

Financial Literacy and its Determinants: A Bibliometric Analysis



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Abstract

Over the last decade, financial literacy has gained increasing interest in the field of research, defined as a combination of financial awareness, knowledge, skills, attitudes, and behaviours that enables individuals to make informed financial decisions and attain financial well-being. The present study follows the bibliometric approach and uses descriptive, citation, document citation network, co-citation and co-authorship network analysis to a corpus of 407 journal articles on financial literacy and its determinants published between 2017 and 2026 and indexed on Dimensions database. The corpus comprised 723 records initially retrieved and after screening down to 407 to exclude records where the term “financial literacy” was not in the true title or abstract. The results indicate that publications have more than quadrupled since 2019 with India, China, Malaysia, the United States and Indonesia as the top contributors. The most cited external reference in the corpus indicates that the field is most broadly based on the core finance and economics literature and that there is significant dependence on behavioural, organisational and consumer-research literature as a secondary source of reference when discussing the psychological and fintech-related determinants. The co-authorship analysis reveals a scattered field that is distributed globally, and it lacks any dominant research group.

Keywords: Financial Literacy, Determinants, Bibliometric Analysis, Co-citation Network, Co-authorship Analysis

Introduction

Financial literacy is broadly accepted as a blend of financial awareness, knowledge, skills, attitudes and behaviours that enable people to make informed financial decisions and attain their personal financial well-being (OECD, 2013). As per Nababan and Sadalia, (2012) there are five key aspects of financial literacy which are Risk Management, Credit and Debt Management, Saving and Investment Management, and Basic Personal Finance.

It is now acknowledged as a form of human capital, individuals with better financial literacy plan better for their retirement, engage more in financial markets, build up more wealth over their lives, and are less susceptible to financial fraud, and those with low financial literacy are more likely to be susceptible to financial fraud, to have costly borrowing habits, and to be underprepared to retire (Lusardi & Mitchell, 2014).

Given the diversity of factors that influence the choices people make with their money, there is a large and diverse literature focusing on the factors that affect financial literacy, such as age, gender, income, education, and family background, and, more recently, exposure to financial services (Stolper & Walter, 2017; Bottazzi & Lusardi, 2021; Lo Prete, 2022). This literature has grown rapidly, and bibliometric analytics has proven to be a useful tool for delivering a synthesis of the structure, influence and evolution of the field beyond what a traditional narrative review can provide.

Recent bibliometric and systematic reviews have collectively mapped the intellectual landscape of financial literacy research, revealing both convergence and gaps across studies of varying scope. Chhillar and Arora (2023) analyzed 584 documents (2002–2021) from Google Scholar, Microsoft Academic, and Crossref using VOSviewer, Pajek, Gephi, and MS Excel, identifying six core thematic clusters and highlighting emerging trends such as financial technology, financial satisfaction, and financial behavior. Taking a broader corpus, Zaimovic et al. (2023) examined 1,071 peer-reviewed articles (1997–2022) from the Web of Science database, tracing the field's theoretical roots to Ajzen's (1991) Theory of Planned Behavior and constructing a structural framework linking determinants to financial outcomes through co-authorship and keyword co-occurrence analysis. In contrast, Rehman and Mia (2024) adopted a more selective approach, screening 53 articles (1981–2024) from Scopus using VOSviewer, and offered one of the most comprehensive determinant classifications, organizing findings into seven dimensions: demographic, socio-economic, psychological, financial, societal, Islamic, and technological. Focusing specifically on emerging economies, Singh and Singh (2024) retrieved 1,412 documents from Scopus and ResearchRabbit, narrowing to 502 core articles to evaluate publication trends, journal rankings, and co-authorship networks, with particular attention to

research gaps in India and the BRICS nations. Together, these reviews demonstrate that while global studies (Chhillar & Arora, 2023; Zaimovic et al., 2023) have established broad thematic and theoretical foundations, more targeted reviews (Rehman & Mia, 2024; Singh & Singh, 2024) reveal that regional and conceptually nuanced dimensions of financial literacy particularly in developing economies remain comparatively underexplored, pointing to clear avenues for future research.

Literature Review

There are several general categories of empirical studies of the determinants of financial literacy. The most widely studied socio-demographic differences are age, gender, income, and education, and women, younger adults, and those with lower levels of income and education consistently perform worse on financial literacy tests in the literature, although the magnitude and even the sign of some of these gaps depends on the country and on the method of measuring financial literacy (Karakurum-Ozdemir et al., 2018; Bottazzi & Lusardi, 2021). A second stream of psychological and behavioral determinants includes confidence, self-efficacy, cognitive ability, and attitudes towards money; experimental evidence shows that financial literacy influences financial-advice seeking and other financial behaviors (Stolper & Walter, 2017), even after accounting for other factors that may have confounded the relationship between these constructs, and even when the commonly reported gender gap in financial literacy was controlled for (Muñoz-Murillo et al., 2020). Within this stream, cognitive factors have been studied in particular detail: in a regression analysis of 300 adults in Malaysia, cognitive ability, numeracy skill, and metacognitive awareness together explained 26.5% of the variance in financial literacy with all three factors emerging as significant, independent predictors cognitive ability, numeracy skill, and metacognitive awareness (See, 2024). The third, even newer, stream relates to digital and fintech-related determinants: alongside financial services digitisation, "digital financial literacy" is becoming a separate phenomenon that has been combined with the use of digital payments (Lo Prete, 2022), the acceptance of financial technology (Alkhwalidi et al., 2022), and cryptocurrency investment behaviour (Zhao & Zhang, 2021). This stream is relatively novel when compared to the socio-demographic and psychological streams, and is the focus of the present analysis.

Purpose of the Study

An updated bibliometric review is motivated by two developments. There has been a dramatic increase in the number of publications in this area since 2020, so that inevitably a review completed in 2021 will not capture a substantial proportion of the literature.

Second, the previous bibliometric analysis made it clear that "financial technology" was an emerging research theme that was not as prominent or dominant at the time of the study as other themes identified, which can be considered as an emerging but not yet dominant theme; this study can directly answer the question of whether this theme has become more prominent or dominant in the field of financial services since the previous bibliometric study.

Research Questions

This bibliometric analysis addresses the following research questions:

1. How has publication output on financial literacy and its determinants evolved between 2017 and 2026?
2. Which journals, articles, countries, and authors are most prominent in the field?
3. Which of the corpus's own documents are most central in its direct citation network?
4. What does the corpus's co-citation structure reveal about the intellectual foundations of the field?
5. How collaborative is the field, based on co-authorship network structure?

Research Methodology

Dataset were retrieved from Dimensions. Records were retrieved on the criterion that the phrase "financial literacy" AND "determinants" appear in the title or abstract, restricted to journal articles indexed in the UGC Journal List Group II, published between 2017 and 2026. The initial search extracted 723 records. Because Dimensions' underlying search logic can match records more loosely than an exact phrase search for example, returning papers on "social determinants of health literacy" that share vocabulary with, but are substantively unrelated to, financial literacy every record's title and abstract was screened programmatically for the literal phrase "financial literacy" AND "determinants" 316 records that did not contain this phrase were removed as off-topic. Finally 584 documents were assessed for bibliometric analysis. Bibliometric research studies analyse trends in previously published literature using mathematical and computational techniques (Singh and Dhir, 2019). The research uses a bibliometric technique Goyal & Kumar (2021), Zaimovic et al. (2023) and Chhillar and Arora (2023), as well as Pajek and Gephi for data visualization. This bibliometric study uses Publish or Perish along with VOSviewer. If the nature of the article remained vague after this initial evaluation, the article text was obtained and skimmed to establish its importance. This screening step is summarised in Figure 1.

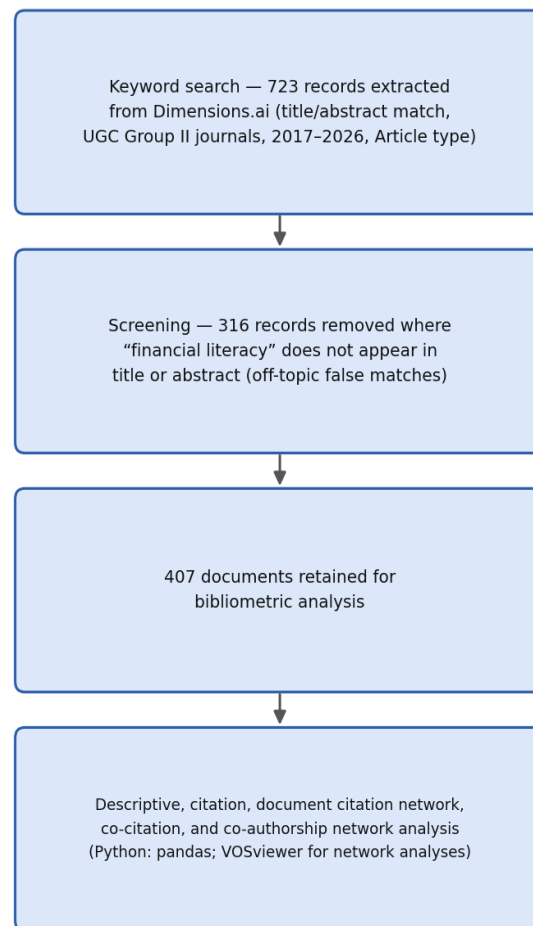


Figure 1. Data collection and screening flow.

Data Analysis

1. Descriptive Analysis

The final corpus comprises 407 articles published across 242 journals between 2017 and 2026, together accumulating 9,215 citations (mean 22.6 per article; 89 articles, or 22%, remain uncited). Authors from 74 identifiable countries contributed to the corpus (72 of the 407 records carried no information about country).

Table 1. Summary corpus statistics.

Metric	Value
Documents analysed	407
Unique source journals	242
Publication years covered	2017 – 2026 (2026 partial)
Total citations (sum)	9,215
Average citations per document	22.6
Documents with zero citations	89 (22%)
Countries represented (author affiliation)	74

Publication output grew only modestly between 2017 and 2019 (14–17 articles per year) before rising sharply from 2020 onward, reaching 72 articles in 2025 more than a four-fold increase over the 2019 level (Figure 2). The present analysis suggests that, rather than plateauing, financial literacy research has entered a second, steeper growth phase since 2020.

Year-wise Publications on Financial Literacy and its Determinants

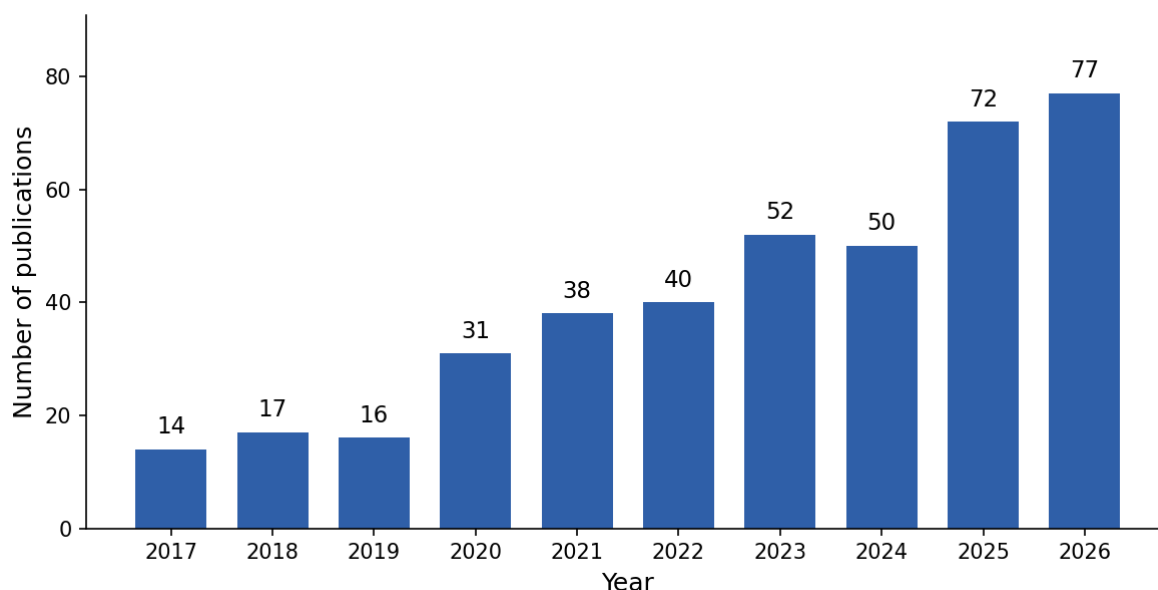


Figure 2. Year-wise publications on financial literacy and its determinants (2017–2026).

Sustainability (13 articles) and Cogent Economics & Finance (12 articles) are the two most active outlets by volume, followed by a cluster of specialist economics, banking, and finance journals (Figure 3).

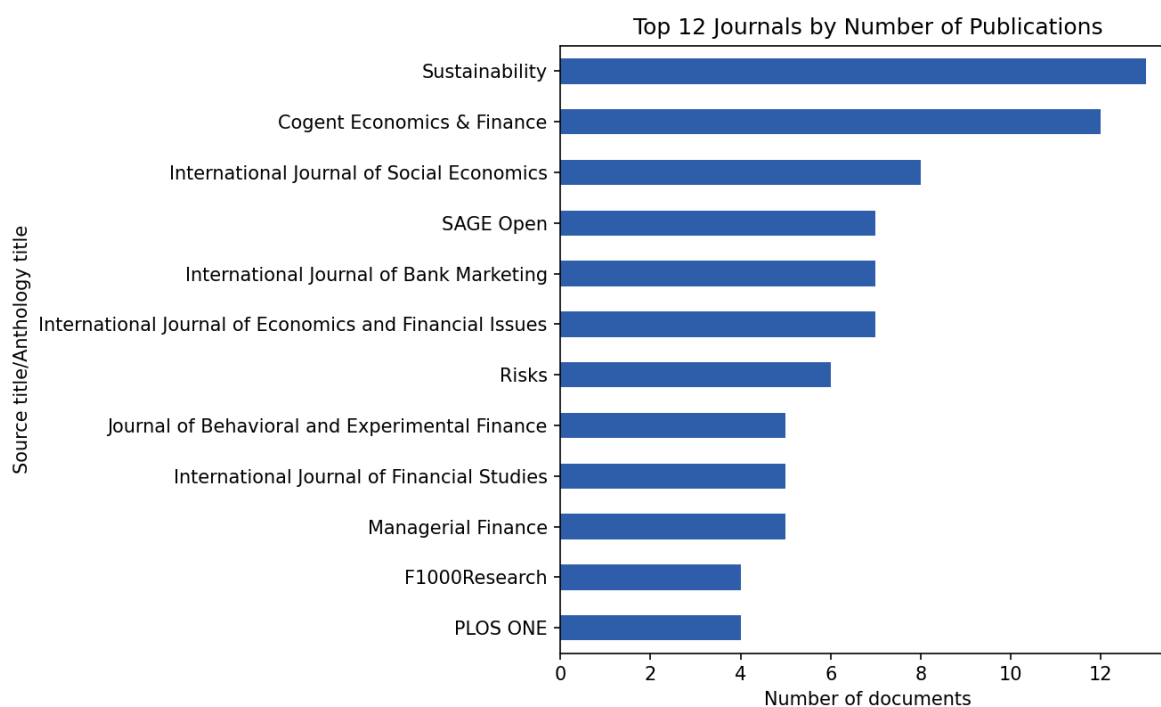


Figure 3. Top 12 journals by number of publications.

India, China, Malaysia, the United States, and Indonesia are the leading contributing countries by author affiliation (Figure 4), pointing to strong research interest in financial literacy across large emerging-market economies alongside sustained output from the US and UK.

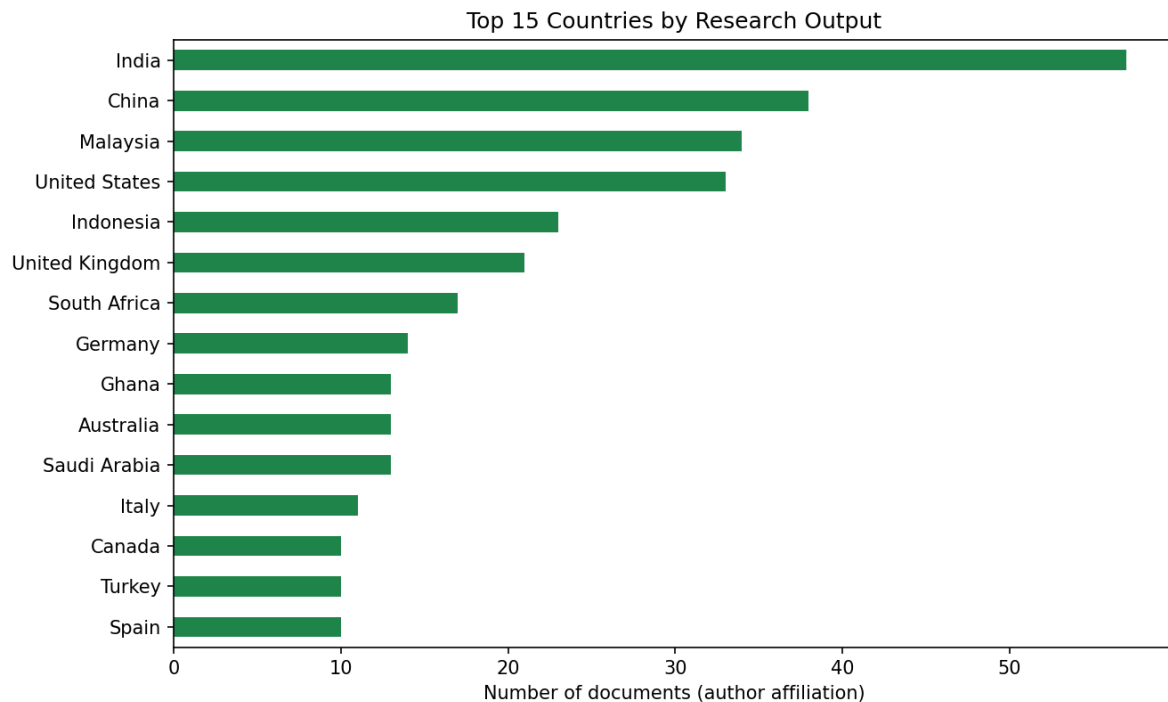


Figure 4. Top 15 countries by research output (author affiliations with a recorded country only).

The Authors with the most publication in the field were Samuel Tawiah Baidoo and Sumit Kumar Maji with four publication each followed by authors with three and two publications (Figure 5).

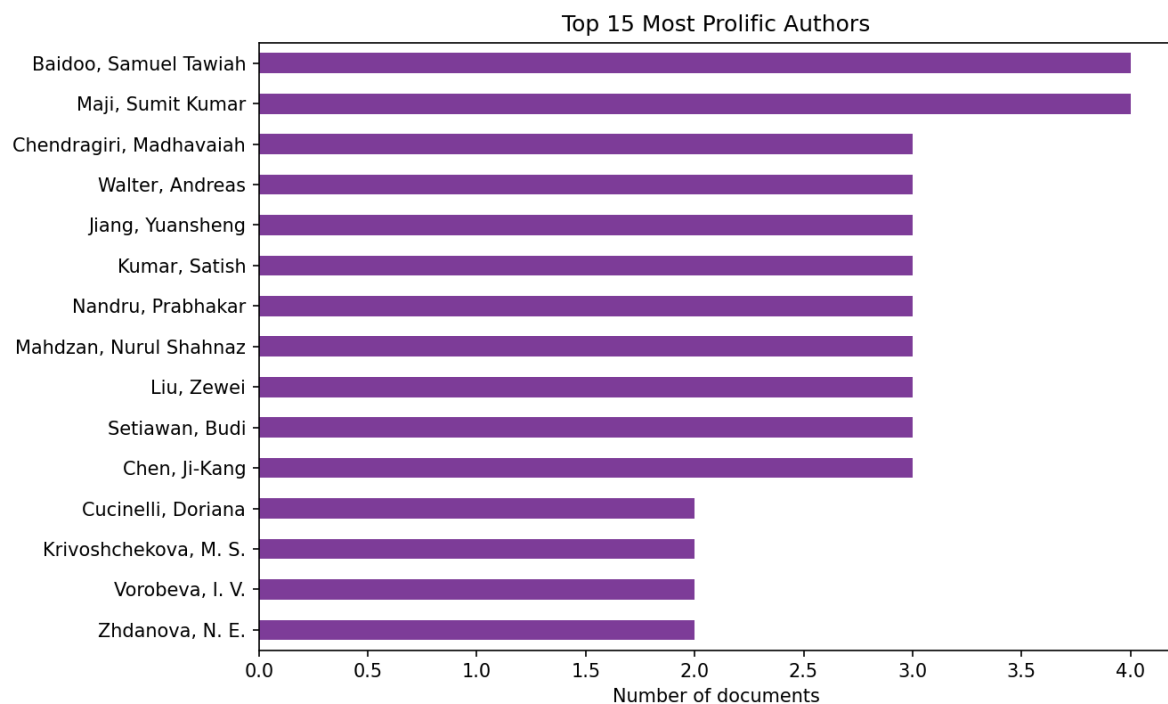


Figure 5. Top 15 most prolific authors by document count.

2. Citation Analysis

Weighting journals by total citations rather than article count reorders the ranking (Figure 6): Sustainability again leads, but the International Journal of Bank Marketing, Journal of Business Economics, and Cogent Economics & Finance also carry substantial citation weight, each anchored by one or two highly-cited articles rather than broad citation depth across many articles.

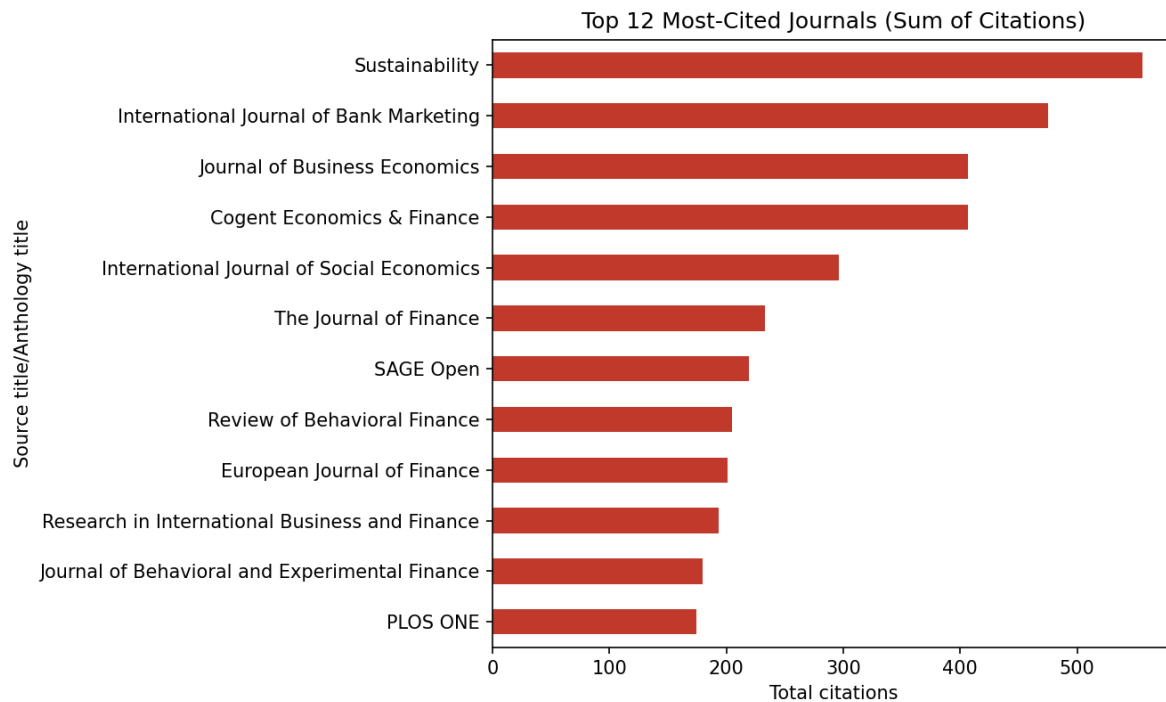


Figure 6. Top 12 journals by total citation count.

The single most-cited article in the corpus is Stolper and Walter's (2017) study of financial literacy, financial advice, and financial behaviour, published in the Journal of Business Economics (407 citations), followed by Bianchi's (2018) Financial Literacy and Portfolio Dynamics in the Journal of Finance (233 citations). Table 2 lists the 15 most-cited articles.

Table 2. Top 15 most-cited articles in the corpus.

Citations	Title	Journal	Year
407	Financial literacy, financial advice, and financial behavior	J. of Business Economics	2017
233	Financial Literacy and Portfolio Dynamics	The Journal of Finance	2018
205	Financial literacy and financial behaviour: a bibliometric analysis	Review of Behavioral Finance	2020
201	Financial literacy and financial well-being among generation-Z university students	European J. of Finance	2019
155	Financial literacy or investment experience: cryptocurrency investment	Int'l J. of Bank Marketing	2021
154	Digital and financial literacy as determinants of digital payments	Economics Letters	2022
144	Psychological determinants of retirement financial planning behavior	J. of Business Research	2021
144	Towards an Understanding of FinTech Users' Adoption Post-COVID-19	Sustainability	2022
142	Antecedents and consequences of Personal Financial Management Behavior	Int'l J. of Bank Marketing	2021
141	Financial Literacy in Developing Countries	Social Indicators Research	2018

134	Financial inclusion – does digital financial literacy matter for women entrepreneurs?	Int'l J. of Social Economics	2022
131	Impact of financial literacy, mental budgeting and self control on wellbeing	PLOS ONE	2023
131	How Does Technological and Financial Literacy Influence SME Performance	Information	2020
129	Stereotypes in financial literacy: Evidence from PISA	J. of Corporate Finance	2021
127	The role of cognitive abilities on financial literacy: experimental evidence	J. of Behavioral & Exp. Economics	2020

3. Citation Network Among Documents

As a complement to the ranked citation counts in Section 4.2, a direct citation network among the corpus's own 407 documents was constructed in VOSviewer linking corpus articles that cite one another, as distinct from the co-citation analysis of external references reported. The network is rendered as an item density visualisation, in which warmer colours (black/red/orange) mark regions of dense, closely-interlinked documents and cooler colours (blue) mark sparser, more peripheral areas; label size reflects each document's weight (its overall connectivity) within the network (Figure 7).

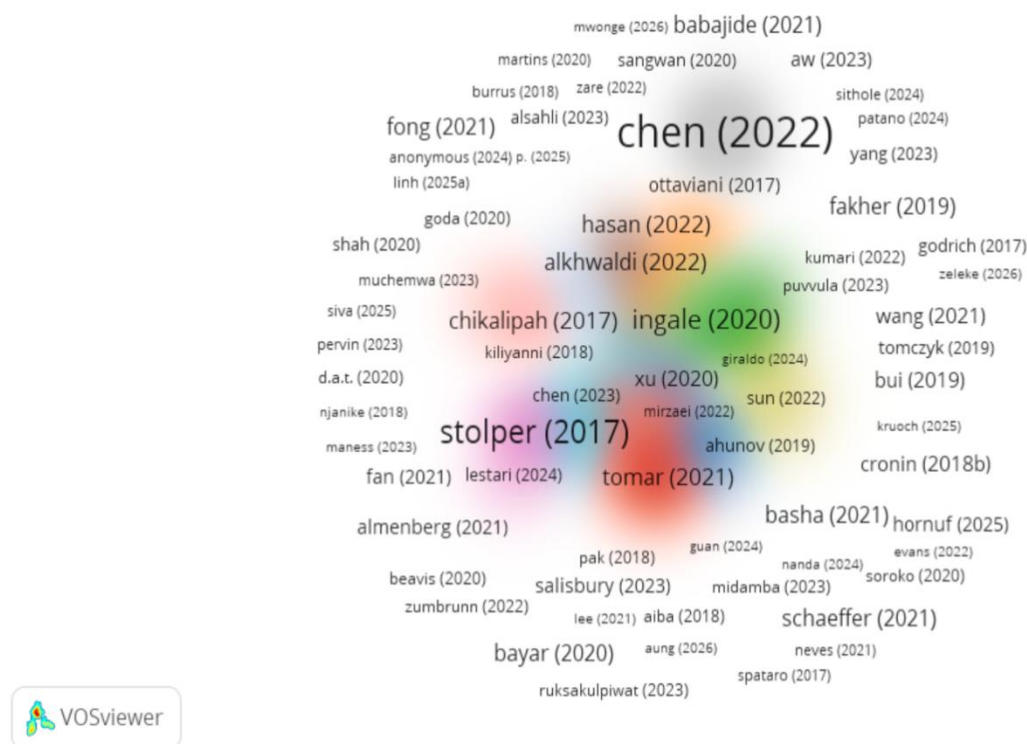


Figure 7. Density visualisation of the direct citation network among the 407 corpus documents (VOSviewer).

The network's densest region is anchored by Chen (2022), the single most strongly-connected document in the corpus, with a second, similarly dense area anchored by Stolper and Walter (2017) and Ingale and Paluri (2020). Several other prominent documents sit within or adjacent to this dense core, including Chikalipah (2017), Hasan et al. (2022), and Alkhwalidi et al. (2022). Notably, these last three together with Stolper and Walter (2017) and Ingale and Paluri (2020) are also among the corpus's most-

cited articles overall (Table 2), indicating that the documents most heavily cited by other papers in this specific corpus are largely the same documents driving the field's overall citation impact. By contrast, documents at the map's cooler, outer edge for example, zelege (2026), evans (2022), spataro (2017), and rucksakulpiwat (2023) are only loosely connected to the rest of the network, suggesting more isolated contributions that have not yet been widely cited by other corpus articles.

4. Co-citation Analysis

To identify the intellectual foundations underlying the corpus, a co-citation network was constructed in VOSviewer from the reference lists of the 407 articles, restricted to externally referenced works cited at least 20 times across the corpus. Two

references are linked if they are cited together in the same corpus article; node size reflects the total number of within-corpus citations a reference receives, and colour reflects cluster membership identified by VOSviewer's default clustering algorithm (Figure 8).

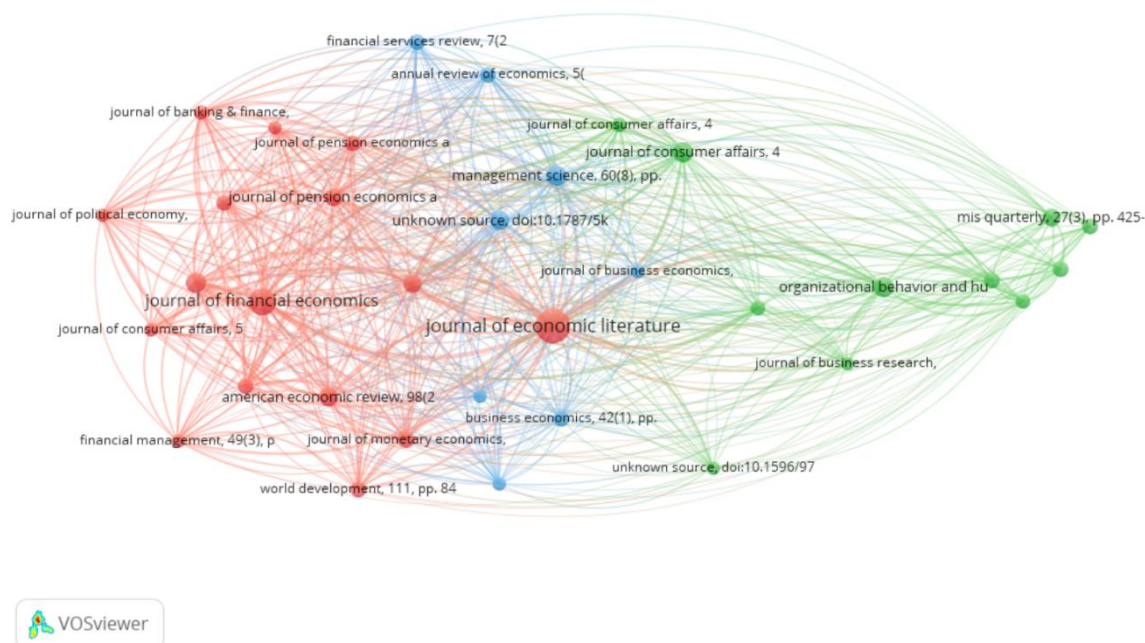


Figure 8. Co-citation network of externally referenced works cited ≥ 20 times across the 407-article corpus.

- Cluster 1 (red) Core finance and economics scholarship: the Journal of Economic Literature is the largest and most central node, anchored by foundational references such as Lusardi and Mitchell's (2014) survey, alongside the Journal of Financial Economics, American Economic Review, Journal of Banking & Finance, Journal of Political Economy, Journal of Pension Economics (two separately-cited items), Journal of Monetary Economics, World Development, Financial Management, and a highly-cited Journal of Consumer Affairs article.
- Cluster 2 (blue) a smaller cluster bridging the other two: Financial Services Review, Annual Review of Economics, Management Science, Business Economics, and a reference with an OECD-affiliated DOI prefix (10.1787), consistent with the OECD/INFE (2020) survey.
- Cluster 3 (green) Behavioural, organisational, and business-research literature: MIS Quarterly, Organizational Behavior and Human Decision Processes, Journal of Business Research, a second, separately-cited Journal of Consumer Affairs article, and a reference with a World

Bank-affiliated DOI prefix (10.1596).

This figure offers a new view of the field's intellectual structure rather than a direct point of comparison. It shows that financial-literacy research draws most heavily on core finance and economics journals, with a smaller, bridging cluster of applied/business-economics outlets and a further cluster of behavioural, organisational, and business-research literature consistent with the socio-demographic and psychological/behavioural determinants identified elsewhere in this review while dedicated fintech and digital-finance outlets do not yet appear among the most heavily co-cited external references, suggesting that the fintech literature remains too recent, or too dispersed across outlets, to have consolidated into its own highly co-cited reference cluster.

5. Co-authorship Network Analysis

Sixty-seven authors published two or more articles in the corpus, but only 19 of these form connected collaboration clusters, ranging in size from small pairs up to larger teams of around eight or nine co-authors; the remaining 23 authors never repeat a co-author across their multiple appearances in the corpus and so appear as isolated points in the network (Figure 9). The largest and most cohesive

sub-team, anchored by Guglielmo Bonaccorsi together with Luigi Palmieri and Vieri Lastrucci (red), is closely followed in size by a cluster anchored by Patricia Adams-Graves and Robert M. Cronin (green) and a somewhat smaller cluster anchored by Sunyi Zhang and Jessica Cleveland (blue). A separate, smaller cluster links a differently-recorded "Bonaccorsi, G." with Zanobini, P., suggesting a name-variant of the same broader research group. Several further small clusters of three to four co-authors are visible, each anchored by a single prominently-labelled author including Éva Biró, Nada Eldawy, Doris Schaeffer, Nicole Bachmann, and Budi Setiawan (the last paired with Herri Mulyono) while the

majority of the 67 repeat-publishing authors, including otherwise prominent names such as Yong Kang Cheah, Kwame Mireku, Tuba Shamim, Mochammad Fahlevi, and Andreas Walter, appear as unlabelled, unconnected nodes with no repeated co-author. This fragmented structure many small, largely disconnected teams rather than one dominant collaboration network echoes the dispersed co-authorship pattern Chhillar and Arora (2023) also reported for 2002–2021, and suggests that financial literacy research continues to be produced by many independent regional teams rather than a small set of internationally networked groups.

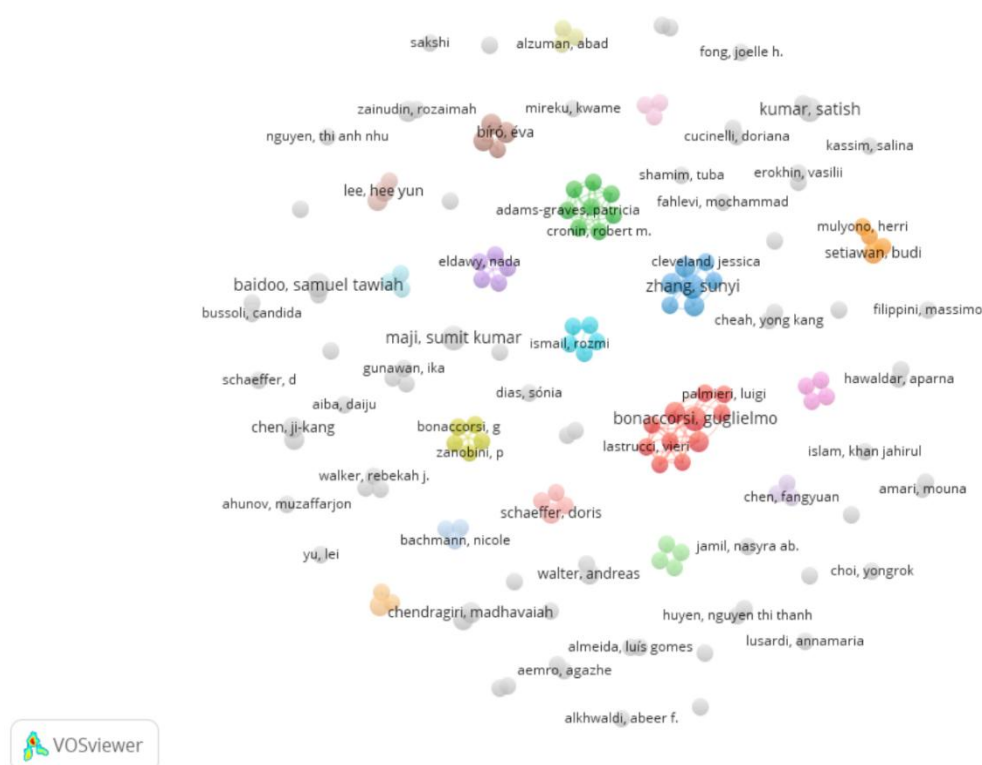


Figure 9. Co-authorship network among authors with ≥ 2 publications in the corpus.

Findings

- Publication output on financial literacy and its determinants has grown steadily and sharply since 2020, more than quadrupling (4.5x) between 2019 (16 articles) and 2025 (72 articles), reflecting a markedly steeper growth trajectory. Growth follows a clear two-phase pattern: modest expansion from 2017–2019, followed by a sharp, sustained acceleration from 2020 onward.
- Sustainability, Cogent Economics & Finance, and the International Journal of Social Economics are the most active publication outlets by volume; Sustainability and the International Journal of Bank Marketing are also the most-cited.
- The direct citation network among the corpus's

own documents is dominated by Chen (2022), Stolper and Walter (2017), and Ingale and Paluri (2020); the latter two also rank among the corpus's overall most-cited articles (Table 2), indicating that the documents most central within the corpus's internal citation structure largely coincide with those driving the field's broader citation impact. At the individual-article level, the most-cited works in the corpus are Stolper and Walter's (2017) study (407 citations) and Bianchi's (2018) study (233 citations).

- India, China, Malaysia, the US, and Indonesia lead in research output, reflecting strong research and policy interest in financial literacy in large emerging-market economies.
- Research output is not concentrated among a small set of highly prolific authors (the most

prolific being Samuel Tawiah Baidoo and Sumit Kumar Maji, each with four publications) or a single connected co-authorship network; it is produced by a globally distributed, moderately fragmented set of small research teams.

- The corpus's co-citation network divides into three clusters (i) core finance and economics scholarship, (ii) a smaller, bridging cluster of applied/business-economics outlets, and (iii) behavioural, organisational, and business-research literature with dedicated fintech and digital-finance outlets not yet forming a distinct highly co-cited cluster of their own, even though individual fintech-related articles rank among the corpus's most-cited works (Section 4.2).

Limitations

- The direct citation network among corpus documents (Figure 7) can only capture links between the 407 documents that actually cite one another; because the corpus spans many different journals and sub-fields, most document pairs share no direct citation link, so the density map highlights only the small minority of documents that are well-connected within the corpus itself, rather than the full citation impact of every article.
- Only Dimensions.ai-indexed, UGC Group II-listed journal articles were included; conference papers, which limits the direct comparability of absolute publication counts across the two or more studies.

Conclusion

This bibliometric analysis of 407 articles published between 2017 and 2026 extends 2021 review of papers related to financial literacy and its determinants. It confirms that the field continues to expand rapidly more rapidly, in fact, than in the earlier period and that its geographic base has broadened toward large emerging-market economies. Intellectually, the field remains rooted in core finance and economics scholarship, complemented by a substantial secondary reliance on behavioural, organisational, and consumer-research literature; fintech and digital-finance work, while not yet forming its own highly co-cited reference cluster, is already prominent among the corpus's most-cited individual articles, pointing to digital and technology-driven financial products as a likely frontier for financial-literacy research and policy over the coming years. Future bibliometric work could extend this analysis to Scopus and Web of Science-indexed literature, incorporate conference proceedings and working papers for closer comparability with earlier reviews, and track whether fintech-related research eventually consolidates into its own highly co-cited reference cluster.

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