

Revealing the Nexus Between Economic Growth and Financial Services: A Bibliometric View from the period 2019-2023

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ABSTRACT

The terrain of world economic growth has been significantly shaped by financial services. Through careful analysis of the function and influence of financial services on economic growth. The focus is on how efficient financial services may provide access to different parts of society, help entrepreneurs, and promote inclusive economic development. Aiming to clarify trends in financial inclusion, this paper undertook a thorough bibliometric assessment of 1450 Scopus-indexed articles. These results show an absence of noticeable patterns in the economy. Among 493 references in the subject field of the research, "The evidence from Asia" is the most often mentioned work. Furthermore, the most often cited references are organizational and economic behaviour. These findings highlight the relevance and value of significant research contributions in the field of financial inclusion. Among the various keywords examined, "financial inclusion" and "financial system" stood out as the most often used topics, hence underlining their relevance in the sector.

Keyword: Financial inclusion, economic, financial system, and capital market growth.

1. Introduction

Financial services have become the major axis in driving the wheels of inclusive economic growth in the dynamic age of economic globalization. Laying the basis for financial services to assist fair and long-term economic growth, the idea of "financial inclusion" has taken the lead. Apart from granting access to financial institutions, the idea encompasses initiatives to spread different financial goods and services to formerly marginalized areas of society. Advancements in financial technology affect financial inclusion. Financial inclusion is providing all people access to financial services (Ozili, P. K. 2018). A financial product or service being readily available to everyone will therefore promote Fintech's growth and spread across society. Financial inclusion helps to shape the economic situation of the country, which in turn helps to reduce social issues and poverty. Offering credit or microcredit facilities to both people, according to Rakhmindyarto & Syaifullah 2012, can help to lower poverty and social issues brought on by financial inclusion. Particularly for low-income persons and excluded populations like immigrants,

financial inclusion may be described as a process that facilitates access to fundamental and reasonably priced financial services. These services range widely and include traditional banking products as well as remittance, insurance, and pension products. Many of them are related to new digital technology, various items might enhance financial inclusion. Some of the elements that can help financial inclusion are fintech, digital finance, and smartphone technology (United Nations, n.d.). Policy makers have come to realize that financial inclusion is a vital element of a country's financial infrastructure if they are to promote economic growth and development (Pearce, 2011; Sharma, 2016). The Planning Commission (2009) claims that allowing people access to reasonably priced financial services will improve their level of living in a country. greater cheap loans would help low-income and vulnerable people of society as they will promote greater production in rural regions and drive output to new levels (Thoti, 2024). More output is produced by simpler loan availability, which helps the economy of the country and raises the earnings and living standards of formerly

marginalized individuals, hence enabling them to leave poverty. Claessens and Perotti, (2007) provide further techniques by which financial inclusion promotes economic development. Granting access to insurance products and deposits to those who were once ineligible allows financial markets to raise funds. Financial markets will properly allocate public savings deposits among long-term assets, hence encouraging additional investment as they protect depositors from liquidity risk. In the end, this will lead to more production and jobs, which will increase the income disparity and that of the underprivileged. This paper adds to a more comprehensive and current picture of the research environment on the function of financial inclusion in comparison to most prior literature evaluations, which emphasize the area of economic growth. The following research questions will be covered in this paper:

- RQ1: How does financial inclusion affect individual and community economic progress?
- RQ2: What are the advantages of financial inclusion in terms of poverty reduction or economic inequality?
- RQ3: What is the relationship between financial inclusion and social well-being?
- RQ4: How far have financial technologies, such as digital-based financial services, or fintech, advanced financial inclusion?
- RQ5: What effect does financial innovation have on community access to and use of financial services?
- RQ6: What are the most effective strategies for the government to overcome the barriers to greater financial inclusion?

2. Literature Review

Financial inclusion has become a major issue for policymakers preparing for a country's sustainable development, as (Bakar & Sulong, 2018) show. Conflicting results in the literature have led to debate over whether financial inclusion fosters economic development. One of the first to support the advantages of financial inclusion, Schumpeter (1911) showed that 3 (65) finance increases

economic development. The study argues that the services of the financial sector promote innovation, investment, household and company efficiency, and more information availability, all of which support greater economic output. since it fosters social investment and commercial rivalry. Researchers who believe, like Mckinnon and Goldsmith, that the financial system helps to promote economic growth concur with Schumpeter. Some have said that this approach relies on the financial market as well as the interest rates and demand for financial services. Goldsmith, 1969; Mcinnon, 1973 claim this encourages bank rivalry even more, hence increasing savings and investment rates in the economy. Overall, the literature on financial inclusion and economic growth still causes a great deal of ambiguity. Although majority of the studies have shown a favorable link between the two, others have shown conflicting findings Ismail et al. (2024). This study is to investigate how financial inclusion might affect a country's economic growth.

3. Methodology

This paper uses bibliometric analysis to conduct a comprehensive examination of Scopus papers on technology and recycling released between 1994 and 2023. Muhuri, 2019 claims that bibliometric analysis is a frequently used method for assessing publishing trends within disciplines, investigating publication patterns connected to subjects, and measuring progress in specific research areas. In (2020, Akmal et al). The results of the study provide important and relevant information for professionals and experts wishing to evaluate scientific activities in the subject. Moreover, bibliometric study provides a quantifiable and impartial assessment of a certain academic discipline. The researchers got data from the Scopus database because of its broad coverage of respected journals. Presented as a flowchart, Figure 1 shows the search approach for this work. Vos Viewer software was used for keyword co-occurrence network analysis, cross-country co-author network analysis, and co-author network analysis. VOS viewer is a free program for generating network-based maps. It also helps to see and investigate this map.

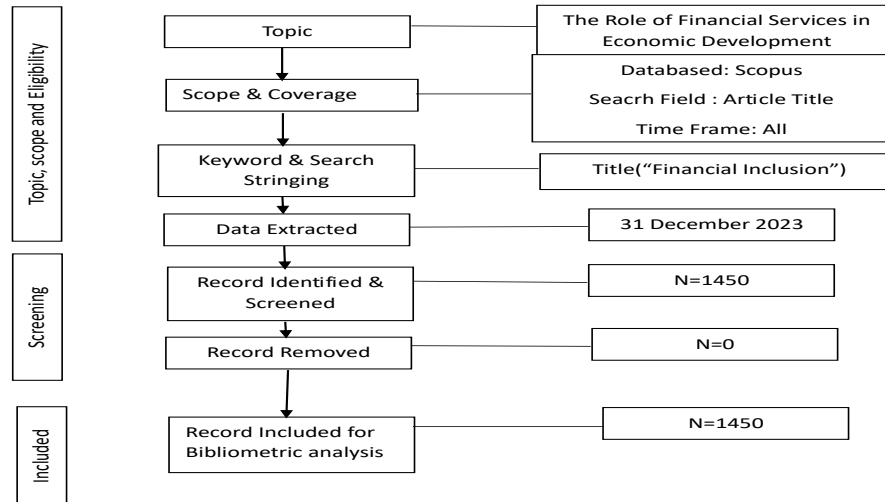


Figure 1: Research Approach

4. Results and Discussion

4.1 Trend in Publication

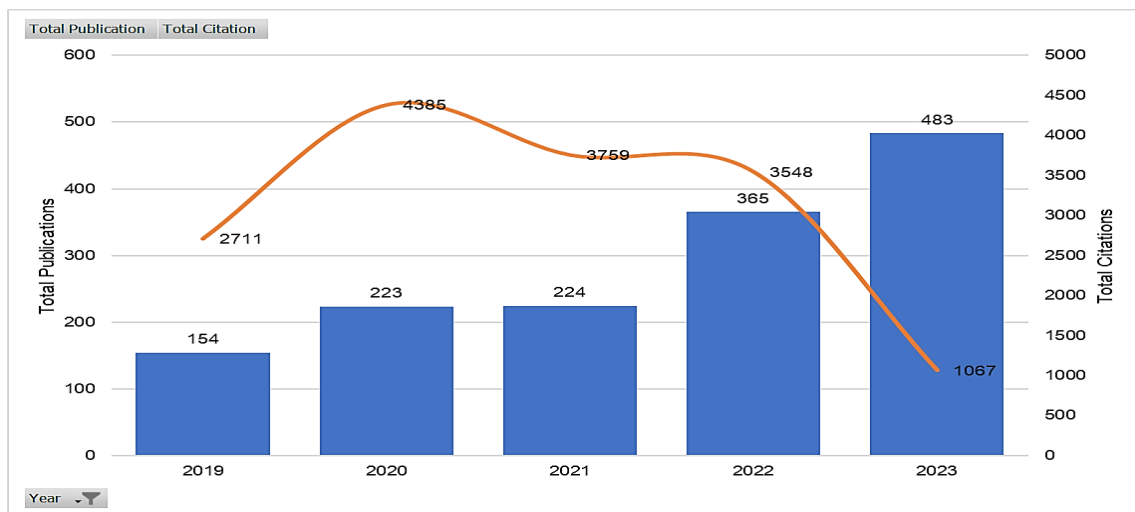


Figure 2. Total Publication and Citations by Year

Table 1: Total Publication and Percentage

Year	TP	%
2019	154	10.63%
2020	223	15.39%
2021	224	15.46%
2022	365	25.19%
2023	483	33.33%
Grand Total	1449	100.00%

Figure 2 shows the number of publications on financial inclusion. This study was first published in 1992, but the scope of the study was narrowed to focus on the year 2019. If it is seen that starting in 2019 there is an increase in publications in 2020 but there is a decreasing trend in 2023. **Table 1** shows the total publication and percentage starting in 2019

of 154 which published equal to 10.63%, in 2020 as many as 223 were published and there was an increase of 15.39%, in 2021 as many as 224 were published equal to 15.46% while in 2022 there was an increase in publication of 365 equal to 25.19 and in 2023 as much as 483 equal to 33.33%.

4.2 Publication by Countries

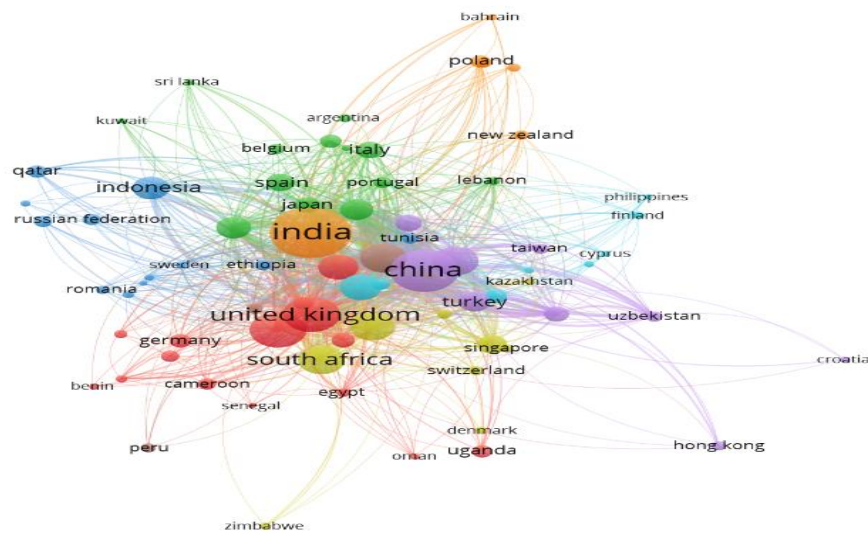


Figure 3. Network visualization map of the countries based on publications.

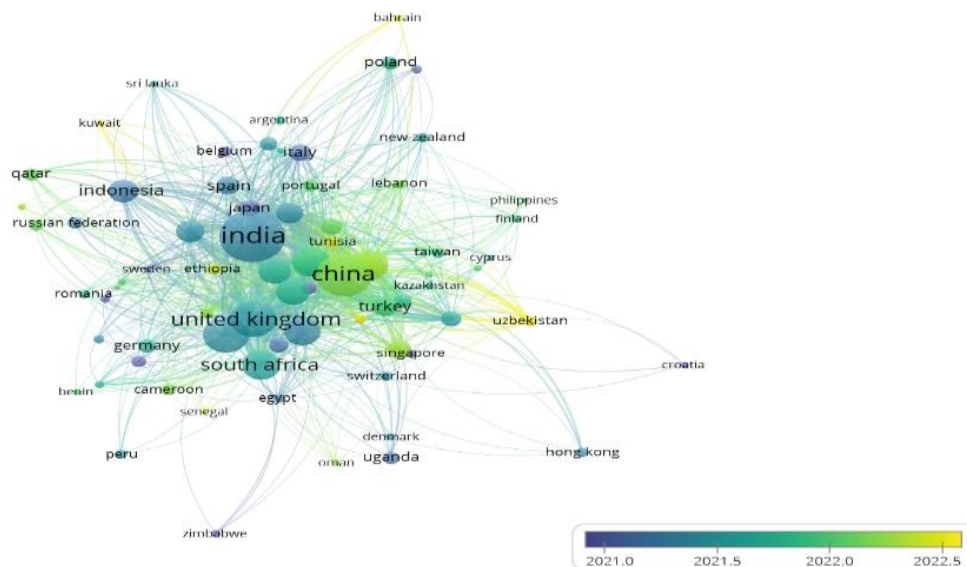


Figure 4. Overlay Visualization map of the countries based on publications.

Table 2: Total Country, Continent and Total Publication

Country	Continent	TP
India	Asia	261
China	Asia	186
United Kingdom	Europe	129
United Kingdom	Europe	15
United States	North America	15
Indonesia	Asia	13

Figure 3 and **figure 4** shows the country that contributed the most documents related to financial inclusion. India contributes the most in publications by country, followed by China, the United Kingdom, and South Africa. **Table 2** shows the top three countries and continents in financial inclusion

publications. Indians ranked top from the Asian continent with 261 total publications followed by China also from the Asian continent with 186 publications and third is the United Kingdom from the European continent with 129 publications.

4.4 Publication by Sources Title and Documents

Table 3: Top 3 highly cited articles

No.	Author(s)	Title	Source Title	TC	C/Y
1	Le T.-H.; Le H.-C.; Taghizadeh-Hesary F. (2020)	Does financial inclusion impact CO2 emissions? Evidence from Asia	Finance Research Letters	257	64.25
2	Ahamed M.M.; Mallick S.K. (2019)	Is financial inclusion good for bank stability? International evidence	Journal of Economic Behaviour and Organization	214	42.80
3	Schuetz S.; Venkatesh V. (2020)	Blockchain, adoption, and financial inclusion in India: Research opportunities	International Journal of Information Management	207	51.75

Table 4: Most active source titles.

Source Title	TP	NCA	NCP	TC	C/P	C/CP	h-index
Environmental Science and Pollution Research	36	125	30	593	16.47	19.77	15
Sustainability (Switzerland)	33	135	28	433	13.12	15.46	13
Resources Policy	17	66	11	98	5.76	8.91	5
Qualitative Research in Financial Markets	10	18	7	58	5.80	8.29	3
International Journal of Scientific and Technology Research	9	24	8	45	5.00	5.63	3

Table 3 shows the top 3 highly cited articles. Article "Does financial inclusion affect CO2 emissions. Evidence from Asia" by Le T.-H.; Le H.-C.; Taghizadeh-Hesary F. (2020) is the most cited with

257 total citations. While **Table 4** shows the five most active source titles. The research domain is environmental science and pollution research with 593 total citations. This is since the subject matter is in the financial field.

4.3 Publication number of Authors

Table 5: Number Author per-document

Author Count	Frequency
1	241
2	459
3	376
4	225
5	87
6	38
7	13
8	5
10	1
11	2
12	1
Grand Total	1448

Table 5 shows the frequency of Authors in publications related to financial inclusion. Surprisingly, only 1 author has a publication frequency of 241. While for 2 authors, 259 and 3 authors have 376. Next, 4 Authors published as many as 225 while 5 authors published as many as 87. Continuing with 6 authors, the publication

frequency is 38 and 7 authors only 13 publication frequency. Starting with 8 authors there are 5 publication frequencies while 10 and 12 authors only have 1 publication and 11 authors only 2 in the publication frequency per document and if they are combined, they all have 1448 frequency in documents related to financial inclusion.

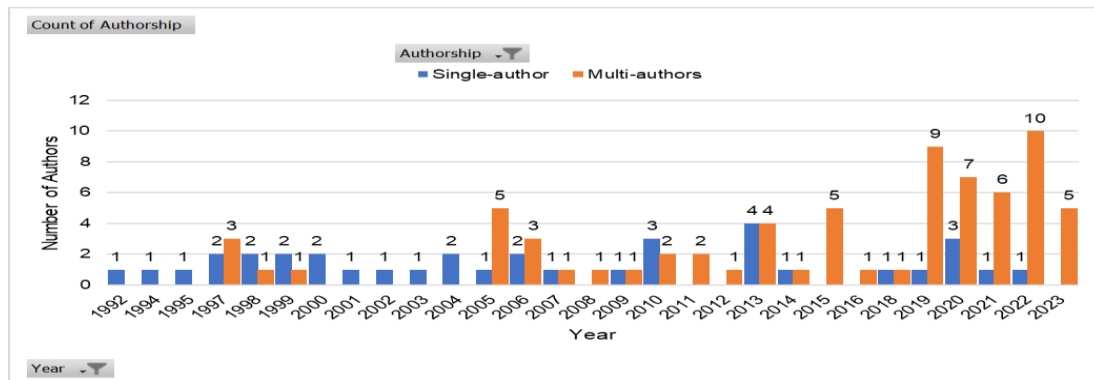
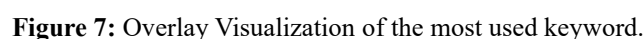


Figure 5: Single Author and Multi Authors

Table 6: Single Author and Multi-authors

Count of Authorship	Column Labels		
Year	Single author	Multi-authors	Grand Total
2019	35	119	154
2020	51	172	223
2021	32	192	224
2022	51	314	365
2023	72	411	483
Grand Total	241	1208	1449

Figure 6 and **figure 7** describe the author's keywords. A total of 379 keywords have been identified, each with a minimum frequency of 1. The top keywords for the role of financial services in economic development are "financial inclusion", "financial system", and "financial literacy" which are observed to have a high frequency of occurrence.



4.6 Basic Information

Table 7: Basic Information

Basic Info.	
Start Year	2019
End Year	2023
Total Publications	1449
Number of Contributing Authors	4040
Number of Cited Papers	1085
Total Citations	15,470

Table 7 shows basic information related to the research that was studied, which is financial inclusion. The starting year for the financial inclusion study starts in 2019 until 2023. During this

study period there are 1449 total publications. The number of contributing authors is 4040 and the number of cited papers is 1085 while the total citations is 15,470 in the scope of this study.

Table 8: Shows the subject Area.

Subject Area	TP	%
Business, Management and Accounting	1719	80.55%
Economics, Econometrics and Finance	839	39.32%
Social Sciences	703	32.94%

Table 8 shows the top three subject areas found in the scope of studies related to financial inclusion. Among them are economics, econometrics, and finance as many as 798 total publications which is equivalent to 55.07%. Next for the subject area

social sciences as many as 579 total publications equal to 39.96% and subject area business, management, and accounting as many as 487 total publications equal to 33.61%. This is the subject area that is the most focused, especially in the scope of this study, which is financial inclusion.

Table 9: Shows the Document type.

Document Type	TP	%
Article	2134	100.00%

Table 10: Shows the source type.

Source Type	TP	%
Journal	2129	99.77%

Table 11: Shows the language used.

Language	TP	%
English	1449	100.00%
Portuguese	2	0.14%
Spanish	2	0.14%

Table 9 illustrates the document type used to conduct this study which is from 2134 total publication articles which is equal to 100%. While Table 10 shows the type of source used to research this study is through journals as many as 2129 TP which is equal to 99.77%. Table 11 shows that the

language found in the study is English with 1449 TPs which is 100.00%. Next, Portuguese and Spanish have the same figure, which is 2 TP each, which is 0.14%. This information is particularly important to emphasize in the study, if having the incorrect information can cause problems in this

study. Because of that it is important to study all the data to get accurate data and results.

4.7 Most Productive Author and Institution

Table12: The most productive Author

Author Name	TP
Ozili, P.K.	14
Asongu, S.A.	13
Koomson, I.	13
Madaleno, M.	10
Sahu, T.N.	10

Table 12 shows the top five authors out of 25 authors in TP (total publication). Among them is author Ozili, P.K who has as many as 14 TP followed by

Asongu, S.A and Koomson, I. each has the same TP, which is 13 TP and author Madaleno, M. and Sahu, T.N each also has a total publication of equal to 10 TP in the scope of the study.

Table 13: The most top institution

Institution	TP	%
University of South Africa	21	1.45%
Symbiosis International Deemed University	16	1.10%
Central Bank of Nigeria	15	1.04%

Table 13 shows the top three institutions in conducting this study. Among the institutions involved is the University of South Africa which has the most total publications which is 21 which is

equivalent to 1.45% followed by Symbiosis International Deemed University which is 16 total publications which is equivalent to 1.10% and the Central Bank of Nigeria published 15 which is equivalent to 1.04% related to financial inclusion.

4.8 Author Productivity through Lotka's Law

Table 14: Productivity Patterns of Authors and Research Contributions

Document Written	N. of Authors	Proportion of Authors	Total N. of Contributions	Lotka's Law
1	288	83.72%	288	60.00%
2	30	8.72%	60	15.00%
3	6	1.74%	18	6.67%
4	4	1.16%	16	3.75%
5	10	2.91%	50	2.40%
6	6	1.74%	36	1.67%
Grand Total	344	100.00%	468	89.48%

Table 14 shows productivity patterns of authors and research contributions. There are 1 to 6 written

documents from the total N of authors of 344 and 468 for the total N of contributions is 463 and Lotka's Law has 89.48%.

Table15: Author Productivity through Lotka's Law

Document Written	Proportion of Authors	Lotka's Law
1	83.72%	60.00%
2	8.72%	15.00%
3	1.74%	6.67%
4	1.16%	3.75%
5	2.91%	2.40%
6	1.74%	1.67%

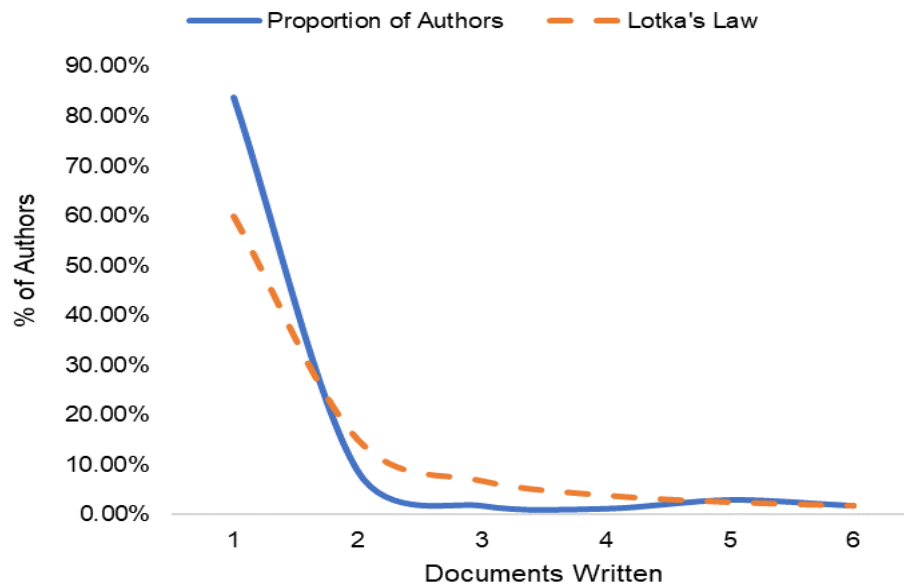


Figure 8: Author productivity through Lotka's Law

Table 15 describes author productivity through Lotka's Law where **Figure 8** depicts the pattern from

the results of table 15 which shows the scale where authors are more productive.

Table 16: Calculation N total Counting Method

N	x	y	X	Y	XY	XX	X2
1	1	288	0.00000	2.45939	0.00000	0.00000	0.00000
2	2	30	0.30103	1.47712	0.44466	0.09062	0.09062
3	3	6	0.47712	0.77815	0.37127	0.22764	0.22764
4	4	4	0.60206	0.60206	0.36248	0.36248	0.36248
5	5	10	0.69897	1.00000	0.69897	0.48856	0.48856
6	6	6	0.77815	0.77815	0.60552	0.60552	0.60552
	Grand Total	344	2.85733	7.09488	2.48290	2.48290	1.77482

Table 17: K-S test on the Observed and Expected Distribution of Authors

Observed				Theoretical			
N. of Pubs.	N. of Authors (y _x)	% of Authors	Cum. % of Authors		Expected % of Authors	Cum. Expected % of Authors	D
x	y	y _x /Σy _x	Σ(y _x /Σy _x)	1/x ⁿ	f _e = C (1/x ⁿ)	Σf _e	D _{max}
1	288	0.83721	0.83721	1.00000	0.69228	0.69228	0.14493
2	30	0.08721	0.92442	0.23326	0.16148	0.85377	0.07065
3	6	0.01744	0.94186	0.09955	0.06892	0.92268	0.01918
4	4	0.01163	0.95349	0.05441	0.03767	0.96035	-0.00686
5	10	0.02907	0.98256	0.03405	0.02357	0.98392	-0.00137
6	6	0.01744	1.00000	0.02322	0.01608	1.00000	0.00000
Grand Total	344	1.00000		1.44449			

Table 16 shows the calculation of N total counting method for financial inclusion. The total Y is equal to 344. **Table 17** shows K-S test on the observed and expected distribution pf Authors where the grand total is 344.

5. Conclusion

This research looks at 1450 Scopus-indexed publications to compile trends in the role of financial systems in economic development, such as financial inclusion. According to the findings, there is no trend in the concentration of financial inclusion. Among countries such as China and the United Kingdom, India leads in the number of contributions of documents related to financial inclusion. While the research landscape provides a comprehensive overview, relationships and collaborations in the field provide insight into key authors and organisations. This review not only provides a comprehensive overview of the research landscape, but it also sheds light on key authors, organisations, and influential papers, highlighting significant contributions made to the body of knowledge in finance and accounting, with a focus on important keywords such as "financial inclusion," "financial system," and "economy." Subsequently the role of

the financial system in economic growth cannot be overstated. A strong and inclusive financial system has a significant impact on a country's economic development. To begin with, an efficient financial system can effectively mobilise and allocate resources. This allows capital to flow into productive sectors, facilitating long-term growth through investment and innovation. Furthermore, financial inclusion is critical in increasing access to financial services for all segments of society. Inclusive financial systems increase economic participation by providing access to previously marginalised sectors, thereby strengthening the pillars of inclusive growth. However, financial systems' success in driving growth is not without challenges. It is critical to ensure financial stability, prevent crises, and manage systemic risks. As a result, strengthening the financial system entails not only increasing the availability of services, but also laying a solid foundation for long-term economic growth. In the face of global challenges, collaboration between the public and private sectors is critical for strengthening the financial system's role in driving inclusive and sustainable economic growth.

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