

# Digital Banking and Financial Inclusion: A Bibliometric Analysis

*Gourav Mittal\* and Dr. Pardeep Gupta\*\**

The rapid advancement of technology in recent decades has altered the way people live and do business. The existence of mobile devices and the internet has resulted in a major shift in a variety of industries from physical to automatic activity and from offline to online transactions, including the financial industries and banking. The goal of this research is to examine the associated literature on Digital Banking and Financial Inclusion from 2017 to 2021. The descriptive research approach was employed in this study, which was based on document analysis, author analysis, sources analysis, country analysis, and keyword analysis from prior studies, and the dimensions database was used to collect data for the study. The search query includes all articles with the terms “Digital Banking” and “Financial Inclusion” in the title or abstract. This search was conducted on 25 July 2022, and the results contained 94 articles. A bibliometric analysis reveals that research on Digital Banking and Financial Inclusion has exploded in emerging economies, with India standing out as one of the most significant in publication production. We also acknowledge that the relationship between digital banking and financial inclusion is receiving a lot more attention, but it requires a more comprehensive evaluation framework.

**Keywords:** Bibliometrix, Biblioshiny, Digital Banking, Financial Inclusion.

**JEL Code:** G21, M00, O33.

## Introduction

TRADITIONAL banking services no longer adapt to changing customer preferences. Customers nowadays value the ease and convenience of products and services, and information about products and services can be searched efficiently through mobile devices. Due to the importance of the digital revolution, commercial

banks are no longer bound by the traditional pattern of functioning through branches (Nguyen *et.al*, 2020). Sardana and Singhania, (2018) the global growth and use of mobile devices and the Internet have had an impact on the development of new types of financial and banking industries, leading to the rise of digital banking. The use of technology to execute financial transactions effectively and conveniently is known as digital banking. Riza, (2019) Online banking, internet banking, and electronic banking are examples of digital banking concepts. In addition, the introduction of digital banking has increased the efficiency and competitiveness of financial

services, providing a competitive edge.

Furthermore, the introduction of digital banking has now transformed the banking business to promote financial inclusion by providing cost savings instead of traditional banking and allowing better access to physical locations across the customary geographic range (Choi and Loh, 2021). GPFI, (2010) Digital banking has paved the way for financial inclusion. Since 2010, the G20 and the World Bank have led the financial inclusion programme in developing countries, which aims to eliminate poverty in growing economies. The importance of digital banking and financial inclusion for economic growth and

\* Research Scholar, Haryana School of Business, Guru Jambheshwar University of Science and Technology, Hisar, Haryana.

\*\*Professor, Haryana School of Business, Guru Jambheshwar University of Science and Technology, Hisar, Haryana.

poverty reduction is attracting the attention of practitioners, academics, and policy-makers, owing to a number of issues that, if addressed, can improve the performance of digital banking for the economy, governments, businesses, and individuals. There are several advantages of financial services and digital banking for the economy, governments, digital finance providers, and consumers, including the capacity to deliver financial services to people who need help, lower the cost of financial intermediation for Fintech providers, and banks.

## 1. Literature Review

### Digital Banking and Financial Inclusion Concept

In general, digital banking refers to a digital bank that operates a virtual process via which financial services are given over the internet. The digitalization of the bank's services from traditional to digital banking, and from offline to online. While financial inclusion is commonly defined as efforts to make financial services and products affordable and accessible to all organizations and individuals, regardless of their overall assets or organization size. Financial inclusion aims to remove the barriers that prevent people from participating in the financial sector and using these services to enhance their lives. Financial inclusion, as it appears, is offered in advance via digital banking.

Furthermore, the term digital banking may be defined as the process of digitalization (from offline to online) of all conventional banking services and products that

were previously only available to consumers when they visited a bank office. Savings account administration, credit and loan management withdrawals, cash deposits, bill payment, and application for financial products are among the services provided (Proctor, 2019). Son *et.al* (2020) Digital banking has had an impact on the backbone of the banking industry and has transformed the financial services operating system, which was formerly characterized by offline employee-focused services and has now shifted to an online-based orientation. Digital banking has enhanced the efficiency and cost-effectiveness of digital service delivery processes, shifting management attention to improving the performance of digital channel services to lower operational expenses. Furthermore, as an increasing number of banks offer digital banking services, it is critical that banks identify how clients utilize digital services and leverage their benefits to develop stronger customer connections. Choi and Loh, 2021 suggested that digital banking has encouraged many banks to reduce their physical activities, which took place at bank branches. Due to the establishment of digital banks, bank customers are no longer dependent on transactions done at bank branches. Furthermore, digital banking impacts the banking business by reducing costs and providing users with international access as compared to traditional banking. Kithinji, (2017) Ultimately, digital banking can be defined as a new tool of banking and finance, new ways of handling daily transactions, new channels of funds, or entry to new methods of

using money, all of which contributions are becoming part of existing banking institutions and the rise of new markets. This digital banking gives banks a significant advantage to win the competition, minimize their risk exposure, and better manage risk if it happens, all while reacting to the requirements of their customers and responding to market developments.

Financial inclusion means providing everyone with access to a variety of financial services and products at an accessible cost that is offered through existing financial institutions that are self-sustaining. These efforts are aimed toward financial inclusion, with the goal of ensuring that everyone, regardless of income level, has access to critical financial services and products (World Bank, 2008). World Bank Group, (2013) Financial inclusion and access to finance are two different terms, financial inclusion is defined as a group of adult individuals who use financial services and products provided by a banking institution. However, a lack of usage does not always imply a lack of access. Some users may have access to adequate financial services but choose not to use them for religious or other reasons, whilst others' access may be limited by high service charges or regulatory hurdles. As a result, the essential question is how much of the lack of inclusion is due to a lack of demand or the presence of obstacles that prevent individuals and businesses from obtaining financial services.

Then, financial inclusion may be defined as a process that guarantees easy access to,

availability of, and active use of formal banking institutions and services for members of society, practitioners, the economy, and academics. Additionally, financial inclusion implies that people and corporations are not just able to obtain financial products and services, but they are also capable and willing to use them.

Naumenkova *et.al* (2019) a lack of financial inclusion in basic financial institutions reduces the level of social work and social safety, which may lead to increased numerous conflicts in society, ultimately slowing the growth of the country's economy as a whole as well as social progress. Thoene and Turriago-Hoyos (2017) Many economies throughout the globe have made financial inclusion a priority of their governing priorities. Governments make policies and promote social development in order to create chances for people who have been excluded from the financial sector. Financial inclusion not only provides low-income people with access to financial services but also tends to increase their buying power and level of living. Financial inclusion is required to strengthen a country's economy and ensure its long-term viability.

### **Digital Banking and Financial Inclusion have Several Advantages**

The expansion of digital banking is now assisting in socioeconomic development in a lot of countries throughout the world. There are several advantages to using digital banking to achieve financial inclusion at all levels of society and the banking industry.

Vong *et.al.* (2016) digital banking may assist both the rural areas and rural bank branches by alleviating poverty and the rural people's quality of life. Digital banking provides a bank with cost-effectiveness, time savings, and mobility in delivering financial services in rural areas population. Jenik and Lauer, (2017) digital banking have the potential to increase financial inclusion by providing innovative, cheap goods or services that fulfill the requirements of underserved and excluded consumer categories. Furthermore, digital banking provides a distribution mechanism that may easily reach out to unbanked communities in rural and remote places. In addition, (Janik and Lauer, 2017) argued that digital banking provided productivity improvements that allowed financial service providers to serve generous customers, as well as business strategies that marginalized financial service providers. Allowed to serve customers and achieve scale. Lastly, the adoption of digital banking may boost competition for banking institutions, prompting incumbents to place greater emphasis on unserved and neglected sectors to maintain revenue stability. In terms of consumer viewpoint, (North, 2018) emphasized that digital banking benefits customers in terms of time limitations, as the customer does not need to spend time and money traveling to the bank branch in order to carry out banking activities. They also do not have to stand in long queue only to do routine transactions such as money transfers or payment of bills. According to (GDS Modellica,

2020), digital banking is available 24 hours a day, seven days a week, and customers do not have to wait to conduct banking transactions because it allows customers to sit in the comfort of their office, home, or traveling, and conduct business activities without waiting for longer durations. Digital banking also offers more product information, allowing customers to quickly learn about products and service characteristics. All of this helps consumers stay in contact with financial institutions and receive better service. User trust has increased since e-banking provides the protocols, tools, and degrees of protection that make inquiries and activities secure and safe. These standards include anything from security certifications to stronger encrypting data. GDS Modellica, (2020) the article emphasizes that digital banking may promote transparency in services while also making transactions safe through the use of complicated encryption mechanisms to avoid criminality.

Given this context, it was believed that it would be worthwhile to do a study on the research done on Digital Banking and Financial Inclusion, which is the main purpose of this article. The following questions are examined in the study based on a bibliometric analysis: (1) Which author has contributed the most to the field of digital banking and financial inclusion? (2) Which sources have the most literature on Digital Banking and Financial Inclusion published? (3) Which country has the most influence in the field of digital banking and financial inclusion? (4) Which are the most important

documents on Digital Banking and Financial Inclusion? (5) Which keywords were the most popular between 2017 and 2021? This study follows the same format as previous studies. The second section discusses database selection and bibliometric instrument selection for data analysis. The third section examines the collected information by author, source, country, document, and keyword. The fourth section offers a discussion of a finding and a research gap. Finally, this research comes to a close with a conclusion and some limitations.

## 2. Data Collection and Methodology

### 2.1 Database Selection for Gathering Data

The dimensions database was chosen because it contains information on 96.61 per cent of the journals of the Web of Science index. Dimensions contain data on 96.42 per cent of Scopus's indexed journals (Singh *et al.*, 2021). It includes 126 million papers, 6 million grants, 11 million datasets,

200 million online mentions, and 144 million patents<sup>1</sup>.

### 2.2 Collection of Data

For the purposes of bibliometric analysis, the term "Digital Banking and Financial Inclusion" was assessed in the dimensions database using the "title and abstract" keyword search. The results of the search contain 94 articles published between 2017 and 2021. Each document was assigned a title, an abstract, the author's name, the title of the publication, references, DOI, citations, countries, and the year of publication (Table 1).

### 2.3 Selection of Bibliometric Analysis

A systematic literature review (SLR) shows a purposeful synthesis of past research on a given research subject (Budgen and Brereton, 2006) and highlights what is unknown about a particular practice-related topic (Briner *et al.*, 2009). It usually consists of five well-structured phases (Abualfarraa *et al.*, 2020). Initially,

the primary research topic is defined. Then, databases and search keywords are chosen, and articles are chosen based on the exclusion/inclusion criterion. Third, we analyze the articles that have been chosen. The fourth phase is to identify important trends and research gaps. Finally, the findings are shown. As a type of SLR research method, bibliometric analysis has the benefit of presenting the entire development trend of a certain study subject that includes several connected publications (Zupic and Èater, 2015).

### 2.4 Tool Selection for Bibliometric Analysis

Bibliometric analyses used statistical and mathematical approaches to look for trends in previously published material (Singh and Dhir, 2019). A bibliometric approach was used in the study for thorough scientific mapping. It is a time-honored research method that employs mathematical and statistical analysis of scientific literature to improve the efficiency of the literature (Tella and Olabooye, 2014). The study used the bibliometrix R-package, which was created by Ariaa and Cuccurullo, 2017. The tool performs an in-depth bibliometric study using visualization and data analysis. Most bibliometric studies are costly and difficult to conduct because access concerns are generated by software licenses and need extensive researcher training.

Bibliometrix is an open-source tool that allows for thorough scientific mapping analysis. It might be updated on a regular basis and linked to another statistical R-

**TABLE 1**  
**KEYWORD SEARCH PROTOCOL AND RESULT**

Step	Description	Total Articles
Step 1	Publications retrieved from the dimensions database with selected keywords	189
Step 2	Documents published between 2017 to 2021	170
Step 3	The publication type included only articles (Article-100; Chapter-33; Preprint-26; Proceeding-8; Monograph-2; Edited Book-1)	100
Step 4	Articles in English	94
	<b>Final data set</b>	<b>94</b>

<sup>1</sup> Dimensions.ai. Available at:<https://www.dimensions.ai/>



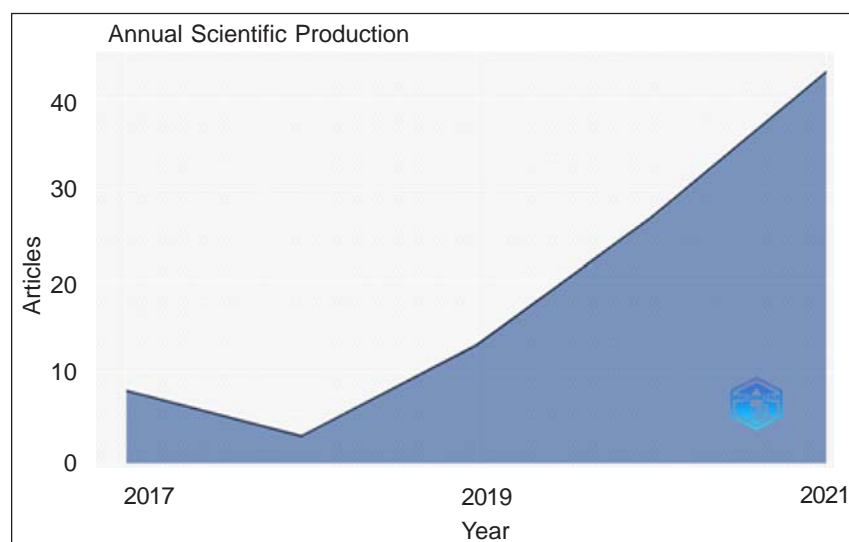
package. As a result, it is widely accepted by users and is gaining importance in the quickly changing context of bibliometric analysis for descriptive analysis. The data in this investigation were evaluated using Biblioshiny, a web-based tool included in the Bibliometrix R-package. According to Ariaa & Cuccurullo (2017), Biblioshiny includes all of the analytics that some other applications allow users to do independently. Furthermore, numerous varieties of graphs and visualizations may be obtained easily by using the web-based interface.

### 3. Results

#### 3.1 Annual Production Analysis

Figure 1 presents the annual production of “Digital Banking and Financial Inclusion”. In the previous 5 to 8 years, there has been a significant increase in the usage of digital banking. We are analyzing publications from 2017 to 2021. Figure 1 shows that the annual production of publications decreased from 2017 to 2018. The year 2018 might be viewed as a watershed moment when researchers began to focus on

**FIGURE 1**  
**YEAR-WISE PUBLICATIONS**



Software: Biblioshiny.

**TABLE 2**  
**ANNUAL PRODUCTION**

Year	Annual Articles	Annual Articles (%)
2017	8	9
2018	3	3
2019	13	14
2020	27	29
2021	43	46
<b>Total</b>	<b>94</b>	<b>100</b>

**Sources:** Dimension database and Author self-made.

“Digital Banking and Financial Inclusion.” Following 2018, a total of 83 publications were published.

#### 3.2 Sources Analysis

##### 3.2.1 Most Relevant Sources

Table 3 shows the top ten journals that have published articles on Digital Banking and Financial Inclusion. Twenty of the articles were published in these 10 journals, accounting for over 21.27 per cent of all publications. International Journal of Innovative Technology and Exploring Engineering and Sustainability each had three papers that ranked first. This topic is covered in multiple issues of the Journal of Risk and Financial Management. For example, “Enhancing Financial Inclusion in Asian: Identifying the Best Growth Markets for Fintech” highlights the importance of Digital Banking and Financial Inclusion. Moreover, the *Asian Journal of Economics Business and Accounting* with 2 articles follows as the 2nd most significant journal in this area. Furthermore, these top ten journals are well-known for publishing articles on responsible production for Digital Banking and Financial Inclusion. In general, these publications are divided into Environmental, Cultural, Economic, Social, Accounting, Finance, Banking, Engineering and Technology, Public Administration, and Economic/ Development Administration, showing that multidisciplinary knowledge is beneficial for this field of research. This research as well discusses the progress of journals which be located as the sources of research on the title of “Digital Banking and Financial Inclusion”. Table 4, the growth of the annual occurrence of each journal from 2017 to 2021.

**TABLE 3**  
**TOP 10 JOURNALS IN TERMS OF THE NUMBER OF PUBLICATIONS**

Journal	No. of Articles	Category
International Journal of Innovative Technology and Exploring Engineering	3	Engineering And Technology
Sustainability	3	Environmental, Cultural, Economic, and Social
Asian Journal of Economics Business and Accounting	2	Economics, Business, Finance, and Accounting
Financial and Credit Activity Problems of Theory and Practice	2	Economics, Accounting, Finance, and Banking
International Journal of Recent Technology and Engineering	2	Engineering and Technology
Ira-International Journal of Management & Social Sciences	2	Management and Social Science
Journal of Risk and Financial Management	2	Finance, Economics, and Risk
Review of International Political Economy	2	International Trade and Finance, Production and Consumption, and Global Governance and Regulation
Administrative Development 'A Journal of Hipa Shimla'	1	Public Administration, Economic/Development Administration
Aea Papers And Proceedings	1	Business & Economics Collection

Software: Biblioshiny.

**TABLE 4**  
**YEARLY CLASSIFICATION TOP 10 JOURNAL IN TERMS OF PUBLICATIONS**

Journal	2017	2018	2019	2020	2021	Total
International Journal of Innovative Technology and Exploring Engineering	0	0	1	2	0	3
Sustainability	0	0	0	1	2	3
Asian Journal of Economics Business and Accounting	0	0	0	0	2	2
Financial and Credit Activity Problems of Theory and Practice	0	0	0	1	1	2
International Journal of Recent Technology and Engineering	0	0	2	0	0	2
Ira-International Journal of Management & Social Sciences	2	0	0	0	0	2
Journal of Risk and Financial Management	0	0	1	0	1	2
Review of International Political Economy	0	0	1	1	0	2
Administrative Development 'A Journal of Hipa, Shimla'	0	0	0	0	1	1
Aea Papers and Proceedings	0	0	0	1	0	1
<b>Total</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>20</b>

**Sources:** Dimension database and Author self-made; Software: Biblioshiny.

### 3.2.2 Source Impact

This study determined the h-index of each journal publishing articles on the topic of Digital Banking and Financial Inclusion, which is shown in Table 5. The h-index computes both the productivity and citation effect of the diagram. Review of International Political Economy

took the top place in terms of impact, with an h-index of 2. The Economic Journal has taken 1st place in terms of total citations (26).

### 3.3 Authors Analysis

#### 3.3.1 Most Relevant Author

We describe the top ten authors with the most

publications in the field of Digital Banking and Financial Inclusion to identify the most prolific authors who explore Digital Banking and Financial Inclusion, as shown in Table 6. Hasanul Bannahas published three articles relevant to Digital Banking and Financial Inclusion, ranking first. Iryna Krasnova, Olena Prymostka, Julian Gruin, Md

**TABLE 5**  
**JOURNALS INDEX AND CITATION**

Journal	h-index	g-index	m-index	TC	NP	PY-start
Review of International Political Economy	2	2	0.50	15	2	2019
Sustainability	2	3	0.67	14	3	2020
The Economic Journal	1	1	0.33	26	1	2020
Journal of Asia Business Studies	1	1	0.17	24	1	2017
Research in International Business and Finance	1	1	0.17	24	1	2017
Information Technology for Development	1	1	0.20	19	1	2018
Plos One	1	1	0.25	19	1	2019
Environment and Planning a Economy and Space	1	1	0.33	13	1	2020
European Journal of Finance	1	1	0.33	13	1	2020
Finance and Society	1	1	0.25	10	1	2019

**Sources:** Dimension database and Author self-made; Software: Biblioshiny.

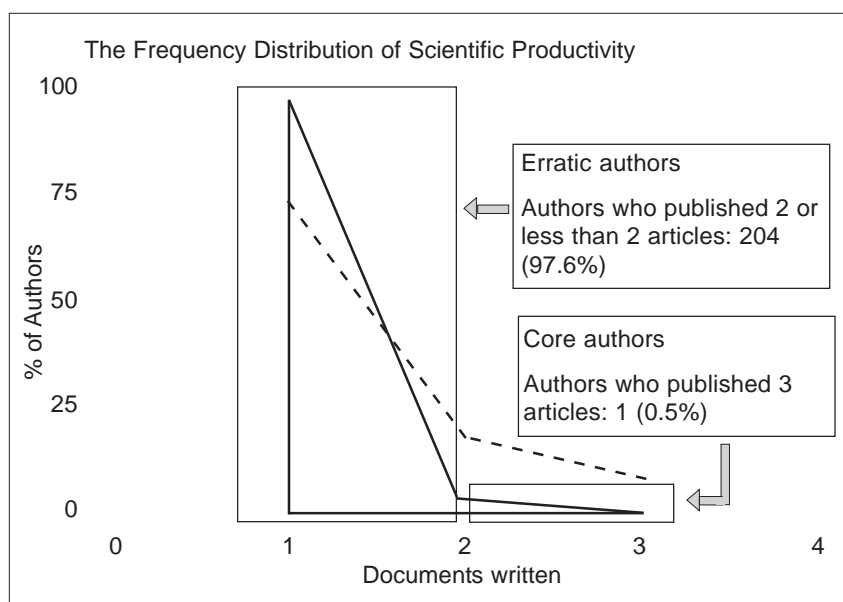
**TABLE 6**  
**TOP 10 AUTHORS WITH THE MOST PUBLICATION**

Author	Organization and Country	Publications	Citations	Citation (Mean)
Hasanul Banna	University of Malaya, Malaysia	3	10	3.33
Iryna Krasnova	Kyiv National Economic University named after Vadym Hetman, Ukraine	2	2	1
Îlena Prymostka	Kyiv National Economic University named after Vadym Hetman, Ukraine	2	2	1
Julian Gruin	University of Amsterdam, Netherlands	2	13	6.5
Md Rabiul Alam	University of Malaya, Malaysia	2	8	4
Liudmyla Prymostka	Kyiv National Economic University named after Vadym Hetman, Ukraine	2	2	1
Octa Pratama Putra		1	0	-
Suneel Jethani	University of Technology Sydney, Australia	1	1	1
Svetlana Podgorskaya	Federal Rostov Agrarian Scientific Center (FRASC), Russia	1	0	-
Sajjad Nawaz Khan	Northern University of Malaysia, Malaysia	1	6	6

**Sources:** Dimension database and Author self-made.

Rabiul Alam, and Liudmyla Prymostka are the second most productive scholars in this area, each with two publications. However, many researchers have produced no more than two publications in this field. These occurrences demonstrate that no author is exceptionally well-known on this topic.

**FIGURE 2**  
**LOTKA'S LAW GRAPH, SOFTWARE: BIBLIOSHINY**



**TABLE 7**  
**TOP TEN COUNTRIES IN TERMS OF PUBLICATIONS**

Country	Number of Publications	Total Citations	Average Article Citations
India	12	29	3.63
United Kingdom	4	47	11.75
Netherlands	3	10	10.00
Malaysia	3	8	2.67
France	3	3	3.00
China	3	2	1.00
Indonesia	2	3	1.50
Italy	2	2	2.00
Russia	2	0	0.00
Bangladesh	1	1	1.00

Sources: Dimension database, Software: BiblioShiny.

### 3.3.2 Lotka's Law

Lotka's Law can be used to describe the frequency of publications per author. According to Lotka's Law: "as the number of published articles increases, authors producing many publications become less frequent". According to Figure 2; only one author influences the field of knowledge. The Figure facilitates the detection of relevant authors in the studied literature.

### 3.4 Countries Analysis

#### 3.4.1 Country Contribution to the Publication

There is literature on Digital Banking and Financial Inclusion on a global scale. The Dimension database has highlighted 34 countries' contributions. Table 7 shows the country's contribution to Digital Banking and Financial Inclusion. India's contribution, which totals 12 articles, is remarkable. The United Kingdom is in second place, with Four publications. The Netherlands and others countries' contribution of 3 publications can likewise be deemed substantial. The United Kingdom ranks first and India second in total citations. The United Kingdom with 47 total citations has the most cited country on the topic and India got second with 29 citations.

### 3.5 Research Categories

Table 8 shows that 59 documents out of 94 are connected to Sustainable Development Goals, representing 62.77 per cent of the total



TABLE 8

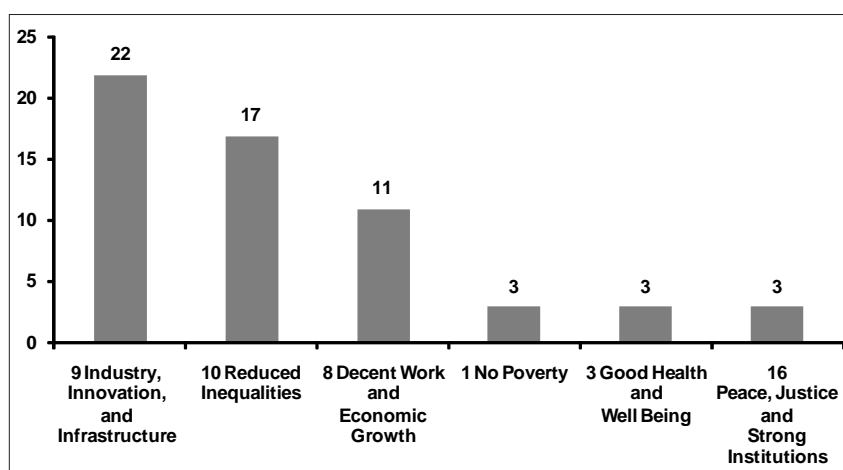
## SUSTAINABLE DEVELOPMENT GOALS IN TERMS OF PUBLICATIONS

SDGs	Publications	Citations	Citations (mean)
Industry, Innovation, and Infrastructure (9)	22	78	3.55
Reduced Inequalities (10)	17	60	3.53
Decent Work and Economic Growth (8)	11	29	2.64
No Poverty (1)	3	8	2.67
Good Health and Well Being (3)	3	1	0.33
Peace, Justice and Strong Institutions (16)	3	5	1.67

Source: Dimension database and Author self-made.

FIGURE 3

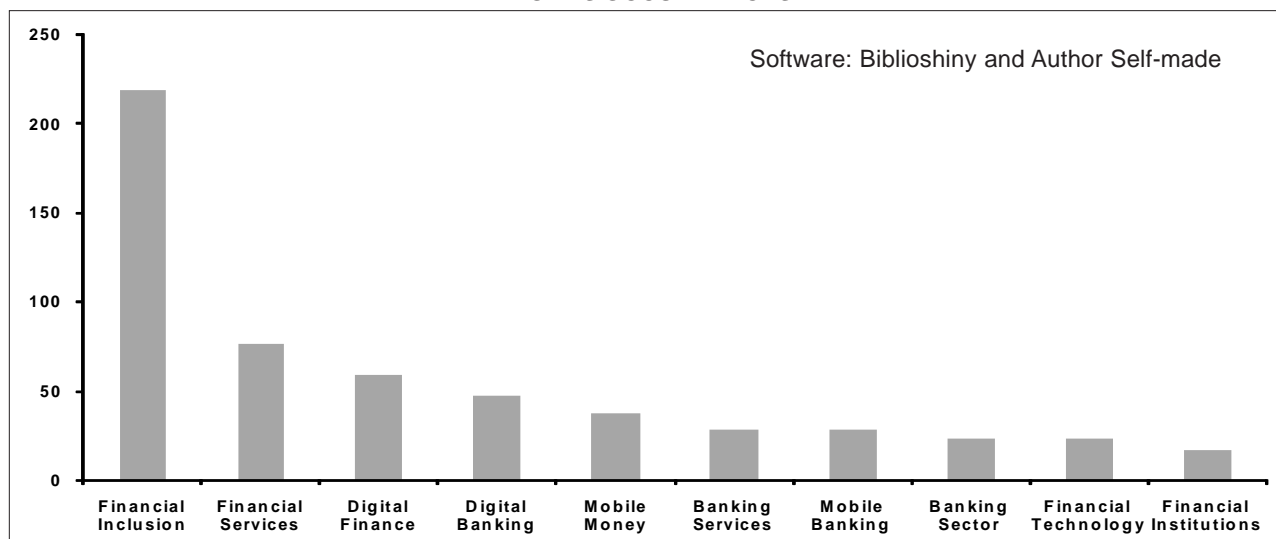
## SUSTAINABLE DEVELOPMENT GOALS IN TERMS OF PUBLICATIONS



Source: Dimension Database.

FIGURE 4

## WORDS OCCURRENCES



publications. The first number comes from the field of Industry, Innovation, and Infrastructure (n=22) with a total citation of (78), and the second place comes from the field of Reduced Inequalities (n=17) with a total of citations (60).

## 3.6 Keywords Analysis

A keyword analysis is a quick and efficient method for identifying the most frequently researched subjects retrieved from publications. Figure 4 depicts the top ten keywords in terms of occurrence frequency as per keyword frequency, two prominent streams of research that match with the search terms are “digital banking” and “financial inclusion”. Tables 9 and 10 shows that the use of “financial inclusion”, “financial services”, “digital finance”, “digital banking”, “mobile money”, “banking services”, and “financial literacy” words are high in 2020 and 2021 and these words are trending.

**TABLE 9**  
**YEARLY CLASSIFICATION TOP 10 KEYWORD OCCURRENCE**

Word	2017	2018	2019	2020	2021	Total
Financial Inclusion	11	7	18	84	99	219
Financial Services	2	1	8	28	38	77
Digital Finance	0	1	4	12	43	60
Digital Banking	2	2	2	13	29	48
Mobile Money	0	1	5	14	18	38
Banking Services	1	0	3	10	15	29
Mobile Banking	2	5	14	5	3	29
Banking Sector	4	2	1	4	13	24
Financial Technology	0	0	2	9	13	24
Financial Institutions	1	1	2	8	5	17

Software: BiblioShiny.

**TABLE 10**  
**TRENDING TOPICS**

Item	Frequency	Year-q1	Year-med	Year-q3
Financial Inclusion	219	2020	2020	2021
Financial Services	77	2020	2020	2021
Digital Finance	60	2020	2021	2021
Digital Banking	48	2020	2021	2021
Mobile Money	38	2020	2020	2021
Mobile Banking	29	2019	2019	2020
Banking Services	29	2020	2021	2021
Banking Sector	24	2019	2021	2021
Financial Technology	24	2020	2021	2021
Financial Institutions	17	2020	2020	2021
Financial Literacy	15	2020	2020	2021
Payments Bank	7	2017	2017	2019
Digital India	6	2017	2017	2017
JanDhanYojana	6	2018	2019	2020
Digital Platforms	5	2019	2019	2020

Software: BiblioShiny.

### 3.7 Documents Analysis

#### 3.7.1 Top-20 Most Cited Documents

The analysis uncovered the 20 most cited documents on

Digital Banking and Financial Inclusion. Table 11, Andolfatto, D., 2020, *The Economic Journal* with 26 total citations has the most cited document on the topic, followed by Deb, M., 2017, *Journal*

*of Asia Business Studies* and Shaikh, A.A., 2017, *Research in International Business and Finance* all of whom have more than 20 citations.

**TABLE 11**  
**TOP-20 MOST CITED DOCUMENTS WITH AUTHOR, JOURNAL AND DOI**

Author	Year	Journal	DOI	Total Citations	TC per Year	Normalized TC
Andolfatto, D.	2020	<i>The Economic Journal</i>	10.1093/EJ/UEAA073	26	8.667	7.237
Deb, M.	2017	<i>Journal of Asia Business Studies</i>	10.1108/JABS-11-2015-0191	24	4	3.556
Shaikh, A.A.	2017	<i>Research in International Business and Finance</i>	10.1016/J.RIBAF.2017.07.039	24	4	3.556
Ligon, E.	2019	<i>Plos One</i>	10.1371/JOURNAL.PONE.0219450	19	4.75	4.117
Kemal, A.A.	2018	<i>Information Technology for Development</i>	10.1080/02681102.2017.1422105	19	3.8	2.85
Danisman, G.O.	2020	<i>European Journal of Finance</i>	10.1080/1351847X.2020.1782958	13	4.333	3.619
Bhagat, A.	2020	<i>Environment and Planning A Economy and Space</i>	10.1177/0308518X20904070	13	4.333	3.619
Clarke, C.	2019	<i>Review of International Political Economy</i>	10.1080/09692290.2019.1616598	12	3	2.6
Gruin, J.	2019	<i>Finance and Society</i>	10.2218/FINSOC.V5I2.4135	10	2.5	2.167
Alonso, S.L.N.	2020	<i>Sustainability</i>	10.3390/SU12187480	9	3	2.505
Van Klyton, A.	2021	<i>Journal of Rural Studies</i>	10.1016/J.JRURSTUD.2020.10.035	7	3.5	9.121
Bongomin, G.O.C.	2020	<i>Journal of Economic and Administrative Sciences</i>	10.1108/JEAS-01-2019-0007	7	2.333	1.948
Banna, H.	2021	<i>Studies in Economics and Finance</i>	10.1108/SEF-09-2020-0388	6	3	7.818
Bharadwaj, P.	2020	<i>AEA Papers and Proceedings</i>	10.1257/PANDP.20201084	6	2	1.67
Rasheed, R.	2019	<i>Review of Economics and Development Studies</i>	10.26710/READS.V5I3.686	6	1.5	1.3
Loo, M.K.L.	2019	<i>Journal of Risk and Financial Management</i>	10.3390/JRFM12040181	6	1.5	1.3
Senou, M.M.	2020	<i>Transnational Corporation Review</i>	10.1080/19186444.2019.1641393	6	1.5	1.3
Fernandes, C.	2020	<i>Applied Economics</i>	10.1080/00036846.2020.1808177	4	1.333	1.113
Knaack, P.	2020	<i>Review of International Political Economy</i>	10.1080/09692290.2020.1772849	3	1	0.835
Zams, B.M.	2020	<i>Buletin Ekonomi Moneter Dan Perbankan</i>	10.21098/BEMP.V23I3.1351	3	1	0.835

## 4. Discussion

### 4.1 Finding

1. Table 12 provides the main information of the data.
2. The annual growth rate of the publication is 52.26 per cent. 2018 is like a turning point after which publications on Digital Banking and Financial Inclusion kept on increasing.
3. The source analysis revealed that the International Journal of Innovative Technology and Exploring Engineering & Sustainability topped the number of articles, but the h-index of Review of International Political Economy & Sustainability was the highest. *The Economic Journal*, *Journal of Asia Business Studies*, and *Research in International Business and Finance* are at the forefront of total citation.
4. Hasanul Banna (University of Malaya, Malaysia) has emerged as a core author in the

author analysis, which is also shown on the lotka law graph. Hasanul Banna tops the list with 3 articles publications. Hasanul Banna has more publications in articles, but Julian Gruin (University of Amsterdam, Netherlands) is at the forefront of citations.

5. In the country analysis, India has emerged with the highest number of publications, and the United Kingdom with the highest number of total citations.
6. Of the 94 publications on Digital Banking and Financial Inclusion, 59 publications related to the SDGs, further enhanced the quality of literature. These 59 publications have been divided into six goals of SDG with the help of Biblioshiny software.
7. The trending topics of the recent are revealed by the analysis of the keyword. Out of the 94 papers, words like “financial inclusion”,

“financial services”, “digital finance”, “digital banking”, “mobile money”, “banking services”, and “financial literacy” have been used the most, which provide direction to the upcoming literature.

8. Using the top twenty most cited document analysis tools, we rank the journals.

Journal	Position
<i>The Economic Journal</i>	1st
<i>Journal of Asia Business Studies</i>	2nd
<i>Research in International Business and Finance</i>	2nd
<i>Plos One</i>	3rd
<i>Information Technology for Development</i>	3rd

**Sources:** Dimension database and Author self-made;  
**Software:** Biblioshiny.

### 4.2 Research Gaps

Given the growing research interest in the link between digital banking and financial inclusion, we highlight key research gaps that need to be filled in the future. First, the available literature lacks a clear picture, despite the fact that academic interest in financial inclusion has increasingly increased. Since 2010, the G20 and the World Bank have spearheaded the Financial Inclusion Initiative in Developing Countries, which aims to eliminate poverty in emerging economies (GPFI, 2010). Furthermore, research on digital banking and financial inclusion is still in its infancy. Second, empirical investigations, with data gathered through surveys/questionnaires and interviews, dominate in research

**TABLE 12**  
**MAIN INFORMATION**

Timespan	2017:2021	Authors	209
Documents	94	Author Appearances	215
Average years from publication	2	Authors of single-authored documents	22
Average citations per document	2.81	Authors of multi-authored documents	187
Average citations per year per doc	0.82	Authors Collaboration	
References	1244	Documents per Author	0.45
Document Types		Authors per Document	2.22
Article	94	Co-Authors per Documents	2.29

**Source:** Dimensions database and Software: Biblioshiny.

methodologies including case studies and structural equation modeling. These methodologies, however, are susceptible to either common method bias or sample selection bias. Furthermore, the authenticity of responders is questionable in terms of measuring quality.

## 5. Conclusion

Based on the above studies, it can be concluded that due to the fastest-growing technology, policy-makers, practitioners, and academics must have a deep understanding of digital banking and financial inclusion in order to meet the needs of humanity and the growth of Promote business and economic growth. The study of the full article revealed that numerous research in this field has been undertaken in recent years. One probable conclusion is that past researchers considered digital banking and financial inclusion to be a very well-known issue, and the investigation goes on to this day. In this framework, researchers should concentrate and improve their research on the present state of digital banking in order to obtain better financial outcomes in the banking and finance sector and in regard to the future generation.

## 6. Limitations

This study still has significant limitations. For example, the review analyzed the corpus of information from diverse academic perspectives and did not go into the varied effects of their practical implications. The data is another limitation of this study. Despite the fact that the researchers analyzed 94 publications from diverse

reputable journals, it is probable that a few studies were missed accidentally. The search for literature data was limited to articles. This study may be expanded to include more particular terms such as internet banking, e-banking, and fin-Tech, among others, to better identify more specific issues in digital banking and financial inclusion. Another limitation is that only English articles were searched, which means that other publications in other languages may have been missed. As a result, using other journals or articles from other sources may result in different conclusions about the most cited papers, the most active researchers, or institutions. Because the search was done just in the dimensions database, additional significant information accessible in other databases was excluded. Other global databases, such as Scopus or Web of Science, may have been included. Scopus and Web of Science are the most well-known and widely utilized databases for assessing research papers (Van Nunen *et al.*, 2018).

## REFERENCE

1. Abualfaraa, W., Saloniitis, K., Al-Ashaab, A., and Ala'raj, M. (2020), Lean-Green Manufacturing Practices and their Link with Sustainability: A Critical Review, *Sustainability*, 12(3), p. 981.
2. Ariaa, M. and Cuccurullo, C. (2017), Bibliometrix: An R-Tool for Comprehensive Science Mapping Analysis, *Journal of Informetrics*, Vol. 11 No. 4, pp. 959-975, doi: 10.1016/j.joi.2017.08.007
3. Briner, R.B., Denyer, D., and Rousseau, D.M. (2009), Evidence-based Management: Concept Cleanup Time?, *Academy of Management Perspectives*, 23(4), pp. 19-32.
4. Budgen, D., and Brereton, P. (2006, May), Performing Systematic Literature Reviews in Software Engineering, in *Proceedings of the 28th International Conference on Software Engineering*, pp. 1051-1052.
5. Choi, H.S., and Loh, R. (2021), Physical Frictions and Digital Banking Adoption. Available at SSRN: <https://ssrn.com/abstract=3333636> or <http://dx.doi.org/10.2139/ssrn.3333636>.
6. Cuesta, C., Ruesta, M., Tuesta, D., and Urbiola, P. (2015), The Digital Transformation of the Banking Industry, *BBVA Research*, pp. 1-10.
7. G.D.S, Modellica (2020, September 14), 10 Key Benefits of Digital Banking for Users. Retrieved 16 August 2022, from [gdsmodellica: https://www.gdslink.com/en/10-key-benefits-of-digital-banking-for-users/](https://www.gdslink.com/en/10-key-benefits-of-digital-banking-for-users/)
8. GPFi (2010), G20 Principles for Innovative Financial Inclusion - Executive. Retrieved 13 September, 2022, from GPFi: <https://www.gpfi.org/publications/g20-principles-innovative-financial-inclusion-executive-brief> or <http://dx.doi.org/10.1016/j.ssci.2017.08.011>
9. Jenik, I., and Lauer, K. (2017), Regulatory Sandboxes and



- Financial Inclusion, Washington, DC: CGAP. Available at <https://www.cgap.org/sites/default/files/Working-Paper-Regulatory-Sandboxes-Oct-2017.pdf>
10. Kithinji, E.M.I.L.Y. (2017), *Effects of Digital Banking Strategy on Financial Inclusion among Commercial Banks in Kenya* (Doctoral dissertation, University of Nairobi). Available at <http://erepository.uonbi.ac.ke/bitstream/handle/11295/102435/EMILY%20FINAL%20DOCUMENT.pdf?sequence=1>
  11. Naumenkova, S., Mishchenko, S., and Dorofeiev, D. (2019), Digital Financial Inclusion: Evidence from Ukraine, *Investment Management & Financial Innovations*, 16(3), p. 194.
  12. Nguyen, T.T., Nguyen, H.T., Mai, H.T., and Tran, T.T.M. (2020), Determinants of Digital Banking Services in Vietnam: Applying Utaut2 Model, *Asian Economic and Financial Review*, 10(6), pp. 680-697.
  13. North, R. (2018), The Role of Digital Banking in India-Importance of Digital Banking in India. Didapatkan dari Enterprise Edges: <https://www.enterpriseedges.com/role-of-digital-banking-india>.
  14. Ozili, P.K. (2018), Impact of Digital Finance on Financial Inclusion and Stability, *Borsa Istanbul Review*, 18(4), pp. 329-340.
  15. Proctor, D. (2019), What is Digital Banking. Didapatkan dari Temenos: <https://www.temenos.com/news/2019/12/19/what-is-digital-banking>.
  16. Riza, A.F. (2019, August), Customer Acceptance of Digital Banking in Islamic Bank: Study on Millennial Generation, *Proceeding of Conference on Islamic Management, Accounting, and Economics*, Vol. 2, pp. 66-74.
  17. Sardana, V., and Singhania, S. (2018), Digital Technology in the Realm of Banking: A Review of Literature, *International Journal of Research in Finance and Management*, 1(2), pp. 28-32.
  18. Singh, S. and Dhir, S. (2019), Structured Review using TCCM and Bibliometric Analysis of International Cause-Related Marketing, Social Marketing, and Innovation of the Firm, *International Review on Public and Non-profit Marketing*, Vol. 16 Nos. 2-4, pp. 335-347.
  19. Singh, V.K., Singh, P., Karmakar, M., Leta, J., and Mayr, P. (2021), The Journal Coverage of Web of Science, Scopus and Dimensions: A Comparative Analysis, *Scientometrics*, 126(6), pp. 5113-5142.
  20. Son, Y., Kwon, H.E., Tayi, G.K., and Oh, W. (2020), Impact of Customers' Digital Banking Adoption on Hidden Defection: A Combined Analytical-Empirical Approach, *Journal of Operations Management*, 66(4), pp. 418-440.
  21. Tella, A. and Olabooye, A. (2014), Bibliometric Analysis of African Journal of Library, Archives and Information Science from 2000-2012, *Library Review*, Vol. 63 Nos 4-5, pp. 305-323.
  22. Thoene, U., and Turriago-Hoyos, Á. (2017), Financial Inclusion in Colombia: A Scoping Literature Review, *Intangible Capital*, 13(3), pp. 582-614.
  23. Van Nunen, K., Li, J., Reniers, G., and Ponnet, K. (2018), Bibliometric Analysis of Safety Culture Research, *Safety Science*, 108, pp. 248-258.
  24. Vong, J., Mandal, P., and Song, I. (2016), Digital Banking for Alleviating Rural Poverty in Indonesia: Some Evidences, *Smart Technologies for Smart Nations*, pp. 3-18, Springer, Singapore.
  25. World Bank Group (2013), *Global Financial Development Report 2014: Financial Inclusion*, Vol. 2. World Bank Publications.
  26. World Bank (2008), *Banking the Poor: Measuring Banking Access in 54 Economies*, The World Bank.
  27. Zupic, I., and Èater, T. (2015), Bibliometric Methods in Management and Organization, *Organizational Research Methods*, 18(3), pp. 429-472.

