





Evolution and Trends in Financial Inclusion Research: A Systematic Literature Review and Bibliometric Analysis (2004–2023)



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Abstract: This study examines the development and trends in financial inclusion research between 2004 and 2023, with a focus on the trajectory of publication growth, key contributors (including influential authors, journals, and institutions), and dominant themes within the field. A systematic review and bibliometric analysis were conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework. A total of 1,784 articles were identified from the Scopus database for inclusion. Analytical tools such as VOSviewer and Microsoft Excel were employed to explore publication patterns, citation networks, and thematic concentrations. The findings reveal a marked increase in financial inclusion research, with 2022 recording the highest output, contributing 473 publications. Among scholars, Ozili emerged as a leading author with significant influence in the domain. The *Journal of Sustainability* (Switzerland) was identified as the most prolific journal, publishing 173 relevant articles, while the University of International Business and Economics in Beijing, China, was found to be the most productive institution. Keyword analysis highlighted recurring themes and revealed underexplored areas, offering promising directions for future research. This comprehensive analysis not only provides insights into the past and current state of financial inclusion scholarship but also identifies gaps that warrant further academic investigation. By offering performance metrics and mapping the evolution of the field, the study serves as a valuable resource for scholars and practitioners seeking to understand emerging research trends and guide future inquiries.

Keywords: Systematic review; Citation analysis; Co-occurrence; Bibliometric analysis; VOSviewer; Financial inclusion

JEL Classification: G21; G23

1. Introduction

Financial inclusion is widely recognized as a crucial component of economic growth and financial well-being (Hidayat & Sari, 2022; Pushp et al., 2023). It entails the intervention strategy that seeks to overcome the market friction that hinders the market from operating in favor of the poor and unprivileged (Mindra & Moya, 2017). Scholars add that financial inclusion is a determined effort to ensure accessibility, availability, and usage of essential formal financial services and products to all participants in the economy (Aggarwal, 2018; Pushp et al., 2023). Similarly, financial inclusion has been argued to be an essential policy tool that can help to achieve inclusive development and address sustainable development goals (SDGs) (Pushp et al., 2023). Furthermore, financial inclusion lowers income disparity by enabling people to manage financial risks, make an investment in the future, streamline their intake, and provide incremental and complementary ways to combat poverty (Aduda & Kalunda, 2012; Grohmann et al., 2018).

In this regard, financial inclusion aims to bring the unbanked into the formal financial system so that they can learn, understand, and utilize financial services and products (Thoene & Turriago-Hoyos, 2017), ranging from savings (Chhatoi et al., 2021), credit ecosystems (Arun & Kamath, 2015), institutional investment, financial

intermediaries assisting with investment (Ramakrishna & Trivedi, 2018), payment systems (Chhatoi et al., 2021), insurance (Aduda & Kalunda, 2012; Mossie, 2022), and encouragement of small businesses and facilities to assist with financial services (Della Peruta, 2018). In finance, banking and other regulated institutions such as credit unions, microfinance institutions, mobile money service providers, and other digital platforms are cited as formal providers of financial products and services for implementing the financial inclusion strategy for national economic growth (Demirgüç-Kunt et al., 2022; Kumar Vaid et al., 2020). Thus, financial inclusion is the ease of accessibility, availability, and usage of formal financial products and services for all economic participants (Kim et al., 2018).

Table 1. Summary of the extant reviews in the financial inclusion domain

R	Author(s)	Year	Review Scope/Focus	Reviewed Documents	Time Frame	Type of Study
1	Aduda & Kalunda (2012)	2012	Inclusive finance and stability of the financial sector		unknown	Literature review
2	Thoene & Turriago-Hoyos (2017)	2017	“Financial inclusion in Colombia”	73	unknown	Scoping literature review
3	Demirguc-Kunt et al. (2017)	2017	Inclusive finance and growth		unknown	Empirical review
4	Kim et al. (2018)	2018	“Mobile financial services, financial inclusion, and development”	54	unknown	Systematic literature review (methodological)
5	Bakar & Sulong (2018)	2018	Inclusive finance and economic growth		unknown	Theoretical and empirical review
6	Taha (2020)	2020	Blockchain technology and financial inclusion	64	2010-2017	Systematic literature review
7	Ozili (2021)	2021	Inclusive finance		Post 2010 studies	Review
8	Duvendack & Mader (2020)	2020	Inclusive finance in low-and-middle-income nations	32	unknown	Review of reviews
9	Caplan et al. (2021)	2021	Financial inclusion in OECD countries	148	Oct 2015-Nov 2015	Scoping literature review
10	Fernández-Olit et al. (2020)	2020	Inclusive and exclusive finance in developed nations	52	2009-2018	Systematic literature review
11	Aziz et al. (2021)	2021	Digital banking and financial inclusion	126	2014-2020	Bibliometric review (descriptive)
12	Chhatoi et al. (2021)	2021	Financial inclusion	463	2000-2020	Bibliometric review
13	Say (2022)	2022	The states of financial inclusion	171	1956-2022	Bibliometric review
14	Dhungana (2022)	2022	Inclusive finance for inclusive growth in South-Asia Nations	76	unknown	Systematic review
15	Gallego-Losada et al. (2023)	2023	Visualizing the academic literature on digital financial inclusion	387	2021-2022	Bibliometric review
16	Hanief & Widya (2023)	2023	Islamic financial inclusion	186	2011-2023	Bibliometric review
17	Yanina & Uriarte (2023)	2023	Financial inclusion and gender gaps	142	1996-2021	Bibliometric and analytical review

Highlighting the reasons for different scholars and policymakers to develop an interest in financial inclusion, studies show that financial inclusion is the primary tactic to fulfil the SDGs of the United Nations (Ozili, 2020; Shah & Ali, 2022). Likewise, through financial inclusion, marginalized households may better manage risks, absorb shocks more efficiently, improve their investment ability in tangible assets, strengthen their ability to smooth household consumption, and invest more in health and education (Molefhi, 2019; Rumbogo et al., 2021). Also, in developing nations, financial inclusion has been witnessed to lower the unemployment rate (Mehry et al., 2021). Similarly, financial inclusion increases social inclusion in many nations (Ozili, 2020; Shah & Ali, 2022). In this regard, policymakers in several countries continue to devote enormous resources to raising the degree of financial inclusion in their nations while targeting to lower the severity of financial exclusion issues (Ozili, 2020). Subsequently, inclusive finance can assist in bringing poverty down to a desired minimum (Ozili, 2020; Shah &

Ali, 2022). Finally, financial inclusion nations have been found to have an opportunity to widen numerous socio-economic advantages for developing countries (Ali et al., 2016; Shah & Ali, 2022). Thus, financial inclusion performs a catalytic role in combating poverty levels in the economy.

Reviewed studies have indicated several scholars focused on financial inclusion with distinct themes (Aziz et al., 2021; Bakar & Sulong, 2018; Hanief & Widya, 2023; Taha, 2020; Yanina & Uriarte, 2023). Thus, the list of these previous studies is exemplified in Table 1. Likewise, most of the reviewed studies were based on a single type of review such as empirical, scoping, theoretical, systematic, and bibliometric (Aduda & Kalunda, 2012; Aziz et al., 2021; Bakar & Sulong, 2018; Chhatoi et al., 2021; Demirguc-Kunt et al., 2017; Dhungana, 2022; Fernández-Olit et al., 2020; Gallego-Losada et al., 2023; Hanief & Widya, 2023; Kim et al., 2018; Taha, 2020; Thoene & Turriago-Hoyos, 2017; Say, 2022). Also, few reviewed studies were country and region focused, such as Kenya, Colombia, low-and-middle-income nations, developed nations, South-Asian nations, and OECD nations (Aduda & Kalunda, 2012; Dhungana, 2022; Duvendack & Mader, 2020; Fernández-Olit et al., 2020; Hanief & Widya, 2023; Thoene & Turriago-Hoyos, 2017). Thus, there is a scarcity of studies combining systematic literature review with bibliometric analysis to attempt to examine the breadth and rigor of financial inclusion across the globe.

Studies affirm that a combined systematic literature review with bibliometric analysis allows researchers to comprehensively examine existing literature on a particular concept, such as financial inclusion, by showing state-of-the-art research and limiting bias (Jebarajakirthy et al., 2021; Tranfield et al., 2003). Similarly, such a combination helps comprehend the existing knowledge level, identify underexplored areas, and synthesize findings (Li et al., 2017). Meanwhile, bibliometric analysis complements the study by providing quantitative insights into the literature's trends, patterns, and citation networks and corroborating qualitative insights from the systematic review process. Hence, it strengthens the credibility and reliability of the research findings that offer a more holistic understanding of the concept landscape, such as financial inclusion. Thus, this study is set to examine the evolution of research on financial inclusion during the time frame 2004 to July 2023 by addressing the four (4) research questions that define the extent of the study:

RQ1. “What are the current trends in research publications on financial inclusion?”

RQ2. “Who are the significant contributors (authors, publication outlets, and institutions) in financial inclusion?”

RQ3. “What are the most critical topics and central themes investigated in financial inclusion research by various scholars?”

RQ4. “What are the research gaps and avenues for further research in this domain of financial inclusion?”

This paper has four significant portions: The procedures used for data collection and analysis are described in Section 2. The study's results are shown in Section 3, along with a discussion based on different parameters. Then, the findings are summed up in Section 4, noting any limitations and offering ideas for future study directions.

2. Research Methodology

2.1 Search Strategy

This study selected purposively Scopus database for searching and extraction of research materials. Scopus is a multidisciplinary bibliographic database that covers extensive peer-reviewed literature, including journals, making it one of the most extensive databases for abstracts and citations (Elsevier, 2024). Similarly, Scopus facilitates cross-disciplinary research by covering a range of fields, including the social sciences, which makes it a valuable tool for collaborative and interdisciplinary projects (Burnham, 2006). Also, Scopus offers an integrated search option in its database based on curated metadata to find pertinent publications (Casal-Otero et al., 2023). Therefore, this literature evaluation has made use of the Scopus database, given that the same has been applied by previous scholars (Casal-Otero et al., 2023; Kaur et al., 2021).

2.2 Search Delimiting Criteria

The study employed “keywords” to perform the first search in the Scopus database on July 28, 2023. Before data collection, the “Preferred Reporting Items for Systematic Reviews and Meta-Analysis” (PRISMA) structure was considered (Moher et al., 2009). The framework is widely adopted because it provides a flow diagram that indicates each stage involved in gathering data, from the identification of studies to their inclusion and exclusion, which ensures transparency, rigor, and replicability in supporting the systematic extraction and synthesis of research data (Moher et al., 2009). Thus, in obtaining the required data from Scopus, we used the keyword “financial inclusion” to search for the “TITLE-ABS-KEY.” Thus, for a smooth literature review, all papers employing a particular keyword in the “Title, Abstract, and Keyword” were considered while considering the inclusion and exclusion criteria (Swain et al., 2023).

2.3 Paper Selection with Inclusion/Exclusion Criteria

According to prior research, pertinent academic papers were selected for this review based on inclusion and exclusion criteria (Redine et al., 2023) using framework (Moher et al., 2009). Then, 8,242 papers were recognized after a preliminary search conducted in the chosen database using the keywords indicated in the search delimiting criteria section of this manuscript. After identification, 1,839 articles were removed due to duplicates and different areas of study. Duplicates are records downloaded multiple times from the same database and were excluded from the list (Jebarajakirthy et al., 2021). Also, we restricted the study to “social sciences,” “economics, econometrics, and finance,” and “business, management, and accounting” studies only (Ingale & Paluri, 2022).

Then, the 4,613 papers were removed from further screening and eligibility verification of this literature review due to (i) Unmatched keywords (n=2,904), (ii) Not a scholarly article that entails non-academic sources (for instance, books, book chapters and trade journals) (n=1,484), (iii) Not relevance to financial inclusion (n=225), and (iv) Non-English language published papers (n=06). After that, 1,784 of the remaining publications were selected and disseminated in CSV format to attain the goals of this study. So, Figure 1 displays the actions performed for the entire process, from article searches to inclusion and exclusion procedures. The 1,784 academic papers focused on financial inclusion published since inception in the Scopus database (2004 to July 2023) were analyzed in VOSviewer software and Excel. Therefore, the subsequent section discloses the results in charts, graphs, tables, and network maps based on the analyzed parameters.

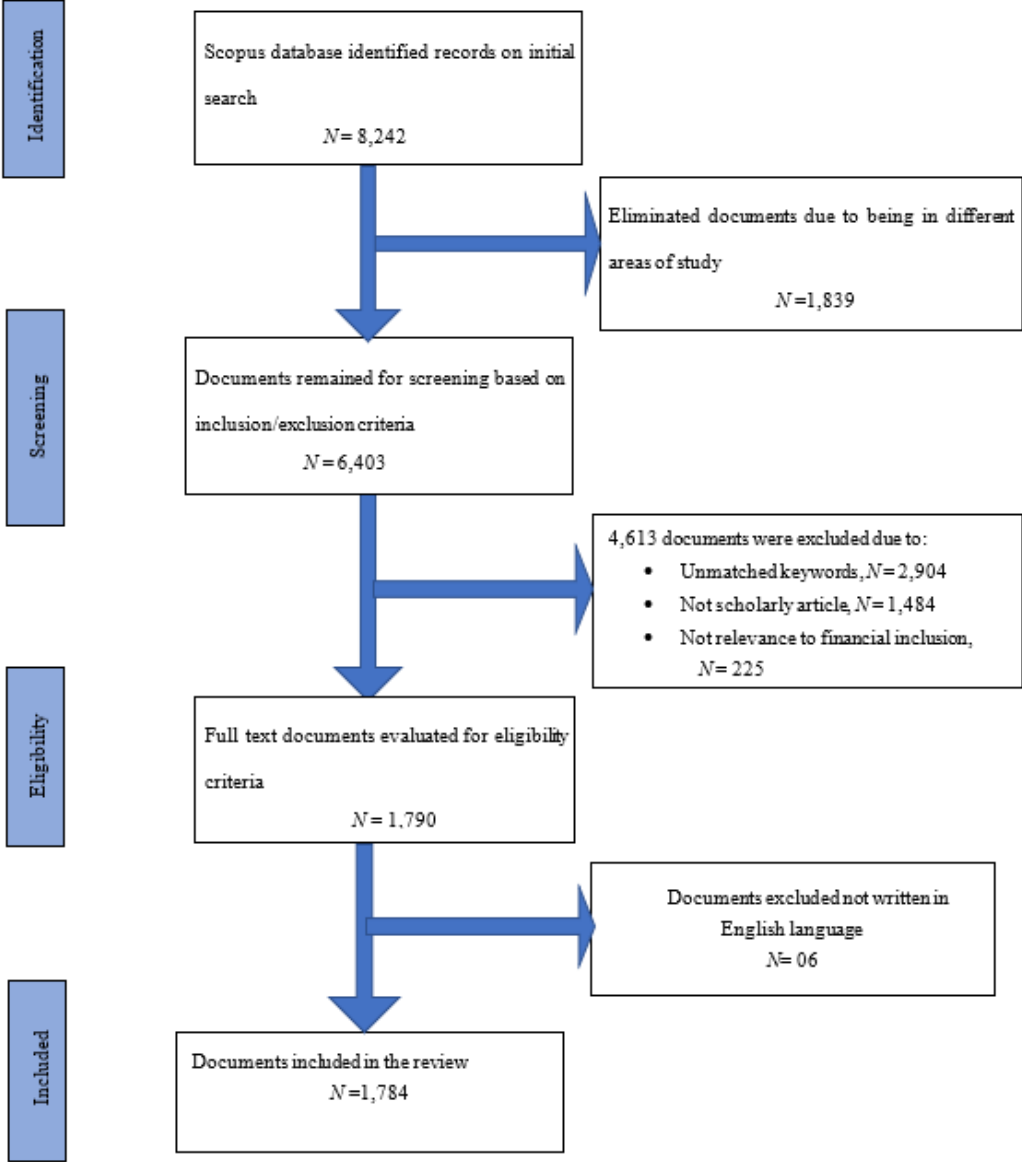


Figure 1. The PRISMA structure
Source: Adopted and modified from Moher et al. (2009)

3. Results and Discussion

3.1 Global Growth Trend of Financial Inclusion Research

Organizing the papers based on their publication years is the first step undertaken in carrying out this review of the literature and retorting to the first research question of this study. It is easier to comprehend how academic research in a particular domain of financial inclusion has evolved by looking at the period-based distribution of the papers that have been published in that arena (Jebarajakirthy et al., 2021; Redine et al., 2023). Thus, the first pertinent academic article for this study of financial inclusion was initially discovered in 2004 (Valverde & Fernández, 2004). Hence, 2004 is the beginning year for a detailed analysis of the literature on financial inclusion. Research papers released between 2004 and July 2023 amounting to 1,784 publications are therefore included in this review. Figure 2 shows the year-by-year evolution of the included financial inclusion research articles during the observed timeframe. Financial inclusion research emerged over 18 years ago. However, the literature on the subject was still somewhat limited for a while, with just a few papers published between 2004 and 2011 (an average of two publications per year), amounting to 17 publications (0.95%).



Figure 2. Growth trend of financial inclusion research, n =1,784 (2004-2023)

There was a noticeable increase in publications from 2012 to 2017, with 388 papers (21.7%) indicating a rise in scholarly curiosity. Likewise, between 2018 and 2023, a noticeable sharp progressive growth in publications was observed, of which 1379 published articles (77.3%) were found. The year 2022 had the most publications in the field, with a total of 473 papers (26.5%) of all articles generated during the study period (timeframe), as illustrated in Figure 2. Inclusively, the financial inclusion literature's consistent exponential expansion shows that there are more research streams accessible in this field (Redine et al., 2023). The study of Chhatoi et al. (2021) reported a similar trend, whereby, despite having a different time span, the exponential growth of published articles was witnessed after 2014.

Moreover, the growing number of publications is primarily attributed to the field gaining significant momentum globally, as reflected by the keyword "financial inclusion" appearing 837 times (40.42%) (see Table 2), underscoring its positive impact on economic growth and development (Mossie, 2022). The availability of digital technologies such as mobile money platforms, fintech services, and blockchain technologies, which contributed significantly to the rise in financial access (Anakpo et al., 2023), and reducing poverty and inequality; women empowerment; and entrepreneurship growth (Mossie, 2022). Therefore, given the field's significance to the economy and its contribution to the digital economy era in particular, the inquisitiveness of researchers and practitioners should not cease.

3.2 The Contributors in the Domain of Financial Inclusion

In this section, we present the significant contributors in the domain of financial inclusion. Focusing on significant contributors provides more insights into this topic of interest and can let scholars and other practitioners know which authors, publication outlets, and institutions are the most influential and productive to the financial

inclusion knowledge base. Similarly, determining the possible sources of fresh insights and investigations can propel the field forward and be helpful.

Table 2. Author’s keywords growth trend

R	Keyword	Occ	%G	R	Keyword	Occ	%G
2004-2023				2004-2015			
1	Financial inclusion	837	40.42	1	Financial inclusion	47	27.98
2	Economic growth	329	15.89	2	Financial institutions	17	10.12
3	Financial development	261	12.6	3	Economic growth	15	8.93
11	Digital financial inclusion	90	4.35	11	Financial development	13	7.74
5	Financial institutions	71	3.43	5	Microfinance	13	7.74
6	Poverty reduction	68	3.28	6	Financial exclusion	11	6.55
7	Financial literacy	63	3.04	7	Poverty reduction	10	5.95
8	Fintech	60	2.9	8	Mobile money	7	4.17
9	Microfinance	58	2.8	9	Mobile banking	6	3.57
4	Mobile money	56	2.7	4	Remittances	5	2.98
14	Technological innovation	44	2.12	14	Financial capability	5	2.98
12	Remittances	42	2.03	12	Savings	5	2.98
10	Financial exclusion	36	1.74	10	Financial literacy	5	2.98
13	ICT	35	1.7	13	Financial deepening	5	2.98
15	Digital economy	21	1.01	15	ICT	4	2.38
2016-2019				2020-2023			
1	Financial inclusion	117	41.64	1	Financial inclusion	673	42.57
2	Financial development	32	11.39	2	Economic growth	269	16.21
3	Economic growth	30	10.68	3	Financial development	212	12.78
11	Microfinance	24	8.54	11	Digital financial inclusion	119	7.17
5	Financial institutions	19	6.76	5	Fintech	56	3.38
6	Mobile money	11	3.91	6	Poverty reduction	54	3.25
7	Poverty reduction	9	3.2	7	Financial literacy	51	3.07
8	Financial literacy	7	2.49	8	Mobile money	42	2.53
9	ICT	7	2.49	9	Income inequality	35	2.11
4	Savings	6	2.14	4	Remittances	32	1.93
14	Financial innovation	5	1.78	14	Microfinance	29	1.75
12	Financial exclusion	5	1.78	12	ICT	24	1.45
10	Branchless banking	3	1.07	10	Technological innovation	22	1.33
13	Fintech	3	1.07	13	Digital economy	21	1.27
15	Income inequality	3	1.07	15	Financial institutions	20	1.21

Note: R: Rank order; G = growth of the occurrence of the keywords.
Source: Authors.

3.2.1 Authorship analysis

Table 3 displays the twenty most-cited articles on financial inclusion between 2004 and 2023, in line with other systematic and bibliometric reviews of literature papers (Hallinger & Nguyen, 2020). More interestingly, a publication's effect is determined by the number of citations it receives, which makes it possible to identify the most essential works in a given field of study (Donthu et al., 2021). As a result, the articles by Ozili, P. have received the most citations, 553. Ozili is an influential author who gained inspiration through writing on issues related to “financial inclusion,” “financial economics,” “financial regulations,” “capital markets,” and “empirical banking and financial reporting”.

The other well-known authors include Gupta S., Gabor D., Tchamyou V., Usman M.; Kim D. W.; Jahanger A.; Tchamyou V. S. and Sassi S.; articles with 336, 300, 297, 248, 243, 233, 220, 211, and 202 citations, respectively, as enumerated in Table 3. The work by Gupta S., which receives 336 citations per publication(s) on average, is at the top of the list, followed by Gabor D.; Tchamyou V., Usman M.; Kim D. W.; Jahanger A., Tchamyou V. S. and Sassi S., whose article receives 300, 297, 248, 243, 233, 220, 211, and 202 citations per publications, respectively. The articles by Ozili P. may be considered the most significant study of research on financial inclusion when considering the number of citations based on the accumulation of the produced publications, while on citations per publication(s), the paper by Gupta, S. is leading.

3.2.2 Analysis of publication outlets

Analysis of publication outlets refers to systematically evaluating various platforms, such as journals where research or scholarly work can be published. This analysis assists researchers and academics in identifying the most appropriate outlets for their work based on factors such as the scope of the outlet, accessibility, and peer-review procedures. As a result, this study synthesized the papers based on the journals—that is, the outlets that published the papers on financial inclusion—that is, the journal of publication (Jebarajakirthy et al., 2021). As

demonstrated in Figure 3, the 1,784 financial inclusion papers were disseminated across 508 top-notch academic sources in the Scopus database. Additionally, among others, the top twenty journals with the highest contribution rate accounted for 657 publications, and they contributed to more than 36% of the total publications, as exemplified in Figure 3, where each source produced more than ten papers. Kumar et al. (2019) posit that the productivity of the journal is measured through publication counts, while citations measure the journal's influence. Hence, the notable most fruitful source was the *Journal of Sustainability* (Switzerland), with 173 articles reporting more than 9% of the whole research on the domain. They were followed by Resources Policy, Economic Research Journal, International Journal of Economics, and Cogent Economics and Finance, among others. The rest of the productive journals are shown in Figure 3.

Table 3. The rank order of the top 20 widely cited authors in financial inclusion, 2004-2023

R	Author(s)	Country	Institutions/Affiliation	NP	TC	C/P
1	Ozili, P. K.	United Kingdom	University of Essex	6	553	92.17
2	Gupta, S.	United States	IMF	1	336	336
3	Gabor, D.	United Kingdom	University of the West of England	1	300	300
4	Tchamyou, V. S. & Erreygers, G.	Belgium	University of Antwerp	1	297	297
5	Usman, M.	Pakistan	Government College University, Faisalabad	1	248	248
6	Kim, D. W.	South Korea	Dankook University	1	243	243
7	Jahanger, A.	China	Hainan University, Haikou	1	233	233
8	Tchamyou, V. S.	Belgium	University of Antwerp	1	220	220
9	Le, T. H.	Vietnam	Fulbright University	1	211	211
10	Sassi, S.	Tunisia	IHEC Carthage	1	202	202
11	Chibba, M.	Canada	International Centre for Development Effectiveness and Poverty Reduction	1	199	199
12	Fungáčová, Z.	Finland	Bank of Finland, Institute for Economies in Transition (BOFIT)	1	197	197
13	Swamy, V.	India	LLC “Consulting Publishing Company-Business Perspectives”	2	184	92
14	Schuetz, S.	United States	University of Arkansas	1	181	181
15	Grohmann, A.	German	German Institute for Economic Research (DIW Berlin)	1	180	180
16	Ahamed, M.	United Kingdom	University of Sussex	1	179	179
17	Klapper, L.	United States	World Bank	1	170	170
18	Qin, L.	China	Shenyang Agricultural University	1	155	155
19	Tchamyou, V. S. & Asongu, S. A.	Belgium	University of Antwerp	1	154	154
20	Myovella, G.	Turkey	Edge University	1	153	153

Note: R: Rank order; NP: Number of publication(s); TC: Total Scopus citations; C/P: Citations per publication(s).

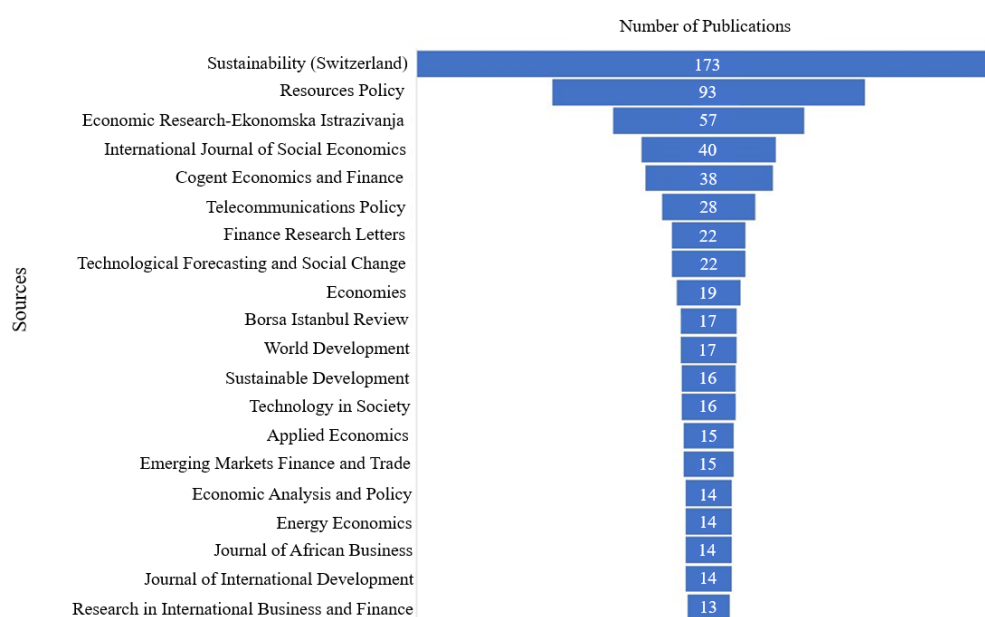


Figure 3. Funnel chart showing the top 20 most productive sources, 2004-2023 (n=1,784)

Table 4. The top 20 most productive institutions/affiliations, 2004-2023

R	Institutions/Affiliations	Country	NP	TC
1	University of International Business and Economics Beijing	China	10	190
2	Beijing Institute of Technology, Beijing	China	8	187
3	Nanchang University, Nanchang	China	7	140
4	University of Lahore, Lahore	Pakistan	5	126
5	Network for Socio-economic Research and Advancement (Nesra), Accra	Ghana	5	272
6	North South University, Dhaka	Bangladesh	5	273
7	Trent University, Peterborough	Canada	4	136
8	China Medical University, Taichung	Taiwan	4	240
9	University of Cape Town, Cape Town	South Africa	4	113
10	Nisantasi University, Istanbul	Turkey	4	135
11	Makerere University Business School, Kampala	Uganda	4	134
12	Quaid-I-Azam University, Islamabad	Pakistan	4	118
13	University of International Business and Economics, Beijing	China	4	157
14	Centre for Economic Policy Research (CEPR), London	United Kingdom	3	239
15	Government College University, Faisalabad	Pakistan	3	315
16	University of Agriculture, Faisalabad	Pakistan	3	315
17	University of Hyderabad, Hyderabad	India	3	114
18	University of New England, Armidale	Australia	3	264
19	Indian Institute of Technology, Kharagpur	India	3	136
20	World Bank	United States	3	185

3.2.3 Institutions/affiliations analysis

The primary production and effect indicators of the institutions/affiliations that have published the most on the contribution of the financial inclusion research are indicated in Table 4. The individual organizations in a given country are represented by the list in Table 4. A total of 3,692 institutions/affiliations participated in the study; 116 satisfied the requirements by obtaining more than 100 citations. Out of all publications, the top twenty organizations have published 89, representing 5.0% of the total. One could argue—as demonstrated in the study by Kumar et al. (2019)—that organizations with the highest number of publications do not necessarily have the most citations. Similarly, the top-ranked institution/affiliation with the most publications—ten—was the “University of International Business and Economics” in “Beijing,” “China.” Followed by eight publications from the “Beijing Institute of Technology in Beijing,” “China;” seven publications from Nanchang University in Nanchang, China; five publications from the University of Lahore in Lahore, Pakistan; five publications from the Network for Socio-economic Research and Advancement (Nesra) in Accra, Ghana; and five publications from North South University in Dhaka, Bangladesh. More surprisingly, Chinese universities—especially those in Beijing, the country's capital city—ranked top among contributors in publications (29) articles.

3.3 Author's Keyword Co-Occurrence Analysis

The co-occurrence analysis of the keywords entails the analysis that enables visualization of the evolution of research in a specific domain through mapping of the relationships between the author's keywords (Punjani et al., 2023). Similarly, the keyword co-occurrence analysis technique can determine the scientific knowledge structure by determining the frequency of occurrence of particular scientific keywords in a collection of articles and displaying the results as a network map (Bashar et al., 2022). In light of this, to achieve objective three of this study, we employed the authors' keywords to study the critical topics and central themes in financial inclusion. Furthermore, Kumar et al. (2019) added that the co-occurrence of the author's keyword may indicate shared research themes among the articles, representing an emerging field of study. Also, the author's keywords provide an opportunity to understand the present research and direct future needs from the literature-identified potential gaps.

Likewise, based on the publication dates of the articles, we created a historical “network map” using the VOSviewer software; the same approach has been applied by previous researchers, such as (Bashar et al., 2022; Kumar et al., 2019). To achieve better results and visibility, keyword occurrences were kept at 5 minimum as applied by previous scholars (Bashar et al., 2022; Behera & Sethi, 2024). Hence, the keywords that co-occurred five times or more in 1,784 publications were located. Out of 3525 total keywords, 167 meet the threshold requirements, as illustrated in Figure 4, with 561 links and a total link strength of 1656. This analysis of the author's keywords in “chronological order” looks at how the keywords are dispersed according to when the articles were published (Priyan et al., 2022). Similarly, the keywords co-occurrence network map, Figure 4 affirmed that “financial inclusion” is the central theme found in this study. This theme is almost linked to all other keywords, as displayed in Figure 4, with the highest occurrences of 837 times. The rest of the top keywords that co-occurred the most are “economic growth” (329), “financial development” (261), “digital financial inclusion” (90), “financial

Subsequently, the growth trend of the keywords was covered in the II segment over the timeframe (2016-2019) (Table 2), which revealed that the total number of keywords in that segment under study was 281. Compared to the I-segment keywords, the II-segment indicated a progressive upsurge of the keywords of financial inclusion due to the rise of scholarly curiosity in publishing in this field. The study showed that “financial inclusion” is the leading keyword in segment II and conquered the segment by making a more outstanding contribution than 41% of all the financial inclusion-related terms (Table 2). Moreover, “financial development” is the next leading keyword in segment II, contributing more than 11%. They were followed by “economic growth” with a growth rate of more than 10%, “microfinance” at 8.54%, and “financial institutions” at 6.76%, as depicted in Table 2. The rest of the top fifteen keywords, which fall under segment II (2016-2019), and their growth frequency are displayed in Table 2. Also, in comparing the II segment under the timeframe (2016-2019) with the prior segment under the timeframe (2004-2015), it has been witnessed that the appearance of new keywords occurred for the first time, including “Fintech,” “branchless banking,” “financial innovation,” and “income inequality.” Thus, these new keywords deserve to be recommended for further investigation.

Furthermore, the III-segment and the last segment covered the keywords under the timeframe (2020-2023) (Table 2). The finding shows that this was an incredible timeframe since the number of publications increased exponentially, leading to total keywords reaching 1659 (Table 2). It has been noticed further that the term “financial inclusion” has helped people escape from poverty and connect them to financial prospects with official financial services, including those that may be accessed over technological platforms such as mobile phones (Mishra et al., 2024), conquering the period again by making a more outstanding contribution than 40% of the related financial inclusion terms. Curiously, “economic growth” is the next most important keyword, contributing above 16% of the keywords connected to financial inclusion. Among others, “financial development” contributed more than 12%, “digital financial inclusion” contributed more than 7%, and “Fintech” made a more outstanding contribution than 3% of all the keywords, as demonstrated in Table 2. The top fifteen keywords, which fall under segment III (2020-2023), and their growth frequencies are displayed in Table 2. Likewise, in comparing the III segment under the timeframe (2020-2023) with the prior II segments under the timeframe (2016-2019), which discovered the first appearance of new keywords, including “digital economy,” “technological innovation,” “remittances,” and “digital financial inclusion”.

Moreover, as established in Table 2, the entire growth trends of the author’s keywords (2004-2023) and its three segments with different timeframes portrayed that some of the keywords under investigation revealed the existence of positive growth trends of the keywords connected to “financial inclusion,” “financial development,” and “economic growth.” However, a number of keywords revealed a fluctuating growth trend, such as “microfinance,” “financial literacy,” “ICT,” and “poverty reduction.” Although the keywords “financial deepening,” “financial capability,” and “mobile banking” are used, their growth trend is less known (Table 2). Also, the last segment (2020-2023) indicated that the concentration of most of the keywords had been studied in this timeframe, and most of them show a tendency to decrease in frequency (Table 2). Thus, given the outstanding contribution of this vital theme of study to individual households and the economy, researchers and practitioners are strongly encouraged to continue this line of inquiry, given that many people, especially in nations with poor and medium incomes, are still in the dark.

4. Conclusion, Limitations, and Future Research Avenues

4.1 Conclusion

This study presented a detailed analysis of publications on financial inclusion from 2004 to July 2023. The study used the Scopus database, and 1,784 obtained publications were reviewed. The study was completed through various quantitative and qualitative analyses that rely on computational tools and software that enable involvement in the ongoing scholarly information flow linked to financial inclusion. The VOSviewer software and Excel participated in knowledge generation throughout the period.

According to the study findings, the first financial inclusion-related document appeared in the Scopus database in 2004. Also, it has been noted that the progressive growth of publications on financial inclusion peaked in 2022, with 473 (26.5%) of all articles published during the timeframe, making the year the most productive. Subsequently, Ozili (2018) became the leading author on financial inclusion, receiving 553 citations overall from the contribution of 6 articles. In addition, the paper authored by Ozili (2018) emerged as an influential document in financial inclusion, leading by 446 citations. Much less, the *Journal of Sustainability* (Switzerland) dedicated itself to becoming the top journal in disseminating financial inclusion research, and it has published 173 articles. Moreover, the “University of International Business and Economics of Beijing,” China, is revealed as a highly productive institution with the contribution of 10 publications. The study has identified the popular and central themes that scholars have given the most incredible attention to, along with financial inclusion. Also, new themes emerge, such as “Fintech,” “branchless banking,” “financial innovation,” “income inequality,” “digital economy,” “technological innovation,” “remittances,” “digital financial inclusion,” “financial capability,” and “financial

deepening,” that require further investigation.

4.2 Limitations of the Study and Avenues for Further Studies

Identifying the limitations of the current research is crucial in proposing the scope for further studies. Therefore, this section highlighted the limitations pertaining to this study, organized systematically into themes, and proposed avenues for future improvement as follows:

4.2.1 Relying on a single database

This study is based mainly on the papers extracted from Scopus database. Therefore, several other databases, including WoS, ProQuest, EBSCOhost, and ABI, were not analyzed while holding essential publications along with Scopus. Thus, future studies could focus on more than one database in single research for complete data and more new detections.

4.2.2 Excluding non-English publications

This review work was limited to only English language publications, and non-English articles were excluded from the current study. Therefore, future studies should consider multilingual publications to promote inclusivity and minimize language biases for impactful research findings.

4.2.3 Peer-reviewed journal articles

The current study involved only “peer-reviewed journal articles.” However, book chapters, national journals, and conference proceedings may all have a similar influence but are not included in the search conditions. Hence, future research may consist of conference proceedings, book chapters, national journals, and journal articles to guarantee a more thorough and nuanced grasp of the scholarly landscape within financial inclusion.

4.2.4 Data search

The data search for the current study was done only once, i.e., July 28, 2023; the study might change at any time if later literature is added to the database.

4.2.5 Field of study/Subject areas

The current study has been limited to articles in the fields of “social sciences,” “economics, econometrics, and finance,” and “business, management, and accounting” only. Thus, future studies can incorporate more fields to provide a broader view of a topic and make it more insightful for diverse stakeholders.

4.2.6 New emerging themes

New and hot themes emerged during data analysis, such as “Fintech,” “branchless banking,” “financial innovation,” “income inequality,” “digital economy,” “technological innovation,” “Remittances,” “digital financial inclusion,” “financial capability,” and “financial deepening.” Henceforth, future studies may consider accommodating these themes by incorporating two or more than two themes in a single research to broaden the study horizon.

4.2.7 TCCM framework

Future studies on the same topic should consider utilizing the Theory, Context, Characteristics, and Methodology (TCCM) background in systematic research to provide a structured, in-depth review and a clear foundation for filling the gaps.

5. Practical Implications

This review of the literature paper keeps the following practical implications for various stakeholders, such as financial institutions, academicians and researchers, and policymakers as follows:

5.1 Financial Institutions

This study’s outcomes can be utilized by financial institutions to create products and services that better cater to the necessities of underserved groups as well as to direct the formation of inclusive financial products like microfinance schemes, smartphone banking apps, and innovative lending models.

5.2 Researchers and Academicians

To academicians and researchers, this review work can act as a springboard for more scholarly studies by

pointing out the underexplored areas in the literature and recommending additional research. Also, researchers can expand the current body of knowledge to explore emerging trends or carry out cross-national comparisons.

5.3 Policymakers

The results of this study can give policymakers a thorough grasp of the body of research, enabling them to create more effective laws and regulations that support financial inclusion. Additionally, policymakers can customize interventions for specific target populations by identifying gaps and best practices.

Data Availability

The data used to support the research findings are available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflict of interest.

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