

Herding Behaviour and Investor Sentiment: A Bibliometric Mapping of Global Research Trends (2006-2025)

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Abstract

The elements of herding trends and investor feelings influence collective financial patterns, which have profound socio-economic impacts. This study provides an extensive bibliometric mapping of 1,087 Scopus-indexed articles between 2006 and 2025 to depict the intellectual progression, subjective framework, and research directions of herding research. The analysis was performed using Biblioshiny and VOSviewer, and incorporated performance metrics, co-occurrence mapping, and thematic evolution on how behavioural finance has grown from simple models of investor bias to global, empirical, and technology-driven strategies. There are five predominant clusters, including behavioural biases, methodological innovation, regional and institutional dynamics, and sustainability-linked extensions. These findings shed light on the shift from validation-based research to interdisciplinary research on fintech, ESG, and digital sentiment analytics. Baker and Wurgler, as well as Tetlock, still stand as foundational references with recent developments in machine learning and text analytics as the new frontiers. The results highlight the importance of collective behaviour in financial stability, inclusion, and market resilience. The study is relevant to a socio-behavioural roadmap for researchers and policymakers who would need to consider and control the social and economic effects of herding or the generation of modern financial systems.

Keywords: Herding Behaviour, Investor Sentiment, Behavioural Finance, Socio-Economic Dynamics, Bibliometric Analysis

Introduction

Herding behaviour describes the fact that investors would follow the herd instead of using their information or analysis. This has been the pinnacle of behavioural finance for the past three decades. Initial theories conceptualised herding as rational behaviour in response to informational cascades, reputation issues, and payoff externalities. Banerjee (1992) proved that rational investors could disregard individual information and adopt group behaviour, which led to the development of herding as a behavioural deviation that still exists in efficient markets.

The late 1990s and early 2000s saw empirical studies on the nature of herding in equity markets. Chang, Cheng and Khorana (2000) demonstrated that herding was especially strong in emerging markets compared to developed market, whereas Hwang and Salmon (2004) also associated the level of herding with pressure in the market and systemic turmoil. These studies represent a shift toward strict econometric specifications and extended cross-market confirmation. The crises that followed, especially the 2008 global recession, reawakened interest in herding as a source of volatility and financial contagion. Herding has been proven to increase in global markets during crises and amplify systemic risks at the expense of market efficiency.

Over the past few years, the scope of herding research has extended beyond equity markets to include bonds, commodities, and digital assets. Investor behaviour has been transformed by technological changes and sustainability issues, linking herding to new research areas, including fintech, cryptocurrency, and ESG investing. The increased concern with environmental, social, and governance (ESG) considerations indicates that herding is also socially and ethically minded finance, as collective investor preferences can alter the much-needed capital allocation to sustainable priorities (Streimikiene *et al.*, 2024). These changes underscore the socioeconomic aspects of herding, which are impacted by information flow, institutional frameworks, and crowd psychology (Vasylieva *et al.*, 2021).

Herding dynamics can now be modelled in real-time using technological developments, such as big data analytics, machine learning, and sentiment analysis. Fintech ecosystems and digital trading accelerate the transmission of sentiment and social imitation (Blajer-Gołębiowska, 2024). Consequently, herding is no longer viewed as anomalous but rather as a systemic behaviour that connects finance, technology, and social coordination. The literature on this topic has been fragmented across markets, asset classes, processes, and research methods, even after years of study. Previous reviews have concentrated on narrow settings, such as regions or asset types, and have ignored the development of the intellectual framework of the field. Thus, a systematic bibliometric review is required to trace the theoretical basis, methodological evolution, and new trends in this field.

Although the literature on herding behaviour and investor sentiment has significantly increased in recent years, the literature is still fragmented theoretically between behavioural finance, market microstructure, and computational finance, with no unifying framework to bring together these parallel streams of inquiry in a systematic way (Bharti & Kumar, 2025; Komalasari *et al.*, 2022). Recent global disruptions, including the COVID-19 pandemic, the Russia-Ukraine conflict, cryptocurrency market crashes, and the explosion in social media-driven retail trading, have made herd-like dynamics within asset classes a more significant focus (Yousaf & Yarovaya, 2022; Espinosa-Méndez & Arias, 2021), drawing unprecedented scholarly attention. While previous reviews have analysed specific dimensions of equity market herding behaviour (Chiang & Zheng, 2010), return dispersion methodology (Christie & Huang, 1995), or individual behavioural biases (Kumar & Goyal, 2015), recent systematic and bibliometric reviews have either merely focused on narrow dimensions such as institutional investor herding behaviour evaluation (Ebrahimi *et al.*, 2024), investor sentiment in emerging markets (Luong *et al.*, 2024), or crisis-period herding (Choi *et al.*, 2022). Critically, the speed with which machine learning and natural language processing can now be incorporated into sentiment measurement (Kearney & Liu 2014), the development of ESG-

conscious herding behaviour (Gavrilakis & Floros 2023) and the increased influence of digital platforms on retail investor coordination (Cookson *et al.*, 2023) are frontier areas which have not systematically been mapped in existing reviews. Therefore, a systematic and robust bibliometric analysis from 2006 to 2025, using both performance analysis and science mapping approaches, is of utmost importance in order to consolidate this rapidly growing and increasingly interdisciplinary body of knowledge and to provide a structured roadmap for future research and policies.

This study conducts an in-depth bibliometric analysis of the herding and investor sentiment literature. It aims to:

1. Identify the most influential studies, authors, and institutions.
2. Examine how research on herding has evolved thematically and how it intersects with behavioural finance, ESG, and digital finance.
3. Mapping collaboration networks among authors, countries, and institutions.
4. Develop a research agenda by identifying gaps and underexplored areas of research.

The following questions are discussed in this study:

1. Which countries and institutions have contributed most actively to herding research?
2. What are the most common keywords, themes, and research clusters, and how do they change over time?
3. Which studies and authors have been the most influential in shaping the field?
4. What are the patterns and themes of collaboration at the global level in herding studies?

The remainder of this paper is organised as follows. Section 2 presents a literature review of theoretical and empirical research on herding behaviour. The methodology of data collection and bibliometrics is described in Section 3. Section 4 summarises the results in terms of publication trends, thematic clusters, and significant contributors. Section 5 presents the theoretical and policy implications and suggests future research.

Literature Review

This section synthesises the intellectual progress of herding and investor sentiment studies, outlines key conceptual and methodological improvements, and identifies gaps that support the current bibliometric project. This review defines the conceptual background for interpreting bibliometric results by identifying historical, thematic, and methodological changes.

Historical Development

Interest in herding research was first developed in the early 1990s, when researchers began to question the rationality behind the efficient market hypothesis (Fama, 1970). The initial examples, as illustrated by Banerjee (1992) and Scharfstein and Stein (1990), indicate that investors tend to replicate other investors despite contradictions in their individual information, as indicated by the crowd behaviour. The models attribute herding to market inefficiencies, reputation-driven choices, and market cascades. Later studies have included the psychological aspects of decision-making, where both cognitive and emotional biases support imitation in the face of uncertainty (Babula and Park, 2025).

The first half of the 21st century was marked by a shift toward empirical verifications. Chang *et al.* (2000) established the CSAD model to identify herding in the market as a whole, which is stronger in emerging markets than in developed markets. Hwang and Salmon (2004) developed a dynamic measure of the intensity of herding attributed to stress in the market, whereas Lakonishok, Shleifer, and Vishny (1992) reported the existence of institutional herding in U.S. mutual funds. Baker and Wurgler (2006, 2007) related sentiment indices to the predictability of returns, and Tetlock (2007) showed that media tone triggers investor sentiment. These contributions have made fundamental herding and sentiment theories in behavioural finance research.

Behavioural explanations have been confirmed several times during market crises. An example of this evidence can be found in the 2007-2009 financial crisis and COVID-19 pandemic, where the collective response is increased in times of stress, being more volatile and contagious (Chiang and Zheng, 2010; Zhang *et al.*, 2020). Herding has been identified in the literature as one of the mechanisms of behavioural effects that connect market psychology to systemic risk and financial stability (Huynh, Nguyen, and Tran, 2024).

Recent Developments

Herding studies have diversified in terms of markets, asset classes, and methods of analysis. Researchers are currently studying cryptocurrencies, sustainable investments, and digital finance, in which behavioural imitation is engaged with new information technologies (Ballis and Verousis, 2022). Fintech ecosystems have redefined the behavioural paradigm, as their proliferation intensifies information and social transmission processes. Methodological advancements have broadened the scope of herding research. The CSAD framework is the centre of focus but is supplemented with big data analytics, natural language processing, and machine learning. The approaches represented by Renault (2017) and Jing *et al.* (2021) extract investor sentiment from social media, financial news, and trading, and this behaviour can be studied in real time. This merger of computational methods and econometrics increases predictive performance and provides insights into how investors coordinate in incomprehensive financial systems. Geographically, research on emerging and developing economies has shifted. The nature of herding patterns varies across institutional environments, where retail-dominated markets, such as China and India, have more imitation than established institutional markets (Tan *et al.*, 2008; Demirer and Kutan, 2006). This difference underscores how cultural, regulatory, and institutional frameworks affect investors' collective behaviour. In terms of socio-economic views, herding indicates trust trends, quasi-governance and common market education (Vasylieva *et al.*, 2021).

Bibliometric: Herding and Behavioural Finance Studies

The current bibliometric research has gathered significant knowledge about the intellectual and thematic environments of herding and investor sentiment studies, although significant limitations remain. Significant increases in research activity were reported during financial crises by Komalasari *et al.* (2022) and Choiil *et al.* (2022), demonstrating behavioural finance sensitivity to market stress. Brahmi *et al.* (2025) used bibliometric mapping through a systematic review to differentiate trends between established and emerging markets. Colline and Hermawan (2025) take a closer look at the psychological and generational effects on young investors. Nevertheless, current bibliometric studies have been limited in their approaches and data. Most studies use small or unsorted datasets, such as Scopus or Web

of Science, limiting cross-regional comparability. Other methods of analysis rely on either co-citation or keyword analysis without between-subject longitudinal or thematic evolution analysis. Furthermore, there are few relationships between herding and potentially new areas of interest, such as cryptocurrencies, ESG, fintech, and energy finance. These thematic and methodological shortcomings underpin the demand to expand the bibliographic scope of references to larger samples and multidimensional models, which can effectively reflect the changing intellectual fabric of the field.

Research Gap and Rationale

The literature reviewed reflects a firm's conceptual and empirical development of herding research but also lacks cohesion. Herding, introduced by foundational models as a result of information asymmetry and mimicking, has been empirically confirmed by studies in markets and across crises. Bibliometric projects have begun to trace the intellectual boundaries of the field, but they have not yet been completed. Three key gaps persist. First, most bibliometric research is restricted by time or location, which limits the comparative or global aspects of its analysis. Second, methodological instruments are still immature, and few have integrated longitudinal, thematic and network-based views. Third, there is a paucity of research on the impact of digital transformation, sustainability agendas, and policy developments on investor behaviour. This lack of interdisciplinary integration restricts the understanding of herding as a financial and social process. The current study fills these gaps by presenting a detailed bibliometric analysis of herding and investor sentiment research from 2006 to 2025. It draws on the intellectual structure, thematic development, and global network of cooperation using VOSviewer and Biblioshiny. This research combines behavioural, technological, and sustainability viewpoints to add to the multidimensional interpretation of herding behaviour and its socio-economic consequences. It is also the basis for future research that helps relate collective investor behaviour to digital innovation, ESG finance, and systemic market stability.

Methodology

This study adhered to the methodological principles of accepted bibliometric indicators (Donthu *et al.*, 2021; Zupic and Cater, 2015) to improve transparency, consistency, and reproducibility. This involves four major steps: search strategy, data collection, data harmonisation, and data analytical processes which are organised into specific bibliometric tools.

Search Strategy

The Scopus database was chosen based on its wide range of peer-reviewed journals in the fields of economics, finance, and non-specific research. The search query written into the Boolean search yielded the following:

TITLE-ABS-KEY(("herding" OR "cross-sectional absolute deviation" OR CSAD OR CSSD OR "investor sentiment" OR "market sentiment" OR FOMO OR overconfidence OR "loss aversion") AND (stock OR "equity market*" OR volatility OR "trading volume" OR crisis))*

The search was performed in July 2025, and the search covered 2006-2025 to indicate the current development of the field. Peer-reviewed articles, reviews, book chapters, and conference papers were also included. To ensure data quality and relevance, non-scholarly sources such as editorials, notes, and errors were omitted.

Data Collection

The choice of Scopus was based on its accuracy in citations and multidisciplinary research topics. The first search identified 1,112 records. After screening and filtering 25 records involving retractions, duplicates, or author information, 1,087 valid records were retained for analysis. The process of record identification, screening, and inclusion is illustrated in Figure 1, which makes its activities transparent and reproducible.

These data cover in detail the history of herding and investor sentiment studies in almost 20 years and the new directions of research: fintech and sustainable finance.

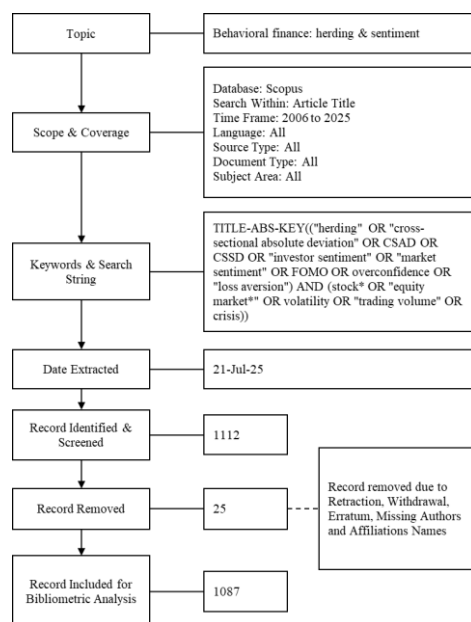


Figure 1. Flow diagram of search strategy.

Source: Punj *et al.* (2023) and Moher *et al.* (2009)

Data Cleaning and Harmonisation

Data cleaning was automated and performed manually to ensure reliability. Duplicate entries were eliminated using Scopus filters and checked manually. The name, institution, and country of the author's affiliation were unified to eliminate variations (*for example*, Univ. Malaya vs. Universiti Malaya). The harmonisation of key words included synonyms (*e.g.* herding behaviour and herding behaviour) and singular and plural forms. Publisher databases were searched for missing affiliations. These procedures reduced discrepancies in author productivity, institutionalised representation, and frequency of keywords, thus misrepresenting the bibliometric findings.

Analytical Tools

The analysis constituted performance and network-based analyses using two complementary tools. Performance analysis, such as publication patterns, citations, and thematic development, was performed using Biblioshiny, an R-based interface of Bibliometrix (Aria and Cuccurullo, 2017). Network analyses, including co-occurrence of key words, co-authorship, and citation clustering, were performed using VOSviewer (van Eck and Waltman, 2010). Fractional counting was used to prevent author or institutional overestimation of the data.

Their visualisation products were thematic maps, co-occurrence networks, and trend topic diagrams which enabled both descriptive and structural details for herding research in the intellectual landscape. Biblioshiny and VOSviewer allowed the use of both quantitative indicators, thematic structures, and collaboration patterns, facilitating the exploration of multiple dimensions.

This research design will preserve replicability and analytical richness and overcome the weaknesses inherent in single-method studies. Despite the possibility of selection bias against publications in smaller regional databases, Scopus offers the best data source for conducting a large-scale bibliometric analysis because of its standardised coverage and consistency in citations.

Results

These findings were grouped into four phases: (i) descriptive performance analysis, (ii) citation metrics, (iii) leading contributors and sources, and (iv) thematic and intellectual structures. This move enabled the results to leave general publication trends for particular clusters and research frontiers.

Descriptive Performance Analysis

Table 1 indicates that studies on herding and investor sentiment have increased significantly from 2006 to 2025. Initially, the growth was small, but the number of publications increased in 2015 as the crises and new market dynamics began. The sharpest increase was recorded between 2020 and 2024, which was the diversification of cryptocurrencies, ESG-focused finance and fintech applications. The number of cumulative publications in 2025 is also on the rise, but the curve demonstrates indicators of a stable situation, which may be viewed positively as evidence of the gradual maturity of equity-oriented work and a possible shift towards interdisciplinary use.

Table 1

Publication by Year

<i>Year</i>	<i>TP</i>	<i>NCA</i>	<i>NCP</i>	<i>TC</i>	<i>C/P</i>	<i>C/CP</i>	<i>h</i>	<i>g</i>	<i>m</i>
2006	10	18	10	4716	471.6	471.6	8	10	0.4
2007	6	14	6	5483	913.83	913.83	5	6	0.263
2008	6	17	6	481	80.17	80.17	4	6	0.222
2009	13	31	9	906	69.69	100.67	6	13	0.353
2010	23	50	18	973	42.3	54.06	10	23	0.625
2011	24	49	24	958	39.92	39.92	12	24	0.8
2012	21	52	20	1097	52.24	54.85	13	21	0.929
2013	29	69	28	997	34.38	35.61	15	29	1.154
2014	43	111	41	1491	34.67	36.37	20	38	1.667
2015	39	96	36	2045	52.44	56.81	21	39	1.909
2016	49	120	48	2032	41.47	42.33	24	45	2.4
2017	62	167	60	2395	38.63	39.92	30	48	3.333
2018	69	199	67	1462	21.19	21.82	23	35	2.875
2019	56	149	52	1792	32	34.46	24	41	3.429
2020	81	208	78	1736	21.43	22.26	25	38	4.167
2021	107	313	101	2240	20.93	22.18	26	43	5.2

2022	107	304	98	1485	13.88	15.15	20	32	5
2023	117	343	90	1069	9.14	11.88	20	27	6.667
2024	138	404	88	453	3.28	5.15	11	15	5.5
2025	87	273	28	68	0.78	2.43	4	6	4
Total	1087	2987	908	33879	31.17	37.31			

Note: TP=total number of publications; NCA=Number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024)

Citation Metrics

The important citation indicators are listed in Table 2. The dataset consists of 33,879 citations, with means of 31.17 citations per paper and 37.31 citations per cited paper, which has a rather high impact. Both consistency and breadth of influence were confirmed by an h-index of 75 and a g-index of 158, respectively. The m-index is 3.75, indicating that herding research is a dynamic area that has grown rapidly since 2006. The fact that 29,506 citations are contained in the h-core indicates that the field is anchored by relatively few publications. The most notable point is that these publications were led by Baker and Wurgler (2006, 2007) and Tetlock (2007).

Table 2

Citation Metrics

Main Information	Data
Publication Years	2006 - 2025
Total Publications	1087
Citable Year	20
Number of Contributing Authors	2987
Number of Cited Papers	908
Total Citations	33,879
Citation per Paper	31.17
Citation per Cited Paper	37.31
Citation per Year	1783.11
Citation per Author	11.34
Author per Paper	2.75
Citation sum within h-Core	29,506
h-index	75
g-index	158
m-index	3.750

Source: Generated by the author(s) using biblioMagika®

Leading Contributors and Sources

Most Productive Authors

The authors with the most publications were Yang Chunpeng (China), Corredor Pilar (Spain), and Ryu Doojin (South Korea), each with eight publications (Table 4). Nonetheless, the impact of citations is quite different; therefore, the most citations per paper are produced by Demirer Riza (U.S.). This implies that, by volume, China is dominant, but U.S. scholars still have a theoretical influence.

Table 3

Most Productive Authors

<i>Full Name</i>	<i>Current Affiliation</i>	<i>Country</i>	<i>T</i>	<i>NC</i>	<i>TC</i>	<i>C/P</i>	<i>C/CP</i>	<i>h</i>	<i>g</i>	<i>m</i>
Yang, Chunpeng	South China University of Technology	China	8	8	167	20.88	20.88	6	8	0.5
Corredor, Pilar	Universidad Pública de Navarra	Spain	8	7	300	37.5	42.86	6	8	0.353
Ryu, Doojin	Sungkyunkwan University	South Korea	8	8	434	54.25	54.25	8	8	0.889
Loang, Ooi Kok	Universiti Malaya	Malaysia	7	3	36	5.14	12	3	6	0.6
Lee, Yen Hsien	Chung Yuan Christian University	Taiwan	7	7	128	18.29	18.29	5	7	0.417
Fang, Hao	National Taiwan University of Science and Technology	Taiwan	7	7	133	19	19	6	7	0.429
Demirer, Riza	Southern Illinois University Edwardsville	United States	7	7	551	78.71	78.71	6	7	0.3
Ferreruela, Sandra	University of Zaragoza	Spain	7	6	210	30	35	6	7	0.353
Wang, Gaoshan	Shandong University of Finance and Economics	China	6	4	58	9.67	14.5	3	6	0.5
Mahakud, Jitendra	Indian Institute of Technology Kharagpur	India	6	6	216	36	36	6	6	0.429

Note: TP=total number of publications; NCA=Number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

Source: Generated by the author(s) using biblioMagika®

Most Productive Institutions

Institutions such as the South China University of Technology, University of Sfax (Tunisia), and Sungkyunkwan University (South Korea) are the top publishers. Notably, the Central University of Finance and Economics (China) performs exceptionally well in terms of citation performance (C/P = 89.73), indicating that China is increasing its academic footprint and impact (see Table 4).

Table 4

Most productive institutions with minimum of ten publications

<i>Institution Name</i>	<i>Country</i>	<i>TP</i>	<i>NCA</i>	<i>NCP</i>	<i>TC</i>	<i>C/P</i>	<i>C/CP</i>	<i>h</i>	<i>g</i>	<i>m</i>
South University of Technology	China	18	30	18	383	21.28	21.28	10	18	0.833
University of Sfax	Tunisia	16	28	16	324	20.25	20.25	11	16	0.846
Sungkyunkwan University	South Korea	13	19	13	495	38.08	38.08	11	13	0.688
Hunan University	China	12	26	11	379	31.58	34.45	7	12	0.389
Southwestern University of Finance and Economics	China	12	19	11	269	22.42	24.45	7	12	0.5
Shandong University of Finance and Economics	China	11	33	8	80	7.27	10	5	8	0.333
Shanghai University of Finance and Economics	China	11	19	9	190	17.27	21.11	6	11	0.545
National University of Kaohsiung	Taiwan	11	19	9	199	18.09	22.11	7	11	0.467
Central University of Finance and Economics	China	11	15	10	987	89.73	98.7	7	11	0.438

Note: TP=total number of publications; NCA=number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

Source: Generated by the author(s) using biblioMagika®

Country Contributions

Table 5 reveals that China has the highest number of publications (338), followed by the U.S. (14,383) in terms of citations. India, Taiwan, and Tunisia also have increased visibility, especially in the context of emerging markets. There are still contributions made by Europe (the U.K., France, and Greece) that are powerful in terms of theoretical and methodological development. This geographical distribution underscores the dual nature of China as a volume head and the U.S. as a citation anchor.

Table 5

Top 10 Countries contributed to the publications

Country	TP	NCA	NCP	TC	C/P	C/CP	h	g	m
China	338	897	277	6200	18.34	22.38	39	78	1.95
United States	119	216	110	14383	120.87	130.75	36	119	1.8
India	100	250	69	1222	12.22	17.71	20	34	1.333
Taiwan	83	197	74	1907	22.98	25.77	23	43	1.353
United Kingdom	75	138	70	2104	28.05	30.06	24	45	1.2
South Korea	46	93	41	1135	24.67	27.68	18	33	0.9
Tunisia	39	73	34	889	22.79	26.15	19	29	1.462
Malaysia	30	64	19	292	9.73	15.37	10	17	0.833
Pakistan	30	68	27	592	19.73	21.93	14	24	1
France	29	47	26	1213	41.83	46.65	16	29	0.941

Note: TP=total number of publications, NCA=number of contributing authors, NCP=number of cited publications, TC=total citations, C/P=average citations per publication, C/CP=average citations per cited publication, h=h-index, and g=g-index.

Source: Generated by the author(s) using biblioMagika®

Source Titles

Key journals include Finance Research Letters, the International Review of Economics and Finance, and the Pacific-Basin Finance Journal, which collectively publish the highest volume of studies. High-impact outlets such as the Journal of Banking & Finance and Review of Financial Studies host the most influential work, demonstrating a balance between the quantity and quality of publications (see Table 6).

Table 6

Most active source titles that published 15 or more documents

Source Title	TP	NCA	NCP	TC	C/P	C/CP	h	g	m
Finance Research Letters	32	81	29	817	25.53	28.17	14	28	1.00
International Review of Economics and Finance	27	80	26	992	36.74	38.15	17	27	1.308
North American Journal of Economics and Finance	23	65	23	753	32.74	32.74	17	23	1.417
Pacific-Basin Finance Journal	23	66	22	1054	45.83	47.91	16	23	0.8
Emerging Markets Finance and Trade	22	62	20	467	21.23	23.35	12	21	0.706
International Review of Financial Analysis	21	58	21	875	41.67	41.67	17	21	1.308
Journal of Behavioral Finance	21	49	19	532	25.33	28	10	21	0.769
Journal of Banking & Finance	17	41	17	1553	91.35	91.35	15	17	0.938
Applied Economics Letters	15	42	15	314	20.93	20.93	9	15	0.474
Applied Economics	15	40	13	469	31.27	36.08	10	15	0.833
Journal of Behavioral and Experimental Finance	15	38	15	399	26.6	26.6	11	15	1.00

Note: TP=total number of publications; NCA=Number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.

Source: Generated by the author(s) using biblioMagika®

Highly Cited Articles

Table 7 lists the top 10 most cited works, led by Baker and Wurgler (2006; 2007) and Tetlock (2007). These foundational studies defined sentiment measures and the herding theory. More recent influential works include Huang *et al.* (2015), Jing *et al.* (2021) and, Bu and Forrest (2024), reflecting the shift toward advanced prediction methods and deep learning. Collectively, the citation trajectory highlights three waves: foundational theory, regional validation, and technological expansion. These citation patterns confirm that herding studies often bridge psychology, economics, and social science, highlighting the behavioural foundations of market movements and the influence of collective sentiment on real economic outcomes (Babula and Park, 2025).

Table 7

Top 10 highly cited articles

No.	Authors	Title	Source Title	Cites
1	Baker, M.P., & Wurgler, J. (2006)	Investor sentiment and the cross-section of stock returns	Journal of Finance	3639
2	Tetlock, P. C. (2007)	Giving content to investor sentiment: The role of media in the stock market	Journal of Finance	2698
3	Baker, M.P., & Wurgler, J. (2007)	Investor sentiment in the stock market	Journal of Economic Perspectives	2278
4	Huang, D., Jiang, F., Tu, J., & Zhou, G. (2015)	Investor sentiment aligned: A powerful predictor of stock returns	Review of Financial Studies	694
5	Schmeling, M. (2009)	Investor sentiment and stock returns: Some international evidence	Journal of Empirical Finance	600
6	Statman, M., Thorley, S. R., & Vorkink, K. P. (2006)	Investor overconfidence and trading volume	Review of Financial Studies	532
7	Kim, J. B., Wang, Z., & Zhang, L. (2016)	CEO Overconfidence and Stock Price Crash Risk	Contemporary Accounting Research	477
8	Tan, L., Chiang, T. C., Mason, J. R., & Nelling, E. F. (2008)	Herding behavior in Chinese stock markets: An examination of A and B shares	Pacific Basin Finance Journal	428
9	Glaser, M., & Weber, M. (2007)	Overconfidence and trading volume	Geneva Risk and Insurance Review	390
10	Renault, T. (2017)	Intraday online investor sentiment and return patterns in the U.S. stock market	Journal of Banking and Finance	298

Source: Generated by the author(s) using biblioMagika®

Thematic and Intellectual Structures

Keyword Co-occurrence (VOSviewer)

Figure 2 presents a keyword co-occurrence analysis based on fractional counting with a minimum of five occurrences. From the 2,974 keywords, 242 formed five clusters: Core Finance, Methods, Biases, Regional, and Extensions. These clusters reflect investor sentiment and behavioural biases, such as overconfidence and loss aversion (Bouri *et al.*, 2019), advanced analytical tools such as machine learning and sentiment analysis (Jing *et al.*, 2021), and emerging themes such as ESG, fintech, and COVID-19 (Blajer-Gołębiewska, 2024). Collectively, these clusters indicate the evolution of the field from classical behavioural finance toward more interdisciplinary, technology-driven, and sustainability-oriented research.

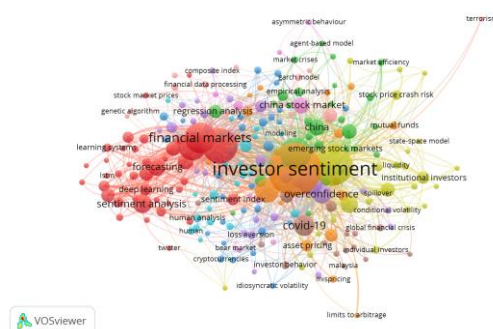


Figure 2. Network visualization of the co-occurrence analysis of the author keywords
 Source: Generated by the author(s) using VOSviewer (van Eck & Waltman, 2010)
 Dynamic Link: <https://l1nq.com/CE0EH>

Three-Field Plot

Figure 3 represents the three-field plot that links contributing countries, leading authors, and dominant keywords in herding and investor sentiment research. China appears to be the main centre on the left with the greatest number of publications and is connected to both prolific authors and thematic issues. There are significant contributions from Korea, India, and the United States, as well as other smaller yet increasing sources of output from Tunisia, South Africa, and the United Kingdom. The key contributors include Fang Hao, Lee Yen Hsien, Ryu Doojin, Wang Gaoshan, and Yang Chunpeng, well-known scholars who have remained active, and Rangan Gupta and Riza Demirez, who connect Asian, U.S., and African views. On the right, keywords such as investor sentiment, herding behaviour, and stock market are prevalent, and new keywords such as Covid-19 and commerce show responsiveness to crises and in the digital market. The combination of plots teaches us how geography, authorship, and thematic focus are combined to establish the global framework and future trends of the herding work.

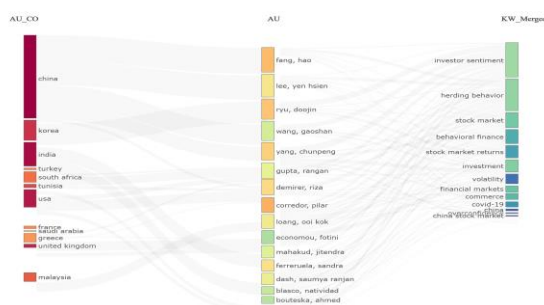


Figure 3. Three-Field Plot

Source: Generated by the author(s) using Biblioshiny (Aria & Cuccurullo, 2017)

Thematic Evolution

Figure 4 shows the thematic development of herding and investor sentiment studies over three periods, namely 2006-2016, 2017-2020, and 2021-2025. The most common classical themes outlined in the first phase (2006-2016) were approaches involving investor sentiment, herding, overreaction, and volatility prediction, and tended to be applied to a limited market such as the Athens Stock Exchange or the price of oil. This phase corresponds to the initial phase, when researchers mainly establish the presence of herding effects using conventional econometric methods. Between 2017 and 2020, the area expanded with conceptualisations of frontier markets, mutual funds, and crisis settings based on model-driven methods such as CSAD and GARCH. The Global Financial Crisis and COVID-19 brought into focus the idea of sentiment contagion and market vulnerability, based on previous precursors in more complex and heterogeneous contexts. The latest step (2021-2025) is unified on investor sentiment, herding, loss aversion, and sentiment analysis. The emergence of big data and machine learning indicates a methodological change toward real-time measurement, whereas the continuity of sentiment and herding emphasises their centrality. In general, development will exhibit a trajectory of validation for crisis applications, which are currently easier interdisciplinary and technology-enabling approaches.

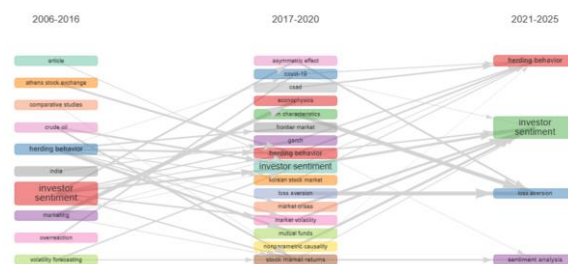


Figure 4. Thematic Evolution

Source: Generated by the author(s) using Biblioshiny (Aria & Cuccurullo, 2017)

Trend Topics

Figure 5 shows the trend of topics in the herding and investor sentiment fields between 2006 and 2025. Experimental work (2006-2012) was conducted to examine market efficiency and investor behaviour in traditional finance. Between 2013 and 2018, the focus shifted to crises, volatility, and emerging markets as regional diversity increased. Since 2019, the field has used computational techniques, including machine learning, sentiment analysis, and prediction, representing a methodological shift toward real-time behavioural modelling. COVID-19 has also increased the focus on crisis- and sustainability-related motifs. By 2021-2025, predictive analytics, ESG, and digital finance will be predominant, exhibiting convergence between behavioural, technological, and policy-oriented directions.

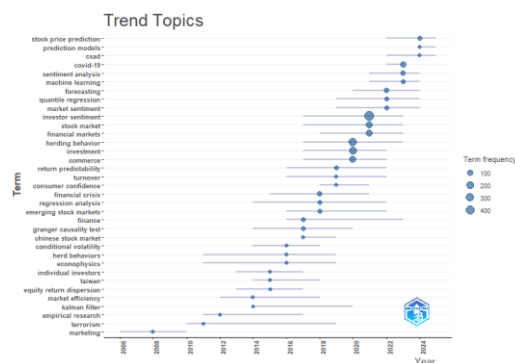


Figure 5. Trend Topics

Source: Generated by the author(s) using Biblioshiny (Aria & Cuccurullo, 2017)

When trend topics are combined with the thematic evolution chart, one can notice the definite intellectual path of herding and investor sentiment studies. Since 2006, the area has been preoccupied with themes such as investor sentiment, herding behaviour, and volatility forecasting, which are variations of traditional themes such as market efficiency and individual investors. This diversification in the literature continued between 2017 and 2020, when crises, mutual funds, and emerging markets dominated the literature as contributors to the agenda related to shocks at the global and regional levels. The latest stage, 2021-2025, sees a future-oriented change, such as sentiment analysis, the use of machine learning, and prediction models come into the focus. Cumulatively, these findings reveal that herding research has already advanced beyond theory building to crisis-specific applications and into predictive, interdisciplinary, and technology-enabled approaches and applications that are highly relevant to global markets.

Conclusion

This study presents a bibliometric evaluation of the herding and investor sentiment literature published between 2006 and 2025, comprising 1,087 articles and more than 33,000 citations. The results indicate that behavioural finance and its underlying principles have become an interdisciplinary field that links psychology, data science, and sustainability. Behavioural finance theories developed by Baker and Wurgler (2006, 2007) and Tetlock (2007) continue to hold the key to explaining anomalies, sentiment-based volatility and mispricing. Ongoing attention to overconfidence, loss aversion, and market contagion validates the applicability of Prospect Theory.

In terms of methodology, traditional econometrics has been overcome by herding studies that have implemented big data analytics, sentiment mining, and machine learning, which have improved predictive power and enabled real-time behavioural analysis. Such innovations connect algorithmic trading, cryptocurrencies, and digital finance to investor psychology, which is a sign of structural change in the quantification and conceptualisation of behavioural phenomena in finance. The evidence, both in China and elsewhere in emerging markets, suggests that herding is not universal but rather influenced by cultural norms, the quality of regulations, and the maturity of the market. Institutional investors have dual functions that stabilise or amplify herding according to market conditions, which supports the need for contextual and governance-based analyses.

Intellectual advancement has occurred in the thematic evolution. Initial studies confirmed behavioural patterns based on the assumption of an efficient market theory. Studies published post-2015 have incorporated crisis events, mutual funds, and market contagion, whereas recent studies have concentrated on technology, ESG, and sustainability. This shift has led to a shift in descriptive theory, with prediction, data-driven, and policy-relevant applications. Herding is no longer a behavioural bias but a system process affecting outcomes such as market resilience and sustainability.

The implications of this study are multidimensional in nature. Systematic risk monitoring can be tightened by introducing behavioural indicators in financial regulations and avoiding speculative bubbles. Collective sentiment knowledge is useful for investors in risk management and portfolio consistency. This work serves as a roadmap for the future in the new fields of digital assets, fintech ecosystems, and green finance.

This study had several limitations ought to be admitted. The use of Scopus data can lead to the exclusion of other databases and other metadata inconsistencies, which can affect clustering accuracy. Future studies should embrace the integration of multiple databases, integrate bibliometric mapping with qualitative analysis methods, and expand to other contexts, such as decentralised finance, AI-assisted trading, and investments served by climate.

Herding research is now a multidisciplinary subject that incorporates behavioural theory, computational models and sustainability wisdom. Further development will rely on enhancing a more solid empirical integration, better data quality, and a more reasonable connection between behavioural analysis and digital transformation, as well as on policy goals. This development makes the study of herding a very important transition line between the psyche of investors, market forces, and global financial stability.

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