
FINANCIAL TECHNOLOGY AS AN EFFORT TO EXPAND FINANCIAL INCLUSION FOR MSMEs IN INDONESIA A LITERATURE REVIEW

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ABSTRACT

This study focuses on analyzing the role of financial technology in enhancing financial inclusion access for Micro, Small, and Medium Enterprises in Indonesia. Using a qualitative approach through a literature review method, this research examines various literatures and previous studies that explore the relationship between fintech, financial literacy, and the level of financial inclusion. The findings indicate that fintech plays a crucial role in broadening access to financing, facilitating digital transactions, and supporting MSMEs in financial management. Collaboration between fintech and financial institutions, including Islamic banking, can further extend the reach of formal financial services to MSME actors who were previously underserved. However, the implementation of fintech still faces several challenges, such as low levels of digital literacy, limited supporting infrastructure, and regulations that have not fully adapted to technological advancements. Therefore, synergy among the government, financial authorities, fintech service providers, and MSME actors is essential to create a financial ecosystem that is inclusive, sustainable, and adaptive to technological developments)

Keywords: Fintech, Financial Inclusion, MSMEs, Financial Literacy

BACKGROUND

In the current era of globalization, nearly all human activities are influenced by technological advancements. Technology serves as a tool that helps people utilize and manage various resources more efficiently and effectively. This development indicates that knowledge will continue to advance over time. The rapid advancement of technology and information today has brought significant changes to human life. Developments in the field of information and communication have influenced cashless payment systems through various new innovations. In the financial sector, technological innovation is not entirely new, as technology and finance share a long history of interconnection. Therefore, financial technology is not a completely new development for the financial services industry.

Financial technology introduces various innovations that facilitate access to financial services through digital platforms, making the process faster, more affordable, and convenient. Services such as digital payments, online loans, and online investments provide alternatives for those who face difficulties accessing traditional banking. Innovations like mobile banking, digital identification, and the use of big data, artificial intelligence, and blockchain also support the creation of a more inclusive, secure, and efficient financial ecosystem. However, geographic limitations, high costs, and low financial literacy remain challenges for some members of society. The development of fintech presents opportunities to overcome these obstacles and expand financial inclusion.

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Financial inclusion is a crucial aspect of economic development, particularly in developing countries. This concept emphasizes the importance of expanding access to and utilization of formal financial services across all segments of society to promote economic growth and reduce social inequality. The development of financial technology (fintech) plays a significant role in broadening the reach of financial inclusion, especially for Micro, Small, and Medium Enterprises. Through easily accessible, fast, and efficient services, fintech assists MSMEs in overcoming various challenges related to financing, transactions, and financial management. However, achieving comprehensive financial inclusion requires collaboration among the government, fintech service providers, and MSME actors to jointly address the existing obstacles. (Akuntansi, 2025)

Financial inclusion can be optimized with the support of financial technology, or fintech. For MSMEs, fintech plays a role in facilitating access to capital from financial institutions. The various features offered by fintech applications are expected to help MSMEs expand their market reach, thereby potentially increasing their revenue and improving community welfare. (Karmeli et al., 2021)

The welfare of a country can be reflected by the growth of its national income, one of the key indicators of which is the Gross Domestic Product (GDP). Indonesia's GDP is composed of various sectors, including Micro, Small, and Medium Enterprises (Munthay & Sembiring, 2024). Micro, Small, and Medium Enterprises play a strategic role in Indonesia's economy as they can stimulate economic growth while simultaneously creating employment opportunities. According to Law Number 20 of 2008 concerning MSMEs, the primary objective of this sector is to develop businesses to achieve a more equitable and balanced national economy. However, MSMEs often face various challenges, particularly in financial management, which can affect business sustainability. Technological advancements, especially among the millennial generation, have increasingly digitized financial services. Innovations in financial technology (fintech), including payments, investments, and financing, have expanded access to financial products and services, facilitated transactions, and created opportunities for new business models. (Aprelia et al., 2025)

The collaboration between fintech and Islamic financial institutions, particularly Islamic banks, has the potential to enhance financial inclusion for MSMEs in Indonesia. Rapid technological advancements have penetrated various sectors, including finance, ushering the financial industry into the digital era. The implementation of financial technology in Islamic banking facilitates business actors, particularly MSMEs, in accessing Sharia-based financial products and services, as well as applying for financing online without the need to visit a branch office.

This approach not only enhances MSMEs' access to financial services but also contributes to expanding financial inclusion and strengthening the performance of Islamic banks. MSMEs hold a strategic role in the economy as they can stimulate economic growth and create employment, thereby supporting economic stability. The growth of MSMEs in Indonesia continues to rise annually, in line with increasing labor

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absorption. Therefore, the government needs to continuously promote MSME development, as an increase in the number of MSMEs will create more job opportunities. However, many Islamic banking products and services remain underutilized by business actors, while technology-based businesses continue to advance. This situation requires Islamic banks to collaborate with fintech, making financial services more inclusive and effectively reaching MSMEs.(Muzdalifa et al., 2024)

The implementation of fintech aligns with the needs of society and Micro, Small, and Medium Enterprises, which increasingly rely on online financial services and digital platforms to access various services. This rapid advancement in technology and finance is known as Financial Technology, a technology that facilitates a wide range of financial services.

However, the adoption of fintech by MSMEs is not without challenges. Factors such as low digital and financial literacy, regulatory constraints, data security concerns, and limited infrastructure readiness continue to hinder the full potential of fintech in expanding financial inclusion.(Rizal et al., 2025)

RESEARCH OBJECTIVES

This study aims to examine the role of financial technology in expanding and enhancing access to financial inclusion for Micro, Small, and Medium Enterprises in Indonesia. Using a qualitative approach based on literature review, this research seeks to identify various forms of fintech contributions in facilitating access to financing, digital transactions, and financial management for MSMEs that have long faced limitations in accessing formal financial services. In addition, this study aims to reveal the challenges encountered in the implementation of fintech, such as low levels of financial and digital literacy, limited supporting infrastructure, and regulations that have not yet fully adapted to technological developments in the financial sector. Hence, the findings of this research are anticipated to offer strategic guidance to the government, financial regulators, and fintech providers in developing a sustainable and inclusive financial inclusion system supported by technology in Indonesia.

LITERATURE REVIEW

FINANCIAL INCLUSION

In Indonesia, according to Presidential Regulation No. 82 of 2016 on the National Strategy for Financial Inclusion, financial inclusion is defined as a condition in which all members of society are able to access various formal financial services that are of high quality, timely, efficient, and secure, with affordable costs and tailored to the needs and capacities of each individual.(Marlina & Fatwa, 2021)

The concept of financial inclusion began to gain attention following the global economic crisis in 2008, which had a significant impact on low-income groups, communities in remote areas, persons with disabilities, undocumented workers, and

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marginalized populations. Financial inclusion reflects a situation in which some members of society lack access to formal banking services, forcing them to rely on their own assets to meet daily needs or address financial challenges. Enhancing financial inclusion in Indonesia has become a top priority to encourage greater and more productive participation of the public in utilizing financial services. This effort is supported by the rapid development of financial technology (fintech), the expansion of financial markets, and the continued growth of the population. Through Presidential Regulation No. 114 of 2020 on the National Strategy for Financial Inclusion, the government aims to strengthen the integrity of economic activities and digital financial services to achieve the objectives of financial inclusion, namely providing access to financial institutions, products, and services that meet the needs of society in order to improve welfare, support economic growth, reduce poverty, and maintain the stability of the financial system. (Literasi et al., 2024)

FINANSIAL TEKNOLOGI

Financial technology, or fintech, refers to innovations in financial services that leverage modern technological advancements, as explained by the National Digital Research Centre (NDRC) in Dublin, Ireland. Fintech services encompass a wide range of financial activities, including payments, investments, loans, fund transfers, financial planning, and financial product comparison. In Indonesia, approximately 142 fintech companies are registered and operational. Various fintech services, such as crowdfunding, mobile digital payments, and money transfer services, have significantly transformed the startup ecosystem. Through crowdfunding mechanisms, companies can easily secure funding from multiple sources worldwide, including individuals who were previously unknown. (Ernama., 2017)

According to Shela and Aris, financial technology, or fintech, refers to the use of technology to provide financial products and services that are easily accessible, efficient, and practical. This technology plays a crucial role in enhancing the effectiveness of digital financial services, particularly in addressing challenges such as limited access to formal financing, high transaction costs, and inadequate financial infrastructure. Fintech services include mobile banking, digital payments, peer-to-peer lending, robo-advisors, and cryptocurrencies. For MSMEs, fintech offers significant benefits, especially through digital payment systems that simplify transactions and save time, making business operations more efficient. (Aprelia et al., 2025)

According to Wachyu and Winarto (2020) (DPE N), fintech can be understood as a technological innovation in the financial services sector that creates various business models, applications, processes, or new products with a tangible impact on the provision of financial services. Financial technology has a key advantage in reaching Indonesian communities that remain unserved by conventional financial services, due to strict banking regulations and the limited physical reach of banks in remote areas. Moreover, fintech offers an alternative form of funding that is considered more

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democratic and transparent compared to conventional financial industries.(Wachyu & Winarto, 2020)

However, the Financial Services Authority (OJK) also highlights several weaknesses of financial technology, including limited official licensing for fund transfers and capital adequacy that does not match that of banks. Other shortcomings involve physical infrastructure, as some fintech companies do not have physical offices, as well as limited experience in implementing procedures that ensure the security of their systems and the integrity of their products.

UMKM

Indonesia ranks fourth in the world in terms of population, following China, India, and the United States. This large population presents various challenges, including unemployment and economic pressures. One sector that plays a crucial role in reducing unemployment while supporting national economic growth is Micro, Small, and Medium Enterprises.(Fadilah et al., 2022)

Micro, Small, and Medium Enterprises (MSMEs) play a central role in Indonesia’s economic structure. Reports from the Ministry of Cooperatives and SMEs indicate that this sector accounts for more than 60% of the national GDP and provides employment for approximately 97% of the labor force. Access to inclusive and sustainable financing is essential to support the development and long-term viability of MSMEs. Without sufficient financial backing, these enterprises may face limitations in innovation and growth, which could consequently slow down the nation’s overall economic progress.(Zulfa & Wahid, 2025)

Micro, Small, and Medium Enterprises play a crucial and strategic role in economic growth, both in developing and developed countries. In Indonesia, MSMEs have proven to be highly resilient during economic crises, making this sector an effective means for poverty alleviation. According to data and research, MSMEs represent the largest group of businesses in the country and are dominant economic actors. Additionally, MSMEs serve as an economic safety valve during crises and act as drivers of economic growth in the post-crisis period.(Sme et al., 2023)

PREVIOUS RESEARCH

No	Author(s) & Year	Title / Focus of Study	Main Findings	Relevance to Current Study
1	Lydia Dumaria Sihombing & Putu Riesty Masdiantini (2025)	Financial Technology (Fintech), Financial Literacy, and Financial Inclusion on MSME Performance in	Found that Fintech, financial literacy, and financial inclusion— both separately and jointly— have a positive and significant	Provides empirical evidence linking fintech adoption and financial literacy with improved MSME performance.

Name: Title

		Badung Regency	effect on MSME performance in Badung. Indicates that greater understanding and technology use in financial management improves business performance.	
2	Rahmathika, Husni, & Adrianto (2025)	Analysis of MSMEs in the Food and Beverage Sector in Padang City	Showed that Cashless Payment, Market Aggregator, and Risk & Investment Management significantly influence financial inclusion. Adoption of financial technology tools (e.g., non-cash payment) increases MSME participation in digital financial systems.	Strengthens evidence that fintech adoption directly supports MSME engagement in digital finance.
3	Shela Aprelia & Aris Eddy Sarwono (2025)	Financial Literacy, Financial Management, and Financial Technology Toward MSME Financial Performance	Found that financial literacy, management, and fintech have positive and sustainable impacts on MSME financial performance. Effective fintech use enhances	Supports theoretical basis from Agency Theory and Technology Acceptance Model regarding transparency and tech adoption.

Name: Title

			financial performance through transparency and technology acceptance.	
4	Risa Nadya Septiani & Eni Wuryani (2020)	Financial Literacy and Inclusion on MSME Performance in Sidoarjo	Showed that financial literacy and inclusion significantly influence MSME performance. Better understanding increases access to financial products and services, thus improving business potential.	Reinforces the role of literacy and inclusion in enhancing MSME access and productivity.
5	Fadilah, Sulaeman Rahman, & Mokhamad Anwar (2022)	Financial Literacy, Inclusion, and Fintech on MSME Performance in Bandung City	Found that financial literacy, inclusion, and fintech jointly have a positive and significant effect on MSME performance. Financial literacy facilitates MSME expansion and profitability; inclusion improves access to financing and sales growth; fintech eases financial management	Provides comprehensive support that fintech, literacy, and inclusion together enhance MSME performance.

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			and provides alternative funding.	
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RESEARCH METHODS

The research method used in this study adopts a qualitative approach with the main technique of literature review. This approach was chosen to conduct an in-depth analysis and synthesis of information relevant to the research topic, namely the influence of financial literacy, financial management, and financial technology on the financial performance of MSMEs. Information was collected comprehensively by gathering and examining theories and findings from various relevant references for further analysis.

RESULTS AND DISCUSSION

RESULTS AND DISCUSSION

1.1 Fintech in Increasing Financial Inclusion for MSMEs in Indonesia

In today’s era of globalization, financial technology (fintech) has developed rapidly and has had a significant impact on the global economy, including on Islamic financial institutions, particularly the Islamic banking sector. As the fourth most populous country in the world, with approximately 255 million people, Indonesia needs to balance its population size with the creation of employment opportunities. Therefore, Indonesia must strive for self-reliance in addressing these challenges by promoting the growth and development of businesses established by its own citizens. Along with the progress of globalization, financial technology (fintech) has advanced rapidly and plays an important role in the global economy, including in Islamic financial institutions, particularly within the Islamic banking sector. Indonesia, as the fourth most populous country in the world with around 255 million people, needs to balance this large population with the creation of adequate employment opportunities. Therefore, Indonesia must strive for self-reliance by encouraging the growth and development of various businesses initiated by local communities.

In addition, the presence of various financial technology companies has made a significant contribution to the development of the MSME sector. Financial technology not only plays a role in providing business capital financing but has also expanded into other areas such as digital payment services and financial management. The following are several types of financial technology services designed to support MSMEs:

1. CapitalLoans

Fintech companies offer business capital loan services with an application process that is simpler than that of conventional financial institutions such as banks. Without requiring collateral and only by completing a few necessary documents, these online loan services serve as an alternative source of funding

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for business owners who wish to obtain financing outside of banks or traditional lending institutions.

2. DigitalPaymentServices

Fintech companies also provide practical and secure digital payment services for business owners. The convenience and security of these transactions can increase consumer interest, thereby benefiting businesses. One example of a fintech company offering digital payment services is the *Jenius* application, which collaborates with online transportation service providers.

3. FinancialManagementServices

There are various fintech applications that offer financial management services aimed at helping MSME actors manage their business finances. These services include expense tracking, investment performance monitoring, and even free financial consultations. If these various digital financial innovations are integrated into the operational systems of Islamic banks, business owners will find it easier to access a wide range of products offered. Consequently, Islamic banks can become more inclusive, as all their products and services would be more accessible to business actors.

1.2 Constraints on Fintech Implementation in Increasing Financial Inclusion for MSMEs in Indonesia

Although Financial Technology (Fintech) offers great potential to expand financial inclusion, its implementation among Indonesian MSMEs still faces various constraints that hinder its benefits. The main obstacles stem from three aspects: the readiness of business actors, infrastructure, and regulation:

1. **Readiness of MSME Actors:** Many MSMEs still have low financial and digital literacy, leading to hesitation, an inability to use Fintech applications optimally, and issues of distrust towards online services due to the proliferation of illegal lending.
2. **Infrastructure Limitations:** Geographical constraints in the form of uneven internet access and network quality outside densely populated areas, as well as the inadequate availability of devices, significantly limit the reach and operational capacity of Fintech services.
3. **Regulation and Credit Data:** From the perspective of service providers, challenges arise from dynamic regulations and the difficulty in assessing the creditworthiness of MSMEs due to the limited formal credit history data (credit scoring), which often leads to financing Fintech (P2P lending) assessing the risk as too high.

Therefore, a strong synergy is needed between the government, regulators (OJK and BI), Fintech service providers, and MSME mentoring institutions. This synergy

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must be focused on efforts to massively increase digital and financial literacy, accelerate the development of telecommunication infrastructure in underdeveloped regions, and develop accurate and standardized alternative credit scoring schemes for MSMEs. By overcoming these fundamental obstacles, the full potential of Fintech as a catalyst for financial inclusion and a driver of MSME growth can be realized, thereby creating a more inclusive and sustainable economic ecosystem in Indonesia.

These constraints indicate that digital solutions alone are not sufficient; intensive and targeted mentoring programs are absolutely necessary. This mentoring must focus on practical training in the use of applications, education on the risks of illegal lending, and encouragement to perform digital financial recording, which will ultimately build good financial management habits among MSMEs. Thus, the gap between available technological innovation and the ability to adopt it at the grassroots level can be minimized, making Digital Financial Inclusion truly a reality for all levels of MSME actors in Indonesia.

DISCUSSION

The development of Fintech in Indonesia brings significant changes to the patterns of financial access and management in the MSME sector. Innovations such as peer-to-peer lending, digital payments, and financial management applications have proven capable of bridging the gap in access to formal financial services. Fintech provides a financing alternative that is faster, cheaper, and more flexible compared to conventional institutions, while also promoting the transactional efficiency of small businesses.

Nevertheless, the adoption of fintech is not yet evenly distributed across Indonesia. Low financial and digital literacy remains the main obstacle, followed by limitations in internet network infrastructure in remote areas. Other challenges arise from the aspects of regulation and consumer protection, especially regarding data security and the proliferation of illegal online lending. Therefore, efforts to increase financial and digital literacy need to be integrated with the national financial inclusion policy, as stated in the National Strategy for Financial Inclusion (SNKI).

Cross-sector collaboration is key to the successful implementation of fintech for MSMEs. The government, OJK (Financial Services Authority), Bank Indonesia (Central Bank), and fintech providers must work together to strengthen regulations, provide alternative credit scoring based on digital data, and encourage partnerships between fintech and Islamic banking. With supportive policies and a conducive ecosystem, fintech has the potential to become a major catalyst for MSME growth, increased financial inclusion, and the realization of an inclusive digital economy in Indonesia.

CONCLUSION

Fintech plays a strategic role in expanding financial inclusion for MSMEs in Indonesia by providing access to financing that is easier, faster, and more efficient.

Name: Title

Fintech services drive digital transformation in the financial sector, increase productivity, and strengthen the competitiveness of MSMEs. However, the success of its implementation heavily relies on the financial literacy of business actors, support for digital infrastructure, and supportive regulatory policies. Synergy between the government, financial institutions, and fintech players is an important step toward creating a financial system that is inclusive, sustainable, and adaptive to technological developments in the digital era.

REFERENCES

(a) Journal

- Akuntansi, J. (2025). *Pemanfaatan teknologi finansial (fintech) untuk meningkatkan inklusi keuangan pada umkm*. 5(1), 67–86.
- Aprilia, S., Sarwono, A. E., Slamet, U., Surakarta, R., & Surakarta, K. (2025). *Study Literatur : Pengaruh Literasi Keuangan , Pengelolaan Keuangan , dan Financial Technology terhadap Kinerja Keuangan*. 5. <https://doi.org/10.51903/jupea.v5i1.4576>
- Ernama. (2017). *No Title*. 6(November 2015), 1–20.
- Fadilah, I., Rahman, S., & Anwar, M. (2022). *Analisis pengaruh Literasi Keuangan , Inklusi Keuangan , dan Financial Technology terhadap kinerja Usaha Mikro Kecil Menengah (UMKM) di Kota Bandung*. 5(3), 1347–1354.
- Karmeli, E., Fitriyani, I., Febrianti, R., Samawa, U., Besar, S., Info, A., & History, A. (2021). *Peran fintech dalam meningkatkan keuangan inklusif pada umkm di kabupaten sumbawa*. 219–226.
- Literasi, P., Dan, K., Syariah, F., Mendorong, D., Prawana, I., Yusri, D., & Sakdiah, K. (2024). *JEKSya Jurnal Ekonomi dan Keuangan Syariah*. 3(3), 16–34.
- Marlina, A. S., & Fatwa, N. (2021). *Fintech syariah sebagai faktor pendorong peningkatan inklusivitas usaha mikro kecil dan menengah di indonesia*. 4(November), 412–422.
- Munthay, S. F., & Sembiring, M. (2024). *Pengaruh Literasi Keuangan Dan Inklusi Keuangan Terhadap Pengelolaan Keuangan UMKM Di Kecamatan Kisaran Barat Kabupaten Asahan*. 8, 22–35.
- Muzdalifa, I., Rahma, I. A., & Novalia, B. G. (2024). *(PENDEKATAN KEUANGAN SYARIAH)*. 3(1).
- Rizal, M., Santoso, G., Wiyana, H., & Saputra, A. I. (2025). *JUBISDIGI : Jurnal Bisnis Digital Peran Fintech Dalam Inklusi Keuangan : Peluang Dan Tantangan Di Era Digital* *JUBISDIGI : Jurnal Bisnis Digital*. 01(01), 64–73.
- Sme, I., In, S. P., Papua, W., & Province, I. (2023). 1* , 2. 8(1), 1–14.
- Wachyu, W., & Winarto, A. (2020). *Peran Fintech dalam Usaha Mikro Kecil dan Menengah (UMKM)*. 3(1), 61–73.
- Zulfa, M. H., & Wahid, U. I. N. K. H. A. (2025). *Peran financial technology syariah dalam meningkatkan inklusi keuangan di kalangan UMKM berbasis syariah di Indonesia*. 5(April), 36–41.