Digital Financial Inclusion and Financial Performance

A Literature Review

Hanifa Bennu Nur(✉), Surachman, Sumiati, and Siti Aisjah

Faculty of Economics and Business, Brawijaya University, Malang, Indonesia
hanifa_bn@student.ub.ac.id

Abstract. The purpose of this research is to examine and map studies on the relationship between digital financial inclusion and financial performance. This study employs bibliometric analysis in conjunction with the Harzsing Publish or Perish application and VOSviewers to achieve this goal. 149 articles were obtained as a result of searching and harvesting data using the Google Scholar database, which was then manually filtered, and were then analyzed as information for future research. The study's findings indicate that research on this topic is still in its early stages, providing an opportunity for future researchers to conduct in-depth research on the subject.

Keywords: Component · Digital Financial Inclusion · Financial Performance · Digital Financial Service

1 Introduction

The financial performance of corporate reflects its financial condition. For a profit-seeking organization, economic stability and improvement ensure commercial viability [1]. Financial performance is used to determine whether or not the results obtained are in line with the plan. The improvement in the company's financial performance indicates that it has met its founding objectives. The financial performance demonstrates the ability of a company to use financial assets they have, the extent to which management can manage these assets, whether these assets are sufficient to support business operations, or whether the company requires additional assets from third parties. The other party could be either a bank or a non-bank.

The banking industry is critical in delivering money to small and medium-sized businesses. These small and medium-sized businesses, on the other hand, may not have access to conventional banking and financial services that satisfy their requirements. In times of crisis, as the COVID-19 epidemic, access to financial services is critical, especially for the poor and those who require money to live or run their businesses [2]. Small and medium-sized businesses have a low degree of financial inclusion due to a lack of access to financial services. The ease of access and availability of critical financial services for all members of society is referred to as financial inclusion. Individuals and

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businesses in the financial sector have access to relevant and reasonably priced financial goods and services that satisfy their requirements in a responsible and sustainable way [3]. Financial inclusion has evolved into one of the tools for providing services and finance to the poor. Financial inclusion has taken on a new hue as a result of digitization. It is believed that via digital financial inclusion, the people would enjoy the ease of obtaining financial services.

The pandemic of COVID-19 has altered the digital revolution of financial services [2]. The Covid-19 disruption provides momentum for the growth of digital financial services while also providing advantages for digital financial inclusion [2]. Digitalization of banking, such as e-money, has shown to be the cornerstone of financial inclusion in emerging nations for individuals who are financially limited and impoverished [2, 4].

Most research articles on the link between digital financial inclusion and financial success are not written in English, thus they are not broadly understood. Furthermore, many papers are unavailable, making it impossible for scholars to get information. The disclosure of information in publications has a significant impact on subsequent researchers' ability to refine studies on a topic; thus, the purpose of this study is to review and map studies that look at the relationship between digital financial inclusion and financial performance in order to provide information for future research.

The findings of this study are anticipated to offer scholars and stakeholders with an overview and information. The next section includes a literature review in Sect. 2, research methodologies in Sect. 3, findings in Sect. 4, and conclusion in Sect. 5.

2 Literature Review

2.1 Digital Financial Inclusion

Digital financial inclusion refers to a population that is underprivileged and underserved in terms of access to digital and formal financial services. Services must satisfy the demands of the customer and be supplied in a responsible manner at a cost that is both reasonable to the consumer and sustainable for the provider [5]. Efforts to make digital financial services accessible and affordable to all people and institutions, regardless of net cost, size, or demographic location, are referred to as digital financial inclusion [6]. The risk of loss, theft, and other financial crimes connected with cash-based transactions, as well as the expenses associated with them, may be reduced by digital financial inclusion [5].

The following are the three major components of the digital financial inclusion model: (1) a digital transaction platform that enables customers to make or receive payments and transfers, as well as store value electronically, via devices that transmit and receive transaction data and connect directly or via digital communication channels to banks or non-banks that are permitted to store electronic values; (2) retail agents armed with digital devices connected to the communication network; and (3) retail agents armed with digital devices connected to the communication network. Subject to appropriate legislation and contracts with the principal financial institution, agents may also fulfill additional responsibilities. (3) The device may be digital, such as a mobile phone that transmits data and information, or it can be an instrument, such as a credit card connected to a digital device (e.g. POS terminal) [5].

2.2 Financial Performance

The outcome or success of the company's management in carrying out its role of efficiently managing assets within a certain time is referred to as financial performance. Profitability is an important aspect of financial performance. Profitability reflects the ability of a company's capital to generate profits. Profitability is measured using financial ratio such as Return on Assets, Return on Equity, Net Profit Margin, and others.

2.3 Digital Financial Inclusion and Financial Performance

Achieve long-term development, small and micro firms, especially those in private, high-tech sectors and competitive marketplaces, benefit from the spread of digital financial inclusion [8]. Small and medium-sized firms may acquire access to external financial resources by using information and communication technology (ICT)-based services, boosting their financial inclusion [7]. Financial services provide the capital required for entrepreneurial ventures, while technology drives corporate model modernization and transformation. Digital finance not only meets the needs of businesses, but it also has the distinct advantage of driving a holistic combination of digital technology and financial services [8].

People who have limited access to financial services are expected to benefit from increased digital financial inclusion. So that they can obtain funding to expand their business and improve their performance.

3 Method

Bibliometric analysis is used to trace previous studies that contain the relationship between the topic of digital financial inclusion and financial performance. Bibliometric analysis is a quantitative approach for assessing bibliographic data used to study references to scientific papers cited in journals, map scientific fields of journals, and classify scientific articles based on research areas. A comprehensive review of the literature was carried out, which was backed by bibliometric analysis based on visualization of similarity approaches. [9, 10]. The research data used in the study are articles or scientific journals from the Google Scholar database from 1991 to 2022. The Google Scholar database is searched because the data harvested with the keywords in question is most likely to come from the Google Scholar database, whereas the Scopus database does not produce data information. Benchmarks are created for these two databases because they are both open access.

The first stage involves searching for scientific articles using the Harszing Publish or Perish application, which includes keyword categories. The search terms were "Digital Financial Inclusion" AND "Financial Performance," and it was performed on October 8, 2022. The paper's results are then filtered with several limitations, including: (1) the paper is only in the form of published articles, excluding working papers, reports, and books; (2) articles published in English only; and (3) open access articles, which can be downloaded for free from Google, publishers, or other sources such as researchgate.com, among others.

The second step entails bibliometric analysis of cluster identification using the VOSviewer 1.6.18 program to acquire bibliographic data [11, 12]. The merging of bibliographies in order to ascertain the number of references shared by two articles. The degree of citation overlap between the two publications is thought to reflect commonalities in the issue under inquiry [11, 13]. The VOSviewer program visualizes the co-occurrence matrix's findings, which are obtained from the existence, frequency, and closeness of reference pairs stated in the data [11, 14]. Color is used to signify cluster density by generating a color-weighted average with the color weight equal to the relevant cluster's item density [9, 11]. The final result is a graphical display demonstrating that the darker the hue, the lower the density. The distance between the given references might therefore be taken as an indicator of their connection. When articles belong to the same cluster, it means they are tightly associated to one another as a group based on their common reference, meaning that a given cluster reflects a certain research stream or subject [11].

The third stage is to examine the filtered articles by reading the contents of each one and then looking for information relevant to the purpose of this research. The study's findings were presented in the form of Excel data. The excel data set is designed to capture all qualitative information and aid scholars in their studies of evolutionary tendencies and themes of interest [11].

4 Finding

The number of publications on digital financial inclusion and financial performance is examined in the first step of the investigation. The Harszing Publish or Perish application yielded 344 papers from a maximum of 1000 paper searches, with publications occurring between 1991 and 2022. There were 14162 citations over a 31-year period, with 456.84 citations per year, from 41.17 citations per paper, and an average of 2.41 authors per paper (see Fig. 1).

The papers obtained from the search results are then filtered according to their limitations. From the 344 papers obtained, 149 papers were filtered and obtained. The filtered paper is obtained, along with the number of citations per article, the year of publication, and the publisher or source of the paper. Figures 2, 3, and 4 provide additional information.

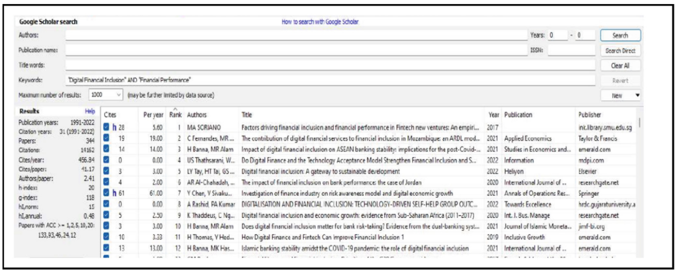

Fig. 1. Article search.

Figure 2 depicts the average number of citations per article. The article with the most citations has 115, while the majority of the articles, 92, have not been cited.

Figure 3 depicts the publication year. In 2022, there will be 47 publications, in 2021 there will be 41 publications, in 2020 there will be 27 publications, in 2019 there will be 10 publications, in 2018 there will be 5 publications, in 2017 there will be 4 publications, in 2016 there will be 3 publications, and in 2014 there will be 1 publication. This demonstrates that in the last five years, research trends related to digital financial inclusion and financial performance have increased.

Figure 4 depicts the published paper's source. Top-tier journal publishers dominate the publication of these articles, with Elsevier publishing seven, Springer publishing five, Taylor & Francis publishing eight, papers.ssrn.com publishing eight, and Emerald publishing eight. Actually, many articles are sourced from these publishers, but the majority of these articles are paid and thus inaccessible. To get around this, I searched other sites like Recheargate.com and found as many as 21 articles that could be opened without requesting the author. The majority of data sources are obtained from mdpi.com because the articles are open access and easy to download. Then, in addition to the databases mentioned above, 58 articles were sourced from other databases.

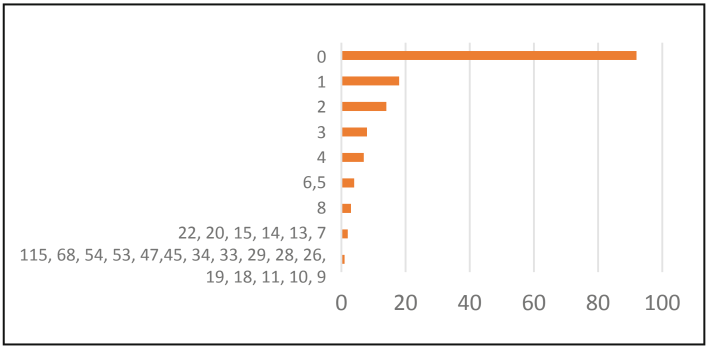

Fig. 2. Citation per-article.

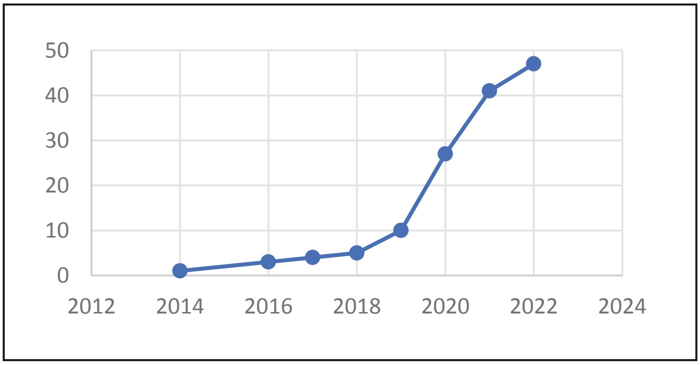

Fig. 3. Year of publication.

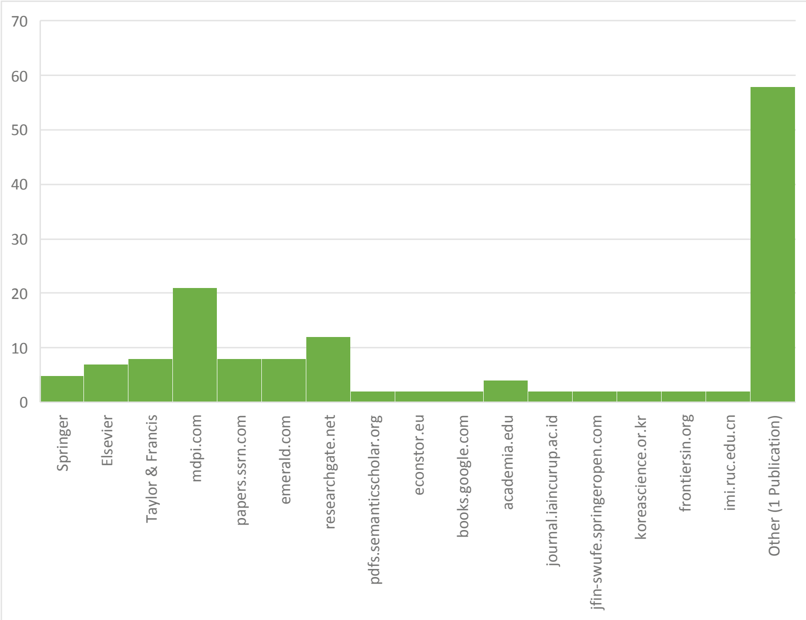

Fig. 4. Publisher/source of article.

The second stage of analysis looks at bibliometrics using similarity analysis. Similarity analysis visualization yields eleven clusters, as shown in Fig. 5.

Figure 5 depicts a publication network on the connection between digital financial inclusion and financial performance. The network analysis with VOSviewer yielded 11 clusters.

The research density is seen in Fig. 6. The thick and big yellow circle shows that these issues have been examined and have linkages to other research, however the little and fainter color circle suggests that there has been infrequent study linked to the topic, making it an opportunity to be explored for future research.

Fig. 5. Similarity visualization.

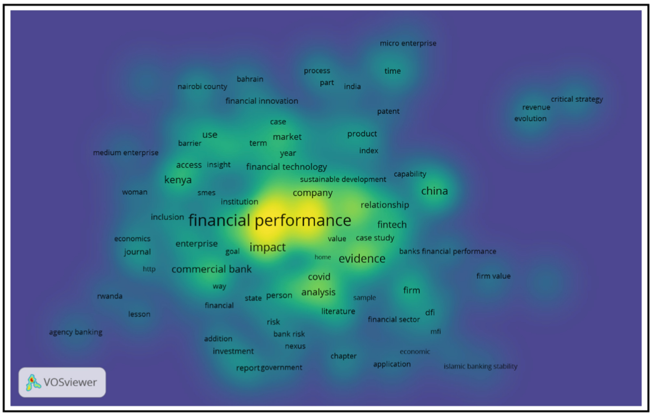

Fig. 6. Research density.

Researchers in Asia and Africa dominate research subjects on digital financial inclusion and financial performance. This is conceivable since both areas include a large number of emerging countries, for whom digital financial inclusion is still a significant homework assignment.

The eleven main research themes represented by each cluster are based on the results of the VOS analysis based on co-words between articles:

1. The theme of financial performance dominates the first cluster (red).
2. The theme of digital financial inclusion dominates the second cluster (green).
3. The theme of study and financial development dominates the third cluster (dark blue).
4. The theme of digital transformation and financial technology dominates the fourth cluster (lime).
5. The theme of digital finance and green innovation dominates the fifth cluster (purple).
6. The theme of market finance dominant the sixth cluster (blue)
7. The theme of bank financial performance dominates the seventh cluster (orange).
8. The theme of digital technology use dominates the eighth cluster (brown).
9. The theme of evolution and critical study dominates the ninth cluster (lilac).
10. The theme of sustainable economic growth dominates the tenth cluster (pink).
11. The eleventh cluster (tosca) is dominated by the theme of financial impact.

The more the theme is utilized, the larger the color of the cluster. The most often mentioned topics were financial performance and digital financial inclusion. A variety of emerging research areas give an outline of the possibilities for future scholars to examine this issue. These themes are shown in VOSviewer's similarity visualization, where the topics with tiny circles and a great distance from the themes with the largest circles are issues that are still infrequently mentioned in study, creating a chance for future researchers to investigate them.

Based on VOSviewer study, the following topics are still rarely investigated in relation to finance and financial inclusion:

1. Agency banking. Agency banking is a branch of the parent bank that operates in places where the parent bank does not have a presence. Despite the fact that agency banking plays a significant role in financial inclusion information for the community at lower levels, studies on this issue are still sparse.
2. Micro enterprise. Because micro-enterprises are largely held by the lower classes, it is critical to give education on digital financial inclusion. How they use digital technologies to boost performance.
3. Loan performance. If loan performance is not adequately controlled, it poses a significant danger to financial services, but this is still a study area owing to a lack of data to assess. The importance of digital financial inclusion in educating the public and reducing risk is critical.
4. Green finance. Digital financial services are certainly very supportive of green finance. The topic of this research is interesting if you like digital financial inclusion, one example is digitalization of payments, people will find convenience in financial transactions.

Some of these themes are recommended for further study on financial inclusion and financial performance.

5 Conclusion

This literature review employs the Google Scholar database because it allows for the collection of as much data as possible when compared to other data bases. The study's findings indicate that research into the connection between digital financial inclusion and financial performance is still in its early stages. According to statistics, only 344 articles have addressed this issue in the last 30 years. Because the majority of these articles are not from top-tier publishers, they are still promising research topics for the future.

The limitation of this study is not use focus to top tier journal data base, so for the future is better to use data base from Scopus or any others.

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