

MAPPING FINANCIAL INCLUSION AND ECONOMIC EMPOWERMENT RESEARCH: A BIBLIOMETRIC ANALYSIS AND PRISMA-BASED SYSTEMATIC REVIEW

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Abstract

Financial inclusion has emerged as a central pillar of global sustainable development, yet the scholarly literature documenting its relationship with economic empowerment remains fragmented across disciplines, geographies, and methodological traditions. This study employs a dual methodological framework: bibliometric analysis combined with a PRISMA-based systematic review, to comprehensively map the intellectual landscape of financial inclusion and economic empowerment research published between 2014 and 2026. Using the Scopus database and a structured Boolean search strategy, an initial pool of 790 documents was retrieved and refined through six sequential eligibility filters, yielding a final analytical corpus of 363 peer-reviewed journal articles drawn from 233 distinct sources. Of these, 207 open-access articles constitute the empirical foundation for qualitative content synthesis. Bibliometric analyses, encompassing publication trend mapping, source impact assessment, geographic distribution, keyword co-occurrence network analysis, thematic mapping, factorial analysis, citation analysis, and bibliographic coupling, were conducted using Biblioshiny and VOSviewer. The results reveal a remarkable 22.12% annual growth rate, with output escalating from 2 articles in 2014 to 107 in 2025, driven by the digitalization of financial services, pandemic-induced adoption of digital infrastructure, and the integration of financial inclusion within the Sustainable Development Goals framework. India dominates global output (58 corresponding-author articles; 15.98%), followed by China and select African nations, while significant evidence gaps persist across Latin America, Central Asia, and Pacific island contexts. The keyword co-occurrence network identifies poverty alleviation, microfinance, livelihood, and empowerment as the conceptual anchors of the field, alongside an emerging technological turn toward fintech, artificial intelligence, and digital financial services. Highly cited works concentrate in the 2018–2024 period, confirming the field's dynamism and rapid knowledge evolution. This study identifies critical directions for future research, including geographic diversification, theoretical innovation, methodological rigor, and critical engagement with the risks of technological solutionism — and offers a structured knowledge map to inform scholars, practitioners, and policymakers advancing equitable financial ecosystems.

Keywords: financial inclusion; economic empowerment; bibliometric analysis; PRISMA; systematic review; digital financial services; poverty alleviation; Scopus

1. Introduction

Access to formal financial services has long been recognised as a foundational enabler of economic participation, social mobility, and human capability. Yet despite decades of policy intervention and institutional reform, an estimated 1.4 billion adults worldwide remain unbanked; excluded from the formal financial system and consequently from the tools necessary to save securely, borrow productively, insure against risk, and invest in human capital (Demirgüç-Kunt et al., 2022). Financial inclusion broadly defined as the access and use of affordable, appropriate, and sustainable formal financial services by all segments of the population (World Bank, 2022), has therefore emerged as a critical development priority, occupying a central position in the United Nations' 2030 Agenda for Sustainable Development. It serves as an enabling mechanism across multiple Sustainable Development Goals (SDGs), including SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), and SDG 17 (Partnerships for the Goals) (United Nations, 2015; Ozili, 2021).

The conceptual foundations of financial inclusion scholarship are deeply embedded in the capability approach advanced by Sen (1999), which positions economic freedom, including access to financial resources, as both intrinsically and instrumentally valuable for human development. From this theoretical vantage point, financial exclusion is not merely an economic inefficiency but a form of capability deprivation that constrains individuals' ability to lead lives of dignity, resilience, and self-determination. This framing has informed a rich body of empirical literature documenting the welfare effects of financial access on income generation, poverty reduction, women's empowerment, entrepreneurship, and household resilience (Cull et al., 2014; Klapper et al., 2016; Swamy, 2014). The relationship between financial inclusion and economic empowerment, however, remains complex, contingent, and contested — mediated by institutional quality, regulatory environments, product design, digital literacy, and socio-cultural factors that vary considerably across geographical and demographic contexts. The landscape of financial inclusion has been fundamentally transformed over the past decade by the rapid proliferation of digital financial services. Mobile money platforms, most notably M-Pesa in Sub-Saharan Africa demonstrated that technology-mediated financial access could reach populations historically excluded by distance, cost, and documentation requirements (Suri & Jack, 2016). The subsequent expansion of fintech ecosystems, encompassing mobile banking, agent banking, digital wallets, peer-to-peer lending platforms, and algorithmic credit scoring, has dramatically expanded the frontier of financial inclusion while simultaneously introducing new risks related to data privacy, cybersecurity, algorithmic bias, and digital exclusion (Mhlanga, 2021; Ozili, 2021; Truby, 2020). The COVID-19 pandemic further accelerated this digital turn, compelling governments, financial institutions, and development agencies to rapidly scale digital payment infrastructure for emergency cash transfers, social protection disbursements, and economic relief; compressing what might have been a decade of digital adoption into a matter of months (Khera et al., 2021). Simultaneously, financial inclusion research has undergone significant theoretical and disciplinary expansion. What began as a relatively narrow literature centred on microcredit and microfinance, energised by the work of the Grameen Bank and the subsequent proliferation of microfinance institutions across South Asia and Sub-Saharan Africa has broadened considerably to encompass digital financial services, insurance for the poor, savings mobilisation, remittances, Islamic finance, green finance, and the intersection of financial inclusion with gender equality, climate resilience, and sustainable development (Armendariz & Morduch, 2010; Demirgüç-Kunt et al., 2022; Abor et al., 2018). This disciplinary expansion has attracted scholars from economics, finance, development studies, sociology, information systems, and public policy, producing a rich but fragmented body of knowledge distributed across numerous journals, methodological traditions, and theoretical frameworks.

Given the rapid growth and thematic diversification of financial inclusion scholarship, there is a compelling need for systematic, evidence-based mapping of the field's intellectual landscape. Bibliometric analysis, a quantitative approach to examining patterns of scholarly publication, citation, and collaboration using statistical and network-analytical methods, provides a powerful methodology for such mapping (Donthu et al., 2021; Aria & Cuccurullo, 2017). Combined with a PRISMA-guided systematic review, which ensures transparent, reproducible, and rigorous literature identification and synthesis, bibliometric methods enable researchers to identify dominant themes, trace intellectual evolution, uncover research gaps, and chart productive directions for future inquiry (Page et al., 2021). Despite the proliferation of bibliometric reviews in adjacent fields — including microfinance, sustainable finance (Broadstock et al., 2021), and poverty reduction (Ferreira et al., 2020), a comprehensive, methodologically rigorous bibliometric mapping of the financial inclusion and economic empowerment literature spanning the contemporary period (2014–2026) has not been undertaken. This study addresses that gap directly.

The period 2014–2026 is particularly significant for financial inclusion scholarship. The launch of various welfare schemes in India in 2014 consist some of world's most ambitious national financial inclusion programme, for instance Pradhan Mantri Jan Dhan Yojana (PMJDY) opened over 450 million accounts within a decade and generated an extensive body of research on programme implementation, usage patterns, and welfare effects (Mehrotra & Yetman, 2015; Agarwal et al., 2018). The formalisation of financial inclusion within the SDG framework in 2015 further elevated its policy significance and attracted new streams of interdisciplinary scholarship. The subsequent years witnessed the maturation of fintech ecosystems, the emergence of artificial intelligence and machine learning applications in financial services, the articulation of digital financial inclusion as a distinct paradigm (Ozili, 2018), and the COVID-19 pandemic's catalytic effect on digital finance adoption, all of which have profoundly shaped the trajectory of financial inclusion research and practice. Mapping this trajectory through a rigorous bibliometric lens is therefore both timely and necessary.

This study makes several distinct contributions to the literature. First, it provides the most comprehensive and contemporarily bounded bibliometric analysis of financial inclusion and economic empowerment research to date, covering 363 peer-reviewed articles from 233 sources indexed in Scopus between 2014 and 2026. Second, it combines bibliometric mapping with a PRISMA-based systematic review of 207 open-access papers, enabling both quantitative structural analysis and qualitative content synthesis. Third, it employs multiple complementary analytical techniques — including keyword co-occurrence network analysis, thematic mapping, factorial analysis, citation analysis, and bibliographic coupling, using both Biblioshiny and VOSviewer platforms, providing a multi-dimensional picture of the field's intellectual architecture. Fourth, it identifies critical geographic, theoretical, and methodological gaps and proposes a structured agenda for future research. Together, these contributions offer scholars, practitioners, and policymakers a rigorous knowledge map of where financial inclusion research has been, where it currently stands, and where it most productively needs to go.

This study is guided by the following specific research objectives, which collectively address the intellectual, structural, and thematic dimensions of financial inclusion and economic empowerment scholarship:

- 1) To map the temporal growth trajectory and publication dynamics of financial inclusion and economic empowerment research indexed in Scopus between 2014 and 2026, identifying critical inflection points and growth drivers.
- 2) To identify the most influential academic sources, journals, and publication venues contributing to financial inclusion scholarship, assessed through both volume and citation-based impact metrics.
- 3) To analyse the geographic distribution of research output and international collaboration patterns, identifying leading contributing countries, regional research clusters, and collaboration asymmetries.
- 4) To examine the thematic and conceptual structure of the field through keyword co-occurrence network analysis and thematic mapping, identifying dominant themes, emerging topics, and underexplored research areas.
- 5) To assess the intellectual foundations and citation structure of the field through citation analysis and bibliographic coupling, identifying seminal works, influential scholars, and knowledge lineages.
- 6) To synthesise the qualitative content of the open-access literature through a PRISMA-guided systematic review, identifying theoretical frameworks, methodological approaches, and key substantive findings on the financial inclusion–economic empowerment nexus.
- 7) To identify critical gaps in the existing literature and propose a structured agenda for future research, with implications for scholars, practitioners, and policymakers engaged in advancing equitable financial ecosystems.

2. Research Methodology

To fulfil our aim, we adopt an integrated methodological framework combining bibliometric analysis with a PRISMA-guided systematic review. Bibliometric methods enable quantitative mapping of the intellectual structure, collaborative networks, and thematic evolution of a research domain through the analysis of publication metadata, citation patterns, and keyword co-occurrences (Donthu et al., 2021). The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework provides a transparent, reproducible protocol for literature identification, screening, and eligibility assessment, ensuring methodological rigour and replicability (Page et al., 2021). Together, these approaches permit both macro-level mapping of the field's structural characteristics and micro-level synthesis of its substantive content.

2.1 Database and Search Strategy

A systematic literature search was conducted using the Scopus database, primarily selected for its comprehensive indexing of peer-reviewed, high impact, internationally recognised journals across the social sciences, economics, and business disciplines. Scopus's broad disciplinary coverage, structured metadata, and export compatibility with bibliometric analysis tools render it particularly appropriate for present study. In the Scopus database the search query was constructed using Boolean logic, combining two thematic clusters with the AND operator, while synonymous terms within each cluster were linked using the OR operator to maximise recall.

The search string was structured as follows:

Cluster 1 - Financial Inclusion: TITLE-ABS-KEY ("financial inclusion" OR "inclusive finance" OR "financial access" OR "digital financial inclusion")

Cluster 2 - Economic Empowerment and Welfare: TITLE-ABS-KEY ("economic empowerment" OR "financial empowerment" OR "poverty reduction" OR "income generation" OR "livelihood")

This combined Boolean search, executed on March 2026, yielded an initial pool of 790 documents.

2.2 Sequential Screening and Eligibility Filters

We refined the initial results through six sequential eligibility filters applied within the Scopus interface, each designed to progressively focus the dataset on contemporary, high-quality, peer-reviewed scholarship directly relevant to the research objectives.

First, publications were restricted to the period 2014–2026 to ensure contemporary relevance, reflecting the period of most significant policy attention to financial inclusion following the launch of major national programmes and the SDG framework. This temporal boundary reduced the dataset by 24 records to 766. Second, the search was limited to three subject areas: Social Sciences; Economics, Econometrics and Finance; and Business, Management and Accounting to ensure disciplinary alignment while preserving inherently interdisciplinary character of the fields. This filter excluded 165 records, retaining 601. Third, document type was restricted to only journal articles, removing conference papers, book chapters, and other document types ($n = 187$ removed), yielding 414 records. Fourth, non-English publications were excluded ($n = 5$ removed), producing 409 records, in recognition of the practical necessity of linguistic accessibility for systematic review synthesis. Fifth, limiting source type to journals, thereby excluding book series and trade publications, removed a further 3 records ($n = 406$). Sixth, and finally, restricting the publication stage to final publications removed 43 pre-publication records (including articles in press and preprints), resulting in a final analytical dataset of 363 documents.

2.3 PRISMA Flow and Dataset Composition

The complete screening and eligibility process is documented in Figure 1, following the PRISMA 2020 framework (Page et al., 2021). The PRISMA flowchart provides transparent documentation of each decision stage, ensuring replication and critical appraisal of the review process.

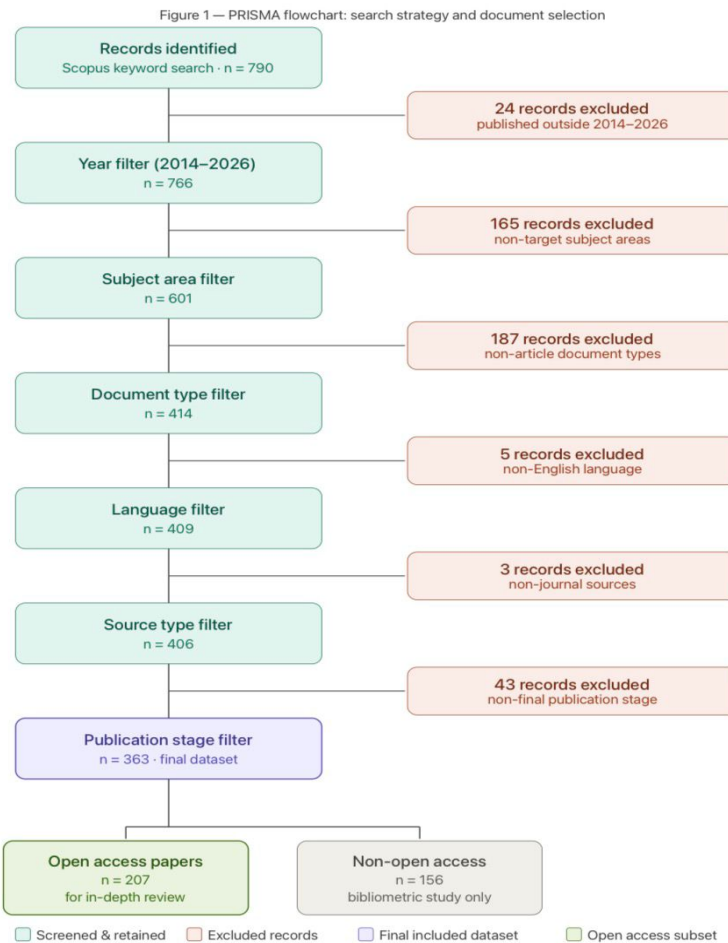


Figure 1. PRISMA flow diagram illustrating sequential screening and eligibility filtering (initial pool: $n = 790$; final dataset: $n = 363$). Of the 363 documents constituting the final bibliometric dataset, 207 are open-access papers and 156 are non-open-access papers (Table 1). Given the necessity of full-text access for qualitative content synthesis, only the 207 open-access papers (57.0% of the dataset) were considered for in-depth thematic review, constituting the empirical foundation for systematic review synthesis in subsequent sections. The full dataset of 363 documents is retained for all bibliometric mapping, co-citation analysis, and keyword co-occurrence analyses.

Table 1 Accessibility breakdown of the final dataset ($n = 363$)

Category	Accessibility status	Documents (n)	Share (%)	Bibliometric analysis	In-depth review
Open access papers	Open access	207	57.0%	Yes	Yes
Non-open access papers	Restricted access	156	43.0%	Yes	No
Total final dataset	All records	363	100%	All 363	207 only

Table 1. Accessibility breakdown of the final dataset ($n = 363$).

2.4 Analytical Tools and Bibliometric Procedures

Bibliometric analyses were conducted using two complementary software platforms: Biblioshiny (the web interface of the Bibliometrix R package) (Aria & Cuccurullo, 2017) and VOSviewer (van Eck & Waltman, 2010). Biblioshiny was used for publication trend mapping, source impact assessment, geographic distribution analysis, thematic mapping, and factorial analysis. VOSviewer was used for network visualisation, including keyword co-occurrence networks and bibliographic coupling maps. The analytical procedures encompassed: (1) descriptive analysis of publication trends and dataset characteristics; (2) source-level impact analysis using h-index, g-index, and m-index metrics; (3) geographic distribution and international collaboration pattern analysis using corresponding-author country data; (4) keyword co-occurrence network analysis with a minimum threshold of 10 occurrences (35 keywords meeting threshold out of 1,484 total); (5) thematic mapping using Callon's strategic diagram framework; (6) factorial analysis of conceptual structure; (7) citation analysis identifying highly influential documents (138 documents meeting a minimum threshold of 10 citations); and (8) bibliographic coupling analysis to identify documents sharing intellectual foundations.

3. Results and Discussion

3.1 Overview of the Bibliometric Dataset and Research Landscape

The bibliometric analysis examined a corpus of 363 peer-reviewed articles published across 233 distinct academic sources over a twelve-year period spanning 2014 to 2026 (Table 2). This dataset represents a significant cross-section of scholarly discourse on financial inclusion and economic empowerment, demonstrating the field's multidisciplinary character and global relevance.

Description	Results
Timespan	2014–2026
Sources (Journals)	233
Documents	363
Annual Growth Rate (%)	22.12
Document Average Age (years)	3.29
Average Citations per Document	17.89
Keywords Plus (ID)	589
Author's Keywords (DE)	1,057
Authors	1,002
Authors of Single-Authored Documents	52
Single-Authored Documents	58
Co-Authors per Document	2.97
International Co-Authorships (%)	31.13
Document Type: Article	363

Table 2. Main information about the bibliometric dataset.

The dataset showcase robust scholarly engagement, with an average of 17.89 citations per document, indicating substantial academic impact and knowledge diffusion within the research community. The relatively recent document average age of 3.29 years underscores the contemporary relevance of this research domain, reflecting sustained and accelerating interest in addressing persistent global challenges related to financial access and socioeconomic development. The presence of 1,057 author-provided keywords alongside 589 Keywords Plus (database-assigned terms) demonstrates the conceptual richness and thematic diversity characterising financial inclusion scholarship.

The collaborative dimension of research in this field merits particular attention. With 1,002 authors contributing to the corpus and an average of 2.97 co-authors per document, the data reveal a strongly collaborative research culture. More significantly, the international co-authorship rate of 31.13% indicates that nearly one-third of all publications involve cross-border partnerships, suggesting that financial inclusion research benefits substantially from international knowledge exchange and interdisciplinary collaboration. This pattern is especially important given the context-dependent nature of financial exclusion, which varies significantly across institutional, regulatory, and socio-cultural environments. The relatively modest proportion of single-authored documents (58 out of 363, or 16%) further confirms the field's collaborative orientation, contrasting with more established disciplines where solo scholarship remains prevalent.

3.2 Temporal Dynamics and Research Growth Trajectory

The temporal analysis of scientific production reveals a remarkable exponential growth pattern that provides critical insights into the field's developmental trajectory and emerging prominence within development economics and social science scholarship. As illustrated in Table 3 and Figure 2, publications increased from a modest baseline of 2 articles in 2014 to 107 articles in 2025, representing a fifty-fold expansion characterised by an annual growth rate of 22.12%. This dramatic acceleration substantially exceeds typical disciplinary growth rates and reflects the escalating academic, policy, and practitioner interest in financial inclusion as a critical development priority.

Year	Number of Articles
2014	2
2015	3
2016	8
2017	7
2018	11
2019	23
2020	25
2021	25
2022	31
2023	43
2024	56
2025	107
2026	22*

* 2026 data reflect a partial year at the time of database extraction.

Table 3. Annual scientific production (2014–2026)

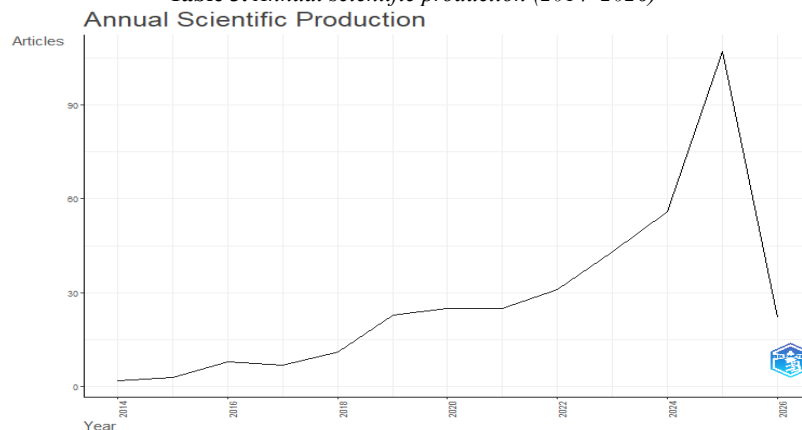


Figure 2. Annual scientific production trend (2014–2026), illustrating exponential growth trajectory with an annual growth rate of 22.12%.

In the publication trajectory various critical inflection points are evident. A notable acceleration occurred between 2018 and 2019, when annual output more than doubled from 11 to 23 articles. This surge likely correlates with the rapid expansion of mobile money platforms — particularly across Sub-Saharan Africa and South Asia — and heightened policy attention following the integration of financial inclusion targets within the Sustainable Development Goals framework and the launch of India's Pradhan Mantri Jan Dhan Yojana (PMJDY). The most dramatic expansion, however, occurred between 2024 and 2025, when publications nearly doubled from 56 to 107 articles — an unprecedented single-year increase accounting for approximately 30% of the entire corpus. This exceptional growth reflects multiple converging forces: the maturation of fintech ecosystems and their integration into mainstream financial services; heightened scholarly interest in artificial intelligence, blockchain, and decentralised finance applications for financial inclusion; the COVID-19 pandemic's acceleration of digital financial infrastructure adoption; and growing recognition of the climate-finance nexus and the need for inclusive green financing mechanisms. The 2026 partial-year data (22 articles) suggest sustained momentum even as the field may be entering a relative consolidation phase.

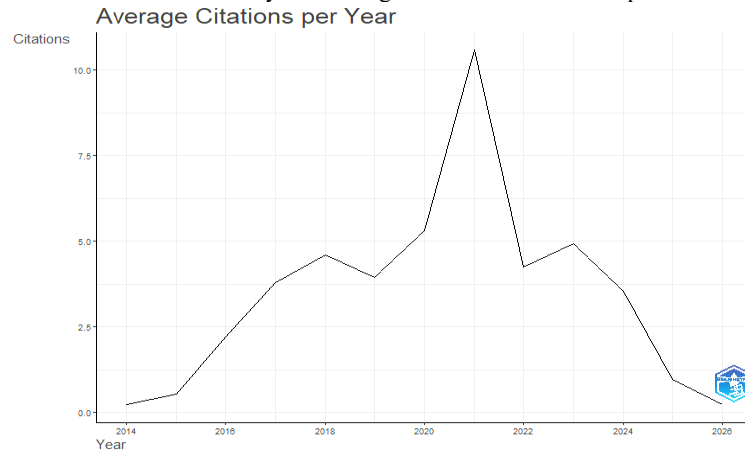


Figure 3. Annual citation trends per year, illustrating accumulating scholarly impact alongside publication growth.

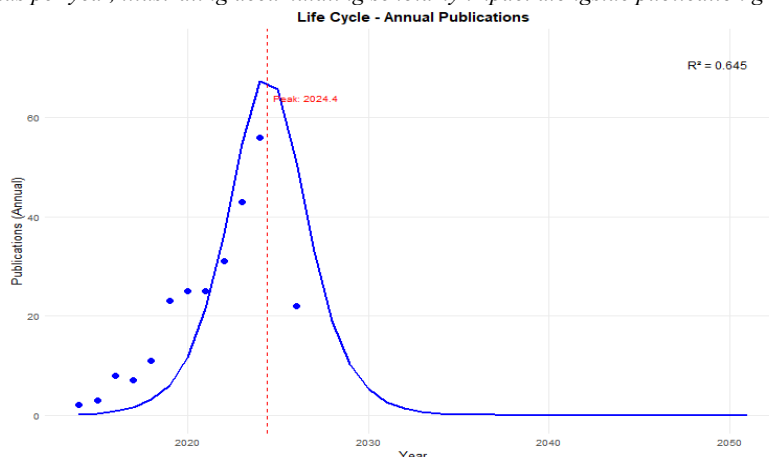


Figure 4. Life cycle of annual publications, confirming an ascending phase of intellectual development with no evidence of saturation.

The citation analysis (Figure 3) reveals accumulating scholarly impact over time, with recent publications rapidly accruing citations despite their recency. This pattern indicates not only growing output but increasing influence and knowledge integration within the academic community. The life cycle analysis (Figure 4) further confirms that the field remains in an ascending phase of intellectual development, with no evident signs of saturation or declining interest, positioning financial inclusion research as a dynamic and policy-relevant domain within development studies and applied economics.

3.3 Leading Academic Sources and Publication Venues

The concentration of publications across academic outlets illuminates the multidisciplinary character of financial inclusion research, which spans sustainability science, development studies, social economics, finance, and risk management. Table 4 presents the most prolific sources, revealing both the diversity of publication venues and the thematic priorities characterising the field's intellectual landscape.

Source	Articles
Sustainability (Switzerland)	19
Development in Practice	13
International Journal of Social Economics	12
Discover Sustainability	10
Cogent Economics and Finance	9
Cogent Social Sciences	7
Enterprise Development and Microfinance	7
Journal of International Development	4
Journal of Risk and Financial Management	4
SN Business and Economics	4

Table 4. Most relevant publication sources by article count.

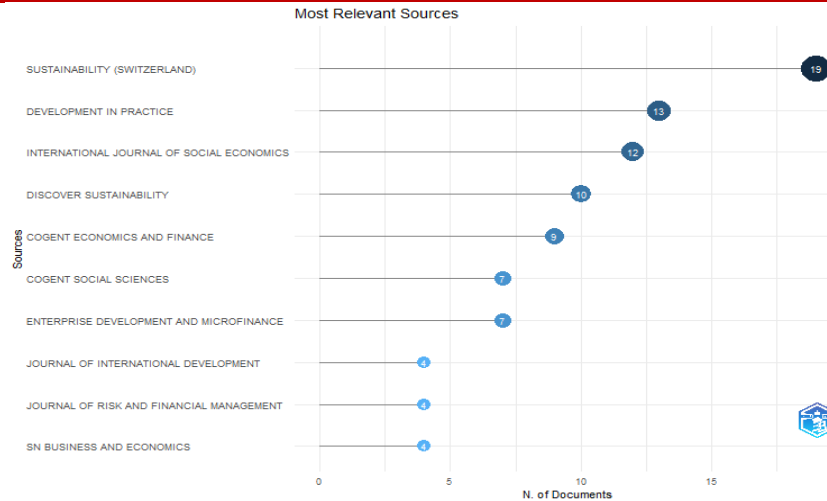


Figure 5. Distribution of publications across top academic sources.

Sustainability (Switzerland) emerged as the most prolific source with 19 articles, reflecting the integration of financial inclusion within broader sustainability discourse and the conceptualisation of financial access as integral to environmental, social, and governance (ESG) frameworks. This positioning underscores a paradigm shift whereby financial inclusion is understood not merely as an economic development tool but as a component of comprehensive sustainable development encompassing social equity, environmental stewardship, and institutional quality. Development in Practice (13 articles) represents the practitioner-oriented development studies tradition, emphasising actionable insights, programme evaluation, and research-to-policy translation. The International Journal of Social Economics (12 articles) highlights the socioeconomic dimensions of financial systems, focusing on inequality, social welfare, and the distributional impacts of financial policies. The presence of Discover Sustainability, Cogent Economics and Finance, and Cogent Social Sciences among top sources reflects the field's embrace of open-access publishing models, facilitating broader dissemination particularly relevant for researchers and policymakers in resource-constrained environments. The continued presence of Enterprise Development and Microfinance (7 articles) indicates the enduring relevance of microfinance as both a research subject and a practical modality for financial inclusion, despite evolving critiques and the expansion toward digital financial services.

Table 5 provides a more nuanced assessment of journal impact through h-index, g-index, m-index, and total citation metrics, revealing influence patterns that diverge from simple publication counts.

Rank	Source	h-index	g-index	m-index	TC	NP	PY Start
1	International Journal of Social Economics	11	12	1.000	386	12	2016
2	Development in Practice	10	13	0.833	393	13	2015
3	Sustainability (Switzerland)	9	19	1.125	549	19	2019
4	Cogent Economics and Finance	6	9	1.200	127	9	2022
5	Cogent Social Sciences	4	7	0.571	110	7	2020
6	World Development	4	4	0.444	292	4	2018
7	Journal of Financial Economic Policy	3	3	0.375	145	3	2019
8	Journal of International Development	3	4	0.600	18	4	2022
9	Journal of Risk and Financial Management	3	4	1.000	58	4	2024
10	Sustainable Development	3	4	0.429	234	4	2020

Table 5. Sources' local impact by h-index, g-index, m-index, total citations (TC), number of papers (NP), and first publication year.

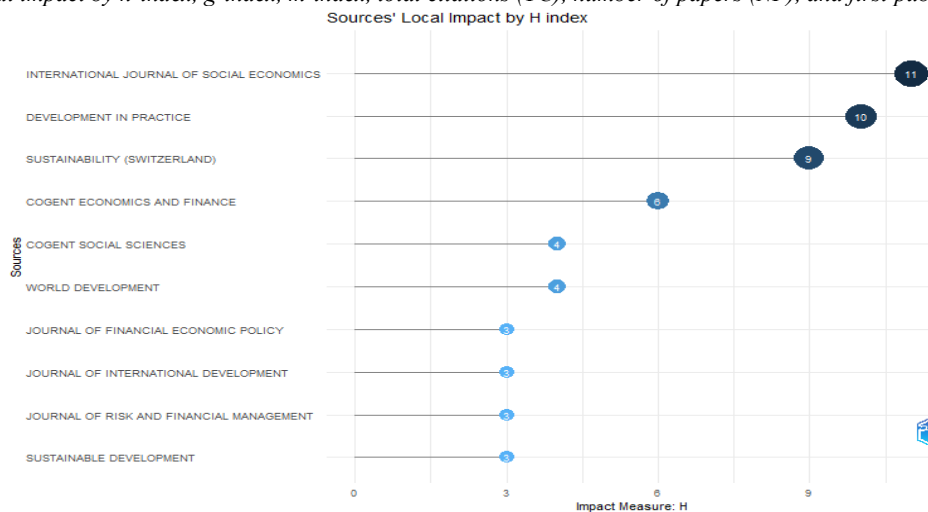


Figure 6. Journal impact metrics comparison (h-index, g-index, m-index) across top sources.

The International Journal of Social Economics demonstrates the highest h-index (11) combined with a perfect m-index (1.000), indicating consistent and sustained influence since its earliest contributions in 2016. Sustainability (Switzerland), despite its later entry point (2019), exhibits the highest m-index (1.125) coupled with the greatest total citations (549), suggesting accelerating impact and growing centrality within the field — reflecting its strategic positioning at the intersection of sustainability and financial inclusion scholarship. Notably, World Development, despite comprising only 4 publications in this dataset, achieves 292 total citations, indicating exceptionally high per-article

impact. This pattern suggests that publications in mainstream development journals carry significant weight even when financial inclusion is not their primary focus. The overall pattern — wherein interdisciplinary sustainability and development journals dominate over specialised finance outlets — indicates that financial inclusion research resonates most strongly when framed as a socio-technical, policy-oriented challenge rather than a purely financial markets question.

3.4 Geographic Distribution and International Collaboration Patterns

The geographic analysis of authorship patterns reveals significant disparities in research productivity and collaboration networks with important implications for knowledge production, research agenda-setting, and policy influence. Tables 6 and 7, alongside Figures 7 and 8, present comprehensive data on countries' contributions and their collaborative orientations.

Country	Articles	Articles (%)	SCP	MCP	MCP (%)
India	58	15.98	53	5	8.62
China	33	9.09	26	7	21.21
USA	18	4.96	8	10	55.56
South Africa	17	4.68	16	1	5.88
Nigeria	14	3.86	10	4	28.57
Ghana	13	3.58	7	6	46.15
United Kingdom	12	3.31	7	5	41.67
Indonesia	9	2.48	6	3	33.33
Australia	8	2.20	5	3	37.50
Malaysia	8	2.20	2	6	75.00

Table 6. Corresponding authors' countries: single-country publications (SCP), multiple-country publications (MCP), and international collaboration rates.

Country/Region	Total Frequency
India	147
China	68
USA	56
Nigeria	52
Ghana	42
South Africa	34
Malaysia	28
Indonesia	27
United Kingdom	27
Australia	23

Table 7. Country scientific production by total author-affiliation frequency (including co-authors).

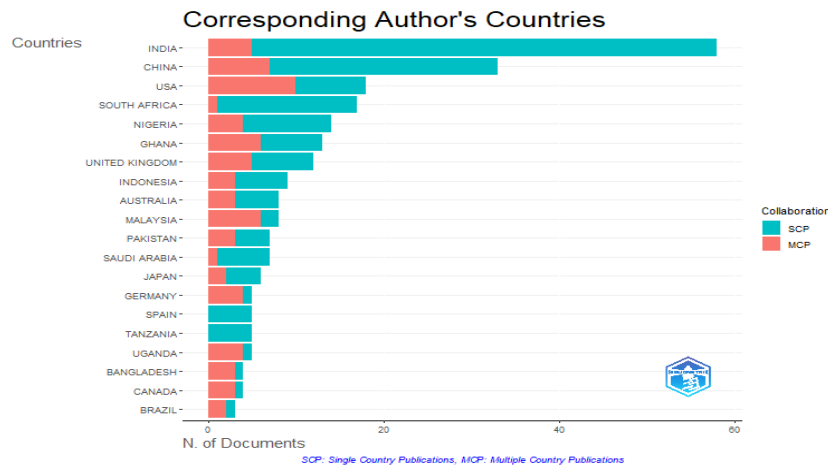


Figure 7. Distribution of corresponding authors by country (top 10), showing India's dominant contribution at 15.98% of total output.

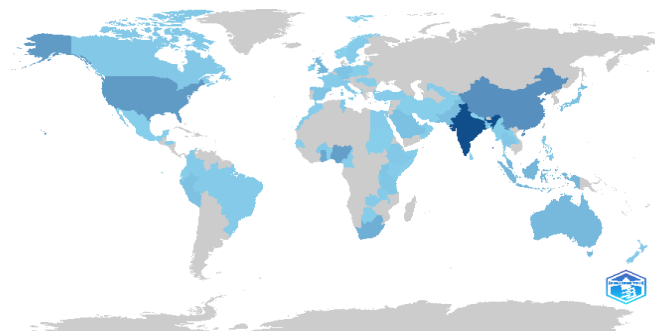


Figure 8. Country scientific production by total author-affiliation frequency.

India emerges as the dominant contributor with 58 corresponding-author articles (15.98% of total output), substantially exceeding all other countries. This leadership reflects multiple converging factors: the magnitude of India's historical financial exclusion challenge; the government's ambitious Pradhan Mantri Jan Dhan Yojana (PMJDY) programme launched in 2014, which has opened over 450 million accounts; the country's vibrant fintech ecosystem including the Unified Payments Interface (UPI); and substantial research capacity within Indian universities and think tanks. China occupies the second position with 33 articles (9.09%), reflecting its own massive financial inclusion efforts driven by mobile payment platforms and rural financial access policies. The United States, with 18 articles (4.96%), represents a more modest contribution relative to its overall research output, suggesting that financial inclusion remains a relatively specialised domain within U.S. academia, concentrated among development economists focused on international rather than domestic financial systems.

The significant representation of African nations: South Africa (17 articles), Nigeria (14 articles), and Ghana (13 articles), is particularly noteworthy, reflecting the continent's pivotal role in financial inclusion innovation and research, driven notably by mobile money revolutions. The collaboration patterns (MCP percentages in Table 6) reveal critical asymmetries in international partnership orientations. Malaysia exhibits the highest international co-authorship rate (75%), followed by the United States (55.56%), Ghana (46.15%), and the United Kingdom (41.67%). India, despite its productivity dominance, demonstrates relatively low international collaboration (8.62% MCP), indicating predominantly domestically-focused research — reflecting either the self-sufficiency of its large domestic research community, or insufficient integration into global research networks despite its scale of activity. The overall international co-authorship rate of 31.13% indicates moderate but growing global research integration, with clear room for enhanced South-South collaboration and more systematic knowledge exchange across developing economies facing similar financial inclusion challenges. The geographic distribution also reveals notable absences: limited representation from Latin America, Central Asia, the Middle East (beyond Malaysia's Islamic finance specialisation), and Pacific island nations — pointing to significant evidence gaps requiring targeted research attention.

3.5 Thematic Structure and Conceptual Landscape

The keyword co-occurrence analysis provides crucial insights into the conceptual architecture of financial inclusion research, revealing dominant themes, emerging topics, and the intellectual connections structuring the field. From a total pool of 1,484 keywords, 35 met the threshold of at least 10 occurrences, forming the core conceptual vocabulary analysed through network visualisation and frequency analysis (Table 8).

Keyword	Occurrences	Total Link Strength
Financial inclusion	183	374
Poverty	55	135
Poverty alleviation	55	208
Microfinance	45	122
Financial services	44	171
Livelihood	37	116
Poverty reduction	35	91
Empowerment	30	109
India	28	91
Finance	26	82

Table 8. Top 10 keywords by occurrence frequency and total link strength.

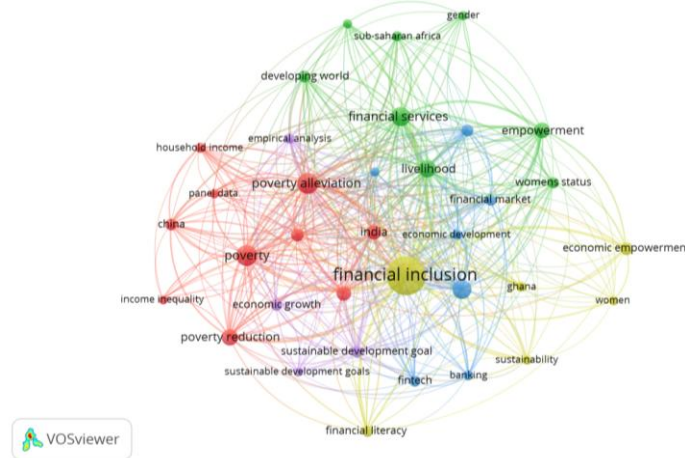


Figure 9. Keyword co-occurrence network analysis (threshold: minimum 10 occurrences; 35 keywords from 1,484 total), visualised in VOSviewer.

'Financial inclusion' dominates the keyword landscape with 183 occurrences and the highest total link strength (374), functioning as the central organising concept around which other themes cluster. The prominence of poverty-related keywords: 'poverty' (55 occurrences), 'poverty alleviation' (55 occurrences), and 'poverty reduction' (35 occurrences), underscores the instrumental framing of financial inclusion as a mechanism for addressing economic deprivation. Notably, the high total link strength of 'poverty alleviation' (208) relative to its raw frequency indicates particularly strong co-occurrence with multiple other key concepts, suggesting it functions as a conceptual bridge connecting financial inclusion to broader development objectives. This thematic coupling reflects theoretical foundations in capabilities approaches, inclusive growth paradigms, and the integration of financial inclusion within the Sustainable Development Goals framework.

'Microfinance' (45 occurrences) represents the institutional legacy of financial inclusion efforts, indicating the continuing relevance of microcredit models despite evolving critiques regarding over-indebtedness and limited poverty impacts. Its relatively lower link strength (122) compared to 'financial services' (44 occurrences, 171 link strength) suggests conceptual differentiation, with the latter representing broader access to diversified financial products, savings, insurance, payments, credit, rather than credit-focused microfinance exclusively. This distinction aligns with the shift from narrow microfinance paradigms toward comprehensive financial inclusion frameworks emphasising the full spectrum of appropriate financial products.

The presence of 'livelihood' (37 occurrences, 116 link strength) and 'empowerment' (30 occurrences, 109 link strength) signals scholarly attention to the quality and transformative potential of financial access beyond mere account ownership or transactional metrics. These keywords reflect more sophisticated understandings aligned with recent critiques of 'access-centric' approaches that overlook usage patterns, welfare outcomes, and power dynamics. The geographic specificity evident in 'India' (28 occurrences) as a top keyword reflects the concentration of case studies within this national context given its massive financial inclusion programme and research infrastructure.



Figure 10. Thematic map of research areas, plotting themes along centrality (x-axis) and density (y-axis) dimensions following Callon's strategic diagram. The thematic map (Figure 10) provides strategic insights into the maturity and positioning of research themes. Motor themes, characterised by high centrality and density, represent well-developed, core research areas essential to the field's identity, likely encompassing financial inclusion–poverty linkages, microfinance impacts, and digital financial services. Basic themes (high centrality, low density) are important but underdeveloped, requiring further conceptual elaboration. Niche themes (low centrality, high density) are highly developed but peripheral, potentially including Islamic microfinance, refugee financial access, or gender-differentiated impacts of mobile money. Emerging or declining themes (low centrality and density) may encompass nascent topics such as blockchain-based financial services, climate finance for smallholders, and financial inclusion for persons with disabilities; all warranting further theoretical and empirical development.

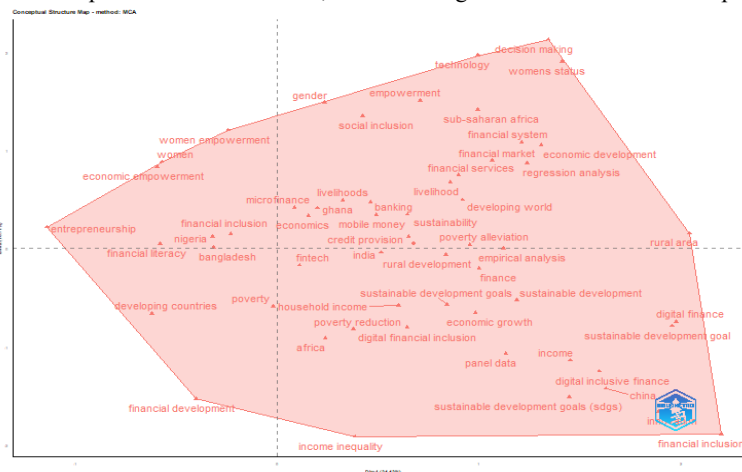


Figure 11. Factorial analysis of conceptual structure, revealing multidimensional research streams organised by methodological orientation, sectoral focus, technological dimension, and outcome emphasis.

The factorial analysis (Figure 11) reveals the multidimensional structure of the field, suggesting distinct research streams organised around multiple axes: methodological orientations (quantitative impact evaluation versus qualitative case studies versus mixed methods); sectoral foci (rural versus urban financial inclusion, agricultural versus enterprise finance); technological dimensions (digital versus traditional financial services, mobile money versus agent banking); and outcome emphases (poverty reduction versus empowerment versus financial stability). Understanding these dimensions is crucial for identifying complementarities, potential theoretical integrations, and areas requiring cross-pollination between currently disconnected research streams.

3.6 Citation Analysis and Intellectual Structure

Citation analysis reveals the intellectual foundations and knowledge structures underpinning financial inclusion research by identifying seminal works, influential scholars, and the relational patterns connecting different contributions. Table 9 and Figures 13–15 present citation-based analyses illuminating the field's intellectual architecture.

Document (Author, Year)	Citations	Bibliographic Links
Ozili (2021)	334	0
Mhlanga (2021)	326	0
Hasan (2021)	223	0
Truby (2020)	219	0
Abor (2018)	173	0
Hendriks (2019)	157	5
Suhrab (2024)	118	0
Wang (2022)	117	0
Inoue (2019)	111	7
N'dri (2020)	110	0

Table 9. Top cited documents (138 of 363 documents met the minimum threshold of 10 citations).

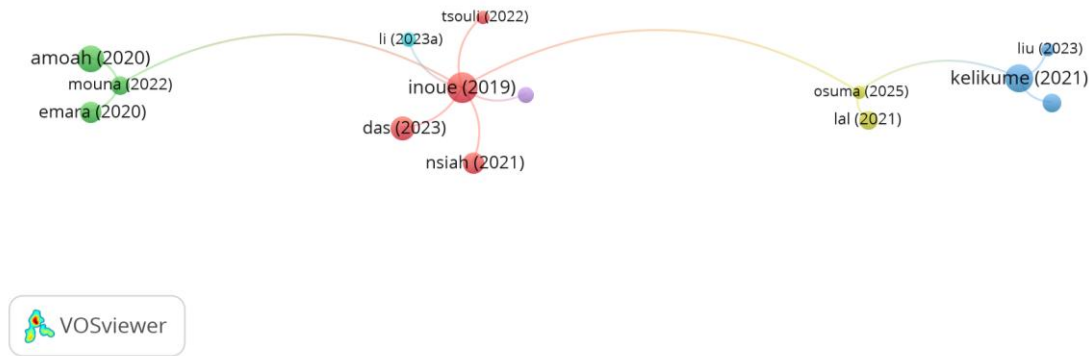


Figure 12. Citation network of most influential documents within the financial inclusion corpus.

Ozili (2021) and Mhlanga (2021) emerge as the most influential contributions with 334 and 326 citations respectively, despite their relatively recent publication. Their exceptional citation impact reflects engagement with cutting-edge topics of pressing policy relevance: Ozili's work addresses digital financial inclusion, fintech innovations, and their implications for financial stability and regulatory frameworks, while Mhlanga's contribution focuses on the intersection of Industry 4.0 technologies, particularly artificial intelligence and machine learning applications in credit scoring with financial inclusion agendas. Other highly cited works represent diverse thematic entry points: Truby (2020, 219 citations) explores blockchain applications and cryptocurrency's role in financial inclusion; Abor (2018, 173 citations) investigates governance, institutional quality, and financial sector development dimensions enabling or constraining inclusive financial systems; and Hendriks (2019) and Inoue (2019), both showing non-zero bibliographic link values, appear more integrated into co-citation networks, suggesting their role in synthesising diverse literatures and addressing cross-cutting themes. The concentration of top-cited works in the 2018–2024 period confirms the field's dynamism and the rapid evolution of its dominant frameworks. This pattern reflects both technological acceleration: mobile money, fintech, and AI-driven services evolving at unprecedented pace, and significant policy shifts, including COVID-19's catalytic effect on digital finance adoption and new regulatory approaches to fintech ecosystems. The most recent entry in the top citation list; Suhrab (2024) with 118 citations signals the continuing emergence of new influential contributions addressing contemporary challenges.

Document (Author, Year)	Citations	Total Link Strength
Ozili (2021)	334	123
Mhlanga (2021)	326	9
Hasan (2021)	223	30
Truby (2020)	219	29
Abor (2018)	173	33
Hendriks (2019)	157	52
Suhrab (2024)	118	27
Wang (2022)	117	42
Inoue (2019)	111	123
N'dri (2020)	110	156

Table 10. Bibliographic coupling analysis: documents sharing intellectual foundations (reference lists).

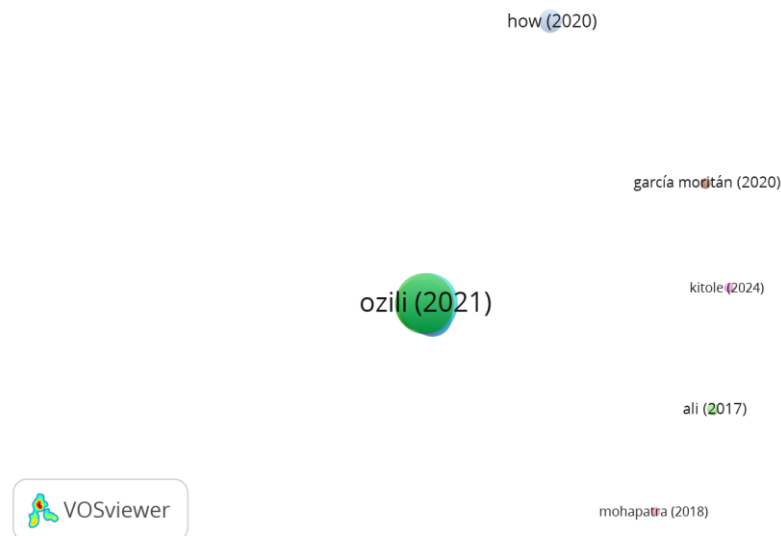


Figure 13. Bibliographic coupling network (VOSviewer), revealing intellectual communities and shared reference foundations.

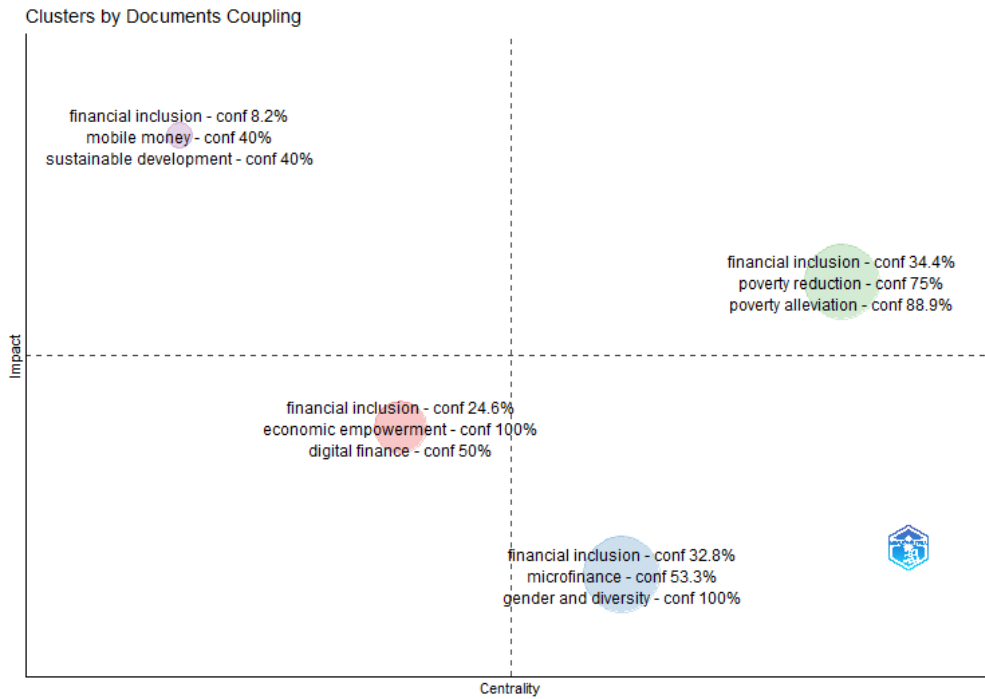


Figure 14. Bibliographic coupling network (Biblioshiny), providing complementary visualisation of intellectual lineages within the corpus. Bibliographic coupling analysis identifies documents sharing references, thereby revealing intellectual communities, research traditions, and knowledge lineages. Ozili (2021) exhibits strong coupling (total link strength 123), indicating centrality in synthesising existing knowledge and connecting disparate research streams, suggesting the work serves as a comprehensive integrative framework drawing on diverse prior literature. N'dri (2020) demonstrates the highest coupling strength (156), suggesting it builds extensively on prior work and potentially bridges multiple research traditions, perhaps connecting macroeconomic perspectives on financial development with microeconomic analyses of household financial behaviour. Inoue (2019), with matching coupling strength of 123, plays a similarly integrative role, potentially synthesising empirical evidence on financial inclusion interventions across theoretical frameworks from development economics, behavioural economics, and financial services research. The relatively low coupling strength of Mhlanga (2021) at 9, despite its high citation count, suggests a more novel or pioneering contribution drawing less on existing financial inclusion literature and potentially introducing new frameworks from adjacent fields such as computer science and technology studies. This pattern is characteristic of boundary-spanning work that opens new research directions rather than incrementally building on established traditions; a distinction of significant strategic importance for scholars seeking to identify frontier contribution opportunities.

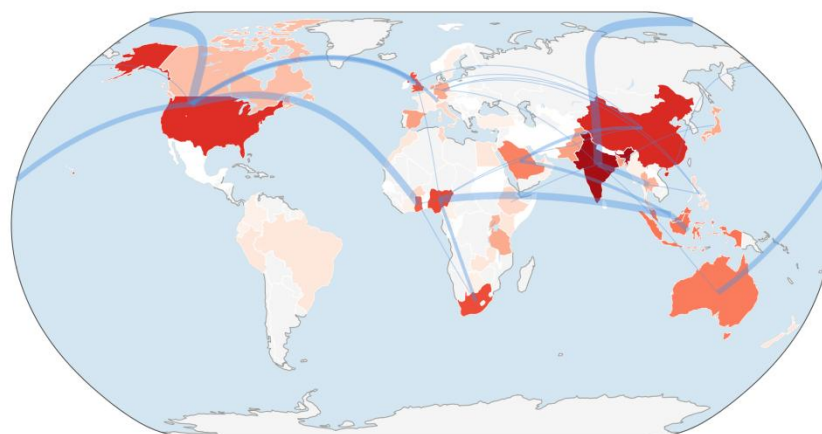


Figure 15. International collaboration world map, illustrating co-authorship connections and regional research network clusters across the global corpus. The collaboration world map (Figure 15) visually represents the global research networks connecting countries through co-authorship. The visualisation reveals several distinct collaboration clusters: a North American–European network involving the United States, United Kingdom, and European partners; an Asian network centred on India and China with connections to Southeast Asian countries; and an African network linking South Africa, Nigeria, Ghana, and Kenya. Notably, connections between these major clusters appear relatively sparse, suggesting

opportunities for enhanced inter-regional collaboration that could facilitate comparative research and knowledge transfer across diverse institutional contexts.

3.7 Implications for Future Research and Policy Development

The comprehensive bibliometric analysis reveals several strategic directions for advancing financial inclusion scholarship and enhancing its policy relevance. These implications span geographic scope, theoretical innovation, methodological advancement, collaboration structures, and engagement with emerging challenges. First, geographic diversification of research is essential. While India, China, and select African countries are well-represented, significant evidence gaps exist for Latin America (despite substantial financial inclusion challenges in countries such as Peru, Colombia, and Mexico), Central Asia, the Middle East beyond Islamic finance studies, and Pacific island nations where geographical isolation creates unique financial access barriers. Comparative studies across diverse regulatory frameworks, cultural contexts, and technological infrastructures would enhance the generalisability of findings and inform context-sensitive policy design. The current concentration of research in specific countries risks producing knowledge that is overly context-dependent and potentially non-transferable to settings with different institutional arrangements, social structures, or technological trajectories.

Second, theoretical innovation is warranted to move beyond the dominant poverty-reduction framing toward more multidimensional conceptualisations of financial inclusion. Emerging concerns require frameworks extending traditional microfinance paradigms, including: climate adaptation finance and the role of financial services in building resilience among vulnerable populations; financial needs of conflict-affected populations and displaced persons; pandemic-related economic shocks and the resilience-building potential of digital financial infrastructure; intergenerational wealth transmission and the role of savings products in asset accumulation; and the intersection of financial inclusion with digital rights, data sovereignty, and algorithmic justice. Integrating insights from behavioural economics, institutional theory, socio-technical systems perspectives, and feminist economics could yield more nuanced, theoretically grounded understandings of how financial access translates, or fails to translate into meaningful empowerment.

Third, methodological advancements are critical for strengthening causal inference and capturing dynamic processes. The apparent predominance of cross-sectional surveys and case studies points to the need for longitudinal designs capable of tracking pathways of financial inclusion, usage trajectories, and long-term welfare effects. Experimental and quasi-experimental evaluations — including randomised controlled trials and difference-in-differences designs, can provide rigorous evidence on intervention impacts. Spatial econometrics can account for spillover effects and network externalities increasingly recognised as important in financial adoption. Machine learning and big data analytics applied to large-scale transaction data offer significant potential for understanding usage patterns, detecting financial stress, and identifying vulnerable subpopulations requiring targeted interventions. Simultaneously, qualitative depth, through ethnographic studies, participatory research, and in-depth interviewing, remains essential for understanding lived experiences, cultural meanings of money and finance, and socio-cultural dimensions of financial behaviour that quantitative approaches cannot adequately capture.

Fourth, collaboration structures require intentional strengthening, particularly through South-South partnerships that can democratise knowledge production and ensure research agendas reflect the priorities of affected communities. The high variability in countries' international collaboration rates, from Malaysia's 75% to India's 8.62%, suggests uneven capacity for global engagement. Institutional mechanisms such as research networks, collaborative funding schemes, capacity-building programmes, and knowledge exchange platforms could facilitate more equitable participation. The prevalence of open-access journals among top sources is encouraging, but further efforts to remove paywalls, translate findings into local languages, and create accessible policy briefs would enhance research utilisation, particularly in lower-resource settings where evidence-based policymaking is most constrained by information access.

Fifth, critical engagement with emerging challenges and risks is imperative as financial inclusion increasingly intersects with rapid technological change. Priority areas include: data privacy and cybersecurity in digital finance, particularly for vulnerable populations with limited digital literacy; algorithmic bias and discrimination in AI-driven credit scoring, insurance pricing, and financial advisory services; the exclusionary potential of overly complex or inappropriately designed fintech products that may create new barriers while claiming to reduce existing ones; the digital divide and its potential to exacerbate existing inequalities if financial inclusion becomes synonymous with digital-only access; the environmental footprint of financial technologies, including energy-intensive blockchain applications; and the political economy of financial inclusion, including whose interests are served by particular technological pathways and regulatory arrangements.

Finally, responsible innovation frameworks, human-centred design principles, and critical interrogation of technological solutionism are essential to ensure that financial inclusion genuinely serves empowerment objectives rather than reinforcing structural inequalities through new mechanisms. This requires moving beyond access metrics toward understanding usage quality, welfare outcomes, and power dynamics. Financial inclusion research must remain reflexive about its normative commitments, attentive to unintended consequences, and responsive to the diverse, evolving realities of populations navigating increasingly digitalised and complex financial landscapes.

4. Conclusions

This study employed an integrated bibliometric and PRISMA-based systematic review approach to comprehensively map the intellectual landscape of financial inclusion and economic empowerment research published between 2014 and 2026. Analysing a rigorously screened corpus of 363 peer-reviewed journal articles drawn from 233 sources across the Scopus database, the analysis reveals financial inclusion research as a vibrant, rapidly expanding field characterised by multidisciplinary engagement, substantial international collaboration, and significant thematic diversity. The 22.12% annual growth rate, representing a fifty-fold expansion from 2 articles in 2014 to 107 in 2025, signals the field's evolution from a niche microfinance concern to a central development priority integrating technological innovation, poverty reduction, and sustainability objectives. The concentration of publications in sustainability and development journals, and the dominance of India, China, and African nations as research producers, reflects both the geographic locus of financial inclusion challenges and the policy environments generating scholarly attention. The intellectual structure of the field reveals ongoing evolution from traditional microfinance frameworks toward digital and technology-mediated inclusion models, with persistent attention to poverty reduction and empowerment as ultimate goals. Highly cited recent works; particularly Ozili (2021) and Mhlanga (2021), emphasise fintech, artificial intelligence, and digital financial services, confirming the field's technological turn, while the prominence of livelihood, empowerment, and social economics themes in the keyword co-occurrence network reflects sustained commitment to understanding financial inclusion's human development dimensions beyond account ownership or transaction volumes.

However, significant opportunities and gaps were identified. Geographic diversification beyond current concentrations in South Asia and select African countries is necessary to ensure research relevance across diverse contexts. Theoretical innovation integrating emerging concerns, climate finance, digital rights, algorithmic justice, is warranted to move beyond the dominant poverty-reduction framing. Methodological rigor through longitudinal and experimental designs, enhanced South-South collaboration, and critical engagement with the unintended consequences and political economy of inclusion strategies are all identified as priority directions for the field. As financial inclusion continues to occupy a central position in the Sustainable Development Goals and national development agendas worldwide, scholarship in this domain must remain reflexive, inclusive, and responsive to the complex, contested realities of diverse populations navigating rapidly changing financial

ecosystems. The bibliometric patterns documented in this study provide a structured knowledge map to inform strategic research planning, policy dialogue, and capacity building, aimed at ensuring that financial inclusion research continues to generate actionable knowledge serving genuine empowerment and equitable sustainable development.

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