

## Digital Financial Inclusion: An In-Depth Analysis through a Systematic Review of the Literature

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### Abstract

Access to financial services is widely recognized as a vital catalyst for global economic development and poverty reduction. In this era of digital transformation, the concept of financial inclusion has undergone various changes, with digital technologies assuming a pivotal role in extending financial services to historically underserved communities. This systematic literature review conducts a comprehensive analysis of the existing corpus of research dedicated to digital financial inclusion, shedding light on prominent trends, knowledge gaps, and emerging themes in the field. Employing the PRISMA review methodology, we executed a systematic literature review (SLR) with a specific focus on digital financial inclusion. This SLR successfully identified and examined 30 relevant studies spanning the period from 2015 to 2022, sourced from reputable databases such as Scopus. The findings derived from this review underscore that a substantial portion of the selected studies sought to establish a foundational understanding related to digital financial inclusion. Moreover, the insights generated by this research offer valuable guidance to scholars interested in delving deeper into the realm of digital financial inclusion.

**Keywords:**Digital financial inclusion, Financial inclusion, Digital technology, Systematic literature review, PRISMA

## 1. Introduction

The rapid advancement of technology has brought about a substantial transformation in the global financial systems, revolutionizing the provision of a diverse range of financial services (Ahmed & Hasan, 2021). Notably, the UN (United Nations) has identified financial inclusion as a crucial driver for achieving seven out of the 17SDGs (Sustainable Development Goals) by 2030. These goals aim to uplift the living standards of disadvantaged and marginalized populations globally. According to the World Bank (2022), "financial inclusion" encompasses the provision of affordable and readily available financial services and products tailored to the requirements of businesses and individuals. This encompasses various aspects such as savings, credit, transactions, insurance, and, paymentsall provided in a sustainable and responsible manner.

Financial inclusion is crucial in the digital age, as it eliminates barriers to accessing various financial services and products for the general public. Despite various efforts by the Government of India (GoI) and other policymakers, achieving financial inclusion for the average person remains a challenge. The ongoing impact of the COVID-19 pandemic have emphasized the significance of broadening the reach of digital financial services.Digital financial inclusion entails the utilization of cost-efficient digital methods to extend financial services to populations currently excluded or inadequately served by conventional financial systems, with a focus on ensuring affordability for customers and sustainability for service providers. This approach has emerged as a significant avenue to enhance financial system stability and reduce the financial inclusion gap, with particular attention given to the Digital India program in India (Shen et al.,2021).

Digital financial inclusion has gained increasing attention, and according to the World Bank (2022), it involves granting individuals access to a variety of formal financial services that are customized to their requirements, delivered in a responsible manner, and offered at an affordable cost.Between 2011 and 2017, substantial progress was made towards financial inclusion, with 1.2 billion more adults gaining access to bank accounts worldwide. By 2017, 69% of adults globally had an online presence, and more than 80 countries began offering digital financial services, some accessible through mobile phones (World Bank, 2022; Mhlanga, 2020). Unlike traditional financial inclusion, where services are limited to physical

bank branches, digital financial inclusion leverages cost-effective digital technologies such as mobile phones, credit cards, debit cards, and laptops to make financial services more convenient for previously underserved populations. In essence, digital financial inclusion seeks to enhance financial inclusion by making financial services more accessible to those who were previously excluded or underserved.

The existing body of literature contains numerous articles that delve into various facets of digital financial inclusion. However, only a limited number of articles offer a comprehensive perspective encompassing all aspects of digital financial inclusion. Consequently, this current study aims to undertake a systematic review of the literature, aiming to provide a holistic understanding of digital financial inclusion.

The rest of this research paper is structured as follows: Section 2 offers a comprehensive elaboration on the data and methodology employed in this study. Section 3 offers a thorough review of the literature, while Section 4 presents descriptive analysis. Finally, Section 5 presents the study's concluding remarks and future directions.

## **2. Research Methodology**

Conducting a literature review is essential as it helps establish a solid understanding of existing theories, pinpoint areas that warrant further investigation, and contribute to the development of a well-informed bibliography (Rowley and Slack, 2004). The choice of a Systematic Literature Review (SLR) as our methodology is deliberate because it offers a rigorous approach to consolidate and amass a body of knowledge. Additionally, it serves as a means to guide future research endeavours and provides valuable insights for both managers and policymakers (Kuhnisch et al., 2020). The primary aim of this research study is to assess and categorize the current body of literature pertaining to digital financial inclusion into distinct focus areas. Simultaneously, it aims to identify promising avenues for further research in this domain.

### **2.1 PRISMA**

The research was carried out in alignment with the principles laid out in the “Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)” guidelines. PRISMA offers an established and peer-recognized methodology, featuring a guideline checklist that was diligently adhered to in this paper, thereby enhancing the quality assurance of the review process and ensuring its replicability. Additionally, Moher et al. (2009) highlight the

adaptability of PRISMA, indicating its applicability not only in systematic reviews but also in reporting methods for various research types, including evaluations of randomized trials across multiple fields. The systematic search process involved three primary stages: Identification, screening, & eligibility, as illustrated in the figure 1.

### **2.1.1 Identification**

The initial phase of the systematic review process was initiated, encompassing the identification of research materials. During this stage, we meticulously defined our research questions and objectives. To compile pertinent literature, our primary resource was the widely recognized indexed database, Scopus. This database is esteemed for its extensive coverage of peer-reviewed journals, rendering it a trustworthy source for scholarly research within our specific area of study. By utilizing carefully chosen keywords and search strings, such as "Digital Financial Inclusion," our search produced a total of 304 articles from the Scopus database.

### **2.1.2 Screening**

The second phase involved screening the articles, where they were either included or excluded from the research based on predefined criteria. Following Kitchenham & Charters' (2007) recommendation that selection criteria align with the research question, this study employed a three-tiered approach to identify relevant literature. Firstly, the publication timeline was restricted to articles published between 2015 and July 2022, as these years yielded a substantial number of pertinent articles. Secondly, the selection criteria prioritized articles published in reputable journals, book chapters, conference papers, and reviews, while excluding other document types such as proceedings papers and book reviews, as they did not meet the criteria for primary sources. Lastly, to ensure clarity and consistency, articles not written in the English language were omitted. We also identified and removed four duplicate articles. In total, 223 articles were excluded based on these criteria. The remaining 77 articles formed the basis for the third stage of the eligibility process.

### **2.1.3 Eligibility**

During the eligibility phase, the researchers of this study conducted a manual assessment of the retrieved articles to ensure that all the remaining articles, after the initial screening process, adhered to the predetermined criteria. This involved a meticulous examination of the titles and abstracts of the articles. The purpose was to ensure that the articles met the

inclusion criteria and were pertinent to the objectives of the current study. As a result of this thorough review, a total of 47 articles were excluded. These exclusions were primarily attributed to the articles being systematic reviews, review articles, part of book series, or books themselves, and not directly addressing the topic of digital financial inclusion.

#### **2.1.4 Data abstraction and analysis**

The last phase involved data abstraction and analysis. The articles that remained after the screening and eligibility phases underwent thorough evaluation, review, and analysis. In this paper, a detailed discussion of 30 selected articles. These reviews were specifically centered on studies that aligned with the research questions and objectives of this study. The process of extracting relevant themes and sub-themes for the current study commenced by examining the article titles, followed by a review of the abstracts, and finally, a comprehensive analysis of the full text of the articles. A visual representation of the systematic literature review process is depicted in Figure

1.

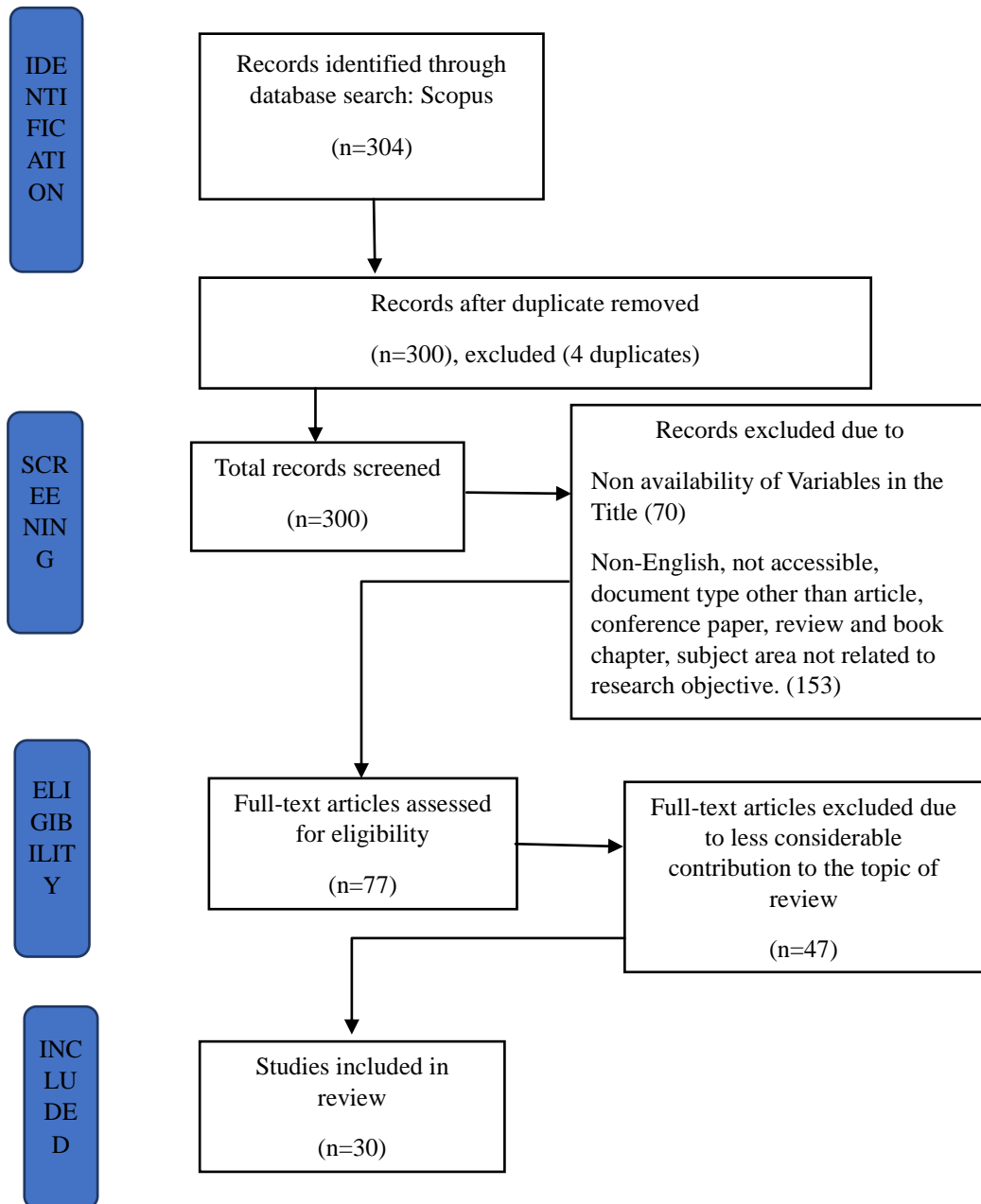


Figure 1: PRISMA Flow Diagram

### 3. Literature classification

In order to conduct an in-depth exploration of digital financial inclusion, we thoroughly analysed a total of 30 articles, categorizing them into four distinct focus areas. The critical dimensions and significant insights derived from these articles will be elaborated upon in the subsequent sections for a more comprehensive understanding.

### **Focus Area 1: Evolution of Digital financial inclusion**

Digital finance represents a significant innovation within the banking and financial services sectors (Shofawati, 2019). A McKinsey report defines digital finance as "financial services provided via mobile phones, the internet, or cards" (Manyika et al., 2016). According to Gomber et al., (2017), FinTech companies and innovative financial service providers offer a wide array of financial services and products. This has given rise to the concept of digital financial inclusion, which pertains to programs aimed at providing affordable digital financial access to disadvantaged communities (Zhang et al., 2020). It presents businesses with digital options for saving, investing, and generating new capital. Digital financial inclusion involves granting excluded populations access to affordable formal financial services through existing digital technologies (Ozili, 2021).

This encompasses the management and organization of numerous financial and payment services delivered and controlled by a group of specialists using mobile or web technology (Peake, 2012). Employing cutting-edge technologies like the web and mobile communication technology to access financial benefits is referred to as computerized financial services (Manyika et al., 2016). The term "digital financial services" refers to the wide range of such services offered by various providers to a broader audience. This is made possible through the development of digital transformations, including e-money, mobile banking, and cashless transactions. The primary goal of financial inclusion in emerging economies is supported by the ready availability of financial services through digital platforms. These services, which encompass an extensive variety of financial offerings, are seen as contributing to the well-being of marginalized populations through digital means (Koh et al., 2018). Additionally, access to social and institutional inclusion and savings accounts are considered vital factors in this context.

### **Focus Area 2: Impact on Poverty Reduction and Economic Development**

Consistent research findings highlight the positive influence of digital financial inclusion (DFI) on both economic development and poverty reduction. The influence of digital financial inclusion on alleviating poverty is particularly significant, indicating that advancing digital financial inclusion can offer new avenues for inclusive growth and contribute to sustainable development by expanding the reach and utilization of financial services (Kelikume, 2021). As per the findings of Park and Mercado (2018), financial inclusion plays a central role in fostering inclusive economic growth, as it grants economic actors the ability to

make enduring choices regarding consumption and investments by providing access to finance. Enhanced financial inclusion, in turn, enables a diverse range of economic actors to participate in productive activities and effectively handle unforeseen short-term setbacks. The provision of financial services through digital platforms plays a crucial role in advancing financial inclusion. Moreover, digital financial inclusion is recognized as a critical step towards achieving the SDGs (Sustainable Development Goals) by 2030. Efficient implementation of digital financial inclusion contributes to the attainment of 13 out of the 17 SDGs (Tay et al., 2022). Digital payment systems and online banking enable individuals to efficiently manage their finances, make payments, and access credit, ultimately enhancing their financial stability. As more individuals engage with digital financial services, they become active participants in the formal economy, boosting economic productivity and overall development (Mushtaq & Bruneau, 2019; Ahmad et al., 2021). It's important to note that digital financial inclusion extends beyond mere access to services; it also fosters a holistic financial inclusion ecosystem. This ecosystem promotes financial literacy and education, equipping individuals with the knowledge and skills needed to make informed financial decisions (Aziz & Naima, 2021).

### **Focus Area 3: Challenges faced by digital financial inclusion**

Despite the evident successes and benefits of digital financial inclusion for a nation, there are several significant challenges that can impede its progress. The primary barriers to achieving digital financial inclusion encompass factors such as the absence of essentials like smartphones and internet access, coupled with customer distrust and a lack of confidence in using financial e-services (Rauniyar et al., 2021). Malladi et al., (2021) have highlighted additional challenges, including the absence of practical digital policies from governments, infrastructure limitations, issues related to "inactive users of financial services," limited cooperation from banks, difficulties in identifying marginalised communities, insufficient public-private partnerships, inadequate consumer protection measures, and a deficiency in digital financial literacy. There is a noticeable digital divide, with some individuals being tech-savvy and easily comprehending and using these services, while others in semi-urban and rural areas struggle to understand and efficiently utilize technology (Marco, 2018). In the context of Africa, Mpofo (2022) emphasizes the challenges associated with digital literacy and digital financial inclusion. These challenges include high internet data costs, digital exclusion, limited digital financial literacy, obstacles related to redundant barriers, digital taxes, and lack of connectivity. The paucity of financial literacy and awareness about



financial cybercrimes has led to a general mistrust among rural populations, resulting in limited digital penetration (Warhamni, Rahmi N, 2021). In their work, Krasnova and Lavreniuk (2022) outline the difficulties related to digital financial inclusion that affect diverse parties, encompassing businesses and women. Concerns such as instability, restricted income potential, regional limitations, infrastructure inadequacies, underdeveloped technology environments and venture capital, issues surrounding trust and literacy, as well as poverty, have been highlighted in the context of enterprises. Concerning women, the obstacles comprise restricted availability of official identification cards, discriminatory regulations impacting women's ability to own accounts, societal perceptions concerning women's involvement in employment and their access to digital financial services, inadequate levels of digital literacy and financial competence among women, and a lower probability of women owning mobile phones compared to men, among various other challenges.

#### **Focus Area 4: Emerging trends in digital financial inclusion**

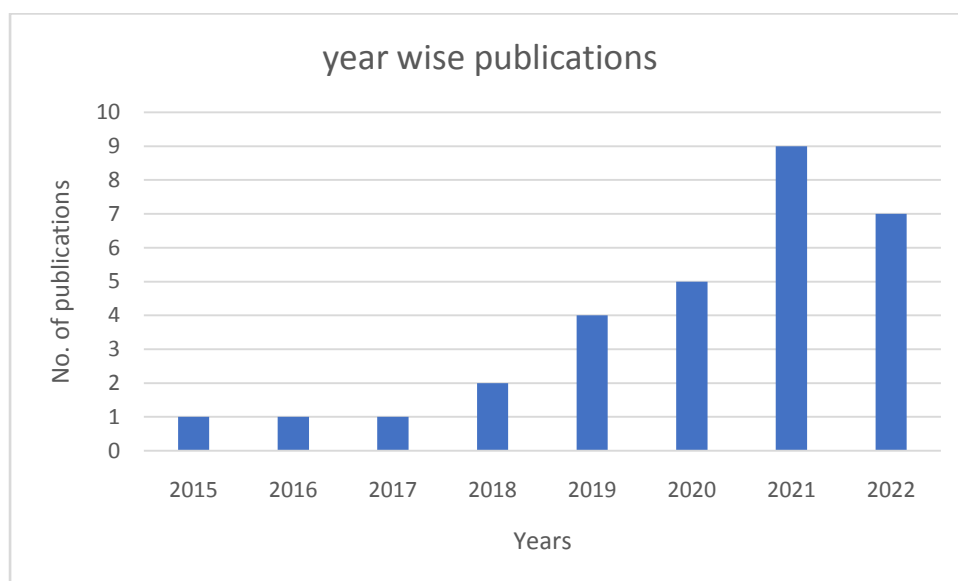
Digital financial inclusion has become a central point of discussion when it comes to ensuring the active participation of individuals at the lower socio-economic levels. Fintech companies are harnessing the versatility of artificial intelligence (AI) and its various uses to further the goal of digital financial inclusion. This objective aims to integrate low-income individuals, impoverished populations, women, young people, and small businesses into the mainstream financial market. Mhlanga (2020) and Ahmed & Hasan (2021) conducted studies that revealed the significant influence of AI on digital financial inclusion. AI assumes a pivotal role in domains like identifying and managing risks, tackling the issue of information imbalance, delivering customer support via chatbots, and bolstering fraud detection and cybersecurity measures. Additionally, these authors assert that information and communication technology (ICT) contribute to increased financial inclusion in both formal and informal sectors. Siddik et al. (2017) discovered that the process of digitalization, with a particular emphasis on internet banking, has not only enhanced financial inclusion but also enhanced the operational efficiency of banks in Bangladesh. Blockchain technology has gained immense prominence in recent years. Regulators, established banking entities, and non-governmental organizations are progressively investigating blockchain as an invaluable instrument to incorporate unbanked and underserved populations into the financial system. Additionally, it is being considered for the formalization of previously informal value transfers, such as remittances (Abdulhakeem & Hu, 2021; Rella, 2019). Blockchain finds applications in various industries, including online payments, remittances, and cryptocurrencies. It is also used in the

smart contracts, voting systems, the verification of educational materials, the healthcare industry, and Internet of Things (Abdulhakeem & Hu, 2021). The Fourth Industrial Revolution, often referred to as "Industry 4.0," represents a profound transformation in the way individuals work, interact, and lead their daily lives (Sony & Naik, 2019). Industry 4.0 encourages automation in financial services, with technologies like robotic process automation (RPA) and AI-powered chatbots streamlining various financial processes, making them more cost-effective and accessible.

#### 4. Descriptive analysis

Within this section, the articles that have been systematically selected are organized and categorized using multiple criteria. These include the publication years, the countries in which the studies were conducted different methods used and various publication type. This classification allows for a more comprehensive examination of the literature, facilitating an organized and insightful approach to understanding the research landscape in digital financial inclusion.

**Figure 2: Classification of articles by year**



The articles have been categorized based on their publication years, spanning from 2015 to 2022. Figure 2 provides a clear visualization of the trends and growth in research publications related to digital financial inclusion. Notably, between 2015 and 2017, there were only a limited number of studies conducted in this field. However, since 2018, there has been a noticeable increase in the publication of research papers on this subject. A significant surge in articles occurred in 2021, with a total of 9 publications, followed by 2022, which saw the

release of 7 articles. This pattern suggests a growing interest among researchers in the domain of digital financial inclusion. The rapid advancement of digital technology, including the proliferation of smartphones and improved internet connectivity, has expanded the potential for digital financial inclusion.

**Figure 3: Classification of articles by countries**

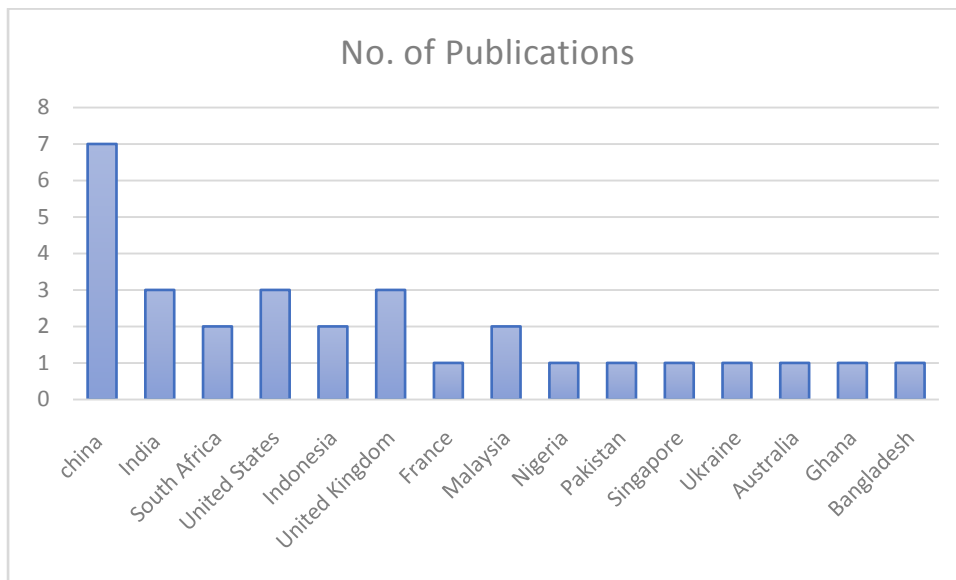
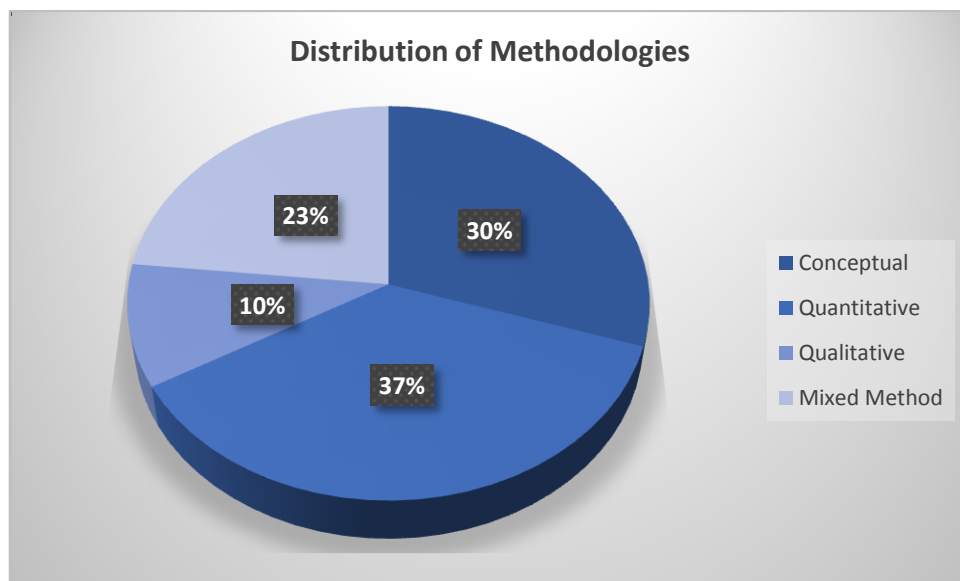


Figure 3 presents a classification of articles based on the countries from which the sample data were collected or where the studies were conducted. It is evident from Figure 4 that the majority of studies in this area were conducted in China, followed by India, the United States, and the United Kingdom. In contrast, there have been relatively few studies on this topic conducted in other countries, including Nigeria, Pakistan, Ghana, and Bangladesh.

**Figure 4: Research methods applied in digital financial inclusion**



Research on digital financial inclusion has been conducted using various methodological approaches. In this study, we identified four distinct research methodologies across the reviewed journal articles: quantitative, conceptual, mixed methods, and qualitative. Figure 4 provides an overview of the prevalence of these research methodologies in studies related to digital financial inclusion. The figure distinctly shows that quantitative research was the predominant methodology employed to examine digital financial inclusion throughout the study period, with surveys being the most commonly used quantitative method. Additionally, a substantial amount of attention has been directed toward exploring the determinants and measurement of digital financial inclusion through quantitative analyses. Furthermore, a notable proportion of researchers (approximately 30 percent) chose to publish conceptual papers, suggesting a focus on empirical research. This trend also anticipates a potential increase in qualitative or exploratory research in forthcoming academic journal publications concerning digital financial inclusion. It's worth noting that some researchers have employed mixed methods; however, the utilization of mixed methods in digital financial inclusion studies remains relatively limited.

**Figure 5: Classification of articles by document type**

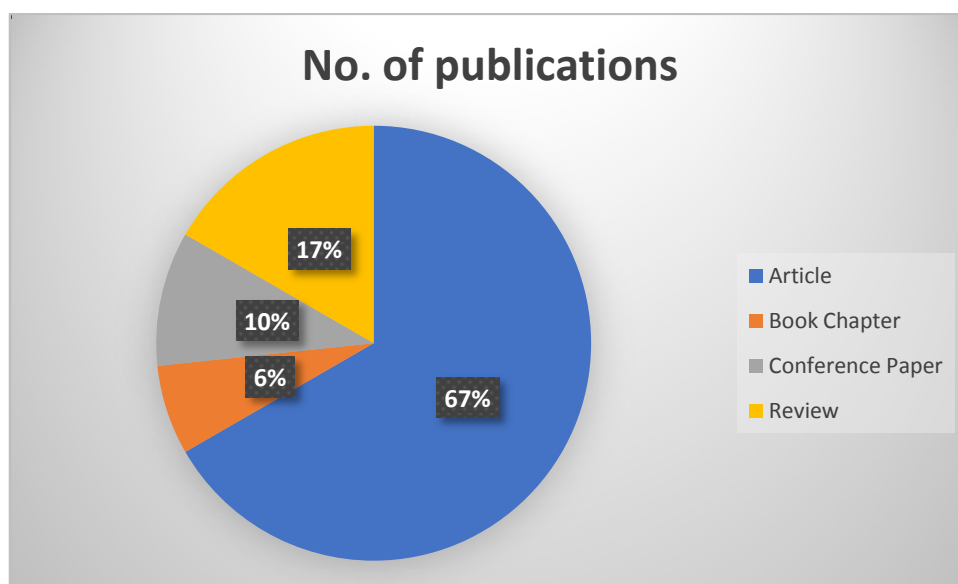


Figure 5 illustrates the different publication types of the selected papers, indicating the channels through which these papers were published. The publication types considered in this study encompassed articles, book chapters, conference papers, and reviews. The majority of the papers, accounting for 67%, were published as articles. The remaining papers were distributed among reviews (17%), conference papers (10%), and book chapters (6%).

## 5. Conclusion and Future Directions

To explore the different facet of digital financial inclusion, an exhaustive literature review was undertaken. Through a systematic analysis and synthesis of 30 research articles, the study effectively achieved its objective. The examination of this data yielded several noteworthy findings. Notably, the majority of these papers were published in 2021. Digital financial inclusion is not limited to a specific region but has gained global attention. Research has been conducted in diverse countries, with China, India, the United States, and the United Kingdom being prominent study locations. Most of the papers used quantitative methodologies. Over the years, digital financial inclusion has emerged as a significant area of research and policy focus, driven by the rapid evolution of digital technology and its transformative potential in the financial sector. Technological advancements, such as the proliferation of smartphones and improved internet connectivity, has been instrumental in extending the accessibility of digital financial services. Fintech companies have harnessed AI, blockchain, and other innovations to promote digital financial inclusion

As the field of digital financial inclusion continues to evolve, several avenues for future research emerge: There is a need for in-depth studies on the regulatory frameworks and policies that facilitate or hinder digital financial inclusion. Future studies should explore the lasting socioeconomic effects of digital financial inclusion on individuals, businesses, and communities. Given the growing reliance on digital financial services, research on cybersecurity, consumer protection, and data privacy within the realm of digital financial inclusion.

## References

- Abdulhakeem, S. A., & Hu, Q. (2021). Powered by Blockchain Technology, DeFi (Decentralized Finance) Strives to Increase Financial Inclusion of the Unbanked by Reshaping the World Financial System. *Modern Economy*, 12(01), 1–16. <https://doi.org/10.4236/me.2021.121001>
- Ahmad, M., Majeed, A., Khan, M. A., Sohaib, M., & Shehzad, K. (2021). Digital financial inclusion and economic growth: Provincial data analysis of China. *China Economic Journal*, 14(3), 291-310.
- Ahmed, A., & Hasan, M. E. (2021). Bangladesh toward Digital Financial Inclusion: FinTech Experience. *Journal of Entrepreneurship and Business Innovation*, 8(2), 2332-8851.

Aziz, A., & Naima, U. (2021, February). Rethinking digital financial inclusion: Evidence from Bangladesh. *Technology in Society*, 64, 101509. <https://doi.org/10.1016/j.techsoc.2020.101509>

Gomber, P., Koch, J. A., & Siering, M. (2017, February 25). Digital Finance and FinTech: current research and future research directions. *Journal of Business Economics*, 87(5), 537–580. <https://doi.org/10.1007/s11573-017-0852-x>

Haenssger, M. J. (2018, April). The struggle for digital inclusion: Phones, healthcare, and marginalisation in rural India. *World Development*, 104, 358–374. <https://doi.org/10.1016/j.worlddev.2017.12.023>

Kelikume, I. (2021, February 4). Digital financial inclusion, informal economy and poverty reduction in Africa. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(4), 626–640. <https://doi.org/10.1108/jec-06-2020-0124>

Kitchenham, B., Charters, S., 2007. Guidelines for performing systematic literature reviews in software engineering. Technical Report, *EBSE Technical Report EBSE2007 1*, 1–57.  
Lardner, R., 2002.

Koh, F., Phoon, K. F., & Ha, C. D. (2018). Digital financial inclusion in South east Asia. In *Handbook of Blockchain, Digital Finance, and Inclusion, Volume 2* (pp. 387-403). Academic Press

Krasnova, I., & Lavreniuk, A. (2022, February). Challenges and Opportunities of Digital Financial Inclusion. *East European Scientific Journal*, 2(01 (77)), 53-58.

Kühnisch, J., Bedir, A., Lo, Y. F., Kessler, A., Lang, T., Mansmann, U., Heinrich-Weltzien, R., & Hickel, R. (2020, May). Meta-analysis of the longevity of commonly used pit and fissure sealant materials. *Dental Materials*, 36(5), e158–e168. <https://doi.org/10.1016/j.dental.2020.02.001>

Malladi, C. M., Soni, R. K., & Srinivasan, S. (2021, June). Digital financial inclusion: next frontiers—challenges and opportunities. *CSI Transactions on ICT*, 9(2), 127–134. <https://doi.org/10.1007/s40012-021-00328-5>

Manyika, J., Lund, S., Singer, M., White, O., & Berry, C. (2016). Digital finance for all: Powering inclusive growth in emerging economies. McKinsey Global Institute, 1(1) 1-15.

Mhlanga, D. (2020, July 28). Industry 4.0 in Finance: The Impact of Artificial Intelligence (AI) on Digital Financial Inclusion. *International Journal of Financial Studies*, 8(3), 45. <https://doi.org/10.3390/ijfs8030045>

Midika, A. M. (2016). The Effect of Digital Finance on Financial Inclusion in the Banking Industry in Kenya, 1-48. (Doctoral dissertation, University of Nairobi).

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009, July 21). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Medicine*, 6(7), e1000097. <https://doi.org/10.1371/journal.pmed.1000097>

Mpofu, F. Y., & Mhlanga, D. (2022, July 29). Digital Financial Inclusion, Digital Financial Services Tax and Financial Inclusion in the Fourth Industrial Revolution Era in Africa. *Economies*, 10(8), 184. <https://doi.org/10.3390/economies10080184>

Mushtaq, R., & Bruneau, C. (2019, November). Microfinance, financial inclusion and ICT: Implications for poverty and inequality. *Technology in Society*, 59, 101154. <https://doi.org/10.1016/j.techsoc.2019.101154>

Okoli, C. (2015). A Guide to Conducting a Standalone Systematic Literature Review. *Communications of the Association for Information Systems*, 37. <https://doi.org/10.17705/1cais.03743>

Ozili, P. K. (2021). Digital Finance, Green Finance and Social Finance: Is There a Link? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3786881>

Park, C. Y., & Mercado, R. (2018, February 8). Financial Inclusion, Poverty, And Income Inequality. *The Singapore Economic Review*, 63(01), 185–206. <https://doi.org/10.1142/s0217590818410059>

Peake, C. (2012). New frontiers: Launching digital financial services in rural areas. *Old Problems, New Solutions*, 12(1), 3-62.



Rauniyar, K., Rauniyar, K., & Sah, D. K. (2021). Role of fintech and innovations for improvising digital financial inclusion. *Int. J. Innov. Sci. Res. Technol*, 6, 1419-1424.

Rella, L. (2019, October 17). Blockchain Technologies and Remittances: From Financial Inclusion to Correspondent Banking. *Frontiers in Blockchain*, 2. <https://doi.org/10.3389/fbloc.2019.00014>

Rowley, J., & Slack, F. (2004, June). Conducting a literature review. *Management Research News*, 27(6), 31–39. <https://doi.org/10.1108/01409170410784185>

Shen, Y., Hu, W., & Hueng, C. J. (2021). Digital financial inclusion and economic growth: a cross-country study. *Procedia Computer Science*, 187, 218-223.

Shofawati, A. (2019, March 31). The Role of Digital Finance to Strengthen Financial Inclusion and the Growth of SME in Indonesia. *KnE Social Sciences*, 3(13), 389. <https://doi.org/10.18502/kss.v3i13.4218>

Siddik, M., Kabiraj, S., & Joghee, S. (2017, May 3). Impacts of Capital Structure on Performance of Banks in a Developing Economy: Evidence from Bangladesh. *International Journal of Financial Studies*, 5(2), 13. <https://doi.org/10.3390/ijfs5020013>

Sony, M., & Naik, S. (2019, January 29). Key ingredients for evaluating Industry 4.0 readiness for organizations: a literature review. *Benchmarking: An International Journal*, 27(7), 2213–2232. <https://doi.org/10.1108/bij-09-2018-0284>

Tay, L. Y., Tai, H. T., & Tan, G. S. (2022, June). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, 8(6), e09766. <https://doi.org/10.1016/j.heliyon.2022.e09766>

Warhamni, Rahmi N (2021) Financial technology determination in terms of financial inclusion and financial literacy. In: Conference on economic and business innovation (CEBI),

World Bank (2022, March). Financial inclusion is a key enabler to reducing poverty and boosting prosperity. Available

At: <https://www.worldbank.org/en/topic/financialinclusion/overview#:~:text=Financial%20inclusion%20means%20that%20individuals,a%20responsible%20and%20sustainable%20way.>