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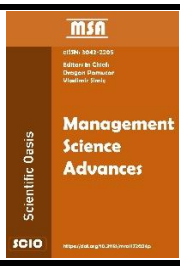

Financial Literacy and Retirement Planning: A Global Bibliometric Analysis of Research Trends and Influential Contributions

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ABSTRACT

This paper provides a holistic bibliometric analysis of global research on financial literacy and retirement planning from 2010 to April 2025. Drawing on 507 open-access journal articles sourced from the Dimensions.ai database, it explores the evolution, influence, and thematic structure of academic contributions in this field. Using VOSviewer for mapping co-authorship networks, keyword co-occurrence, and citation patterns, the analysis highlights the increasing scholarly focus on financial capability, aging populations, and retirement preparedness. Results reveal a sharp rise in publications and citations after 2016, peaking in 2023, driven by global pension reforms and heightened awareness following financial crises and the COVID-19 pandemic. The United States, Netherlands, and the United Kingdom emerge as leading contributors, while scholars such as Lusardi and Post dominate high-impact research. Institutions like George Washington University and Netspar show exceptional citation performance. The study also identifies core journals, such as the Journal of Pension Economics and Finance, shaping academic discourse. Emerging research themes include behavioral finance, digital inclusion, and financial education. By mapping influential contributions and collaborative patterns, this paper offers valuable insights for academics, policymakers, and educators aiming to enhance retirement readiness through improved financial literacy. The findings underscore the field's growing relevance in global policy and personal financial planning.

1. Introduction

The global demographic landscape is undergoing a significant transformation, with increasing life expectancy and declining fertility rates contributing to the rapid aging of populations [1]. These trends have intensified the financial strain on public pension systems, compelling many governments to reform their retirement policies and shift the responsibility of financial planning

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from the state to the individual [2]. As individuals are increasingly expected to make autonomous decisions about their retirement, the role of financial literacy becomes indispensable.

Financial literacy defined as an individual's ability to acquire, understand, and apply financial knowledge and skills is widely acknowledged as a key determinant of sound financial behavior, particularly in the context of long-term planning [3]. Numerous empirical studies have established a strong association between financial literacy and retirement preparedness, suggesting that financially literate individuals are more likely to engage in retirement planning, save systematically, and make informed investment choices [4]. Despite this evidence, financial literacy remains unevenly distributed across socio-economic groups, resulting in disparities in retirement security [5]. The increasing complexity of financial markets, coupled with the growing prevalence of defined contribution pension schemes, underscores the need for individuals to possess not only basic financial knowledge but also the capacity to apply it in practical retirement planning decisions [6-7]. Moreover, economic shocks such as the 2008 global financial crisis and the COVID-19 pandemic have further highlighted the vulnerability of those lacking adequate financial literacy and reinforced the urgency of building financial capabilities across populations [8].

Over the past two decades, the academic community has shown a growing interest in the intersection of financial literacy and retirement planning. This expanding body of research spans multiple disciplines, including economics, finance, psychology, public policy, and behavioral science [9]. However, despite the proliferation of studies, there remains a lack of comprehensive understanding regarding the evolution, thematic focus, and intellectual structure of this research domain. The present study conducts a global bibliometric analysis to systematically assess the academic literature on financial literacy and retirement planning [10-11]. The primary objective is to map the scientific output in this field and answer key research questions: (1) how has the volume of research evolved over time? (2) Who are the most influential authors, institutions, and countries? (3) Which journals and articles have contributed most significantly to shaping the field? (4) What are the emerging themes, research trends, and collaborative patterns?

By leveraging bibliometric tools and visual mapping techniques, this study provides a holistic overview of the field's development and identifies research gaps and opportunities for future inquiry [12]. The insights derived are expected to inform academic scholars, policymakers, educators, and financial institutions in designing strategies to promote financial literacy and enhance retirement preparedness on a global scale [13-14].

2. Data and Methodology

2.1 Data

The data for this study were retrieved from the Dimensions.ai database, focusing on literature related to financial literacy and retirement planning [15-16]. A keyword search using the terms *"financial literacy" AND "financial knowledge" AND "financial education" AND "retirement planning"* was conducted across titles, abstracts, and keywords, covering the period from January 1, 2010 to April 20, 2025, which initially yielded 7,900 records. To ensure relevance, a series of filters were applied. First, articles were limited to the subject areas of Commerce, Management, and Tourism, excluding unrelated fields such as engineering and medicine, reducing the dataset to 2,988 records. Second, only peer-reviewed journal articles were included, with other publication types such as reviews, book chapters, and conference proceedings excluded, resulting in 1,857 articles. Third, the articles were cross-verified with the UGC-CARE List Group II to ensure indexing in

Scopus or Web of Science, narrowing the dataset to 1,238 articles. Finally, only open access publications were selected, resulting in a final dataset of 507 articles for analysis (See Figure 1).

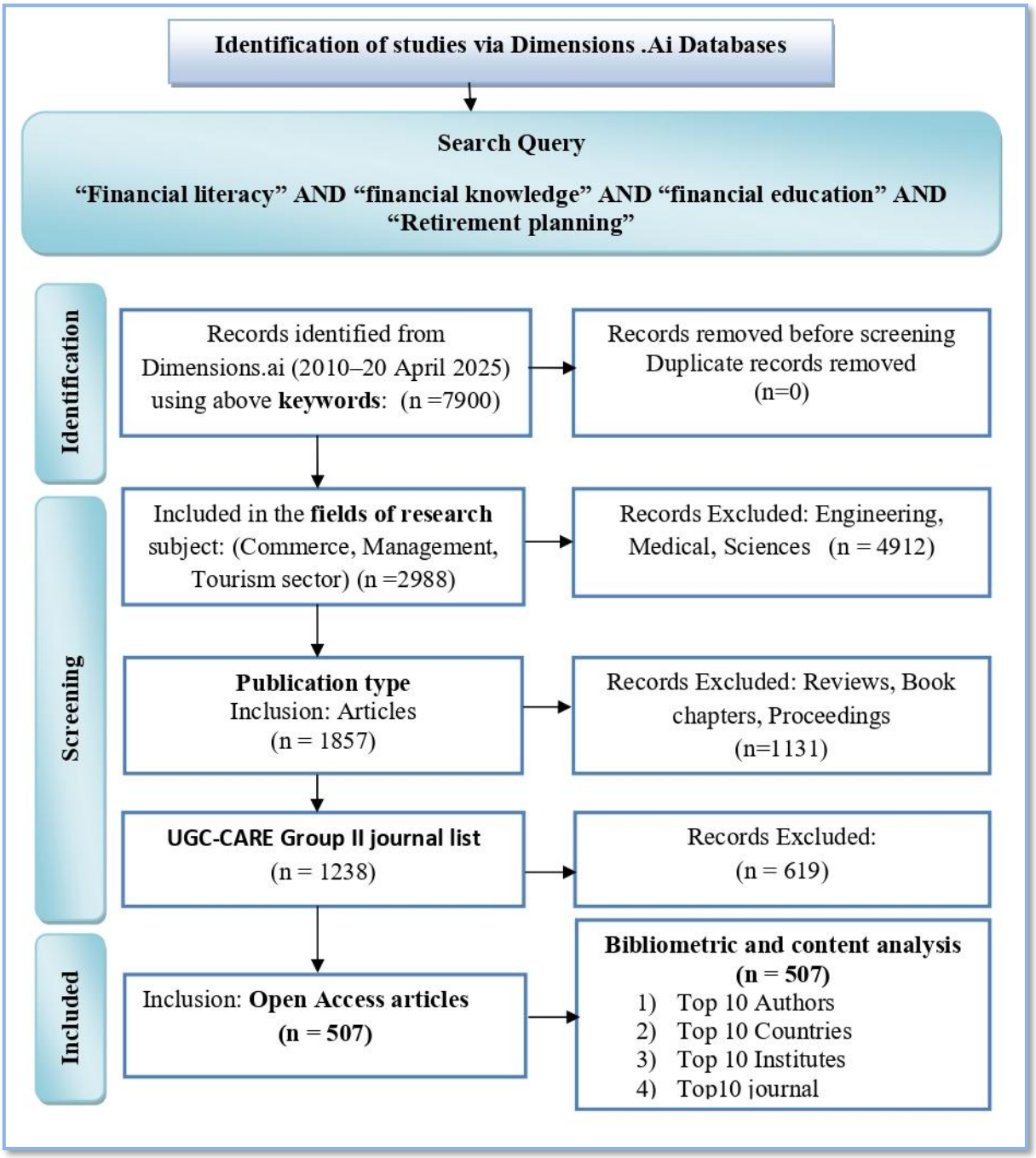

Fig. 1. PRISMA framework for data extraction
Source: https://app.dimensions.ai

2.2 Methodology

This study employs a bibliometric method to analyze global research on financial literacy and retirement planning [17]. A total of 507 open access journal articles were collected from Dimensions.ai using defined keyword parameters and subject-area filters (See Figure 2 and Table 1). The metadata including titles, abstracts, authors, affiliations, journal sources, keywords, and

citation counts were exported in CSV format for analysis. Using VOSviewer, co-authorship, co-citation, and keyword co-occurrence networks were generated to visualize collaboration structures and thematic patterns [18]. In addition, performance analysis was conducted to identify the top 10 contributing journals, countries, institutions, and authors, based on publication frequency and citation impact [19]. This integrated approach provided both structural and quantitative insights into the field, highlighting the most active contributors and emerging research directions [20].

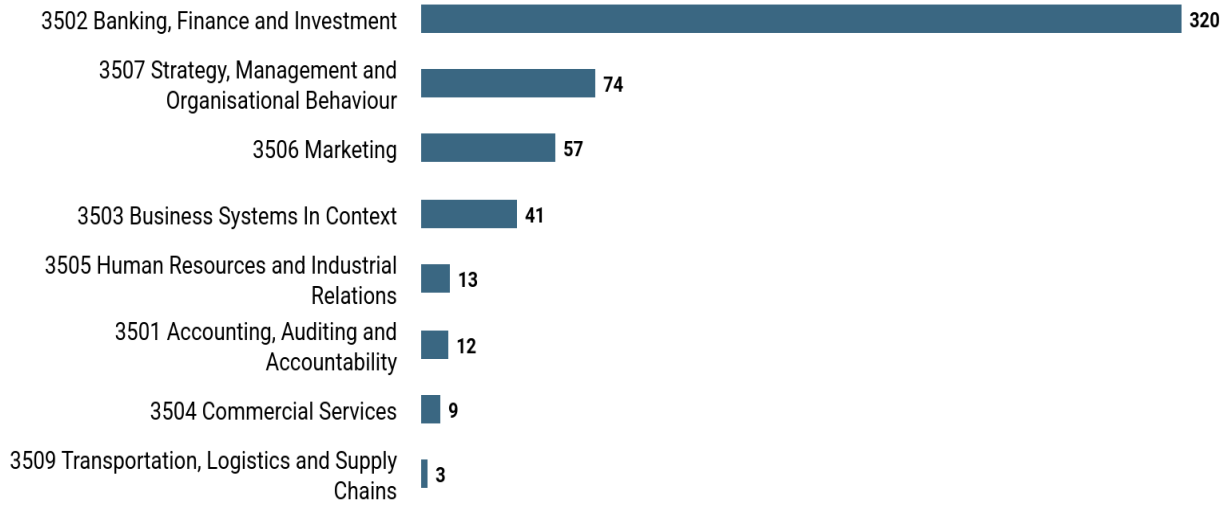

Fig. 2. Number of publication in each research category
Source: https://app.dimensions.ai

Table 1
Distribution of Articles by Research Categories

Sl. No.	Category Code	Subfield Description	No. of Articles
1	3502	Banking, Finance and Investment	320
2	3507	Strategy, Management and OrganisationalBehaviour	74
3	3506	Marketing	57
4	3503	Business Systems In Context	41
5	3505	Human Resources and Industrial Relations	13
6	3501	Accounting, Auditing and Accountability	12
7	3504	Commercial Services	9
8	3509	Transportation, Logistics and Supply Chains	3
Total	35	Commerce, Management, Tourism and Services	507

3. Results

3.1 Trend Analysis

This section examines the longitudinal evolution of scholarly interest in financial literacy and retirement planning from 2010 to 2025. By analyzing publication volumes, citation patterns, and the growth of high-impact research, the study reveals increasing academic attention to this domain. The trends highlight a significant rise in output post-2016, reflecting global concerns about retirement readiness, financial resilience, and the shifting responsibility of retirement planning onto individual.

3.1.1 Publication Pattern

The publication trend from 2010 to April 2025 reveals a clear and sustained growth in research output on financial literacy and retirement planning, totaling 507 articles. Between 2010 and 2014, publication activity was low, averaging fewer than 10 articles annually, indicating an emerging field (Table 2). A gradual increase began in 2015, with steady gains through 2017. A significant surge occurred between 2018 and 2023, with annual outputs rising sharply from 31 in 2018 to a peak of 88 in 2023, reflecting heightened academic and policy interest in financial capability, retirement readiness, and behavioral finance. This rise coincides with global concerns over aging populations, pension reforms, and post-pandemic financial resilience. Although 2024 saw a slight dip to 67 publications, and 2025 currently reports 25 articles (as of April), the trend remains upward (Figure 3). The data indicate a maturing field marked by interdisciplinary expansion and increased scholarly engagement, positioning financial literacy as a key driver in retirement security discourse.

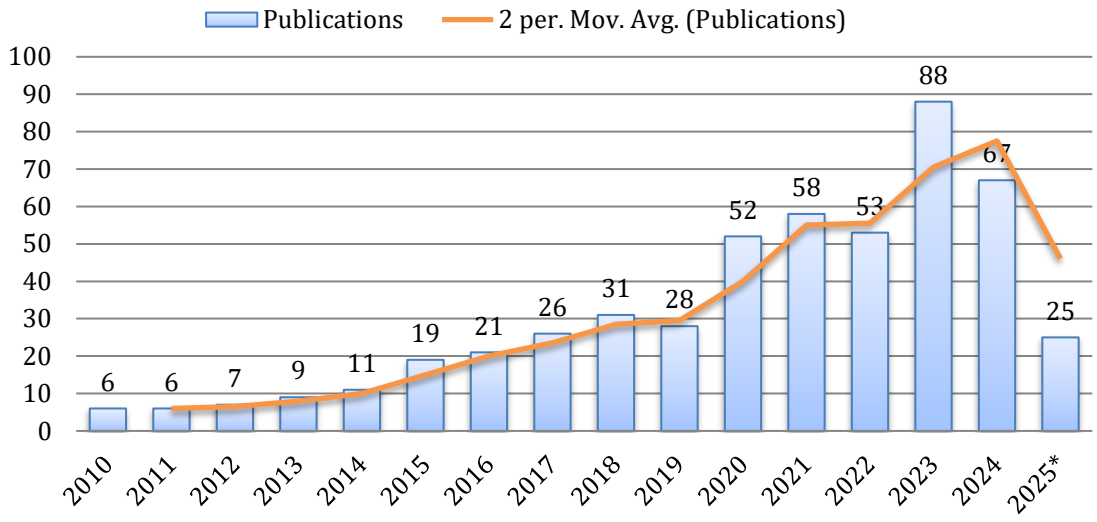

Fig. 3. Year-wise Distribution of Publication patternbased on the Dimension.ai database
*Note: Data for 2025 includes publications until April 20, 2025

Table 2
Year-wise Distribution of Publications, Citations and Publications ≥10 Cites

Metric ↓ / Year →	2010	2011	2012	2013	2014	2015	2016	2017	2018
Publications	6	6	7	9	11	19	21	26	31
Citations	8	58	97	152	232	373	388	637	744
Publications ≥10 Cites	4	6	5	7	9	16	17	19	21

Table 2
Continued

Metric ↓ / Year →	2019	2020	2021	2022	2023	2024	2025*	Total
Publications	28	52	58	53	88	67	25	507
Citations	937	1,499	2,167	2,477	3,171	4,272	1,124	18,336
Publications ≥10 Cites	23	36	35	25	36	1	0	280

*Note: Data for 2025 includes publications until April 20, 2025

3.1.2 Citations Pattern

Citation data (Table 2) reveals a strong upward trajectory in the academic influence of research on financial literacy and retirement planning, totaling 18,336 citations from 2010 to April 2025. After a gradual rise in the early years, citations increased sharply from 2016 onward, reflecting the growing visibility and relevance of the field. The most substantial gains occurred between 2020 and 2024, with a peak of 4,272 citations in 2024. Although 2025 data (1,124 citations) is partial, it already suggests sustained scholarly engagement. The trend, visually represented in (Figure 4), confirms the field's rising impact and its expanding role in interdisciplinary research.

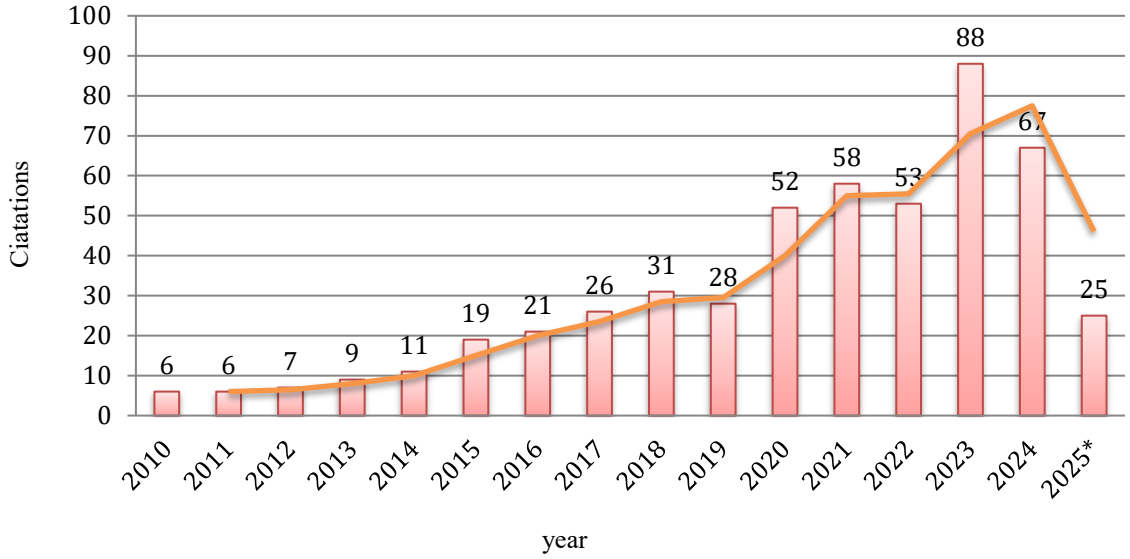

Fig. 4. Year-wise Distribution of Citations pattern based on the Dimension.ai database
*Note: Data for 2025 includes publications until April 20, 2025

3.1.3 Highly Cited Patterns

The chart presents the annual trend in total publications and those with ≥10 citations from 2010 to April 2025 (Figure 5). Research output has steadily increased, rising from 6 publications in 2010 to a peak of 88 in 2023. Similarly, high-impact publications grew notably, with 36 articles in both 2020 and 2023 reaching the ≥10 citation threshold. Between 2014 and 2021, a consistently high percentage of impactful work often exceeding 60% reflects strong academic engagement and relevance. The decline in 2024 and 2025 is expected, as recent publications have had limited time to accumulate citations. Despite this short-term dip, the overall trajectory indicates both increasing volume and influence of scholarly work in this area. The alignment of peak research activity with global financial disruptions and retirement policy reforms suggests that the topic is gaining traction as a critical area for academic inquiry and policy-oriented discourse.

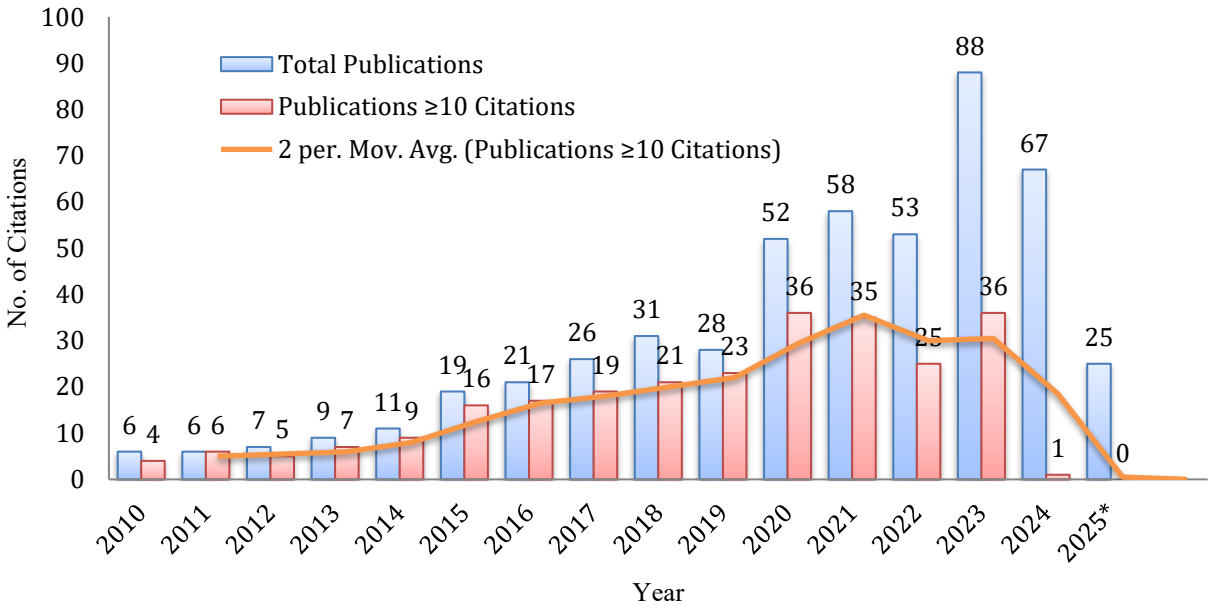

Fig. 5. Year wise Publications with ≥10 Citations based on the Dimension.ai database
*Note: Data for 2025 includes publications until April 20, 2025

3.2 Co-authorship Analysis

3.2.1 Authors

The co-authorship network reveals four well-defined clusters representing key collaboration patterns in financial literacy and retirement planning research [21-24]. The yellow cluster is led by Thomas Post (7 documents, 142 citations, TLS: 8), who collaborates with Ye (2 docs, 27 citations), Brüggen, Hoet, and Eberhardt, forming a highly active and influential European group. The green cluster includes Eberhardt (3 docs, 134 citations, TLS: 7), Brüggen (2 docs, 54 citations), and Hoet, highlighting strong internal partnerships and shared academic focus. The red cluster features Chatterjee (3 docs, 94 citations), Nicolini (3 docs, 152 citations), and Cude (2 docs, 89 citations), reflecting a North American group with moderate collaboration intensity (TLS: 3 each). In the blue cluster, De Bruin (4 docs, 250 citations) and Fischhoff (2 docs, 166 citations) represent interdisciplinary work linking behavioral science and finance (see Figure 6 and Table 3).

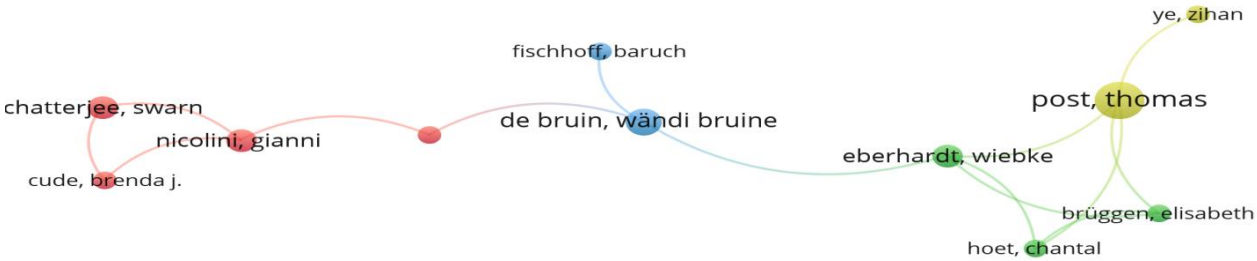

Fig. 6. Co-authorship network of authors visualized using VOSviewer. Out of 1,331 authors, 131 met the inclusion criteria (≥2 documents, ≥2 citations, ≤ 25 co-authors per paper). The largest connected group consisted of 11 authors.

Table 3
Author Clusters with Documents, Citations, TLS, and Co-authorship Groups

Cluster Color	Author Name	Documents	Citations	Total link Strength (TLS)	Co-authorship Group
Yellow	Post, Thomas	7	142	8	Ye, Brüggen, Hoet, Eberhardt
	Ye, Zihan	2	27	2	Post
Green	Eberhardt, Wiebke	3	134	7	Post, Brüggen, Hoet
	Brüggen, Elisabeth	2	54	6	Post, Eberhardt, Hoet
	Hoet, Chantal	2	54	6	Post, Eberhardt, Brüggen
Red	Chatterjee, Swarn	3	94	3	Nicolini, Cude
	Nicolini, Gianni	3	152	3	Chatterjee, Cude
	Cude, Brenda J.	2	89	3	Chatterjee, Nicolini
Blue	De Bruin, WändiBruine	4	250	4	Fischhoff
	Fischhoff, Baruch	2	166	2	De Bruin

3.2.2 Organizations (Affiliations)

The citation-weighted institutional analysis reveals both the productivity and scholarly impact of leading research institutions in financial literacy and behavior [25]. George Washington University ranks highest with 2,543 citations from 9 documents, reflecting both volume and influence. Similarly, the University of Groningen (2,323 citations, 8 documents) and the University of Pennsylvania (1,500 citations, 4 documents) demonstrate strong academic output and high citation density. Notably, Netspar (Network for Studies on Pensions, Aging and Retirement) stands out with the highest average citations per publication (455.20), despite having only 5 documents, highlighting its focused and impactful contributions. Other institutions such as Oxford, Zurich, and UNSW Sydney show consistent visibility, though with moderate document counts. Overall, the data indicate that while some institutions lead in volume, others like Netspar and Pennsylvania outperform in research impact per publication, emphasizing both quality and citation strength in institutional collaboration (see Figure 7 and Table 4).

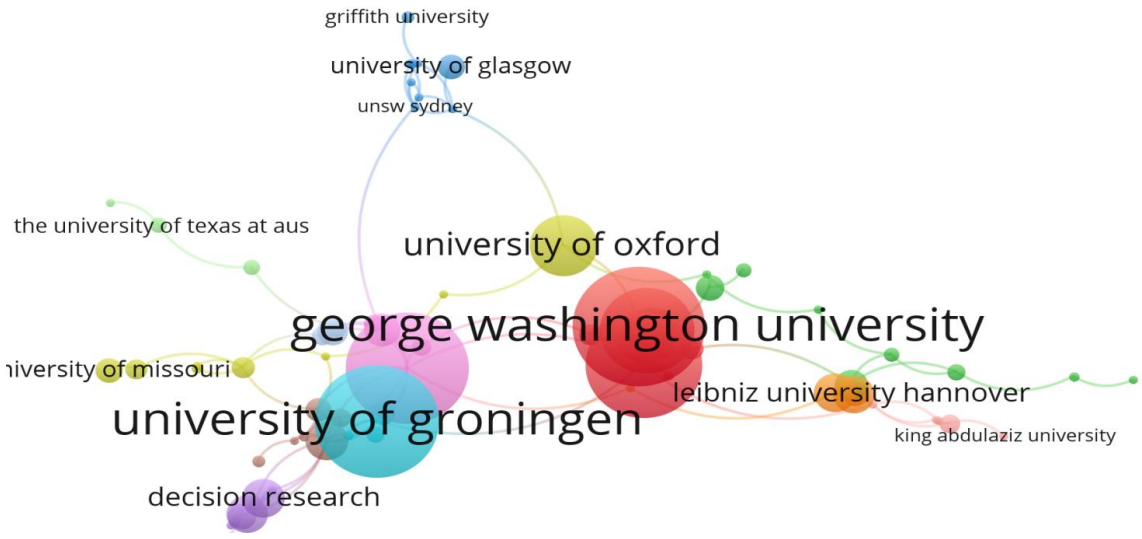

Fig. 7. Co-authorship network of institutions visualized using VOSviewer. Out of 697 organizations, 153 met the inclusion criteria (≥2 documents, ≥2 citations, ≤25 collaborating institutions per document). The largest connected group consisted of 82 institutions.

Table 4
Top 10 Institutions by Total and Average Citations

Rank	Institution	Documents	Citations	Avg. Citations
1	George Washington University	9	2,543	282.56
2	University of Groningen	8	2,323	290.38
3	Network for Studies on Pensions, Aging and Retirement	5	2,276	455.20
4	University of Pennsylvania	4	1,500	375.00
5	University of Oxford	4	862	215.50
6	Decision Research	3	412	137.33
7	Leibniz University Hannover	3	387	129.00
8	University of Zurich	2	211	105.50
9	Norwegian School of Economics	2	207	103.50
10	University of New South Wales Sydney	2	197	98.50

3.2.3 Countries

The co-authorship and citation analysis reveals that the United States leads global research in financial literacy with 79 publications, 7,457 citations, and the highest total link strength (47), underscoring its central role in international collaboration. The Netherlands ranks second in total citations (3,510) from 40 publications, with a high average of 87.75 citations per document, indicating strong scholarly influence. The United Kingdom also contributes significantly with 2,972 citations across 50 documents and broad collaboration (TLS: 32). Italy, Germany, and Australia maintain notable output and moderate citation impact, while Sweden and Malaysia, despite fewer documents, and show high average citations, reflecting the quality of research. China and Spain represent emerging contributors with growing international engagement (Figure 8). Co-authorship network of countries visualized using VOSviewer. Out of 76 contributing countries, 48 met the inclusion criteria (≥2 documents, ≥3 citations, ≤25 countries per document). The largest connected group consists of 44 countries (Figure 8 and Table 5).

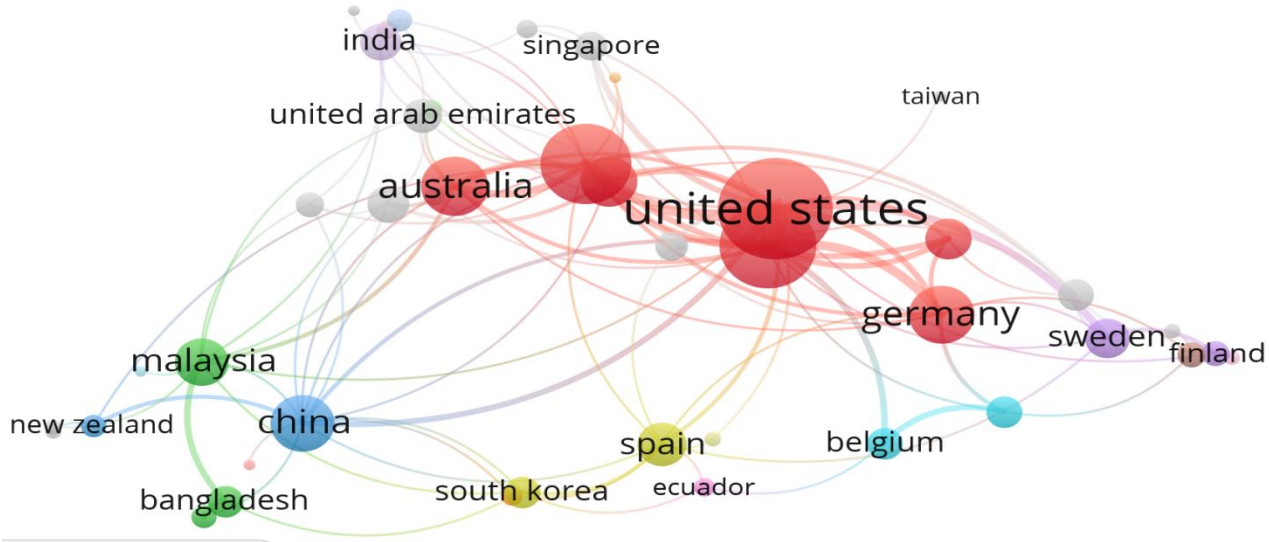

Fig. 8. Co-authorship network of countries visualized using VOSviewer. Out of 76 contributing countries, 48 met the inclusion criteria (≥2 documents, ≥3 citations, ≤25 countries per document). The largest connected group consists of 44 countries.

Table 5
Top 10 Countries by Total Citations in Financial Literacy and Behavior Research

Rank	Country	Documents	Citations	TLS	Avg. Citations
1	United States	79	7,457	47	94.39
2	Netherlands	40	3,510	36	87.75
3	United Kingdom	50	2,972	32	59.44
4	Italy	30	1,250	11	41.67
5	Sweden	13	933	10	71.77
6	Germany	24	929	21	38.71
7	Australia	26	895	28	34.42
8	Malaysia	19	864	20	45.47
9	China	20	744	23	37.20
10	Spain	15	698	18	46.53

3.3 Citation Analysis
3.3.1 Documents

The citation analysis of the top 10 most influential documents in financial literacy and financial behavior research reveals a robust and evolving academic foundation shaped by interdisciplinary contributions (see Figure 9 and Table 6).

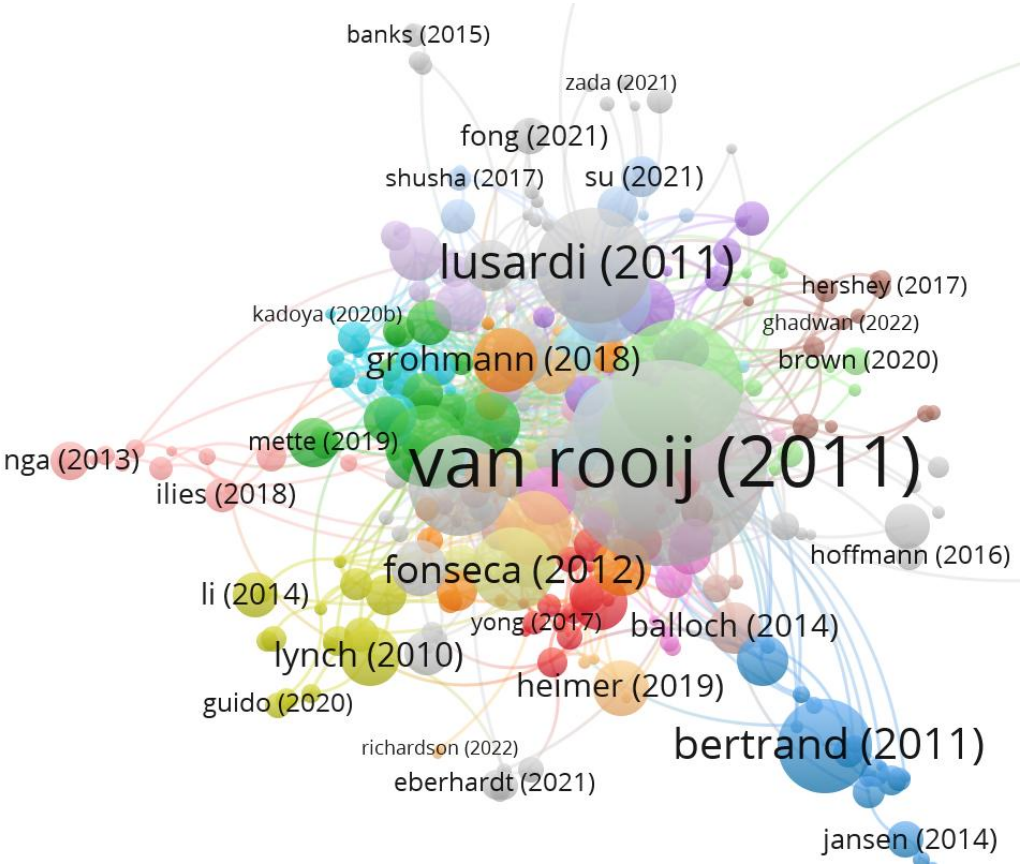

Fig. 9. Citation network of documents visualized using VOSviewer. Out of 507 documents, 361 met the inclusion criteria (≤3 citations per document). The largest connected group consists of 312 items.

Table 6
Top 10 Most Cited Documents in Financial Literacy and Behavior Research

Rank	Author(s)	Article Title	Source	Citations
1	van Rooij *et al.,* [26]	Financial literacy and stock market participation	Journal of Financial Economics	2,008
2	Lusardi &Tufano, [27]	Debt literacy, financial experiences, and over indebtedness	Journal of Pension Economics and Finance	823
3	Lusardi & Mitchell, [28]	Financial literacy and retirement planning in the U.S.	Journal of Pension Economics and Finance	650
4	Gathergood, [29]	Self-control, financial literacy and consumer credit use	Journal of Economic Psychology	498
5	Jappelli & Padula, [30]	Investment in financial literacy and saving decisions	Journal of Banking & Finance	442
6	Bertrand & Morse, [31]	Information Disclosure, Cognitive Biases, and Payday Borrowing	The Journal of Finance	424
7	Bucher-Koenen & Lusardi, [32]	Financial literacy and retirement planning in Germany	Journal of Pension Economics and Finance	401
8	Fonseca *et al.,* [33]	What Explains the Gender Gap in Financial Literacy?	Journal of Consumer Affairs	340
9	Bucher-Koenen *et al.,* [34]	How Financially Literate Are Women? An Overview and New Insights	Journal of Consumer Affairs	340
10	Strömbäck et al [35]	Does self-control predict financial behavior and financial well-being?	Journal of Behavioral and Experimental Finance	321

Leading this scholarly discourse is “Financial Literacy and Stock Market Participation” by van Rooij *et al.,* [26] published in the Journal of Financial Economics, with an outstanding 2,008 citations. This work serves as a cornerstone by empirically demonstrating the connection between financial knowledge and household investment decisions. Equally impactful are Lusardi & Tufano [27] research on debt literacy and financial fragility, published in the Journal of Pension Economics and Finance with 823 citations, which underscores the consequences of low financial awareness in credit decisions. The consistent presence of Annamaria Lusardi as a co-author in several top-cited works reflects her central role in the global financial literacy discourse. Her collaborations with Mitchell on retirement planning in the U.S. (650 citations) and with Bucher-Koenen in the German context (401 citations) demonstrate international relevance. Behavioral dimensions are also prominent. Gathergood [29] examined self-control and mortgage choices, while Jappelli & Padula [30] addressed the long-term impact of financial education on saving behavior. Bertrand & Morse [31] explored cognitive bias in payday borrowing, highlighting the role of information framing. Meanwhile, Fonseca *et al.,* [33], Bucher-Koenen *et al.,* [34]and Strömbäck *et al.,* [35] examined gender gaps and psychological traits like self-control in relation to financial outcomes.

3.3.2 Sources

The citation analysis of sources reveals that research on financial literacy and behavior is primarily concentrated in a group of highly influential journals, each offering a unique academic perspective. The Journal of Pension Economics and Finance stands out with the highest number of citations, reflecting its strong focus on retirement savings, pension systems, and long-term financial preparedness. The Journal of Financial Economics, although publishing fewer articles in this field, contributes some of the most cited foundational work on investment behavior and financial

knowledge. The Journal of Consumer Affairs provides critical insights into household financial decisions, often addressing the role of financial education in shaping spending and saving patterns. The Journal of Economic Psychology bridges economics and psychology to explore how emotions, biases, and mental habits affect financial choices. Journals such as the Journal of Banking & Finance and the Journal of Behavioral and Experimental Finance contribute by examining credit behavior, banking decisions, and experimental findings on human responses to financial challenges. The Journal of Economic Behavior & Organization explores how social systems and institutions influence money management. Sustainability adds to a broader context by linking financial awareness with responsible living and inclusive growth. The European Journal of Finance emphasizes portfolio decisions and financial planning across developed economies, while the International Journal of Consumer Studies focuses on improving financial capability in real-world contexts. Collectively, these journals form the intellectual foundation of global research in financial literacy and behavior, supporting both academic progress and evidence-based policy development (see Figure 10 and Table 7).

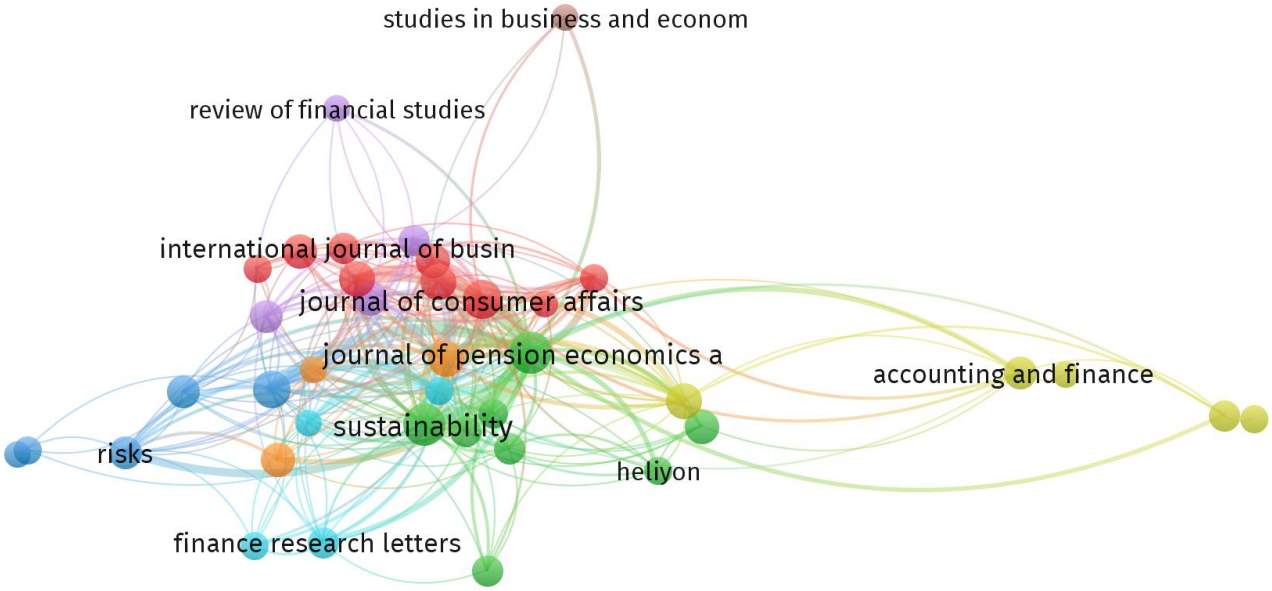

Fig. 10. Source citation network visualized using VOSviewer. Out of 181 sources contributing, 39 met the inclusion criteria (≥3 citations and ≥3 documents per source). The largest connected group consists of 82 sources.

Table 7
Top 10 Journals by Total Citations in Financial Literacy and Behavior Research

Rank	Source (Journal)	Documents	Citations	TLS
1	Journal of Pension Economics and Finance	29	3,193	255
2	Journal of Financial Economics	4	2,262	143
3	Journal of Consumer Affairs	22	1,425	109
4	Journal of Economic Psychology	6	911	49
5	Journal of Banking & Finance	15	1,007	90
6	Journal of Behavioral and Experimental Finance	10	580	47
7	Journal of Economic Behavior & Organization	12	555	49
8	Sustainability	31	560	132
9	European Journal of Finance	7	350	22
10	International Journal of Consumer Studies	12	389	76

4. Results

4.1 Research Trends

The analysis from 2010 to April 2025 shows a steady and significant growth in research on financial literacy and retirement planning. Early output remained low, but post-2016; interest accelerated peaking in 2023 with the highest number of publications. This rise aligns with increased global attention to retirement insecurity, financial self-reliance, and digital financial systems. Citation patterns support this trend [36]. Total citations rose sharply from 2020 onward, reflecting wider academic recognition. Highly cited works grew in both volume and thematic scope, moving beyond basic financial knowledge to cover behavioral insights, digital inclusion, and socio-economic disparities. The research landscape has also become more international. Leading institutions in the U.S. and Europe remain influential, while countries like India, Malaysia, and China are expanding their research presence. Collaborations among top scholars have resulted in more diverse and comparative studies. Most importantly, the findings are increasingly applied in public policy, workplace planning, and community education proving the growing real-world value of financial literacy research.

5. Conclusion and Suggestions

5.1 Conclusion

The bibliometric findings from 2010 to April 2025 reflect a dynamic shift in how financial literacy and retirement planning are researched and understood. The growth in scholarly output is not merely quantitative but also qualitative, with greater diversity in perspectives, geographies, and methodologies. High-impact studies are increasingly addressing contemporary challenges such as post-pandemic financial vulnerability, digital access to financial tools, and behavioral responses to retirement risks. Countries like Japan, India, and the United States have produced a significant portion of recent influential work, as seen in journals like PLOS ONE, Journal of Financial Services Marketing, and Financial Innovation. Furthermore, the emergence of younger institutions and collaborative research networks shows that expertise in financial literacy is expanding beyond traditional academic centers. The presence of frequently cited studies in behavioral finance, emotional biases, and workplace readiness suggests that financial literacy is no longer viewed in isolation it is now positioned as a pillar of sustainable personal and societal development.

5.2 Suggestions

i. *Embed Financial Resilience in Public Systems*: Future policies should go beyond awareness and build long-term resilience by aligning financial education with employment, social security, and healthcare systems.
ii. *Focus on Transitional Life Stages*: Research and programs must pay closer attention to transitional phases such as early career, pre-retirement and sudden income loss where financial decisions are most critical.
iii. *Promote Lifelong Learning Models:* Financial literacy should be redefined as a lifelong competency. Training models must shift from one-time interventions to continuous learning integrated into personal and professional development.
iv. *Encourage Data Transparency and Sharing:* Researchers and institutions should develop open-access financial literacy databases to enable real-time analysis, replication, and regional policy innovation.

v. *Leverage Cultural and Community Networks*: In multilingual and diverse societies, leveraging trusted community institutions like cooperatives, SHGs, and local media can significantly enhance the delivery and acceptance of financial knowledge.

6. Future Work

While this study offers a comprehensive bibliometric view of global research on financial literacy and retirement planning, several pathways remain for future exploration. Firstly, future research may incorporate data from additional databases like Scopus and Web of Science for broader coverage and validation. Secondly, integrating Multi-Criteria Decision-Making (MCDM) techniques could significantly enrich the analytical depth of future studies. Financial literacy and retirement planning involve multiple interrelated factors such as income, education, gender, risk perception, digital access, and policy support. Applying tools like TOPSIS, AHP, or fuzzy MCDM can help researchers assess these criteria systematically and identify optimal strategies for diverse population segments. MCDM frameworks may also assist policymakers in prioritizing interventions for different socio-economic groups. Moreover, country- and region-specific bibliometric studies, particularly in emerging economies, can uncover localized gaps and best practices. Longitudinal research should track the post-2025 development of this domain, especially in relation to digital finance, aging populations, and informal sector retirement challenges. Interdisciplinary approaches will be key to developing holistic, data-driven models that enhance retirement security and financial inclusion worldwide.

Conflicts of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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