding growth in the scientific interest. In the early years (2009 and 2011) there was a low generation of publications. The increase began gradually in 2014 and continued through 2019 followed by a sharp inflection at 2020 (n = 12) corresponding to global financial market shocks due to the COVID-19 pandemic. The growth was strong in 2023 (n = 21) and 2024 (n = 32) and reached a record high with 63 documents in 2025 (more than 30% of the total). Based on the 29 documents already indexed, this rate will continue. The annual trend is illustrated in Table 2 and Figure 1.

Table 2: Annual Scientific Production (Selected Years with Non-Zero Output)

Year	Documents (n)
2009	1
2011	1
2014	2
2015	3
2016	2
2017	3
2018	6

2019	5
2020	12
2021	11
2022	14
2023	21
2024	32
2025	63
2026	29

Note. Years with zero output (2010, 2012, 2013) omitted. 2026 data partial (as of May 2026).

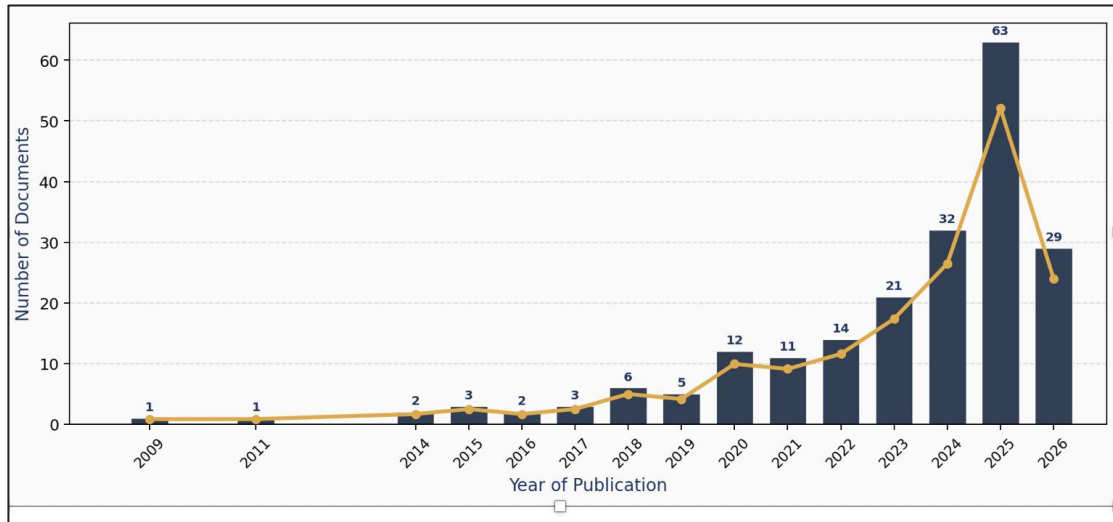


Figure 1: Annual Scientific Production in Behavioral Finance Research (2009–2026). Bar heights = document count per year; trend line (gold) shows growth trajectory. Annual Growth Rate = 21.91%.

- **Citation Analysis**

The temporal aspects are highlighted by citation statistics. The mean total citations per article (TC/article = 78.67) and mean citations per year (7.87) for the documents published in 2017 indicate that this is the more impactful three-document group. The 2020 cohort (n = 12) also did well, exhibiting a TC/article of 50.58 and TC/year of 7.23, which is the attention given to behavioral finance works during the pandemic. In 2016, the documents (TC/article = 66.50) and 2019, the documents (TC/article = 49.20) also outsourced the corpus average of 11.44. New documents (2024–2026) have lower metrics as they haven't had enough time to accumulate citations.

- **Most Relevant Sources and Bradford's Law**

There are 155 unique sources of which there are four in Bradford's Law Zone 1 (nucleus): International Journal of Accounting and Economics Studies, International Research Journal of Multidisciplinary Scope, Lecture Notes in Networks and Systems, and Studies in Systems, Decision and Control, all with 4 documents. The second tier comprises eight journals that contributed three documents each, including Global Business Review, International Journal of Bank Marketing, Managerial Finance, PLOS One, and Qualitative Research in Financial Markets. There were a total of 26 journals, with each journal submitting two documents, which contained the Journal of Behavioural Finance, Review of Behavioural Finance, and Journal of Financial Services Marketing. The remaining 121 sources each produced one document, in line with Bradford scatter in new interdisciplinary areas. The details are in Table 3 and Figures 2-3.

Table 3: Top 12 Most Relevant Sources by Document Count

Source	Articles (n)
International Journal of Accounting and Economics Studies	4
International Research Journal of Multidisciplinary Scope	4

Lecture Notes in Networks and Systems	4
Studies in Systems, Decision and Control	4
Asian Economic and Financial Review	3
Global Business and Finance Review	3
Global Business Review	3
International Journal of Bank Marketing	3
Managerial Finance	3
PLOS One	3
Qualitative Research in Financial Markets	3
Quality—Access to Success	3

Note. Bradford's Law Zone 1 (nucleus) = top four journals (4 documents each).

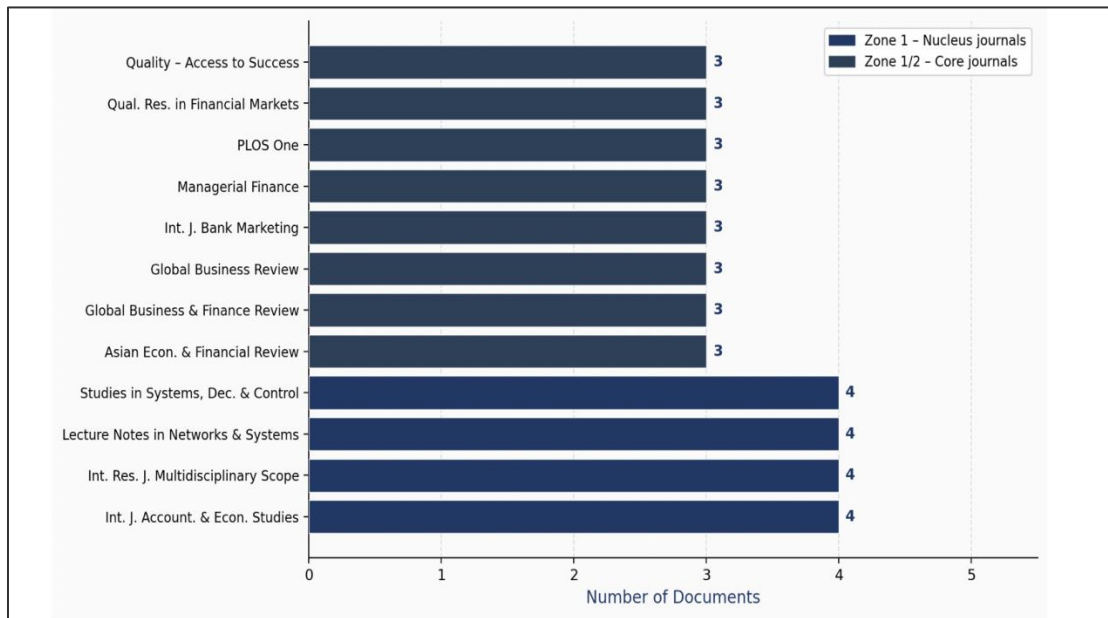


Figure 2: Top 12 Most Relevant Sources by Document Count. Dark blue bars = Bradford Zone 1 nucleus journals; medium blue = core Zone 1/2 journals.

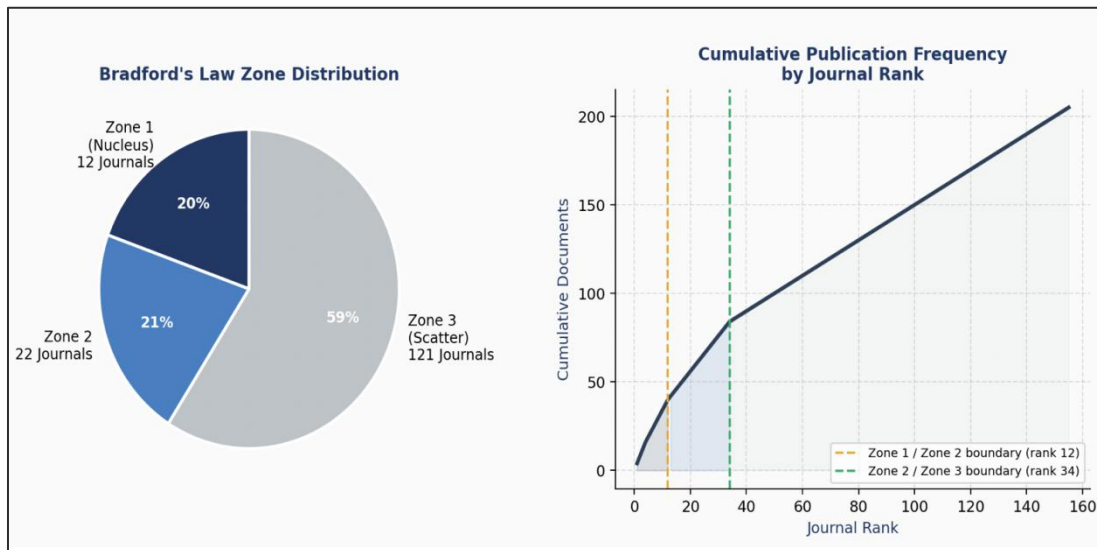


Figure 3: Bradford's Law of Source Concentration. Left panel: zone distribution by share of documents. Right panel: cumulative publication frequency by journal rank.

- **Most Relevant Authors and Lotka's Law**

The most productive authors were each represented by three documents, and there were about 40 authors with two documents. The international nature of the field is reflected in this. Analysis of Lotka's Law (Table 4; Figure 4) shows that 93.0 % of the contributing authors ($n = 544$) published one document, 6.2 % ($n = 36$) published two documents and 0.85 % ($n = 5$) published three documents. The inverse-square law is true for emerging interdisciplinary areas, in which the research communities are loose, and prolific core researchers have yet to coalesce; this distribution, therefore, offers significant potential for new research contributors, especially in retail markets that are under-researched, like the equity markets of Punjab.

Table 4: Lotka's Law — Distribution of Author Productivity

Documents Authored	Number of Authors	Proportion (%)
1	544	93.0
2	36	6.2
3	5	0.9

Note. Confirms inverse-square distribution of author productivity characteristic of emerging fields.

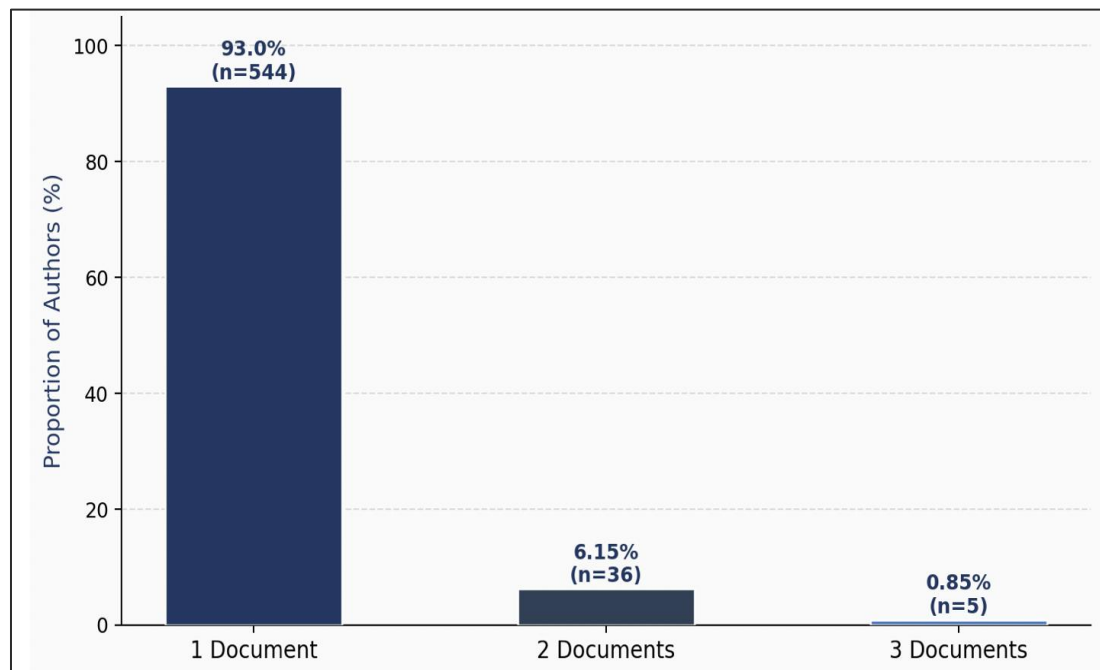


Figure 4: Lotka's Law — Distribution of Author Productivity. 93% of 585 contributing authors published exactly one document, confirming the inverse-square law.

- **Most Relevant Affiliations**

The most prolific is Bina Nusantara University ($n = 14$) in Indonesia, followed by Aurel Vlaicu University of Arad ($n = 8$) in Romania and Universitas Brawijaya and Universiti Malaysia Sabah ($n = 7$) in both countries. This is reflected in the high presence of Indian institutions with four documents each from Aligarh Muslim University, CHRIST (Deemed to be University) Delhi NCR, Dayananda Sagar University, Graphic Era (Deemed University), Rajiv Gandhi Institute of Petroleum Technology, Symbiosis International (Deemed University) and University of Delhi. The presence of Asian institutions (Indonesia, Malaysia, India, Romania and China) highlights the multi-centric nature of this research community, where the main scholarly center is located in the Asian developing economies.

- **Country-Level Scientific Production and Citation Impact**

India dominates scientific production with 211 country-level document contributions, more than double second-ranked Indonesia (n = 111). Malaysia (n = 40), the USA (n = 30), Pakistan (n = 24), China (n = 19), Italy (n = 18), and Romania (n = 16) complete the top eight producing countries. It is contextually appropriate because of the high Indian output and the wide financial inclusion efforts by SEBI and RBI (Dhingra et al., 2024; Rai, 2024) coupled with the rapid growth of retail investors in India.

The impact assessment of the citations shows a contrasting ranking. The average number of article citations is the highest for Turkey (mean = 44.5) followed closely by Pakistan (43.7). India's mean is 17.2 and it leads the absolute numbers of citations (TC = 808). The disparity between the production volume and mean impact between the different countries (at both extremes of the range, Turkey and Pakistan) indicates that high quality and carefully conducted research from these contexts was the focus of disproportionate scholarly attention. These results are summarized in Table 5 and illustrated in Figures 5–6.

Table 5: Top 10 Countries by Scientific Production and Citation Impact

Country	Documents (n)	Total Citations	Mean TC/Article
India	211	808	17.2
Indonesia	111	87	3.3
Malaysia	40	116	11.6
USA	30	92	7.7
Pakistan	24	306	43.7
China	19	112	18.7
Italy	18	57	11.4
Romania	16	8	4.0
Australia	11	19	19.0
Turkey	8	89	44.5

Note. TC = total citations. Country contributions may be counted more than once per multi-country document.

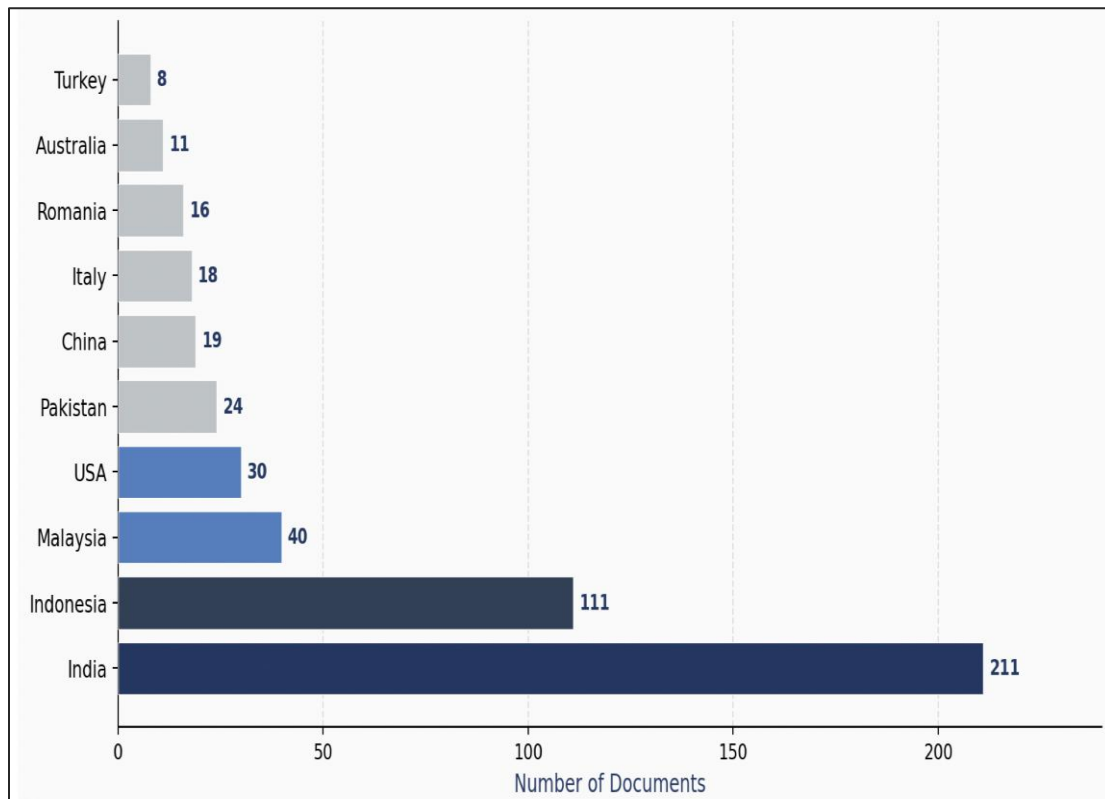


Figure 5: Top 10 Countries by Scientific Production. India (n = 211) dominates global output, followed by Indonesia (n = 111) and Malaysia (n = 40).

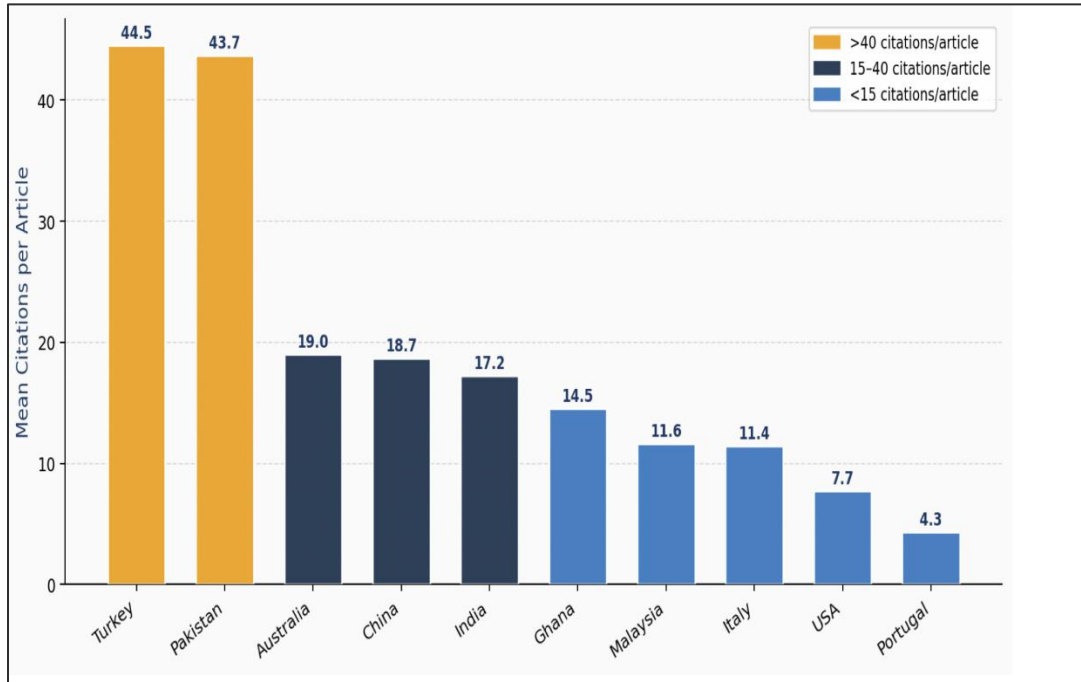


Figure 6: Citation Impact by Country — Mean Total Citations per Article. Turkey (44.5) and Pakistan (43.7) lead per-article impact; India leads in absolute total citations (TC = 808).

• **Keyword Co-Occurrence and Thematic Mapping**

Five keywords that appeared most frequently in the author assigned keywords were identified through the keyword co-occurrence network analysis: investments (n = 27); decision making (n = 22); investment decisions (n = 17); financial literacy (n = 15); and investment (n = 15). The major terms used in these core terms indicate that the corpus is based on the decision-making nexus between financial literacy and investment behavior. Secondary terms are risk tolerance (n = 7), behavioural finances (n = 7) and financial markets (n = 7). There is moderate frequency of risk perception, stock market, social media and cognitive bias.

From a thematic mapping perspective, using the centrality-density framework (Table 6; Figure 7), 4 research clusters can be identified. The most central cluster, 2 (investment decisions), contains concepts of financial literacy, behavioural finances, risk tolerance, risk perception, cognitive bias and social media (betweenness centrality (B) of 2,751.5 and 2,125.1, respectively), which are conceptual bridging concepts. The most concise cluster, with the highest keyword frequency, is cluster 4 (investments). More importantly, no dedicated cluster is centered around marketing cues, as this is the primary research gap that leads to the next primary study.

Table 6: Thematic Clusters Identified Through Keyword Co-occurrence Network Analysis

Cluster	Label	Key Terms
1	Financial Market	Financial market, financial system, sustainability
2	Investment Decisions	Investment decisions, financial literacy, behavioural finances, risk tolerance, risk perception, cognitive bias, social media, regression analysis
3	Financial Economics	Financial economics, financial institution, students, taxation
4	Investments	Investments, decision making, investment, adult, female, male, human, literacy, economics, stock market, knowledge, marketing

Note. Walktrap community detection algorithm applied to the keyword co-occurrence network.

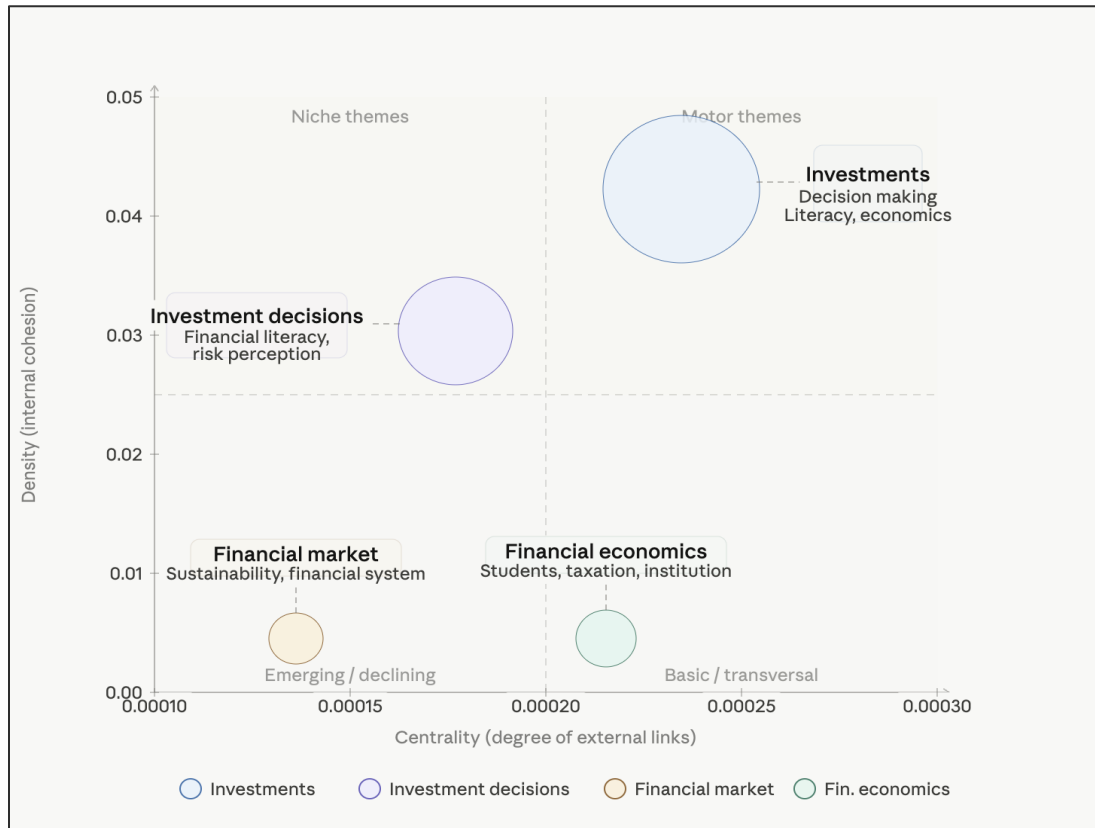


Figure 7: Thematic Map — Strategic Diagram of Research Clusters. X-axis = centrality (external linkage); Y-axis = density (internal cohesion). Cluster 4 (Investments) occupies the Motor Themes quadrant.

Research Gaps and Future Directions

- **Geographic and Contextual Specificity**

Even though India is the primary producer nation, the bibliometric corpus shows high national-level or city-level sampling of samples from main cities. There is a lack of sub-national, state-level analysis, especially from economically important, but educationally underrepresented states like Punjab. The retail equity investor population in Punjab exhibits unique socio-economic features such as higher growth in demat account penetration after 2020, increased inclination towards digitally trading in the market and differential financial education levels (Choudhary et al., 2021; Bhandari, 2023; Gupta & Kohli, 2021). From a bibliometric perspective, the analysis shows that there is no existing study in the corpus that uses all three of the following three elements of their primary study: geographic scope (Punjab), constructs (investor psychology, marketing cues, financial literacy, risk perception, investment decisions), and methodology (integrated SEM-based mediation).

- **Fragmentation of Theoretical Constructs**

Thematic mapping results show a relationship between investment decisions and financial literacy, with investment decisions being present at high frequencies ($n = 40$) and financial literacy being presented at high frequencies ($n = 30$), however, marketing cues were only found at low frequencies ($n = 3$) and are not the main label of any of the found clusters. While the majority of studies focus on subsets of the relevant constructs, none of them test the combined effect of investor psychology, marketing cues and financial literacy in a single integrated framework on the perceptions of risk and investment decisions (Adil et al., 2022; Ahmed et al., 2022; Waheed et al., 2020). Financial literacy (2,751.5) and risk perception (267.1) have high betweenness centrality, indicating that they act as structural bridges and the simultaneous integration of both with marketing cues and behavioral biases is limited in one model.

- **Mediation Models and Risk Perception**

The keyword analysis shows that only few studies exist which formally test risk perception as a mediator ($n = 2$ for both mediating roles and prospect theory), indicating a lack of research that is formally examining the mediating function of risk perception. It is noted that Almansour et al. (2023), Li et al. (2023) and Lamichhane and Subedi (2025) are exceptions and are from Jordan, China and Nepal respectively which is not the case with the Indian equity market and the marketing cues dimension. The SEM-based mediation analysis with bootstrapped confidence intervals is not widely used in the corpus, it is a gap and a good chance of rigor.

- **Marketing Cues as a Formal Construct**

The focus on marketing cues proves to be the most important gap found in the bibliometric analysis and in the thematic map. There is no specific theme or cluster dedicated to marketing constructs and the multi-dimensional marketing cue scales that have been validated (Khan & Jan, 2019; MacKenzie & Lutz, 1989; Tetlock, 2007) are seldom adopted in designs of research in behavioral finance. Finally, two recent studies, by Rachakonda et al. (2025) and Hidayat et al. (2024), are exceptions in that they are geographically limited. This is counter-intuitive as financial institutions and fintech companies spend significant amounts of money on investor-centric digital marketing (Chaitanya & Nordin, 2021; Mandal & Mitra, 2023).

- **Longitudinal and Experimental Designs**

The cross-sectional survey designs are used in the majority of cases, as reflected by the predominant occurrence of the key-word questionnaire and regression analysis. Causal identification would be greatly strengthened by field experiments with natural variation in marketing exposure, longitudinal panel studies, and quasi-experimental designs. The emerging area of experimental research about attention and information processing indicated by the eye tracking technology keyword ($n = 2$) is a sub-field that warrants further research regarding the impact of marketing cues on investor information processing.

Conclusion

This bibliometric study aims to systematically map the Scopus-indexed literature on behavioral finance constructs that are relevant for the upcoming primary study of retail equity investors in Punjab, India, for the first time, quantitatively. Overall, 205 documents were published between 2009 and 2026, providing a fascinating illustration of an annual growth rate of 21.91%, with India, Indonesia, and Malaysia over-represented as production countries and Turkey and Pakistan as the top per-article impact countries for citations. According to Bradford's Law there are four nucleus journals, and Lotka's Law shows that 93% of authors had only one document published. Two major research clusters emerge from the thematic mapping, namely investment decisions (based on financial literacy and risk perception) and general investments; sub-national geographic specificity, and marketing cues show up missing.

Researchers get an Intellectual Map validated by the study and specific gaps that warrant the design of the upcoming primary study. Practically, the greater the variability of financial literacy and the faster the marketing exposure, the more relevant it is for policy makers, especially in the geographic area of emerging economies. Future bibliometric studies should involve the use of the Web of Science data, use co-citation analysis and provide an updated map of themes as the surge of publications in the 2025–2026 period is fully indexed.

Limitations

The study has the following limitations. Firstly, the data are restricted to documents from the Scopus database; this may create selection bias if documents are excluded from the Web of Science and grey literature. Secondly, the analysis is based on author assigned keywords, and the lack of consistency in the assignment can impact the completeness of co-occurrence networks. Third, the numbers of citations are time-sensitive, meaning that documents published in 2024–2026, irrespective of the impact that they will ever have, are underrepresented. Fourth, the quality of research designs and the depth of theory in single documents cannot be evaluated with the method of bibliometric analysis. Fifth, there is no formal statistical test for compliance with Bradford's or Lotka's Laws in Bradford.

References

1. Adil, M., Singh, Y., & Ansari, M. S. (2022). How financial literacy moderates the influence of behavioural biases on investment decision-making? *Managerial Finance*, 48(8), 1221–1239.

2. Agarwal, A. (2025). Financial literacy, behavioural biases, and investment decisions among retail investors in India. *Indian Journal of Finance*, 19(2), 45–62.
3. Agarwal, V., & Singh, H. (2024). Overconfidence, herding, and loss aversion among Indian equity investors. *Global Business Review*, 25(3), 679–698.
4. Ahmed, Z., Ramakrishnan, S., & Noreen, U. (2022). Behavioural biases, risk perception, and investment decisions. *Qualitative Research in Financial Markets*, 14(4), 615–634.
5. Almansour, A. Y., Almansour, B. Y., & Almansour, M. (2023). Behavioural finance factors and investment decisions: The mediating role of risk perception. *Journal of Economic and Administrative Sciences*, 39(3), 511–527.
6. Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975.
7. Asry, S., Zainudin, R., & Ismail, R. (2024). Financial literacy, investment experience, and investment decisions. *Managerial Finance*, 50(1), 102–119.
8. Badheka, V., & Pandya, V. (2022). Behavioural factors and capital structure decisions: A systematic review. *Review of Behavioral Finance*, 14(3), 421–443.
9. Baird, I. S., & Thomas, H. (1985). Toward a contingency model of strategic risk taking. *Academy of Management Review*, 10(2), 230–243.
10. Baker, H. K., & Ricciardi, V. (2014). *Investor behaviour: The psychology of financial planning and investing*. Wiley.
11. Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *Quarterly Journal of Economics*, 116(1), 261–292.
12. Bhandari, A. (2023). Financial literacy, stock market participation, and portfolio diversification in India. *South Asian Journal of Business Studies*, 12(1), 1–19.
13. Bihari, A. K., Panda, B. N., & Swain, M. (2022). Network-cluster-based conceptual analysis of behavioural biases affecting investment decision-making. *Review of Behavioral Finance*, 14(5), 687–706.
14. Chaitanya, K. V., & Nordin, N. (2021). Psychological factors, risk perception, and social media influence on investment decision-making. *Qualitative Research in Financial Markets*, 13(5), 559–577.
15. Chiang, T. C., & Zheng, D. (2010). An empirical analysis of herd behavior in global stock markets. *Journal of Banking & Finance*, 34(8), 1911–1921.
16. Choudhary, K., Jakhar, M., & Choudhary, S. (2021). Financial literacy and investment behaviour of individual investors in India. *Investment Management and Financial Innovations*, 18(2), 318–328.
17. Dam, L., & Hotwani, M. (2018). Measuring financial literacy: Scale development and validation for Indian investors. *Finance India*, 32(3), 879–902.
18. Dhingra, V., Soni, N., & Choudhary, P. (2024). Stock market volatility research: A systematic review. *International Review of Financial Analysis*, 91, 103044.
19. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296.
20. Eichler, S., & Schwab, T. (2024). Robo-advisors and behavioural finance. *Journal of Financial Services Marketing*, 29(1), 55–72.
21. Gupta, V., & Kohli, B. (2021). Herding behaviour in the Indian stock market. *Finance Research Letters*, 38, 101430.
22. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
23. Hemrajani, P., & Sharma, R. (2020). Financial risk tolerance among Indian investors. *Global Business Review*, 21(6), 1481–1496.
24. Hidayat, T., Nuryakin, C., & Suryowati, K. (2024). Financial literacy, herding behaviour, and risk perception on financial behaviour. *International Journal of Bank Marketing*, 42(3), 421–440.

25. Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–292.
26. Khan, M. A., & Jan, A. (2019). Social media marketing scale: Development and validation. *Journal of Financial Services Marketing*, 24(1–2), 14–23.
27. Kumar, A., & Goyal, N. (2015). Behavioural biases in investment decision making: A systematic literature review. *Qualitative Research in Financial Markets*, 7(1), 88–108.
28. Kumar, S., Mehrotra, V., & Jain, P. (2025). Risk perception, financial stress, and financial literacy. *Review of Finance and Banking*, 17(1), 45–63.
29. Lamichhane, P., & Subedi, M. (2025). Risk perception, financial literacy, and investment behaviour in Nepal. *Journal of Risk and Financial Management*, 18(1), 3.
30. Li, H., Zhang, J., & Chen, W. (2023). Investment experience, risk perception, and investment decisions. *Frontiers in Psychology*, 14, 1131474.
31. Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics and Finance*, 10(4), 497–508.
32. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy. *Journal of Economic Literature*, 52(1), 5–44.
33. MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad. *Journal of Marketing*, 53(2), 48–65.
34. Mandal, S., & Mitra, R. (2023). ESG investing and investors' perceptions: A case study in Kolkata. *Afro-Asian Journal of Finance and Accounting*, 13(2), 145–164.
35. Mishra, K., Smyth, R., Bose, S., & Roy, M. (2016). Behavioural study of retail investors. *International Journal of Economics and Financial Issues*, 6(3), 1015–1028.
36. Pompian, M. M. (2011). *Behavioural finance and wealth management* (2nd ed.). Wiley.
37. Rachakonda, V., Jayasimha, K. R., & Bhatt, M. (2025). Social media narratives and retail investor behaviour. *Managerial Finance*, 51(2), 299–317.
38. Rai, P. (2024). Investor psychology and equity market participation in India. *Global Business and Finance Review*, 29(1), 110–125.
39. Ritika, R., & Kishor, N. (2020). Development and validation of behavioural biases scale. *Review of Behavioral Finance*, 12(3), 297–314.
40. Sahi, S. K., Arora, A. P., & Dhameja, N. (2013). An exploratory inquiry into psychological biases in financial investment behaviour. *Journal of Behavioral Finance*, 14(2), 94–103.
41. Singh, S., Tabassum, N., & Ahmed, M. (2016). Gender differences in behavioural biases and investment decisions. *Global Business Review*, 17(3), 664–675.
42. Tetlock, P. C. (2007). Giving content to investor sentiment: The role of media in the stock market. *Journal of Finance*, 62(3), 1139–1168.
43. Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131.
44. van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472.
45. Vashisth, P., Sharma, A., & Kaur, H. (2025). Risk perception and investment choices among higher-education employees. *Discover Sustainability*, 6(1), 45.
46. Waheed, H., Ahmed, Z., & Hussain, N. (2020). Financial literacy, risk perception, and investment decisions: Mediation analysis. *Global Business Review*, 21(6), 1471–1480.
47. Weber, E. U., Blais, A. R., & Betz, N. E. (2002). A domain-specific risk-attitude scale. *Journal of Behavioral Decision Making*, 15(4), 263–290.
48. Yang, Z., Mamun, A. A., Mohiuddin, M., Al-Shami, S. A., & Zainol, N. R. (2021). Predicting stock market investment intention and behaviour. *Mathematics*, 9(8), 878.

