FINANCE INNOVATIONS DIGEST
Volume 1, Issue 2, December 2023| pp. 76-87
https://doi.org/10.63208/21013-769

E- ISSN: 3047-5538

Financial Technology and Financial Inclusion in Supporting Sustainable Development

Novianti[1]

Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia[1]

ABSTRACT

The rapid development of digital technology has transformed the financial sector through the emergence of Financial Technology (FinTech) services that are increasingly accessible to society. This study aims to analyze the role of FinTech in strengthening financial inclusion and its implications for sustainable development. The research employs a descriptive qualitative approach using a literature review method based on scholarly articles, international reports, and academic publications published over the last five years. The collected data were analyzed using content analysis to identify the relationship between FinTech, financial inclusion, and sustainable development. The findings indicate that FinTech contributes significantly to expanding public access to formal financial services through innovations such as digital payments, e-wallets, mobile banking, and digital financing platforms. Improved financial inclusion supported by FinTech enhances economic resilience, increases access to financing, supports business growth, and contributes to poverty reduction and economic equality. Furthermore, FinTech and financial inclusion are closely associated with the achievement of sustainable development goals through increased economic participation and community empowerment. This study confirms that FinTech serves as a strategic instrument in promoting more inclusive and sustainable development.

Keywords: *Financial Inclusion, Financial Technology, Poverty Reduction, Sustainable Development, Technology Innovation.*

CORRESPONDING AUTHOR:
Novianti
Institut Bisnis dan Informatika Kesatuan, Bogor, Indonesia
contact: *nopiantt67@gmail.com*

ARTICLE HISTORY
Received : July 10, 2023
Final Revised : October 27, 2023
Accepted : November 22, 2023
Published : December 30, 2023

© 2023 The Author(s)| This article is an open access article and distributed under the terms and conditions of the Creative Commons Attribution (CC BY-SA) license.

1. | INTRODUCTION

The development of digital technology has brought significant changes in various sectors of life, including the financial sector. The increasingly massive digital transformation has encouraged the emergence of various technology-based financial service innovations known as Financial Technology (FinTech). The presence of FinTech has changed the way people access, use, and manage financial services to be faster, easier, and more efficient. The digitalization of the financial sector not only improves the operational efficiency of financial institutions, but also opens up wider opportunities for people to gain access to various formal financial services that were previously difficult to reach. This phenomenon is one of the main drivers for the creation of a more inclusive financial system in the digital economy era (Hinson et al., 2019; Arner et al., 2019).

Despite the rapid growth of financial technology, various challenges are still faced in realizing equitable financial inclusion. Some people still experience limited access to formal financial services due to geographical, economic, and low financial literacy. This condition causes that there are still groups of people who have not been able to utilize banking, financing, savings, and other financial instruments optimally. Low access to formal financial services has the potential to widen economic disparities and hinder the improvement of people's welfare, especially in vulnerable and low-income groups (Park & Mercado, 2018; World Bank, 2021).

Financial inclusion is seen as one of the important instruments in encouraging more equitable and sustainable economic development. Wider access to financial services allows individuals and businesses to obtain the financing sources needed to increase productivity and economic capacity. Various studies show that increased financial inclusion has a positive relationship with poverty reduction, improved welfare, and reduced income inequality. Thus, financial inclusion not only functions as an economic instrument, but also as a means of empowering people to improve the quality of life in a sustainable manner (Abor et al., 2018; Omar & Inaba, 2020).

In this context, FinTech is present as one of the innovations that is able to accelerate the achievement of financial inclusion. Various services such as mobile banking, digital wallets, electronic payments, peer-to-peer lending, and crowdfunding allow people to gain access to financial services at lower costs and simpler processes. The use of digital technology also allows financial institutions to reach community groups that have not been previously served by the formal financial system. Therefore, FinTech is seen as a strategic instrument in expanding access to finance while improving the efficiency of the financial system as a whole (Al Nawayseh, 2020; Kass-Hanna et al., 2022).

In addition to providing economic benefits, FinTech development and financial inclusion are also related to the achievement of sustainable development goals (SDGs). Wider access to finance can support poverty reduction, increased business opportunities, strengthening people's economic resilience, and creating inclusive

economic growth. Various international organizations place financial inclusion as one of the supporting factors in achieving various sustainable development targets, especially those related to poverty alleviation, improving welfare, and reducing socio-economic disparities (United Nations, 2020; OECD, 2021; Mhlanga, 2022).

However, previous studies are still dominated by studies that discuss the relationship between financial inclusion and economic growth or poverty reduction separately. Research on FinTech adoption also focuses more on aspects of technology use and user behavior. Meanwhile, studies that integrate the relationship between FinTech, financial inclusion, and sustainable development in a single conceptual framework are still relatively limited. In addition, most of the research uses a quantitative approach, so there is still a need for a literature review that is able to provide a comprehensive synthesis of FinTech's contribution to strengthening financial inclusion to support sustainable development. Based on these conditions, this study aims to analyze the role of FinTech in strengthening financial inclusion and its implications for achieving sustainable development through a literature review approach.

2. | LITERATURE REVIEW

Financial Inclusion

Financial inclusion is a condition when all levels of society have adequate access to various formal financial products and services that are quality, affordable, and in accordance with their needs. This concept has developed as an instrument to reduce economic inequality and improve people's welfare through wider access to savings, credit, payments, and insurance services. In its development, financial inclusion is not only seen as an effort to expand bank account ownership, but also includes the ability of people to use financial services effectively to support economic activities and improve quality of life.

Park and Mercado (2018) explain that increased financial inclusion contributes to a reduction in poverty rates and income inequality through expanded access to financial resources. The findings are in line with research by Abor et al. (2018) which shows that wider access to finance can drive more inclusive economic growth. In addition, Omar and Inaba (2020) concluded that financial inclusion has a significant influence on improving people's welfare in various developing countries. On the other hand, the World Bank (2021) emphasized that access to formal financial services is one of the important factors in strengthening the economic resilience of households and small business actors.

Thus, financial inclusion not only functions as an economic instrument, but also as a means of empowering the community in increasing productive capacity and expanding economic opportunities in a sustainable manner.

Financial Technology (FinTech)

Financial Technology or FinTech is a technological innovation used to improve the quality, efficiency, and accessibility of financial services. The development of digital technology has encouraged the emergence of various technology-based financial services such as mobile banking, electronic payments, digital wallets, crowdfunding, peer-to-peer lending, and various other digital financial platforms. The presence of FinTech allows people to obtain financial services with faster processes, lower costs, and a wider reach than the conventional financial system.

According to Hinson et al. (2019), FinTech plays an important role in expanding access to finance, especially for community groups that have not previously been served by formal financial institutions. Arner et al. (2019) explain that the development of FinTech has been a major catalyst in driving the transformation of the financial system towards a more inclusive and sustainable model. Meanwhile, Al Nawayseh (2020) stated that the adoption of financial technology continues to increase due to the ease of use, speed of service, and cost efficiency offered to users. Benni's research (2021) also shows that FinTech has great potential in supporting economic development through increasing transaction efficiency and expanding access to financing for the community and business actors. With these characteristics, FinTech is one of the innovations that is able to reduce barriers to financial access and increase public participation in the formal financial system.

FinTech, Financial Inclusion, and Sustainable Development

The relationship between FinTech, financial inclusion, and sustainable development is gaining attention in various academic researches. FinTech is seen as an instrument that can expand access to finance thereby driving increased economic productivity, poverty reduction, and the creation of more inclusive growth. Through various digital service innovations, people can gain easier access to savings, credit, investments, and other financial instruments that support productive economic activities.

The United Nations (2020) places financial inclusion as one of the supporting factors for achieving the Sustainable Development Goals (SDGs), especially in the aspects of poverty alleviation and inequality reduction. The OECD (2021) also emphasized that access to finance is an important element in supporting business sustainability and inclusive economic growth. Arner et al. (2019) explain that the integration between FinTech and financial inclusion can produce a more efficient financial system and be able to reach community groups that have been marginalized from formal financial services. In addition, Mhlanga (2022) shows that the use of FinTech can increase people's economic resilience through wider access to various digital financial services that support sustainable development. Based on these findings, FinTech and financial inclusion have a complementary relationship in supporting the

achievement of sustainable development goals through increasing access, participation, and economic empowerment of the community.

3. | RESEARCH METHOD

This study uses a descriptive qualitative approach with a literature review method to analyze the role of Financial Technology (FinTech) in strengthening financial inclusion and its implications for sustainable development. The qualitative approach was chosen because it was able to provide a deeper understanding of the phenomenon being researched through the interpretation of various relevant scientific sources. This research does not use primary data, but rather utilizes secondary data obtained from various scientific publications, journal articles, reports of international institutions, and academic documents that discuss FinTech, financial inclusion, and sustainable development. The literature study method is considered suitable for identifying, reviewing, and synthesizing various results of previous research so as to produce a comprehensive understanding of the relationship between the three concepts. This approach also allows researchers to develop a conceptual framework that explains FinTech's contribution to improving financial access and achieving sustainable development goals (Mhlanga, 2022).

The data collection process was carried out through searching for various scientific sources indexed by Google Scholar and published in the 2018–2022 range to be in accordance with the latest literature developments at the time this research was designed. The selected literature includes articles from reputable international journals, reports of international institutions, and academic publications that are directly related to the research topic. The criteria for selecting sources include the relevance of the theme, the credibility of the publisher, the indexing in academic databases, and their contribution to the discussion of FinTech, financial inclusion, and sustainable development. The collected data is then analyzed using content analysis techniques, namely by identifying the main themes, grouping research findings by conceptual similarity, and interpreting relationships among variables in the literature. Through this process, this research seeks to produce a theoretical synthesis that explains how the development of FinTech can expand access to financial services, increase community economic participation, and support more inclusive and sustainable development. The use of content analysis also allows researchers to identify research gaps that are still present in previous studies so that they can be the basis for further research development (Kyngäs, 2019; Mhlanga, 2022).

4. | RESULTS

The results of the literature review show that the development of Financial Technology (FinTech) has become one of the main factors driving the expansion of financial inclusion in various countries. The digital transformation that has occurred in the financial sector allows people to gain easier access to various formal financial services without having to rely on the physical offices of financial institutions. The

development of digital technology has presented various service innovations such as mobile banking, digital payments, electronic wallets, crowdfunding, and peer-to-peer lending that are able to reach community groups that previously experienced limited access to formal financial services. This condition shows that FinTech not only functions as a technological innovation, but also as an instrument capable of expanding public participation in the modern financial system (Hinson et al., 2019; Arner et al., 2019).

Various studies show that increased access to formal financial services has a significant contribution to more inclusive economic development. Access to savings, credit, insurance, and payment services allows people to manage financial resources more effectively. Park and Mercado (2018) found that financial inclusion is associated with a reduction in poverty rates and income inequality, especially in developing countries. These findings are strengthened by Abor et al. (2018) who explain that expanding access to finance is able to increase people's economic participation through the use of communication technology and digital financial services. Thus, increasing financial inclusion can create wider economic opportunities for various groups of people.

The development of FinTech also contributes to the improvement of the efficiency of financial services. Before the advent of various digital platforms, people often faced various obstacles in accessing financial services, such as high transaction fees, long geographical distances, and complicated administrative procedures. The presence of digital financial services allows various transactions to be carried out quickly, easily, and efficiently. Al Nawayseh (2020) explained that the ease of use of technology is one of the main factors that encourage the increase in the adoption of FinTech services in various countries. In addition, the use of digital technology also allows financial institutions to reduce operational costs so that financial services can be provided to the public at a more affordable cost.

Literature review also shows that FinTech has an important role in expanding access to financing for micro, small, and medium enterprises (MSMEs). This business group often faces difficulties in obtaining access to credit from conventional financial institutions due to limited collateral, credit history, and other administrative requirements. The presence of digital financing platforms provides an alternative source of financing that is more flexible and accessible. The OECD (2021) emphasizes that access to finance is an important factor in supporting business sustainability and increasing economic competitiveness. With the support of FinTech, business actors can obtain business capital faster so that they are able to increase productivity and expand their economic activities.

In addition to supporting access to financing, FinTech also plays a role in improving people's financial literacy. The use of various digital financial applications allows users to obtain broader information about financial management, investments, savings, and various other financial products. Kass-Hanna et al. (2022) explained that

digital literacy and financial literacy are two interrelated components in creating community economic resilience. Increasing public understanding of digital financial services can encourage the use of more effective financial products so as to contribute to improving long-term welfare.

The results of the study also show that financial inclusion is closely related to poverty reduction efforts. Access to financial services allows people to obtain the resources they need to develop productive businesses, increase household consumption, and face various economic risks. Omar and Inaba (2020) found that increased financial inclusion contributes to a decrease in poverty rates and income inequality in various developing countries. The findings are in line with Lal (2018) research which shows that access to financial services can strengthen the economic capacity of low-income communities through increased access to credit and savings.

In the context of sustainable development, various studies show that financial inclusion plays a role as an instrument that supports the achievement of more inclusive development goals. The United Nations (2020) emphasized that access to financial services is one of the supporting factors for achieving various Sustainable Development Goals (SDGs) targets, especially those related to poverty reduction, welfare improvement, and inclusive economic growth. With wider access to formal financial services, people have a greater opportunity to participate in productive economic activities that can improve their quality of life in a sustainable manner.

Arner et al. (2019) explain that the integration between FinTech and financial inclusion can result in a financial system that is more adaptive to the needs of modern society. The use of technology allows financial services to reach groups of people who were previously untouched by the conventional banking system. This condition shows that FinTech plays a role as a link between technological developments and efforts to create a more inclusive financial system. In other words, the success of FinTech implementation is not only measured by the level of technology adoption, but also by its ability to expand financial access for the community.

Research by Van et al. (2021) shows that increased financial inclusion has a positive relationship with economic growth. As people gain wider access to financial services, economic activity tends to increase due to the availability of financing sources and financial instruments that support productive activities. Economic growth resulting from increased financial inclusion also tends to be more equitable because it involves groups of people who were previously underserved by the formal financial system.

A study conducted by Benni (2021) shows that FinTech developments have great potential in supporting the sustainable development agenda through increasing financial system efficiency and expanding economic access. Digital technology allows for reduced transaction costs, increased transparency, and expanded reach of financial services to various levels of society. Thus, FinTech can be one of the instruments that supports the creation of a more inclusive and sustainable economic system.

Another finding that has emerged in the literature is the importance of the relationship between FinTech, financial inclusion, and the economic resilience of communities. The World Bank (2021) explained that access to financial services can help people face various economic risks through the use of savings, credit, and other financial instruments. In situations of economic uncertainty, people who have access to formal financial services tend to have better adaptability than those who do not have such access.

Mhlanga (2022) emphasized that FinTech can play a role as an instrument that strengthens economic resilience through the provision of financial services that are more accessible and more responsive to people's needs. The development of financial technology allows individuals and business actors to gain access to various financial resources needed to maintain and develop their economic activities. These findings reinforce the argument that FinTech not only contributes to the expansion of financial access, but also to the creation of more resilient and sustainable economic systems.

Overall, the results of the study show that FinTech has a significant contribution to strengthening financial inclusion through increasing access, efficiency, and affordability of financial services. Wider financial inclusion further contributes to poverty reduction, improved welfare, economic growth, and the achievement of sustainable development goals. Despite this, the existing literature still shows that most studies examine the relationship between FinTech, financial inclusion, and sustainable development separately. Therefore, a more integrative approach is needed to understand how FinTech can serve as a key mechanism linking the expansion of financial inclusion with the achievement of sustainable development. These findings also strengthen the research gap that is the basis of this research, namely the need for a conceptual synthesis that integrates FinTech, financial inclusion, and sustainable development in one comprehensive analytical framework.

5. | DISCUSSION

The results of the study show that Financial Technology (FinTech) has a strategic role in strengthening financial inclusion through expanding access, improving service efficiency, and reducing various barriers that have limited public participation in the formal financial system. These findings reinforce the view that the development of digital technology has changed the paradigm of financial services from one that was previously oriented towards physical infrastructure to more flexible and accessible technology-based services. In this context, FinTech not only serves as a technological innovation, but also as a development instrument capable of expanding economic opportunities for various groups of society (Arner et al., 2019).

This study found that the relationship between FinTech and financial inclusion is mutually reinforcing. The presence of various digital financial services such as electronic payments, digital wallets, and technology-based financing platforms allows people to gain wider access to finance than conventional systems. These findings are

in line with research by Hinson et al. (2019) which states that FinTech innovations are able to reach groups of people who were previously not served by formal financial institutions. Thus, FinTech contributes to reducing the gap in access to finance which has been one of the main obstacles to inclusive economic development.

Furthermore, the results of the study show that increasing financial inclusion has the potential to have a positive impact on poverty reduction and improving people's welfare. Access to credit, savings, and various other financial instruments allows people to develop productive activities that can increase household income and economic resilience. These findings support the research findings of Park and Mercado (2018) and Omar and Inaba (2020) which show that financial inclusion has a significant relationship with poverty reduction and income inequality. Therefore, expanding access to finance through FinTech can be seen as one of the strategies to create more equitable economic growth.

In the perspective of sustainable development, this study also shows that FinTech and financial inclusion have a relevant contribution to the achievement of the Sustainable Development Goals (SDGs). Increased access to finance not only supports economic growth, but also contributes to community empowerment, business capacity building, and reduction of socio-economic disparities. These findings are in line with the views of the United Nations (2020) and OECD (2021) which place financial inclusion as one of the supporting factors for sustainable and inclusive development.

One of the important findings of this study is that there are still limited studies that integrate FinTech, financial inclusion, and sustainable development in one complete conceptual framework. Most previous studies have tended to examine the relationship between these variables separately. In fact, the results of the literature synthesis show that the three concepts have a strong relationship and influence each other. These findings strengthen the argument of Mhlanga (2022) who emphasizes the importance of understanding FinTech as an instrument that is able to strengthen the benefits of financial inclusion in supporting sustainable development goals. Thus, this study provides a theoretical contribution in the form of strengthening an integrative perspective that places FinTech as the main link between expanding financial inclusion and achieving sustainable development (Kass-Hanna et al., 2022).

6. | CONCLUSION

This study aims to analyze the role of Financial Technology (FinTech) in strengthening financial inclusion and its implications for sustainable development through a literature review approach. The results of the study show that the development of FinTech has made a significant contribution in expanding people's access to formal financial services. Innovations such as digital payments, e-wallets, mobile banking, and technology-based financing platforms have been able to reduce geographical barriers, costs, and procedures that have limited people's access to the formal financial system.

The increase in financial inclusion supported by FinTech provides a wide range of economic and social benefits. Wider access to savings, credit, financing, and other

financial services allows people to increase productive capacity, strengthen economic resilience, and expand business and investment opportunities. These conditions contribute to poverty reduction, improved welfare, and more inclusive economic growth.

In addition, the results of the study show that FinTech and financial inclusion are closely related to the achievement of sustainable development goals. Expanding access to finance is able to support community empowerment, reduce economic disparities, and increase the participation of various community groups in productive economic activities. Therefore, FinTech can be seen as a strategic instrument in supporting more inclusive and sustainable development.

The study also shows that more comprehensive studies are still needed to integrate the relationship between FinTech, financial inclusion, and sustainable development in a single comprehensive analytical framework. Further research is recommended to develop an empirical model that can examine these relationships in more depth so as to produce recommendations that are more applicable for the development of digital finance policies and practices in the future.

Acknowledgment

We gratefully acknowledge the contributions of individuals who supported the completion of this article.

Funding Information

This research did not receive any funding.

Conflict of Interest Statement

The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement

Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

Abor, J. Y., Amidu, M., & Issahaku, H. (2018). Mobile telephony, financial inclusion and inclusive growth. *Journal of African Business*, *19*(3), 430-453.

Al Nawayseh, M. K. (2020). Fintech in COVID-19 and beyond: what factors are affecting customers' choice of fintech applications? *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(4), 153.

Arner, D. W., Buckley, R. P., Zetzsche, D. A., & Veidt, R. (2019). Sustainability, FinTech and financial inclusion. *University of Luxembourg Law Working Paper No. 006-2019.* 1-24.

Benni, N. (2021). *Digital finance and inclusion in the time of COVID-19: Lessons, experiences and proposals*. Food & Agriculture Org.

Hinson, R., Lensink, R., & Mueller, A. (2019). Transforming agribusiness in developing countries: SDGs and the role of FinTech. *Current Opinion in Environmental Sustainability*, *41*, 1-9.

Kass-Hanna, J., Lyons, A. C., & Liu, F. (2022). Building financial resilience through financial and digital literacy in South Asia and Sub-Saharan Africa. *Emerging Markets Review*, *51*, 100846.

Kyngäs, H. (2019). Qualitative research and content analysis. In *The application of content analysis in nursing science research* (pp. 3-11). Cham: Springer International Publishing.

Lal, T. (2018). Impact of financial inclusion on poverty alleviation through cooperative banks. *International Journal of Social Economics*, *45*(5), 808-828.

Mhlanga, D. (2022). The role of financial inclusion and FinTech in addressing climate-related challenges in the industry 4.0: Lessons for sustainable development goals. *Frontiers in Climate*, *4*, 949178.

OECD. (2021). Financing SMEs and entrepreneurs 2021: An OECD scoreboard. OECD Publishing.

Omar, M. A., & Inaba, K. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. *Journal of economic structures*, *9*(1), 37.

Park, C. Y., & Mercado Jr, R. (2018). Financial inclusion, poverty, and income inequality. *The Singapore Economic Review*, *63*(01), 185-206.

United Nations. (2020). The Sustainable Development Goals Report 2020. United Nations. Retrieved Mei 20, 2022 form https://unstats.un.org/sdgs/report/2020/

Van, L. T. H., Vo, A. T., Nguyen, N. T., & Vo, D. H. (2021). Financial inclusion and economic growth: An international evidence. *Emerging Markets Finance and Trade*, *57*(1), 239-263.

World Bank. (2021). Global Financial Development Report 2021. World Bank. Retrieved Mei 15, 2022 from https://share.google/s4rYDJX8TAXWkeVXz