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A Bibliometric Mapping of Digitalisation and its Role in Enhancing Financial Inclusion

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ABSTRACT

Digitalisation has become a transformational force across the global economy, reshaping industries and enhancing access to services. One of the most pertinent impacts is the promotion of financial inclusion. The linkage between technology and financial inclusion holds great importance in poverty reduction, economic growth, and financial well-being. Considering the growth of digital penetration in the financial sector and the continuous evolution of fintech technology, the present study is undertaken to analyse the existing literature concerning digitalisation and financial inclusion by outlining publication trends, key themes, influential works, and networks of research. The study uses the Scopus database and Biblioshiny software, and a total of 43 document datasets are being used for the study. The research finds a negative growth rate in the publication pattern, which is a sign of concern, and it is suggested that more research should be carried out so as to help policymakers find the issues to be addressed.

1. Introduction

Digitalisation has become a transformational force across the global economy, reshaping industries and enhancing access to services. One of the most pertinent impacts is the promotion of financial inclusion. Financial Inclusion can be defined as the availability and accessibility of financial services to underserved and unbanked populations (Demirgüç-Kunt *et al.*, 2018). The linkage between technology and financial inclusion holds great importance in poverty reduction, economic growth, and financial well-being. (Suri & Jack, 2016). The introduction and adoption of digital services like mobile banking, digital wallets, and fintech innovations have completely changed the face of the traditional financial ecosystem. (Aker & Mbiti, 2010). The barriers to financial inclusion, particularly the complex procedures and physical distance from

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financial institutions hinder financial inclusion to a great extent. (Klapper *et al.*, 2016). There is a growth of digital penetration in the financial sector and the continuous evolution of fintech technology. The present study is undertaken to analyse the existing literature concerning digitalisation and financial inclusion by outlining publication trends, key themes, influential works, and networks of research. However, most of the studies are separate and disintegrated across disciplines, geographical locations, publication sources, etc., making it difficult for prospective researchers and policymakers to develop a comprehensive understanding of the area of study. Identifying it as a gap, the researcher tried to map the existing work through a bibliometric study, as it will help to consolidate the different works in the area and help researchers and policymakers. Moreover, the study will provide insight into the expanding field of work in the area of financial inclusion and digitalisation and their resultant financial accessibility. The research findings will help to understand the current trend and help researchers who are working in the field of study harness the potential of digital innovations to create inclusive and sustainable economic growth. Moreover, the findings of the study will help to identify future research directions and subsequent policy decisions consistent with international efforts toward achieving financial inclusion.

2. Objectives

The primary objective of the study is to analyse the existing literature in the field of financial inclusion and digitalisation.

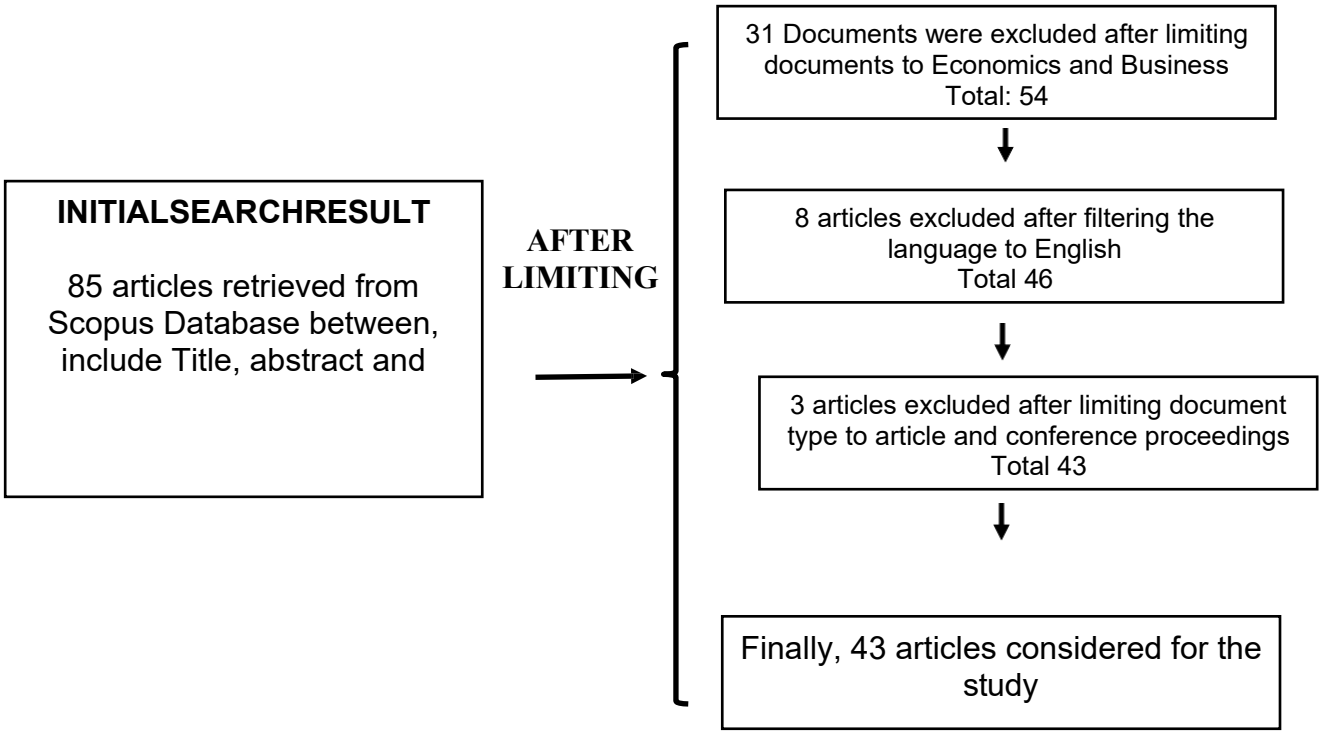
3. Rationale of the Study

The advent of digital innovation has changed the financial landscape in a significant way. The barriers to financial inclusion have been addressed with the adoption of digital technologies. It is observed that Research on digitalisation and financial inclusion has grown exponentially in recent years. The bibliometric analysis will help to identify gaps that require further attention. The bibliometric methods allow mapping publication trends, influential authors and works, thematic clusters, and research collaborations. A systematic approach thus provides for an understanding of the intellectual structure of the field and informs research decisions. By identifying trends, challenges, and future directions, this research contributes to the growing discourse on leveraging digitalisation to create equitable and sustainable financial ecosystems.

4. Methodology

Bibliometric analysis is considered an essential part when carrying out a systematic review. Bibliometric analyses help to develop knowledge creation based on quantitative metrics. The analysis is frequently conducted considering the important aspect or keywords. The present study uses bibliometric analysis to examine the trends of research work being carried out on digitalisation and financial inclusion. For the

study, the Scopus database was used. The database was used because Scopus has a broader coverage than the WoS database, including the humanities and social sciences. Moreover, the author has institutional access to the Scopus database, which facilitated data collection and analysis. The search for the papers was made with the keywords "digitalisation", "financial inclusion", "economic development", and "financial well-being". At the beginning, the search results showed as many as 85 papers (as on 15th December, 2024); however, the search was narrowed down by using filters. Moreover, the results also include the papers that are accepted for publication in the year 2025 as of 15th December 2024. The search string that was used to identify the paper is as stated "(TITLE-ABS-KEY ("Digitalisation" "financial Inclusion" "economic development" "Financial well being") AND (LIMIT-TO (SUBJAREA,"ECON") OR LIMIT-TO (SUBJAREA, "BUSI")) AND (LIMIT-TO(DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE,"ch")) AND (LIMIT-TO (LANGUAGE, "English")))". However, after limiting the search option, the total number of papers identified was 43, and the database with the same was used for the study. Further, the study was conducted using Biblioshiny, which is an open-source software developed by RStudio.



Inclusion-Exclusion Criteria
Source: Author's Own

5. Analysis and Discussion: Bibliometric Results

5.1. Main Information

The main information about the data includes time period (2018 to 2025), the number of data sources (39), the number of documents (43), the average document publications (2.26), the average number of citations

per document (12.09), and the total number of references (2588). Despite the small volume, the research demonstrates depth, with 2,588 references and an average citation rate of 12.09 per document, indicating significant scholarly impact.

Table 1 Descriptive Information of the Database

Description	Results
MAIN INFORMATION ABOUT DATA	
Time span	2018:2025
Sources (Journals, Books, etc)	39
Documents	43
Annual Growth Rate %	-9.43
Document Average Age	2.26
Average citations per doc	12.09
References	2588
DOCUMENT CONTENTS	
Keywords Plus (ID)	107
Author's Keywords (DE)	154
AUTHORS	
Authors	118
Authors of single-authored docs	5
AUTHORS COLLABORATION	
Single-authored docs	5
Co-Authors per Doc	2.74
International co-authorships%	16.28
DOCUMENT TYPES	
Article	32
Book chapter	11

Source: Scopus Database

In the table above, it can be observed that out of the 43 documents that were considered from the Scopus database, 32 are articles, and 11 are book chapters. Keyword plus (Id) with 107 keywords and authors' keywords with 154 keywords make up the contents of the document. Going on to the authors' attributes, there are 118 authors in total. There are 5 authors of single-authored documents. The average number of authors per document in author cooperation is 2.74, and the percentage of international co-authorships is 16.28%.

5.2. Annual Scientific Production

Table 2 Annual Scientific Production

Year	Articles
2018	2
2019	2
2020	1
2021	2
2022	6
2023	11
2024	18
2025	1

Source: Scopus Database

The annual production data (table 2) shows fluctuating publication trends, with a sharp increase in output from 2022 to 2024, peaking at 18 articles in 2024. This surge indicates growing interest and focus on the topic during this period. However, the annual growth rate of -9.43% suggests a decline in publication output, possibly reflecting shifts in research focus. The sharp drop to just one article in 2025 suggests a potential decline in research momentum, possibly due to saturation or shifts in scholarly focus. Early years (2018–2021) exhibit consistent but minimal activity, reflecting a gradual buildup of interest before the recent peak.

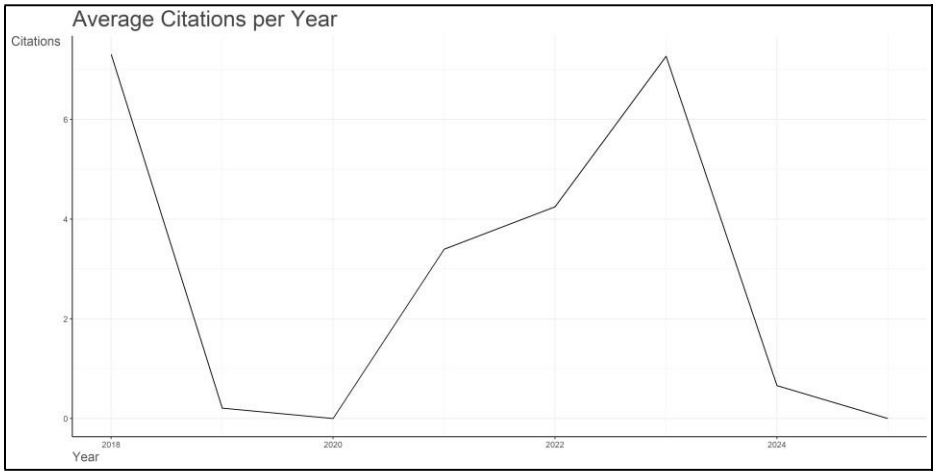
5.3. Average Citation Per Year

Table 3 Average Citation Per Year

Year	Mean TC per Art	N	Mean TC per Year	Citable Years
2018	58.50	2	7.31	8
2019	1.50	2	0.21	7
2020	0.00	1	0.00	6
2021	17.00	2	3.40	5
2022	17.00	6	4.25	4
2023	21.82	11	7.27	3
2024	1.33	18	0.66	2
2025	0.00	1	0.00	1

Source: Scopus Database

Figure 1 Average Citation Per year

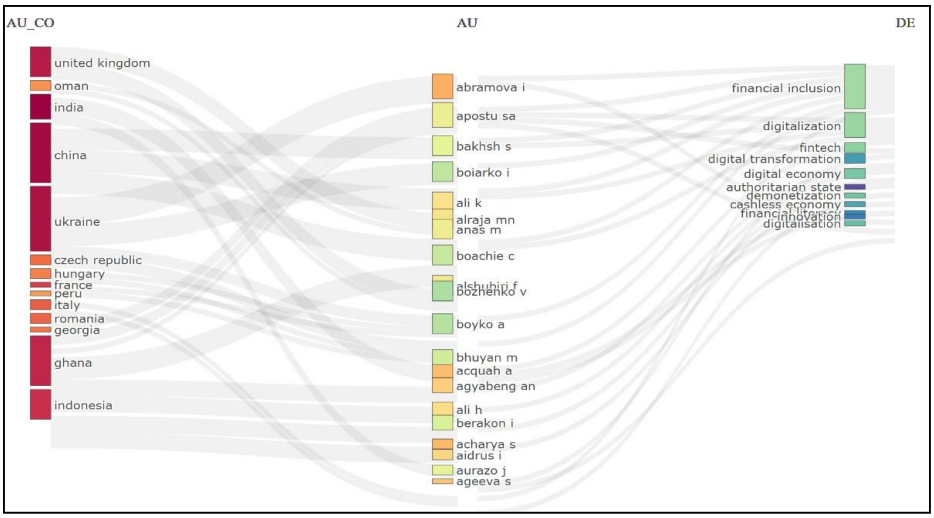


Source: Scopus Database

Annual citation analysis (Table 3) showed that early publications, especially in 2018, have had the most significant impact, with Mean TC per Art at 58.50 and Mean TC per Year at 7.31, demonstrating a more fundamental impact in the area. But from 2019 to 2020, citation metrics started decreasing, with Mean TC per Art of 1.50 for 2019 and zero for 2020, demonstrating the low influence of scholarly output in these years. Even though publications increased in 2024, Mean TC per Art dropped to 1.33, suggesting a possible decline in the quality or relevance of recent works. The data indicates that early publications in the field were highly impactful, possibly because they addressed novel or critical aspects of digitalization and financial inclusion.

5.4. Three-Field Plot

Figure 2 Correlation between the Author Country (AU_CO), Author (AU) and keyword (DE)

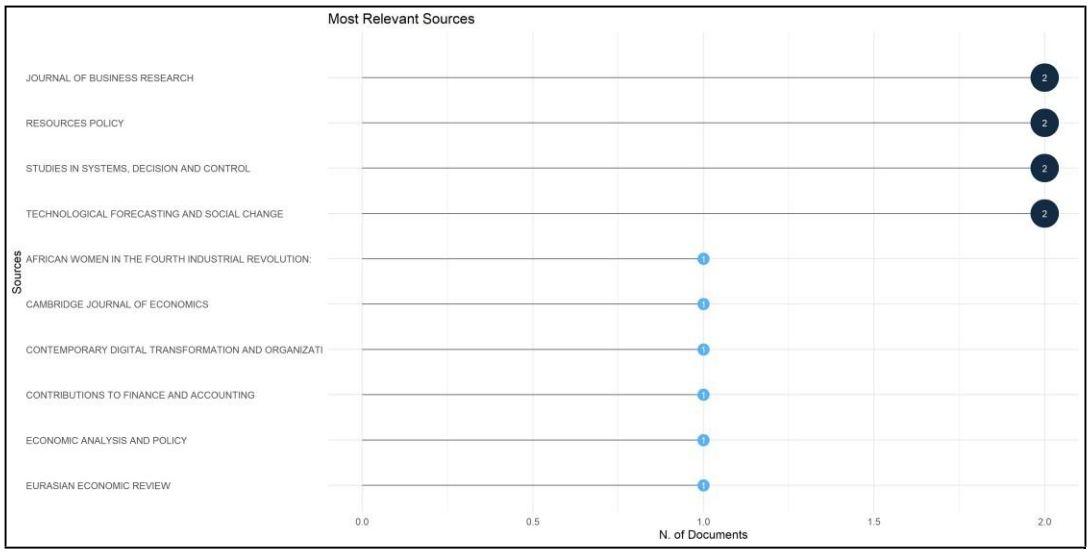


Source: Scopus Database

The Three Field Plot (Figure 2) visualises the collaboration and research focus trends, emphasising specific themes' prominence in different countries and highlighting the authors' contributions within those domains. The plots used are the authors' countries (AU_CO), authors (AU), and keywords (DE). The larger blocks on the left for countries (AU_CO) such as the UK, India, Ukraine, China, Ghana and Indonesia indicate their prominent contribution to research on topics such as financial inclusion, digitalisation and fintech, which are the most prominent keywords indicated in the rightmost column (DE). The middle column reveals how individual authors, such as Abramova I and Ali K, contribute to multiple themes, highlighting their diverse research focus, while others, like Boakye C and Agyabeng AN, show more specialised contributions.

5.5. Most Relevant Source

Figure 3 Most Relevant Source

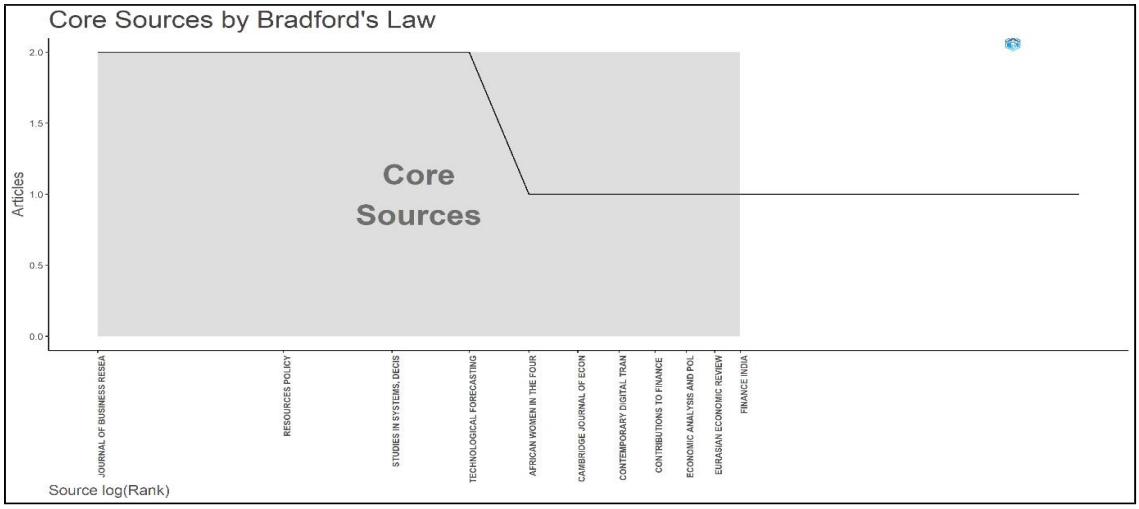


Source: Scopus Database

Figure 3 reveals the most important sources contributing to a particular field of study, numbering documents from each source on the horizontal axis. The leading contributors are journals like Journal of Business Research, Resources Policy, Studies in Systems, Decision and Control, and Technological Forecasting and Social Change, contributing by publishing two documents, indicating their significant engagement with the subject matter. Other sources, including the Cambridge Journal of Economics, Economic Analysis and Policy, and Eurasian Economic Review, have contributed one document each, reflecting a more specialised focus. The diversity of sources suggests an interdisciplinary interest in the topic, spanning areas like economics, technological forecasting, business strategy, and policy studies.

5.6. Core Sources by Banford Law

Figure 4 Core Sources by Banford Law



Source: Scopus Database

Bradford's Law states that in any given field, a small number of core journals contribute the majority of relevant articles, while the remaining sources produce fewer contributions distributed across a larger number of journals. This helps identify the most influential journals in a specific area of research. Figure 5 applies Bradford's Law, showing that core journals like the Journal of Business Research and Resources Policy contribute the most articles (two each), making them central to the field. As the source rank increases beyond the core journals, the number of articles contributed drops significantly, as the Cambridge Journal of Economics and Economic Analysis and Policy contribute fewer articles. This aligns with Bradford's Law, emphasising that a small number of core sources dominate the research area. The researchers should focus on these core journals for the most influential and widely cited research.

5.7. Most Global Cited Documents

Table 4 Most Global Cited Documents

Paper	Total Citations	TC per Year	Normalized TC
RENX, 2023, PACBASINFINANC J	153	51.00	7.01
KABAKOVAO, 2018, J BUS RES	115	14.38	1.97
GUPTAS, 2022, J BUSRES	35	8.75	2.06
MOGAJIE, 2022, TECHNOL FORECAST SOC CHANGE	33	8.25	1.94
KUZNYETSOVAA, 2022, PUBLICMUNIC FINANCE	30	7.50	1.76
SALMAND, 2023, J ECONDEV	30	10.00	1.38
FOUILLETC, 2021, TELECOMMUN POLICY	22	4.40	1.29

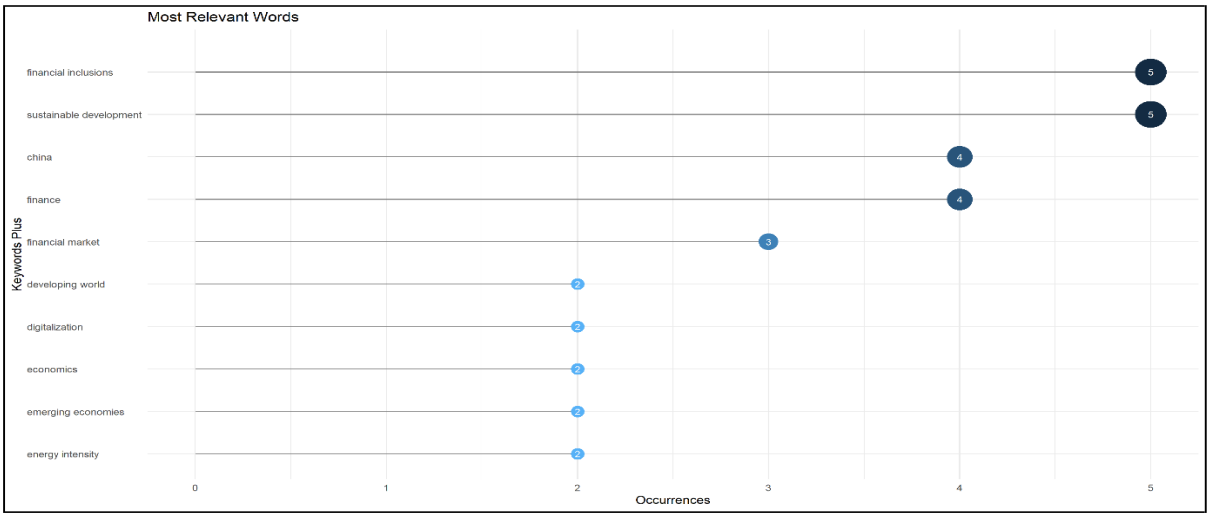
BRANDLB, 2023, REVINTPOLITECON	17	5.67	0.78
BAKHSHS, 2024, TECHNOLFORECAST SOC CHANGE	14	7.00	10.50
ALRAJAMN, 2023, EURASIANECON REV	12	4.00	0.55

Source: Scopus Database

Table 4 highlights the most-cited documents worldwide through total citations, yearly average citations, and normalised citations, showing the very influence in the field of research. Pacific Basin Finance Journal by Ren X in 2023 leads with 153 total citations and the highest average yearly citations, with a Figure standing at 51.00. Similarly, Kabakova (2018) and Gupta (2022) in the Journal of Business Research have high influence with high citation counts and relevance. Recent works such as Salman (2023) and Bakhsh (2024) are attracting researchers, with high annual citation rates of 10.00 and 7.00, respectively, and Bakhsh S has an exceptional normalised citation score of 10.50, which indicates its emerging importance.

5.8. Most relevant Keywords

Figure 5 Showing the most relevant Keyword



Source: Scopus Database

A graphical representation of the relevant keyword related to the research area is presented in Figure 5. It demonstrates that “Financial Inclusion" and "Sustainable Development" were the most discussed topics, each with five occurrences, reflecting a strong emphasis on equitable financial access and global sustainability. Other keywords, such as "China" and "finance," which both appeared four times, reflect a regional and thematic focus, particularly on China's role in financial and sustainable practices. Moderately recurring terms, such as "financial market," and less frequent keywords, including "digitalisation," "developing world," and "emerging economies," indicate emerging areas of study. The analysis highlights the dominance of finance and sustainability. The findings could serve to inform researchers towards filling the gaps by focusing on the less relevant keywords.

6. Conclusion

The study provides a comprehensive overview of the intersection between digitalisation, financial inclusion, and economic growth, unfolding the dynamic and evolving relationships among these critical factors. The analysis reveals the growing recognition of digital technologies in achieving financial inclusion and contributing to broader economic development. The study also identifies research gaps, such as the need for more in-depth studies on the impact of digitalisation on financial inclusion in developing economies. The research finds a negative growth rate in the publication pattern, which is a sign of concern, and it is suggested that more research should be carried out so as to help the policy makers to find the issues to be addressed. Further, the research, particularly in the Indian context, is also found to be less. Considering the penetration of UPI services and availability of low-cost internet connectivity, more studies can be conducted so that the state of financial inclusion can be examined.

The current research is, however confined to only few keywords limiting the scope of the study and it is suggested that more keywords can be used to have an in-depth analysis in the area of research.

References

Aker, J. C., & Mbiti, I. M. (2010). Mobile phones and economic development in Africa. *Journal of Economic Perspectives, 24*(3), 207–232. https://doi.org/10.1257/jep.24.3.207

Bakhsh, S., Zhang, W., Ali, K., & Anas, M. (2024). Transition towards environmental sustainability through financial inclusion and digitalization in China: Evidence from novel quantile on quantile regression and wavelet coherence approach. *Technological Forecasting and Social Change, 198*, 123013.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank. https://globalfindex.worldbank.org

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Ghosh, S. (2020). Digital financial inclusion and economic growth: A cross-country analysis. *Economic Modelling, 88*, 214–235. https://doi.org/10.1016/j.econmod.2019.09.015

Gupta, S., & Kanungo, R. P. (2022). Financial inclusion through digitalisation: Economic viability for the bottom of the pyramid (BOP) segment. *Journal of Business Research, 148*, 262–276.

Kabakova, O., & Plaksenkov, E. (2018). Analysis of factors affecting financial inclusion: Ecosystem view. *Journal of Business Research, 89*, 198–205.

Klapper, L., Lusardi, A., & Van Oudheusden, P. (2016). *Financial literacy around the world: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey*. World Bank. https://gflec.org

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review, 18*(4), 329–340. https://doi.org/10.1016/j.bir.2017.11.004

Salman, D., & Ismael, D. (2023). The effect of digital financial inclusion on the green economy: The case of Egypt. *Journal of Economic Development, 25*(2), 120–132.

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science, 354*(6317), 1288–1292. https://doi.org/10.1126/science.aah5309

Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods, 18*(3), 429–472. https://doi.org/10.1177/1094428114562629