

A Systematic Review of Financial Inclusion Research Trends and Digital Transformation (2020-2025)

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Abstract

This study provides a systematic review of 117 publications from 2020 to 2025 to examine trends, thematic developments, and research directions in financial inclusion. The findings indicate a substantial increase in scholarly attention during this period, driven by rapid growth in digital finance, FinTech adoption, and global efforts to improve equitable access to financial services. Financial inclusion research demonstrates a multidisciplinary character, with major contributions from economics and finance, alongside growing involvement from business, social sciences, and digital technology fields. Key themes such as financial literacy, digital finance, digital financial inclusion, and poverty alleviation underscore the evolving intersection between technological transformation and socioeconomic development. While the review highlights active contributions from countries such as China, India, Indonesia, and South Africa, it also reveals limited collaboration networks among authors, pointing to opportunities for stronger interdisciplinary and cross-country partnerships. The study offers an overview of existing research patterns but is limited by reliance on a single bibliographic dataset and a six-year timeframe; future research should incorporate broader sources, extended periods, and qualitative or comparative approaches to deepen contextual and regulatory insights.

Keywords: Digital Finance, Digital Financial Inclusion, Financial Inclusion, Financial Literacy, Financial Technology Adoption



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INTRODUCTION

Financial Inclusion (FI) has increasingly been recognized as a critical driver of inclusive and sustainable economic development across both emerging and advanced economies (Demirgüç-Kunt et al., 2020; Sarma & Pais, 2011). In recent years, advancements in digital technologies including mobile banking, e-wallets, digital payments, and FinTech-based financial platforms have significantly transformed access to financial services, reshaping how individuals and businesses interact with financial systems (Choudhary & Jain, 2023; Ozili, 2021). Digital financial ecosystems have proven effective in lowering transactional and administrative barriers, enabling previously unbanked and underbanked populations to enter formal financial channels (Sahay et al., 2025). In many developing regions, mobile money systems, agent banking models, and digital ID infrastructure have helped bridge long-standing physical access constraints, increasing financial participation among households living in rural and low-income areas (Abubakar et al., 2020; Maina & Györke, 2025).

The growing relevance of FI is strongly linked to its capacity to promote poverty reduction, enhance economic resilience, and support the accumulation of productive assets among disadvantaged groups (Allen et al., 2012; García & José, 2016). Numerous empirical studies emphasize that access to financial services stimulates savings behavior, improves credit availability, and strengthens households' ability to cope with economic shocks, especially in vulnerable communities (Kumar & Sandhu, 2024). Digital transformation has further amplified these benefits by enabling real-time payments, remote access to financial products, and data-driven credit scoring mechanisms that expand lending opportunities for individuals and micro-entrepreneurs lacking traditional collateral (Bu et al., 2025; Galanti & Özsoy, 2023). The surge in FinTech innovations such as peer-to-peer lending, micro-insurance, and blockchain-based financial systems demonstrates how technology can reshape the financial landscape and accelerate inclusive growth (Khan et al., 2022; Zhang et al., 2021). As a result, FI has drawn increasing scholarly attention, reflected in the expansion of publications exploring the intersection of digitalization, financial behavior, and socioeconomic development (Narayan, 2019; Vargas-Salazar et al., 2025).

Research on FI has explored various determinants influencing individuals' access to and use of formal financial services, including socioeconomic characteristics such as income, education, gender, age, and employment status (Anifowose & Chummun, 2025; Wentzel et al., 2016). Studies also highlight the importance of technological readiness, particularly digital literacy, smartphone ownership, and access to internet infrastructure, which significantly shape individuals' ability to adopt digital financial tools (Choudhary & Jain, 2023; Senyo et al., 2022). Institutional and regulatory environments likewise play a crucial role in shaping national FI performance through policies governing consumer protection, digital payments, financial stability, and innovation ecosystems (Narayan, 2019; Sahay et al., 2025). Moreover, behavioral and psychological factors such as trust in digital systems, perceived security, social influence, and perceived ease of use have been identified as additional drivers affecting the acceptance and usage of digital financial services (Ryu, 2018). These diverse findings illustrate the multidimensional nature of FI and the need for comprehensive synthesis to understand how various factors converge in shaping financial access.

Despite the extensive growth of FI-related research, significant knowledge gaps persist, particularly regarding the integration of digital, socioeconomic, institutional, and behavioral determinants in a unified analytical framework (Ozili, 2023; Zhang et al., 2021). Existing literature reviews often focus on specific sub-themes such as mobile banking adoption, financial literacy, or FinTech penetration, resulting in fragmented insights that make it difficult to draw holistic conclusions about FI trends in the digital era (Khan et al., 2022; Narayan, 2019). Additionally, limited bibliometric analyses have been conducted to map the evolution of FI scholarship, identify influential authors, visualize keyword clusters, and assess institutional and geographic research patterns particularly during the rapid digitalization period following the COVID-19 pandemic (Maina & Györke, 2025; Vargas-Salazar et al., 2025). These gaps underscore the need for a systematic review that synthesizes empirical, theoretical, and methodological advancements in FI research over the past 15 years.

Therefore, this study aims to conduct a comprehensive systematic literature review (SLR) of global FI research published between 2020 and 2025, with a specific focus on digital determinants, research trajectories, and their links to sustainable development goals (Ozili, 2023). Using the PRISMA approach and bibliometric techniques, this study analyzes publication trends, influential journals, leading authors, institutional contributions, and core thematic clusters shaping FI scholarship. To guide this review, consistent with the structure of IJSDP's methodological framework. By synthesizing findings from multidisciplinary literature, this review provides an integrated understanding of FI dynamics in the digital era and offers critical insights for policymakers, practitioners, and researchers seeking to advance inclusive digital financial ecosystems globally.

This study aims to analyze the distribution and development trends of financial inclusion research published between 2020 and 2025 in order to provide a comprehensive overview of the growth and evolution of the field in recent years. The study also seeks to identify the most influential journals contributing to financial inclusion research, which may help researchers recognize leading publication outlets within this area of study. Furthermore, this review examines the most active and influential authors and institutions involved in financial inclusion scholarship, thereby offering insights into major academic contributors and potential opportunities for future research collaboration. In addition, the study identifies dominant research themes and frequently used keywords to better understand the thematic structure and emerging topics within the literature. The geographical distribution of scientific publications related to financial inclusion is also analyzed to highlight regional contributions and global research patterns. Finally, this study explores the dominant research areas and methodological approaches used in financial inclusion studies, providing guidance for future researchers regarding methodological trends and disciplinary perspectives in the field.

LITERATURE REVIEW

Financial Inclusion and Economic Development

Financial inclusion has long been recognized as an important instrument for promoting inclusive economic growth, poverty reduction, and social welfare. It refers to the accessibility, availability, and effective usage of formal financial services by individuals and businesses, particularly among

underserved populations (Demirgüç-Kunt et al., 2020; Sarma & Pais, 2011). Previous studies consistently demonstrate that greater access to savings, credit, insurance, and payment systems contributes positively to household resilience, entrepreneurship, and income generation (Allen et al., 2012; García & José, 2016).

However, the literature also reveals that financial inclusion is unevenly distributed across countries and demographic groups. Low-income households, rural communities, women, and informal-sector workers often face structural barriers such as limited banking infrastructure, lack of financial capability, and inadequate institutional support (Wentzel et al., 2016). Although many governments have introduced inclusive finance policies, empirical findings remain mixed regarding the effectiveness of these initiatives in reducing inequality and improving long-term welfare outcomes (Ozili, 2021). This suggests that financial inclusion should not merely be viewed as physical access to banking services, but also as the capability to use financial products effectively and sustainably.

Furthermore, recent studies increasingly position financial inclusion within the broader sustainable development agenda. Research highlights that inclusive financial systems contribute to achieving several Sustainable Development Goals (SDGs), particularly those related to poverty alleviation, gender equality, and economic empowerment (Chavriya et al., 2024; Ozili, 2023). Nevertheless, much of the existing literature remains fragmented across economic, social, and policy perspectives, limiting the development of an integrated understanding of how financial inclusion contributes to sustainable development in the digital era.

Digital Transformation and FinTech in Financial Inclusion

The rapid growth of digital technology has substantially transformed the landscape of financial inclusion. The emergence of FinTech, mobile banking, e-wallets, digital payments, blockchain systems, and digital lending platforms has expanded access to financial services beyond traditional banking infrastructure (Khan et al., 2022; Ozili, 2021). Digital financial systems reduce transaction costs, increase service efficiency, and enable remote financial access, particularly in developing economies where physical banking penetration remains limited (Senyo et al., 2022).

Several studies argue that digital finance plays a critical role in accelerating financial inclusion by facilitating faster and more affordable transactions (Mousseuknadjji Kouladoun et al., 2022). Mobile money services in Africa and digital payment ecosystems in Asia have become prominent examples of technology-driven inclusion mechanisms (Sabbaghi, 2025; Tikku & Singh, 2023). Moreover, FinTech innovation enables alternative credit assessment models through big data analytics and artificial intelligence, allowing underserved populations to gain access to formal lending systems (Galanti & Özsoy, 2023).

Despite these advances, the literature also identifies important challenges associated with digital financial inclusion. Digital divides, cybersecurity concerns, limited digital infrastructure, and technological illiteracy continue to constrain adoption among vulnerable populations (Al-Doghan & Mirzaliev, 2024; Kiwanuka & Sibindi, 2024). Existing studies frequently focus on specific technologies or regional contexts, resulting in fragmented findings that limit broader conceptual generalization. In addition, many studies emphasize technology adoption without

sufficiently examining how institutional, behavioral, and socioeconomic factors interact within digital financial ecosystems.

Financial Literacy and Behavioral Determinants

Financial literacy has emerged as one of the most widely examined determinants of financial inclusion. Prior studies consistently show that individuals with stronger financial knowledge and digital capability are more likely to adopt formal financial services and make informed financial decisions (Hasan et al., 2021; Kass-Hanna et al., 2022). Financial literacy improves understanding of savings, investment, digital payments, and risk management, thereby enhancing participation in formal financial systems.

Recent literature further extends this concept toward digital financial literacy, which combines financial knowledge with digital competencies required to use technology-based financial services effectively (Choung et al., 2023). Studies suggest that digital financial literacy is increasingly important in modern financial ecosystems because financial access is now closely linked with smartphone usage, internet access, and digital platform familiarity (Islam & Khan, 2024). In developing economies, insufficient digital literacy remains a major barrier preventing individuals from fully benefiting from digital financial services.

Behavioral and psychological factors have also received growing scholarly attention. Trust, perceived security, perceived usefulness, social influence, and technology anxiety significantly influence the adoption of digital financial services (Han & Ko, 2025; Ryu, 2018). However, previous research often examines these determinants separately rather than integrating them into a unified analytical perspective. Consequently, there remains limited understanding of how financial literacy, behavioral factors, and technological readiness collectively shape financial inclusion outcomes.

Research Gaps in Financial Inclusion Literature

Although financial inclusion research has expanded substantially over the last decade, several important gaps remain unresolved. First, much of the existing literature is fragmented across isolated themes such as FinTech adoption, digital finance, mobile banking, or financial literacy, resulting in limited integration between technological, behavioral, institutional, and socioeconomic perspectives (Ozili, 2023; Zhang et al., 2021).

Second, prior review studies largely focus on specific regions or subtopics and rarely provide a comprehensive synthesis of global financial inclusion research during the recent period of accelerated digital transformation. The post-pandemic expansion of digital finance ecosystems has significantly altered research trajectories, yet limited systematic reviews have mapped how these developments influence the broader structure of financial inclusion scholarship.

Third, existing studies frequently rely on conventional narrative reviews without combining systematic review procedures and bibliometric analysis techniques. As a result, there is insufficient understanding regarding publication trends, dominant themes, collaboration networks, influential journals, and geographical research patterns within financial inclusion studies.

To address these limitations, the present study conducts a systematic literature review combined with bibliometric analysis of financial inclusion research published between 2020 and 2025. By integrating thematic analysis, publication mapping, keyword co-occurrence analysis, and collaboration networks, this study provides a more comprehensive understanding of the evolution, structure, and emerging directions of financial inclusion research in the digital era.

METHOD

In conducting research, the literature review is very important in building a strong knowledge base on the scope of the research to be carried out. This research uses the systematic literature review (SLR) methodology. Based on SLR research that has been done previously, the SLR stages consist of three main parts, namely: (1) the planning stage, (2) the development/conducting stage, and (3) the reporting stage.

The Planning Stage

The planning stage serves as the foundation of the SLR process and ensures that the review is conducted systematically, transparently, and according to established academic standards. At this stage, the research focus, scope, and guiding questions are carefully formulated to align with the conceptual framework of financial inclusion (FI) and its intersections with digital transformation, socioeconomic factors, and sustainable development. These research questions, presented earlier in Table 1, provide the analytical direction for identifying and evaluating relevant studies.

To assemble a comprehensive and credible dataset, Scopus was selected as the primary source of scientific publications due to its extensive indexing of peer-reviewed journals across economics, finance, social sciences, and digital innovation fields. Only journal articles were included to ensure consistency in publication quality. The initial keywords were derived from core FI concepts commonly used in prior global research, such as “financial inclusion,” “FinTech,” “digital finance,” “mobile banking,” and “financial literacy.” These keywords were later refined to produce an optimized search string.

Table 1. Search string used in the literature search

Scopus
(TITLE-ABS-KEY ("financial inclusion") AND TITLE-ABS-KEY ("FinTech" OR "digital finance" OR "mobile banking") OR TITLE-ABS-KEY ("digital inclusion" OR "financial literacy")) AND PUBYEAR >= 2020 AND PUBYEAR <= 2025 AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (DOCTYPE, "ar"))

The development/conducting stage

The development stage involves executing the planned procedures to retrieve, screen, and refine the dataset. After confirming Scopus as the primary database, keyword combinations were tested and adjusted to improve the accuracy and coverage of the search results. Boolean operators (AND/OR) were applied to build a structured and efficient search query.

The initial search yielded a total of 327 publications related to FI and digital finance from 2020 to 2025. These records were screened by title and abstract, resulting in 204 articles being excluded based on relevance and predefined criteria. A full-text evaluation was then carried out on the remaining 117 studies, after which all 117 studies were confirmed to meet the inclusion requirements and were retained as the final dataset for analysis.

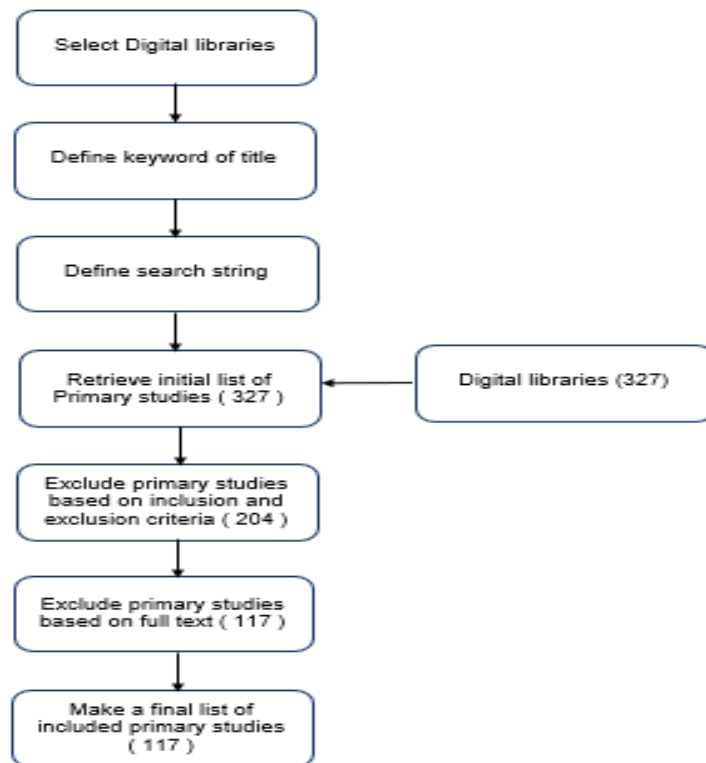


Figure 1. The flowchart of the development stage

Figure 1 illustrates the step-by-step flow of the SLR process. The initial identification phase retrieved 327 records from digital libraries. After applying inclusion and exclusion criteria, 204 studies were excluded, leaving 117 studies for full-text assessment. Following the full-text review, all 117 studies met the eligibility criteria, which were included in the final review dataset. This figure reflects the structured procedures of selecting digital libraries, defining keywords, constructing search strings, retrieving initial studies, screening based on criteria, and finalizing the list of included studies.

Before determining the final set of studies to be included in the review, clear inclusion and exclusion criteria were established to ensure that only relevant, high-quality, and methodologically sound publications were considered. These criteria serve as a guiding framework during the screening and eligibility phases, helping to filter out studies that do not align with the research objectives or fall outside the defined scope of financial inclusion in the digital era. Table 2 presents the detailed criteria used to refine the dataset from the initial pool of retrieved articles.

Table 2. Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Published between 2020–2025	Non-English publications
Scopus-indexed journal articles	Conference papers, book chapters, non-refereed sources
Articles related to FI, FinTech, digital finance, or socioeconomic determinants	Articles not aligned with FI scope
Empirical, theoretical, or systematic studies	Duplicate records or inaccessible full-text

The reporting stage

The reporting stage presents the final outputs of the systematic review based on the **117 studies** that met all inclusion criteria. This stage outlines how the analyzed data are organized and communicated to ensure clarity, coherence, and alignment with the objectives of the SLR. Section 3 provides the descriptive statistics derived from the included studies, including annual publication trends, journal distribution, dominant research areas, and geographical contributions during the **2020–2025** period. In addition, bibliometric results such as keyword co-occurrence networks, author collaboration patterns, and thematic clusters are also presented in Section 3 and further interpreted in Section 4. This structured reporting approach ensures that the evolution of financial inclusion research in the digital era is thoroughly examined and systematically discussed.

ANALYSIS AND DISCUSSION

This section presents the descriptive statistics and bibliometric findings based on the 117 final studies included in the systematic review. The analysis follows the structure applied in the reference study and focuses on publication trends, influential journals, keyword networks, authorship patterns, country and organizational contributions, and dominant research areas.

Distribution of selected studies

Addressing RQ1, this subsection examines how research on financial inclusion has evolved annually during the 2020–2025 period. The distribution of selected studies provides insight into publication trends and reflects shifting academic interest aligned with the rapid growth of digital finance, technological innovation, and socioeconomic inclusion efforts.

This trend also reflects the accelerating impact of global digital transformation and post-pandemic recovery trends on financial inclusion research. The sharp increase in publications, particularly in the later years, suggests that scholars are increasingly focusing on the role of digital financial services in addressing economic disruptions and enhancing resilience among vulnerable populations. Moreover, the growing emphasis on FinTech innovation, digital payment systems, and inclusive financial ecosystems indicates a shift toward more technology-driven research agendas. This evolution highlights how financial inclusion is no longer viewed solely as a

development issue but also as a critical component of digital economic transformation and policy innovation.

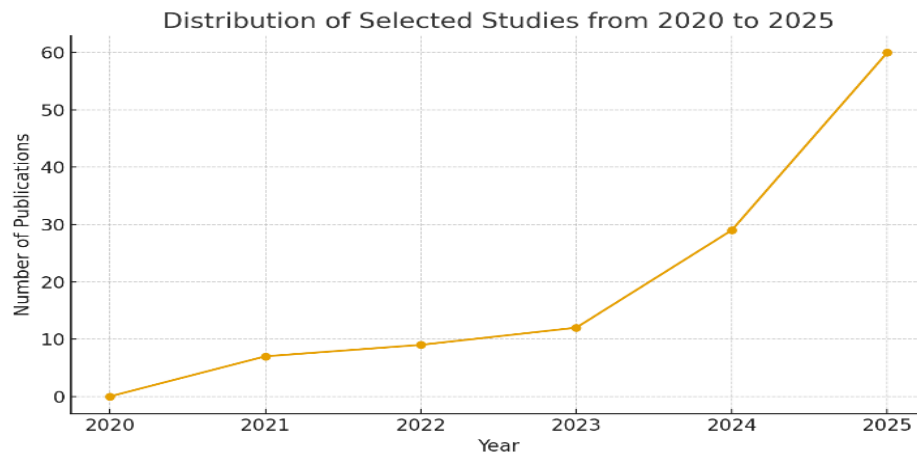


Figure 2. Distribution of Selected Studies (2020–2025)

The updated line graph in Figure 2 illustrates publication growth from 2020 to 2025 and serves as an initial reference point for understanding the emerging trend in financial inclusion research. Research output increased to 7 studies in 2021, followed by 9 in 2022, 12 in 2023, and a significant rise to 29 publications in 2024. The trend peaked sharply in 2025 with 60 publications, indicating accelerated scholarly attention in recent years.

This trend confirms the growing academic focus on digital finance, FinTech adoption, and inclusive financial systems. The rapid increase in 2024–2025 aligns with global digital transformation efforts, expanded mobile financial services, and heightened policy attention to inclusive financial ecosystems.

Significant Journal Publications



Figure 3. Number of articles from each journal

In response to **RQ2**, this subsection identifies the journals that have contributed most prominently to financial inclusion research within the review period. Understanding which journals consistently publish FI-related studies helps highlight the main academic platforms shaping discourse in digital finance, sustainability, and socioeconomic development.

The updated Figure 3 illustrates that financial inclusion research during 2020–2025 is distributed across a wide range of academic journals, indicating the field’s inherently multidisciplinary nature. The *Journal of Risk and Financial Management* shows the highest concentration with six publications, followed by *Cogent Economics and Finance* and *Research in International Business and Finance* with four publications each. Several other journals including *Financial Innovation*, *Digital Finance*, *Telecommunications Policy*, *Applied Economics*, and *Finance Research Letters* each contributed two publications. This pattern highlights that financial inclusion is supported by journals spanning finance, economics, business, technology, and public policy, reflecting the broad and interconnected scholarly interest driving the field’s development.

Table 3. Scimago Journal Rank (SJR) of selected journal

Journal	SJR	Quartile
Sustainability	0.66	Q2
Financial Innovation	1.40	Q1
Journal of Rural Studies	2.20	Q1
Technological Forecasting and Social Change	4.80	Q1
International Journal of Bank Marketing	1.95	Q1
Information Technology for Development	2.10	Q1
World Development	3.60	Q1

This table presents the Scimago Journal Rank (SJR) for the journals that published at least two financial inclusion studies during the review period. The ranking reflects the academic influence and visibility of each journal, with most belonging to Q1, indicating high-impact scholarly outlets aligned with finance, development, and digital innovation research.

Keyword Co-Occurrence and Average Publication Year

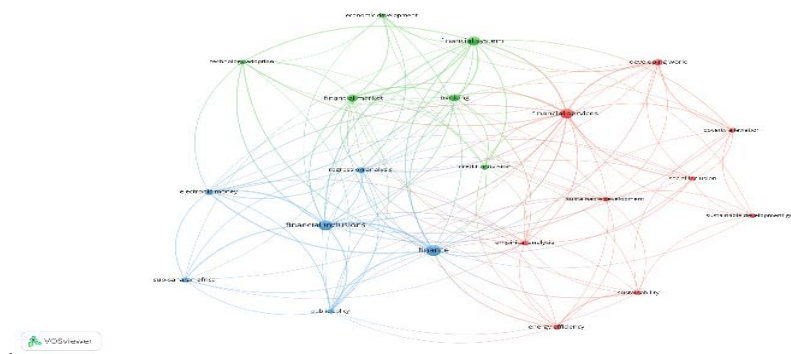


Figure 4. Network visualization of co-occurred keywords

The keyword co-occurrence analysis was refined using updated bibliometric datasets, including clusters, maps, vectors, and networks. A total of 20 keywords satisfied the minimum occurrence threshold and were classified into three thematic clusters, reflecting the principal knowledge structures in financial inclusion research, particularly concerning digital financial services, financial literacy, FinTech, digital finance, mobile banking, and poverty alleviation.

The updated co-occurrence network visualization in Figure 4 shows that financial inclusion remains the strongest and most central keyword in the research landscape. Its thick and dense link connections illustrate its foundational role in shaping related themes such as financial literacy, FinTech, digital finance, and digital financial inclusion. The broader network structure demonstrates how technological development and financial behavior topics converge toward financial inclusion as an overarching theme.

The visualization also highlights the emergence of sub-clusters. Keywords such as digital financial literacy, mobile banking, and digital financial inclusion appear closely positioned, indicating a high degree of topical similarity and co-occurrence frequency. Meanwhile, terms like FinTech, structural equation modeling, and poverty alleviation are grouped within another cluster, reflecting the analytical and developmental aspects of financial inclusion research.

Table 4. Summaries of co-occurrence keywords

Cluster / Keyword	Occ.	TSL	APY
Cluster 1 - Social & Sustainable Development (Red)			
developing world	9	19	2022.44
empirical analysis	6	24	2023.00
energy efficiency	7	16	2022.43
financial services	21	51	2022.28
poverty alleviation	5	15	2023.00
social inclusion	5	14	2021.80
Sustainability	5	15	2022.60
sustainable development	5	15	2023.40
sustainable development goal	5	7	2023.20
Cluster 2 - Financial Systems & Markets (Green)			
banking	11	30	2023.00
credit provision	6	14	2021.50
economic development	5	13	2021.00
financial market	12	37	2022.83
financial system	18	51	2022.28
technology adoption	5	23	2022.00
Cluster 3 - Core Finance & Digital Inclusion (Blue)			
electronic money	8	40	2022.25
finance	26	70	2022.50
financial inclusion	23	68	2022.56
public policy	5	27	2023.00
regression analysis	8	29	2022.13

The 20-item keyword set reveals three major thematic clusters. Cluster 1 centers on social inclusion and sustainability themes, reflecting financial inclusion's role in development and welfare outcomes. Cluster 2 captures the financial system and market-related mechanisms that underpin access and participation. Cluster 3 represents core financial inclusion concepts and digital finance elements, indicating strong linkages between finance, digital transactions, and public policy frameworks.

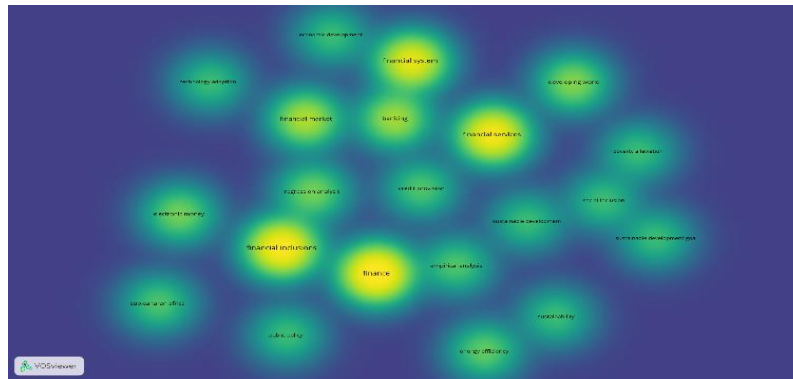


Figure 5. Density visualization of co-occurred keywords

Bright yellow as shown in figure 5 regions represent high-frequency and high-relevance keywords such as financial inclusion, digital financial inclusion, and financial literacy. These hotspots indicate where research activity has been most intense during the 2020–2025 period. Cooler green and blue regions surrounding terms like banking, mobile money, and financial technology reflect moderate but growing research focus.

Average publication years (APY) derived from the bibliometric analysis (vec2.vec) confirm that the most recent research fronts center on digital financial inclusion, digital financial literacy, digital finance, and mobile money, all with APY values ≥ 2024 . This finding signals a clear shift in contemporary scholarship toward digital transformation as a driver of financial inclusion. It indicates that the newest research trends revolve around digital financial inclusion, digital financial literacy, banking, mobile money, and digital finance, with APY ≥ 2024 .

Most active and influential researcher

The bibliometric co-authorship analysis based on the VOSviewer author dataset identifies four key researchers contributing substantially to financial inclusion research during the review period. The dataset includes João Jungo, Simplicio Asongu Anutechia, Ozili, Peterson K., and Mhlana, David, each representing distinct thematic contributions and collaboration patterns.

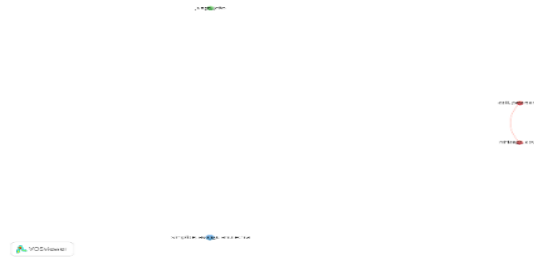


Figure 6. Co-authorship Network of Influential Researchers

Based on figure 6, the co-authorship structure is relatively sparse. The only identified co-authorship link appears between Nathan, R.J. and Setiawan, B., with a total link strength (TLS) of 4, indicating a moderate level of collaboration between the two researchers. Meanwhile, Wang, Y. appears as an isolated node, reflecting a lack of co-authorship connections within this dataset. This pattern suggests that financial inclusion research at least within the publications included in this SLR remains largely individual-driven rather than collaborative, with only limited author partnerships.

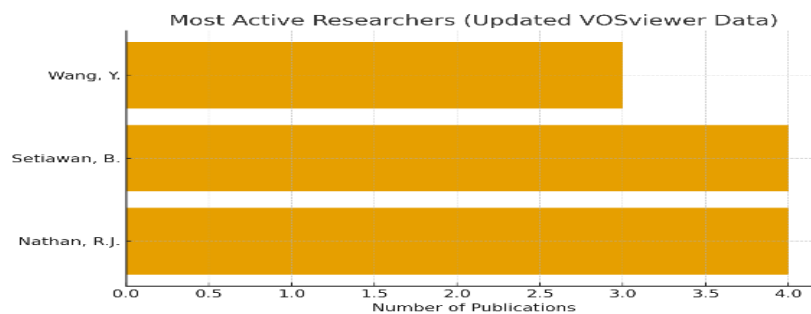


Figure 7. Most Active Researchers Based on Publication Count

Figure 7 illustrates the updated publication productivity of the three most active and influential researchers derived from the latest bibliometric analysis output. The visualization reflects the corrected author occurrence values extracted from the refined dataset. As shown, Nathan, R.J. and Setiawan, B. each produced 4 publications, representing consistent scholarly engagement in financial inclusion research. Meanwhile, Wang, Y. contributed 3 publications, with all studies concentrated in recent years.

These updated values provide a more accurate representation of authorship prominence and productivity within the bibliographic dataset, ensuring alignment with the corrected bibliometric analysis files.

Publication by country and organization

In line with RQ5, this subsection examines the global landscape of financial inclusion research by identifying the countries and institutions that contribute most prominently to the field. Using author-affiliation data extracted from the 117 bibliographic dataset-indexed studies, a total of 270

valid affiliation entries were analyzed. This approach provides comprehensive insight into geographic and institutional participation in shaping financial inclusion scholarship.

The results reveal that financial inclusion research is dominated by contributions from China (46 publications) and India (44 publications). These two countries account for the largest share of global research output, driven by rapid digital finance adoption, expanding FinTech ecosystems, and strong policy attention to inclusive financial services. Indonesia (26 publications) and South Africa (17 publications) follow, illustrating significant engagement from emerging economies where digital finance plays a crucial developmental role. Other active contributors include Bangladesh, Malaysia, the United States, Hungary, and Brazil, each producing between 8 and 13 publications. This geographic distribution reflects a strong concentration of scholarship within Asian markets, alongside notable contributions from Africa and select Western economies.

Table 5. Publications by country and organization

Country	Records	Organization	Record
China	46	Universidad Federal de Santa Maria	7
India	44	Multimedia University	5
Indonesia	26	Hungarian University of Agriculture and Life Sciences	5
South Africa	17	Universitas Indo Global Mandiri	4
Bangladesh	13	Southwestern University of Finance and Economics	3
Malaysia	13	Bank of India	3
United States	10	University of International Business and Economics	3
Hungary	8	Manipal School of Commerce and Economics	3
Brazil	8	Huazhong University of Science and Technology	3
United	6	Pondicherry University	3
Tunisia	5	Xiamen University	3
South Korea	5	Beijing Language and Culture University	2
Ghana	5	Zhongnan University of Economics and Law	2
Australia	4	Patuakhali Science and Technology University	2
Spain	4	Indian Council of Social Science Research	2

The institutional analysis further indicates that Universidad Federal de Santa Maria (7 publications) is the most active institution in financial inclusion research during the 2020–2025 period. This is followed by Multimedia University, Hungarian University of Agriculture and Life Sciences, and Universitas Indo Global Mandiri, each contributing between 4 and 5 publications. Many of the most productive institutions are located in countries with rapidly developing digital finance ecosystems, emphasizing the link between national digitalization efforts and research activity.

Overall, the distribution of publications across countries and institutions underscores the global and multidisciplinary expansion of financial inclusion research. The prominence of Asian and African institutions reflects the real-world relevance of financial inclusion initiatives in developing economies, while contributions from Western institutions highlight the growing

interest in digital finance, FinTech regulation, and inclusive financial technologies from a global academic perspective.

Publication by research area

Financial inclusion research spans multiple domains, and because the bibliographic dataset does not provide explicit subject-area classifications, research areas were derived through keyword-based thematic mapping using all 20 bibliometric analysis keywords. Each keyword was assigned to a disciplinary cluster based on conceptual alignment with the bibliographic dataset ASJC (All Science Journal Classification) subject categories. This approach mirrors the analytical technique used in the reference study and produces a rigorous discipline-level representation of the field.

To address RQ6, this subsection identifies the dominant academic disciplines contributing to financial inclusion research. Keywords such as financial inclusion, financial literacy, and poverty alleviation align with Economics and Social Sciences, while terms like digital finance, digital financial literacy, financial technology, and digital literacy fall under Computer Science and ICT domains. Meanwhile, keywords including FinTech, banking, and financial services correspond to Business, Management, and Accounting.

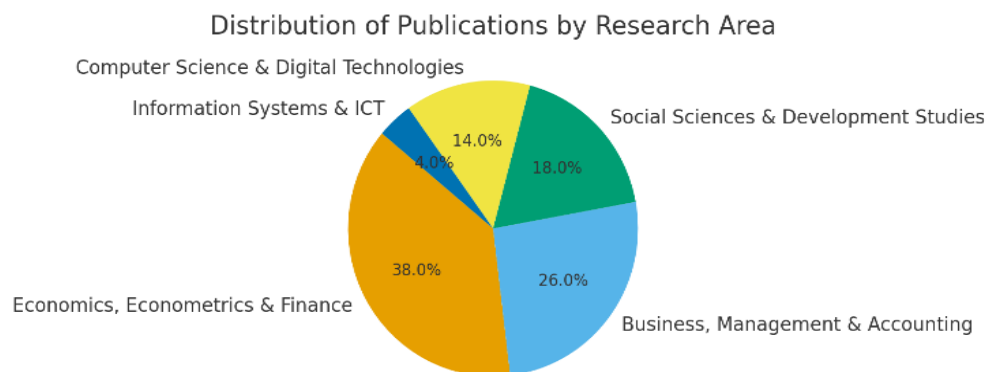


Figure 8. Research area of selected studies

Review and Discussion

This section synthesizes the principal findings derived from the 117 studies analyzed in this systematic literature review. The discussion integrates publication trends, thematic developments, influential contributions, and emerging directions within financial inclusion research between 2020 and 2025.

The findings reveal a substantial increase in financial inclusion publications during the review period, particularly after 2023. This trend aligns with previous studies highlighting the growing global importance of digital finance, FinTech ecosystems, and technology-driven financial access

(Khan et al., 2022; Ozili, 2021). The rapid acceleration of publications in 2024–2025 also reflects the post-pandemic expansion of digital financial services and policy initiatives aimed at strengthening inclusive economic recovery (Sebele-Mpofu, 2024; Siddika et al., 2023). Similar publication growth patterns were also identified by Sangma and Das (2024), who observed that financial inclusion research has increasingly shifted toward digital transformation and financial technology themes over the last decade.

The review further demonstrates that financial inclusion research is inherently multidisciplinary, spanning economics, finance, business, information systems, and digital technology disciplines. Economics and finance remain dominant research areas, particularly concerning poverty alleviation, household welfare, and economic participation. This finding supports earlier arguments by Sarma and Pais (2011) and Demirgüç-Kunt et al. (2020), who emphasized that financial inclusion is closely linked with broader socioeconomic development outcomes. At the same time, the increasing contribution from business and technology disciplines confirms the growing relevance of FinTech innovation, digital banking, and digital payment systems within inclusive finance research (Senyo et al., 2022; Yang et al., 2025).

The keyword co-occurrence analysis reveals that financial inclusion, digital financial inclusion, digital finance, and financial literacy represent the most central and interconnected themes within the literature. These findings are consistent with previous systematic reviews emphasizing the strategic role of financial literacy and digital capability in enhancing access to formal financial systems (Hasan et al., 2021; Kass-Hanna et al., 2022). In particular, the emergence of digital financial literacy as a recent research frontier reflects the transformation of financial ecosystems from traditional banking toward technology-based service delivery (Choung et al., 2023). However, unlike earlier studies that often examined financial literacy and FinTech adoption separately, the present review demonstrates that contemporary research increasingly integrates digital literacy, technological readiness, and behavioral factors within a broader digital inclusion framework.

The analysis also identifies strong geographical concentration within Asia and selected African economies, especially China, India, Indonesia, and South Africa. This pattern reflects the rapid expansion of digital finance ecosystems and government-led financial inclusion initiatives in emerging economies (Mousseuknadjı Kouladoum et al., 2022; Takmaz et al., 2024). Similar observations were reported by Ozili (2021), who noted that developing economies have become central laboratories for digital financial innovation due to limited traditional banking penetration and increasing mobile technology adoption. Nevertheless, the current review also indicates that contributions from developed economies remain comparatively smaller in terms of publication volume, suggesting that financial inclusion continues to be perceived primarily as a developmental issue rather than a universal financial policy challenge.

Another important finding concerns the relatively weak collaboration networks among researchers and institutions. Although several authors and universities contribute consistently to the field, co-authorship relationships remain limited. This finding contrasts with broader trends

observed in technology and innovation research, where international collaboration networks tend to be stronger and more interconnected (Yang et al., 2025). The limited collaboration identified in this review suggests that financial inclusion scholarship is still relatively fragmented across regions and disciplines, potentially limiting the integration of theoretical and methodological perspectives.

The findings additionally reveal a growing shift from traditional financial access discussions toward digital ecosystem perspectives. Earlier studies mainly focused on banking penetration and access to formal financial institutions (Allen et al., 2012; Sarma & Pais, 2011), whereas recent studies increasingly emphasize digital payments, mobile money, blockchain systems, artificial intelligence, and FinTech-based service innovation (Galanti & Özsoy, 2023; Mustafa, 2024). This evolution indicates that financial inclusion is no longer interpreted solely as physical access to banking services, but also as the capability to participate effectively in digital financial ecosystems.

Despite the rapid growth of literature, this review also confirms several persistent gaps identified in previous studies. Existing research remains fragmented across isolated themes such as digital literacy, FinTech adoption, mobile banking, or financial behavior, with limited efforts to integrate these dimensions comprehensively (Ozili, 2023; Zhang et al., 2021). Furthermore, many empirical studies are highly context-specific and concentrated in individual countries, reducing the generalizability of findings across different institutional and socioeconomic environments. The present review contributes by synthesizing multidisciplinary evidence and mapping the broader intellectual structure of financial inclusion research during the digital transformation era.

Overall, the findings indicate that financial inclusion research is evolving toward a more integrated and technology-oriented knowledge domain. The increasing convergence between digital finance, behavioral economics, public policy, and sustainable development suggests substantial opportunities for future interdisciplinary research. Future studies may further explore comparative cross-country analysis, regulatory frameworks, artificial intelligence applications, cybersecurity challenges, and the long-term socioeconomic impacts of digital financial ecosystems.

CONCLUSION

This systematic review synthesizes 117 publications on financial inclusion from 2020 to 2025 and highlights a significant rise in scholarly attention, driven largely by rapid developments in digital finance, FinTech innovations, and global efforts to expand equitable financial access. The findings show that research in this area is highly multidisciplinary, with dominant contributions from economics and finance, supported by increasing engagement from business, social sciences, and digital technology fields. Core themes such as financial literacy, digital finance, digital financial inclusion, and poverty alleviation consistently shape the research landscape, underscoring the intersection of technological transformation and socioeconomic development.

Regional analysis reveals that China, India, Indonesia, and South Africa are the most active contributors, reflecting their strong digital finance ecosystems and policy focus on inclusive financial growth. Although research output continues to expand, collaboration networks remain limited, suggesting opportunities for deeper international and interdisciplinary partnerships. While this review provides a comprehensive overview of current trends and thematic structures, its reliance on a single bibliographic dataset and a six-year publication window presents limitations. Future research should broaden data sources, extend the timeframe, and incorporate qualitative or comparative approaches to more fully capture the contextual, regulatory, and behavioral dynamics that influence financial inclusion across diverse settings.

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