



# The Role of Financial Technology (Fintech) in Improving Financial Inclusion

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## Article Info

### Article history:

Received 18 Jan, 2025

Revised 09 Mar, 2025

Accepted 16 Mar, 2025

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### Keywords:

Fintech, Financial Inclusion,  
Access to Financial Services,  
Data Security

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## ABSTRACT

Financial Technology (Fintech) plays a crucial role in enhancing financial inclusion in Indonesia by providing easier and more affordable access to financial services, particularly for communities previously marginalized by traditional banking systems. Through digital innovations such as digital payments, peer-to-peer (P2P) lending, and technology-based investments, fintech creates new opportunities for the public to access financial products. However, challenges related to data security and financial literacy remain significant barriers that need to be addressed. This article discusses how fintech contributes to improving financial inclusion in Indonesia, identifies its benefits, and reviews the challenges encountered in its implementation. With proper regulation and increased financial literacy, fintech can accelerate the achievement of more equitable financial inclusion.

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## INTRODUCTION

Financial inclusion is a fundamental aspect of promoting an inclusive economic development strategy, where every segment of society, without exception, can access the financial services necessary to improve their quality of life. Adequate access to financial services has a significant impact, including simplifying economic transactions, enhancing saving abilities, and providing access to financing for business development and job creation. More broadly, proper financial inclusion can improve the economic well-being of the population and promote more equitable economic growth. Therefore, creating a more inclusive and affordable financial system for all is a key goal for developing countries, including Indonesia (Walker et al., n.d.).

Despite the rapid growth of the banking sector in Indonesia in recent years, there remains a significant gap in access to financial services. According to data from the World Bank, approximately 63% of Indonesia's population still lacks full access to formal financial services, such as bank accounts, loans, insurance products, and investment opportunities. This inequality is not only seen between urban and rural populations but also between the formal and informal sectors. Workers in the informal sector, such as farmers, small traders, daily laborers, and the poor, often struggle to access financial services offered by traditional banks. This indicates that many Indonesians are still marginalized from the formal financial system (Firmansyah & Ramdani, 2018).

The causes of this disparity are complex and involve various factors. First, limited financial infrastructure, especially in remote areas, hinders much of the population from accessing banking services. Traditional banks tend to be concentrated in urban areas, with limited branches in rural regions. Additionally,

high transaction costs and complicated administrative procedures make many people feel unable to reach conventional banks. Another significant challenge is the lack of financial literacy. Many people, particularly in remote areas, lack an understanding of how to manage finances wisely and are unaware of the various products and services available to them. Often, they feel unable or unsure of how to make use of available financial products.

Moreover, the inability to meet the strict requirements imposed by traditional banks, such as proof of a steady income, collateral, and a good credit history, exacerbates difficulties in accessing financial services. This is especially true for the majority of Indonesians who work in the informal sector, where steady income or clear proof of earnings is not always available. Furthermore, limited access to information and technology also poses a significant barrier, particularly for people in rural areas who may lack adequate access to the internet and other digital devices.

In response to these challenges, Financial Technology (Fintech) has emerged as an innovative and revolutionary solution to overcome barriers to financial inclusion. Fintech refers to the use of digital technology to provide more efficient, affordable, and accessible financial services. By utilizing digital platforms, fintech can offer financial services that benefit not only individuals in large cities but also those in remote areas or marginalized by traditional banking systems.

Fintech offers various products that meet the needs of communities that were previously underserved by the traditional financial system. Popular fintech examples in Indonesia include digital payment applications such as OVO, GoPay, DANA, and LinkAja, which allow users to easily make payments for products and services using their smartphones. Additionally, fintech also provides peer-to-peer (P2P) lending services, such as Kredit Pintar, Modalku, and Investree, which offer financing to individuals or small businesses struggling to obtain credit from traditional banks. Through this system, people who lack collateral or a good credit history can access loans with more relaxed requirements and faster processes (Financial Technology and Disruptive Innovation in ASEAN, 2023).

The presence of fintech in Indonesia's financial landscape is further strengthened by the rapid adoption of mobile technology among the population. With over 300 million mobile phone users in Indonesia, the potential for fintech to expand financial inclusion is vast. Smartphone users are not limited to large cities but also reach remote areas, where access to traditional banks is often limited. Therefore, fintech provides an opportunity for people from all walks of life to access financial services, from payments and money transfers to loans and investments.

In addition, fintech introduces more flexible financial models, such as technology-based investments and digital insurance, which offer opportunities for people to participate in the financial market without needing substantial capital. For example, investment platforms like Bareksa and Ajaib provide access for the public to invest in stocks, mutual funds, or other financial products with relatively small investment amounts. This creates opportunities that were previously difficult to obtain for those with limited incomes.

However, despite the significant potential of fintech to enhance financial inclusion, its implementation is not without challenges. One of the greatest challenges is related to the security and protection of users' personal data. As the volume of digital transactions increases, the risks of data breaches and online fraud also rise. Users who are unaware of potential threats to their data often become targets for fraudulent practices or cybercrime. Therefore, it is essential for the government and fintech service providers to continue improving user data protection and strengthening security systems across fintech platforms.

Additionally, the low level of digital financial literacy presents another challenge that cannot be ignored. People who are not familiar with how to use fintech products and services wisely may fall into financial risks, such as overspending, uncontrolled debt, or fraud. Therefore, joint efforts between the government, financial institutions, and fintech providers are required to educate the public on how to use fintech services safely and intelligently. Broader financial literacy programs, especially those focused on digital literacy, must be an integral part of efforts to improve financial inclusion.

Lastly, regulatory aspects are also crucial in the development of secure and inclusive fintech. Without clear and supportive regulations, the fintech sector may develop without a clear direction, potentially creating uncertainty for users and investors. The government, through the Financial Services Authority (OJK) and Bank Indonesia, has begun to formulate policies to regulate the fintech sector, but these policies must continue to evolve to address the rapid development of financial technology and create a transparent and fair market (Goswami et al., 2022).

This article aims to provide an in-depth review of fintech's role in accelerating financial inclusion in Indonesia, as well as the challenges that must be overcome to maximize fintech's potential. By understanding the potential, benefits, and challenges of fintech, it is hoped that appropriate solutions can be found to optimize fintech's contribution in creating a more inclusive, efficient, and secure financial system for all segments of Indonesian society.

## RESEARCH METHODS

This research adopts a descriptive qualitative approach with the aim of gaining a deep and comprehensive understanding of the role of Financial Technology (Fintech) in enhancing financial inclusion in Indonesia. A qualitative approach is chosen because it allows for a more comprehensive picture of the dynamics and factors influencing the implementation of fintech, as well as its impact on access to financial services for the population. Through this approach, the research seeks to explore how fintech affects communities previously marginalized by the traditional financial system and to identify the challenges and opportunities that arise from the adoption of financial technology.

Data for this study was collected from various relevant sources that provide deeper insights into the topic. The primary data source includes literature reviews from books, academic articles, journals, research reports, and publications from relevant institutions such as Bank Indonesia, the Financial Services Authority (OJK), and research organizations focused on fintech and financial inclusion. In addition, the research also uses secondary data from annual reports and government policy documents, both at the national and regional levels, which reflect the development and regulation of fintech and financial inclusion in Indonesia.

The data collection process was carried out in several stages. Initially, the researcher conducted a literature review to identify key topics and the relevance of fintech in driving financial inclusion. This literature review included articles published in academic journals, research reports from international institutions such as the World Bank, IMF, and other organizations examining aspects of financial inclusion, as well as publications related to the fintech sector. Furthermore, the researcher also examined policy documents issued by government agencies like OJK and Bank Indonesia, which are responsible for regulating and overseeing the fintech sector in Indonesia.

In addition to the literature review, this study also involved in-depth interviews with key informants who have direct knowledge and experience regarding the development of fintech and financial inclusion in Indonesia. These informants included fintech practitioners, financial technology entrepreneurs, government officials from OJK, Bank Indonesia, as well as financial industry players and fintech service users from various social strata, including those living in remote areas and those working in the informal sector. The interviews were conducted to obtain a more holistic understanding of the barriers to accessing financial services and how fintech can address these issues.

The data gathered from the interviews was then analyzed using thematic analysis techniques. This method allows the researcher to identify key themes related to the role of fintech in promoting financial inclusion, the challenges faced in implementing fintech, and potential solutions to enhance fintech's benefits. The thematic analysis process involves organizing the data into relevant thematic categories, allowing patterns or relationships between the factors influencing fintech adoption in Indonesia to be identified. The findings from this analysis are expected to provide a clear picture of the impact of fintech on access to financial services in Indonesia and offer insights for policymakers, the fintech industry, and the general public on the potential of fintech to accelerate financial inclusion.

Moreover, the research also utilizes secondary data in the form of relevant statistics and figures from government agencies and independent research institutions. These secondary data are used to strengthen the findings from the literature review and interviews. By analyzing the trends in fintech development in Indonesia, the number of fintech service users, and the level of access to financial services in specific regions, this research aims to provide a more objective picture of the extent to which fintech has succeeded in addressing financial inclusion issues.

This research methodology also considers the validity and reliability of the data by employing data triangulation, which involves comparing the results from interviews, secondary data, and the literature review to ensure consistency and accuracy in the findings. This triangulation approach is expected to enhance the credibility of the research results and ensure that the conclusions drawn are based on valid and trustworthy evidence.

Through this methodology, the study aims to provide deeper insights into fintech's contribution to improving financial inclusion in Indonesia. By exploring the challenges, opportunities, and impacts faced by fintech in the Indonesian context, it is hoped that the research can offer valuable recommendations for policymakers, fintech service providers, and the public to leverage financial technology in achieving a more inclusive, fair, and sustainable financial system.

## RESULT AND DISCUSSION

This section will discuss in detail the role of Financial Technology (Fintech) in improving financial inclusion in Indonesia, focusing on four main aspects: 1) the use of technology to expand financial access, 2) challenges faced in implementing fintech, 3) the impact of fintech on the economy and society, and 4) solutions and policies that can support the development of more inclusive fintech. Each of these aspects will be explained in more detail to provide a comprehensive understanding of fintech's contribution to advancing financial inclusion in Indonesia.

### Utilizing Technology to Expand Financial Access

Fintech has transformed the financial system paradigm, which previously relied on physical bank branches for accessing financial services. With the emergence of various technology-based applications, fintech has been able to offer broader access to financial services for the Indonesian population, including those in remote areas or working in the informal sector. One of the most notable aspects of this development is digital payment applications. Apps such as OVO, GoPay, DANA, and LinkAja enable users to conduct financial transactions directly from their smartphones. As a result, individuals who previously lacked direct access to traditional banks can now benefit from essential financial services (Mustafa et al., 2023).

According to the latest data from Bank Indonesia, more than 70 million Indonesians currently use digital payment apps, with the majority residing outside major cities. These platforms enable them to carry out various financial transactions, such as bill payments, purchasing goods and services, money transfers, and payments for other services, without needing a bank account or visiting a physical bank branch. This is particularly significant for those living in remote areas or rural regions with limited banking infrastructure.

In addition, peer-to-peer (P2P) lending platforms have become a major solution for expanding access to financing for individuals and MSMEs (Micro, Small, and Medium Enterprises) that are often overlooked by traditional banks. Platforms like Modalku, Kredit Pintar, and Investree allow people to access financing with more flexible and lenient requirements. Many micro and small business owners previously struggled to obtain credit from banks due to stringent conditions, such as collateral or insufficient credit histories. Through P2P lending, MSMEs can access capital without having to meet criteria that are often out of reach for many.

Moreover, technology-based investments have also played an important role in improving financial inclusion. Previously, investments such as stocks and mutual funds were only accessible to a select few who had sufficient knowledge and capital. However, platforms like Ajaib, Bareksa, and Tanamduit have opened up opportunities for people with small capital to start investing in the stock market. These apps offer low-cost investments and allow individuals to invest with minimal amounts, thus providing greater opportunities for the lower and middle-income classes to benefit from the financial market.

On the other hand, digital insurance has emerged as another growing fintech innovation in Indonesia. Insurance products, which were previously seen as expensive and complicated, can now be easily accessed through fintech applications. Platforms such as PasarPolis and Qoala offer affordable micro-insurance products that allow low-income individuals to access insurance coverage that suits their needs.

### Challenges Faced in Implementing Fintech

While fintech offers numerous opportunities to improve financial inclusion, its implementation is not without challenges. One of the main issues is the security and protection of user data. With the rapid growth of fintech, many fintech applications rely on digital technology to store and manage users' personal data and financial transactions. This creates a high risk of data breaches and cybersecurity threats. Misuse of personal information by unauthorized parties can harm users and damage the reputation of the fintech industry as a whole (Hussein, 2020).

Data breach incidents involving fintech apps, such as credit card fraud, identity theft, and cyberattacks, are significant issues that must be addressed. Therefore, fintech service providers must invest in advanced security systems such as data encryption and two-factor authentication to ensure that users' data remains safe from potential threats.

Another challenge is the low level of financial and digital literacy in Indonesia, especially among people in remote areas. While fintech apps make financial services more accessible, many users are not fully aware of how to use these technologies safely and effectively. Many individuals are unfamiliar with digitalization in the financial world and are often trapped by illegal or poorly regulated online lending schemes. This highlights that, without adequate digital literacy, the potential of fintech to improve financial inclusion may not be fully realized.

Additionally, the unequal access to technology poses a significant challenge in fintech implementation. Despite the increasing penetration of smartphones, many people in rural or remote areas still lack access to smartphones or stable internet connections. This creates disparities in access to fintech services, as nearly all fintech applications depend on smartphones and fast internet connections. Fintech service providers need to collaborate with the government and telecommunication companies to expand digital infrastructure to ensure that fintech services are accessible to all segments of society.

#### 3. The Impact of Fintech on the Economy and Society

The positive impact of fintech on Indonesia's economy is significant. MSMEs, which are the backbone of Indonesia's economy, benefit greatly from easier access to financing through P2P lending platforms. In many cases, MSMEs that previously struggled to obtain loans from traditional banks can now access financing more quickly and easily. With easier access to capital, many MSME owners can expand their businesses, increase production capacity, and create new jobs (Kandpal & Mehrotra, 2019).

Fintech also plays a role in boosting domestic consumption, which in turn drives economic growth.

Easy access to consumer loans through fintech apps allows people to purchase goods and services that may have previously been out of reach due to financial constraints. This not only increases the purchasing power of the population but also supports the growth of the retail and trade sectors, which contribute to overall economic growth.

Furthermore, fintech facilitates Indonesia's integration into the global economy. With the use of digital payment platforms and P2P lending, Indonesia can more easily conduct cross-border transactions, both in trade and investment. Fintech platforms accelerate the flow of capital, allowing Indonesian businesses to receive foreign investment more efficiently and opening opportunities for Indonesian companies to offer their products and services in global markets. This is vital for driving digital economic growth and strengthening Indonesia's position in the international market.

#### 4. Solutions and Policies to Support the Development of Inclusive Fintech

To support the development of more inclusive fintech, collaboration between the government, the private sector, and society is necessary. One of the first steps that should be taken is the formulation of clear and supportive regulations. Although the Financial Services Authority (OJK) and Bank Indonesia have issued various fintech regulations, there are still gaps that need to be filled to ensure consumer protection and proper supervision. Flexible and adaptive regulations will encourage innovation in the fintech sector while maintaining financial system stability and security (Study et al., 2021).

Additionally, financial and digital literacy programs need to be expanded, especially among communities with limited exposure to technology. The government, together with fintech service providers, can conduct educational campaigns to raise public awareness about digital financial products, how to use them safely, and understand the risks involved. These training programs could be rolled out in schools, communities, and through social media to reach a broader audience.

It is also important to accelerate the development of digital infrastructure across Indonesia, particularly in areas that are not yet covered by stable internet networks. Fintech service providers, in collaboration with the government and telecommunication companies, should work to expand internet coverage so that more people can take advantage of fintech services. Additionally, the government can provide support to facilitate the availability of affordable technology devices for low-income individuals.

Fintech has enormous potential to accelerate financial inclusion in Indonesia by offering broader access to financial services that were previously difficult to obtain. However, its implementation is not without challenges. Issues related to security, digital financial literacy, and unequal access to technology must be addressed for fintech to achieve its optimal impact. With the right regulations, intensive education programs, and the development of digital infrastructure, fintech can contribute to creating a more inclusive and sustainable financial system in Indonesia.

#### CONCLUSIONS

In the context of Indonesia, Financial Technology (Fintech) plays a crucial role in driving financial inclusion by opening access to financial services for marginalized groups, such as those living in remote areas or working in the informal sector. Through various innovations, such as digital payment applications, peer-to-peer (P2P) lending platforms, and digital insurance and investment services, fintech offers more efficient and flexible solutions compared to conventional banking systems. This allows individuals from various social and economic backgrounds to access financial services tailored to their needs, without being limited by geographic location or access to traditional banking infrastructure.

Although fintech holds great potential, its implementation faces several challenges that need to be addressed in order to achieve broader financial inclusion. Issues related to data security, digital financial literacy, and unequal access to technology are key barriers to ensuring that fintech can provide maximum benefits to all segments of society. Therefore, it is essential for the government, fintech service providers, and the public to collaborate in overcoming these challenges, through clear regulations and comprehensive education on the safe and efficient use of financial technology.

Overall, with the right regulatory support, improved financial literacy, and expanded digital infrastructure, fintech has the potential to make a significant positive impact on Indonesia's economy. It can drive more inclusive economic growth, expand financing access for MSMEs, and enhance the overall well-being of the population. Therefore, it is necessary to have synergy among various stakeholders to ensure that fintech develops sustainably and provides optimal benefits to all of Indonesia's society.

#### REFERENCES

- Financial Technology and Disruptive Innovation in ASEAN. (2023).
- Firmansyah, H. B., & Ramdani, A. L. (2018). *The Role of Islamic Financial Technology ( FinTech ) Start-up in Improving Financial Inclusion in Indonesia Case : Angsur*. April.
- Goswami, S., Sharma, R. B., & Chouhan, V. (2022). Impact of Financial Technology ( Fintech ) on Financial Inclusion ( FI ) in Rural India. 10(2), 483–497. <https://doi.org/10.13189/ujaf.2022.100213>

- Hussein, H. (2020). The Impact of Financial Technology on Financial Inclusion : The Case of Egypt. 11(6), 35–51. <https://doi.org/10.9790/5933-1106023551>
- Kandpal, V., & Mehrotra, R. (2019). FINANCIAL INCLUSION: THE ROLE OF FINTECH AND DIGITAL FINANCIAL SERVICES IN INDIA. 19(1), 85–93.
- Mustafa, J. A., Marei, A. Z., Abbadi, A. Al, & Sciences, W. I. (2023). The Role of Fintech Payment Instruments in Improving Financial Inclusion The Role of Fintech Payment Instruments in Improving Financial Inclusion. July. <https://doi.org/10.18576/isl/120637>
- Study, C., Rosyadah, K., & Hasrat, T. (2021). The Role of Fintech : Financial Inclusion in MSMEs. 8(2), 268–275.
- Walker, T., Turtle, H. J., & Kooli, M. (n.d.). Fintech and Sustainability How Financial Technologies Can Help Address Today ' s Environmental and.