



# The Impact of Financial Technology Small and Medium Enterprises : A Comparative Analysis

Walla Astianty Putri<sup>1</sup>, Jamalus<sup>2\*</sup>, Joko Rianto<sup>3</sup>

<sup>1,2,3</sup>Universitas Islam Syekh Yusuf Tangerang, Indonesia

\*) Corresponding author: jamalus@unis.ac.id

Keywords	Abstract
Financial Technology, Small and Medium Enterprises (SMEs); Regulatory Challenges	The rapid evolution of Financial Technology (FinTech) has significantly reshaped the landscape of Small and Medium Enterprises (SMEs). This comparative study examines the impact of FinTech adoption on the growth, operational efficiency, and financial performance of SMEs across different sectors. By analyzing data from various industries, the study highlights the key areas where FinTech has accelerated business processes, enhanced financial inclusion, and increased access to funding. The research further explores challenges faced by SMEs in integrating FinTech solutions, including regulatory hurdles and technological readiness. The findings provide insights into the comparative advantages FinTech brings to SMEs in developed versus developing economies, suggesting policy recommendations to foster FinTech adoption and support SME growth. The results underscore the critical role of FinTech in transforming SMEs into more agile and competitive market players in the global economy.

## 1. INTRODUCTION

The development of financial technology (FinTech) has experienced tremendous growth in recent decades. Advances in digital technology, such as artificial intelligence (AI), blockchain, big data, and the internet of things (IoT), have driven innovation in the financial sector (Hossain, 2023). FinTech provides a variety of financial services that are faster, more efficient, and affordable compared to traditional banking services (Pizzi & Corbo, 2020). Digital payment platforms, mobile banking apps, crowdfunding, peer-to-peer lending, and automated financial management services are just a few examples of how FinTech is transforming the way individuals and businesses access and utilize financial services. This not only expands financial inclusion but also allows small businesses, such as Small and Medium Enterprises (SMEs), to have wider access to funding and financial services that were previously difficult to reach (Pramono et al., 2021).

The rapid growth of FinTech is not only limited to developed countries, but it also has a significant impact in developing countries. In regions previously underserved by traditional banking systems, such as Southeast Asia and Africa, FinTech has become an important tool in driving financial inclusion and supporting SME business growth (Shoaib et al., 2020). With the ever-expanding penetration of the internet and the increasing use of smartphones, more individuals and SMEs in developing countries now have access to modern financial services through FinTech (Al Halbusi et al., 2024). This positive impact provides new opportunities for businesses to grow faster and compete in the global market, but on the other hand, it also presents challenges in terms of regulation, data security, and technology infrastructure readiness (Baber, 2020).

Small and Medium Enterprises (SMEs) play a crucial role in the global economy, especially in terms of job creation and economic growth. In many countries, SMEs contribute significantly to gross

domestic product (GDP) and are the backbone of the local economy. With greater flexibility than large companies, SMEs are able to adapt quickly to changes in the market and consumer needs (Daud et al., 2022). They also play an important role in driving innovation, especially in the development of products and services that are more diverse and closer to local needs. Additionally, SMEs are often an integral part of the larger industrial supply chain, providing services and products that support the operations of large companies.

In developing countries, the role of SMEs is even more prominent as the main driver of the local economy and an agent of community empowerment. SMEs are often a source of livelihood for communities underserved by the formal sector, creating job opportunities for segments of the population who may not have access to jobs in the corporate or formal sectors (Kulathunga et al., 2020). In addition, SMEs help in diversifying the economy, reducing dependence on certain sectors, and encouraging equitable economic development in remote areas. Through innovation and participation in local markets, SMEs also support the improvement of living standards and reduce the economic gap between urban and rural areas (Chyntia & Rahmadanita, 2021).

The traditional financial access gap has long been a challenge for many Small and Medium Enterprises (SMEs), especially in developing countries. The conventional banking system often imposes strict requirements, such as large guarantees or collateral, to provide access to financing to business people (Łasak, 2022). SMEs, which generally have limited capital and unstable credit histories, often do not meet these criteria, making it difficult for them to obtain the loans or credit facilities needed to grow their businesses. In addition, high administrative and interest costs are also a major barrier for SMEs to take advantage of traditional banking services, which makes many small businesses choose to rely on informal funding sources (Lu et al., 2022).

These access limitations are also exacerbated by the uneven geographical distribution of traditional financial services. In many countries, banks and formal financial institutions are more concentrated in urban areas, leaving SMEs in rural and remote areas with little or no access to financial services. As a result, SMEs in the region often face challenges in running and expanding their businesses, hindering broader economic growth (Daud et al., 2022). The inability of SMEs to access formal financial services not only impacts their capacity to innovate and grow, but also reduces opportunities to integrate with a more competitive global market.

FinTech has emerged as a new solution that is able to bridge the financial access gap faced by Small and Medium Enterprises (SMEs). Through digital innovations such as online payment platforms, peer-to-peer lending, and crowdfunding, FinTech provides SMEs with more accessible and flexible funding alternatives (Kulathunga et al., 2020). By using advanced technologies such as big data and artificial intelligence algorithms, FinTech services are able to analyze creditworthiness based on non-traditional data, so that SMEs that previously had difficulty obtaining financing from banks can gain access to capital. Additionally, lower transaction fees and a fast application process make FinTech an increasingly attractive option for SMEs looking to thrive without being burdened by complex conventional banking procedures (Setiawan, 2021).

In addition to facilitating access to capital, FinTech also provides innovative solutions in terms of financial management and business operations of SMEs. Digital platforms allow SMEs to monitor cash flow in real-time, manage bills, and plan finances more efficiently (Pramono et al., 2021). With the help of FinTech, SMEs can automate administrative processes that were previously manual, allowing for a greater focus on business development. In addition, with digital wallets and electronic payment systems, FinTech also helps SMEs reach a wider market, both domestic and international, which ultimately increases daya saing dan memperkuat posisinya di pasar global (Shoib et al., 2020).

Research by Kraus et al. (2020) found that SMEs that use FinTech services, such as peer-to-peer lending and digital payment applications, experience higher revenue growth compared to those who rely on traditional banks. This research emphasizes that FinTech not only speeds up the loan application process, but also improves accessibility for business owners who were previously marginalized by the conventional banking system. In addition, other findings by Arner et al. (2016) suggest that FinTech has the potential to drive financial inclusion in developing countries by providing more affordable and accessible solutions for SMEs.

However, several studies also highlight the challenges faced by SMEs in adopting FinTech. According to a report by Zins & Weill (2016), although FinTech offers a wide range of benefits, many SMEs have difficulty navigating new technologies and understanding their benefits. Limited digital literacy and understanding of FinTech services are the main obstacles in integrating this technology into business operations. The research recommends the need for education and support programs for SMEs to maximize the potential offered by FinTech. These findings show that while FinTech offers innovative solutions, its successful adoption largely depends on the readiness and understanding of small businesses towards financial technology.

## **2. RESEARCH METHODS**

This study uses comparative methods to analyze the impact of Financial Technology (FinTech) on Small and Medium Enterprises (SMEs) in various countries. The quantitative approach is carried out through a survey targeting SMEs from various industrial sectors in developed and developing countries. The questionnaire is designed to collect data related to FinTech adoption, financial performance, access to financing, and challenges faced in the integration of financial technology. The collected data will be analyzed using descriptive and inferential statistical techniques to identify the relationship between FinTech usage and business performance variables, as well as to compare significant differences between the two groups of SMEs.

A qualitative approach by conducting in-depth interviews with SME owners who have adopted FinTech. Through this interview, researchers will explore their subjective experiences regarding the benefits and challenges of using financial technology, as well as the strategies implemented to maximize the potential of FinTech in their businesses. Qualitative data analysis will be carried out using thematic analysis methods to identify patterns and themes that emerge from the interview. By combining these two approaches, the research aims to provide a comprehensive understanding of the impact of FinTech on SMEs, as well as provide relevant recommendations for the development of policies and best practices in the sector.

## **3. RESULTS AND DISCUSSION**

### **SME Strategies To Overcome Challenges In Adopting Fintech**

Small and Medium Enterprises (SMEs) often face various challenges in adopting financial technology (FinTech), ranging from limited resources to a lack of understanding of technology. One of the main strategies that can be implemented by SMEs is to increase digital literacy among owners and employees. By attending training and workshops that offer an in-depth understanding of how FinTech works and its benefits, SMEs can be more confident in using this technology (Al Halbusi et al., 2024). Digital literacy not only helps in the use of financial tools

but also encourages innovation and problem-solving in an increasingly competitive business environment.

Furthermore, SMEs can also build strategic partnerships with FinTech service providers. This collaboration allows SMEs to get direct access to the latest technology and the technical support they need. FinTech providers often offer specialized programs for SMEs, including training and consulting designed to help them understand and implement financial solutions effectively. By leveraging these partnerships, SMEs can mitigate the risks associated with the adoption of new technologies and accelerate the integration process (Suryanto et al., 2020)

In addition, SMEs can apply a phased approach in adopting FinTech. Rather than making major changes all at once, SMEs can start by adopting one or two FinTech solutions that are most relevant to their business needs. For example, they can start with a digital payment system before moving on to more complex solutions such as financial management or data analytics (Pizzi & Corbo, 2020). This gradual approach allows SMEs to evaluate the impact of technology more effectively, as well as give them time to adjust to the changes.

Another aspect to consider is the importance of support from stakeholders, including governments and financial institutions. SMEs can advocate for policies that support FinTech adoption, such as tax incentives or subsidies for technology training. Additionally, governments can help by providing access to relevant information and resources, including support programs to help SMEs transition to digital technologies. Active engagement in dialogue with these stakeholders can strengthen the FinTech ecosystem and provide benefits to all parties involved (Candraningrat et al., 2021).

From an internal point of view, SMEs must develop a culture of innovation that encourages employees to be open to the use of new technologies. By creating a work environment that supports experimentation and learning, SMEs can encourage teams to explore FinTech solutions that can improve operational efficiency. Appreciation and recognition of employee initiatives in adopting technology can also motivate the entire organization to adapt to existing changes.

Finally, it is important for SMEs to regularly evaluate and monitor the FinTech solutions implemented. By gathering feedback from employees and analyzing performance data, SMEs can assess whether the technology being implemented is delivering the expected results (Lu et al., 2022). This evaluation will also assist SMEs in determining the next step, whether to expand the use of existing FinTech, replace less effective solutions, or explore new emerging technologies. With the right strategy and a planned approach, SMEs can take advantage of the potential of FinTech to increase their competitiveness and business growth.

### **Utilization of Financial Technology in Developed and Developing Countries**

The utilization of Financial Technology (FinTech) has become a global phenomenon that is changing the way businesses operate and interact with customers. In developed countries, FinTech has been widely adopted and growing rapidly, driven by mature technological infrastructure and high levels of digital literacy. Digital payment platforms, mobile banking apps, and cloud-based financial management systems have become an integral part of daily business activities (Erdin & Ozkaya, 2020). Companies in developed countries are not only

using FinTech to improve operational efficiency, but also to expand their market reach by offering better and faster services to customers.

In contrast, in developing countries, FinTech utilization is still in its infancy, although there is great potential for growth. Many SMEs in developing countries are experiencing challenges in accessing traditional financial services, and this is where FinTech comes in as a promising solution. The advent of services such as mobile payments, peer-to-peer lending, and crowdfunding platforms has provided greater access for SMEs to obtain capital and increase their liquidity. This suggests that while the technology infrastructure may not yet be as robust as in developed countries, FinTech adoption can address existing financial access gaps.

One of the key factors that differentiates the utilization of FinTech in developed and developing countries is regulation. Developed countries typically have stricter regulatory frameworks to protect consumers and ensure the security of transactions. On the other hand, many developing countries have more flexible regulations, which allow for faster innovation but often at the expense of consumer protection (Setiawan, 2021). Limitations in regulation in developing countries can accelerate FinTech adoption, but they also bring risks related to fraud and data security. Therefore, it is important to find a balance between innovation and protection in the development of FinTech regulations.

Differences in consumer behavior also affect the utilization of FinTech. In developed countries, consumers tend to be more open to using new technologies, thanks to the positive experiences they have had with other digital services. In developing countries, despite the high interest in FinTech, there is a tendency to continue to rely on traditional ways of transacting (Pranata et al., 2022). This is often due to a lack of trust in digital platforms, uncertainty regarding security, and low levels of digital literacy. To increase the adoption of FinTech in developing countries, there is a need for educational efforts and campaigns that emphasize the benefits and safety of using this technology.

The development of the FinTech ecosystem also varies between developed and developing countries. In developed countries, there is strong support from investors, financial institutions, and universities to encourage innovation in FinTech. FinTech start-ups often get easy access to the funding and resources needed to thrive. In developing countries, although there are many start-ups emerging, they often face limitations in terms of funding and access to business networks. However, with the growing interest from global investors in supporting FinTech initiatives in developing countries, there is hope that this ecosystem will grow faster in the next few years (Łasak, 2022).

Finally, while there are significant differences in FinTech utility between developed and developing countries, they have the potential to learn from each other and collaborate. Developed countries can provide advanced experiences and technologies, while developing countries can offer innovations that focus on more affordable and inclusive solutions. Through knowledge exchange and collaboration between the two groups of countries, FinTech can evolve into a more powerful tool in improving access to financial services and supporting economic growth around the world.

## **Positive Impact of SMEs in Using FinTech**

The use of Financial Technology (FinTech) by Small and Medium Enterprises (SMEs) has had a significant positive impact in improving their operational efficiency and competitiveness in the market. By leveraging technology solutions, SMEs can automate a variety of business processes, from financial management to payment processing. Not only does this reduce the time and cost required to complete a transaction, but it also allows business owners to focus more on developing strategies and product innovation. In this way, FinTech helps SMEs to operate more effectively and be responsive to customer needs (Hossain, 2023)

One of the main positive impacts of the use of FinTech is increased access to financing. Many SMEs that previously had difficulty obtaining loans from traditional financial institutions can now take advantage of peer-to-peer lending and crowdfunding services. Through these platforms, SMEs can access the capital they need without having to go through a complicated and time-consuming process. This is especially important for SMEs in developing countries, where access to financing is often limited (Markovic et al., 2021). With increased access to financing, SMEs can more easily make the necessary investments for growth and expansion.

FinTech also improves SMEs' ability to better manage their cash flow. Cloud-based accounting solutions and financial management applications make it easy for SMEs to track income and expenses in real-time. With more accurate monitoring of cash flow, business owners can make better decisions regarding spending, investment, and financial planning. This helps to reduce the risk of illiquidity shortages and improve the financial stability of SMEs, which in turn contributes to the long-term sustainability of the business (Akpan et al., 2022).

On the other hand, the use of FinTech also allows SMEs to improve their customer experience. By adopting digital payment solutions and mobile applications, SMEs can provide convenience and comfort to customers in making transactions. Customers can make payments quickly and securely, which increases their satisfaction and loyalty (Candraningrat et al., 2021). Additionally, the analytics offered by FinTech platforms help SMEs understand customer behavior and preferences, allowing them to tailor product and service offerings according to market needs.

Not only that, the use of FinTech also helps SMEs in increasing their competitiveness in the global market. With better access to technology and information, SMEs can expand their market reach and compete with large companies. FinTech allows SMEs to conduct international transactions more easily, manage foreign currencies, and navigate complex regulations. This is especially important in the era of globalization, where many SMEs want to reach customers beyond their national borders (Pranata et al., 2022).

Finally, the positive impact of the use of FinTech by SMEs is not only limited to improving business performance, but also contributes to overall economic growth. By improving efficiency, access to financing, and customer experience, SMEs can create new jobs and contribute to increased tax revenue for the government. As such, support for FinTech adoption among SMEs is essential to drive inclusive and sustainable economic growth, both in developed and developing countries.

## **Conclusion**

From the results of the study, it can be concluded that Financial Technology (FinTech) by Small and Medium Enterprises (SMEs) brings various significant benefits, ranging from improved operational efficiency to better access to financing. Through the utilization of technology solutions, SMEs can automate business processes, which allows them to operate more effectively and respond to market needs. With wider access to modern financial services, SMEs in developing countries in particular can overcome financing barriers that often hinder their growth, opening up new opportunities for innovation and expansion. FinTech also contributes to improving customer experience and SME competitiveness in the global market. With technology that allows for faster and more secure transactions, customers feel more valued and engaged with the business. Thus, the positive impact of FinTech is not only felt by SMEs themselves, but also by customers and the economy as a whole. Therefore, it is important for stakeholders, including governments and financial institutions, to continue to support the adoption of FinTech among SMEs as a strategic step to drive sustainable economic growth and inclusion.

## REFERENCE

- Akpan, I. J., Udoh, E. A. P., & Adebisi, B. (2022). Small business awareness and adoption of state-of-the-art technologies in emerging and developing markets, and lessons from the COVID-19 pandemic. *Journal of Small Business and Entrepreneurship*, 34(2), 123–140. <https://doi.org/10.1080/08276331.2020.1820185>
- Al Halbusi, H., Alhaidan, H., Abdelfattah, F., Ramayah, T., & Cheah, J. H. (2024). Exploring social media adoption in small and medium enterprises in Iraq: pivotal role of social media network capability and customer involvement. *Technology Analysis and Strategic Management*, 36(9), 2052–2069. <https://doi.org/10.1080/09537325.2022.2125374>
- Baber, H. (2020). Financial inclusion and FinTech: A comparative study of countries following Islamic finance and conventional finance. *Qualitative Research in Financial Markets*, 12(1), 24–42. <https://doi.org/10.1108/QRFM-12-2018-0131>
- Candraningrat, I. R., Abundanti, N., Mujiati, N. W., Erlangga, R., & Jhuniantara, I. M. G. (2021). The role of financial technology on development of MSMEs. *Accounting*, 7(1), 225–230. <https://doi.org/10.5267/j.ac.2020.9.014>
- Chyntia, P., & Rahmadanita, S. (2021). Pengaruh Konten Instagram Story Dan Persepsi Manfaat Terhadap Kepercayaan Zodiak (Studi Kasus Pengikut Instagram @Amrasing). *MEDIALOG: Jurnal Ilmu Komunikasi*, 4(1), 178–185. <https://doi.org/10.35326/medialog.v4i1.988>
- Daud, I., Nurjannah, D., Mohyi, A., Ambarwati, T., Cahyono, Y., Haryoko, A. D. E., Handoko, A. L., Putra, R. S., Wijoyo, H., Ari-Yanto, A., & Jihadi, M. (2022). The effect of digital marketing, digital finance and digital payment on finance performance of Indonesian SMEs. *International Journal of Data and Network Science*, 6(1), 37–44. <https://doi.org/10.5267/J.IJDNS.2021.10.006>
- Erdin, C., & Ozkaya, G. (2020). Contribution of small and medium enterprises to economic development and quality of life in Turkey. *Heliyon*, 6(2), e03215. <https://doi.org/10.1016/j.heliyon.2020.e03215>
- Hossain, N. (2023). *A Comparative Analysis of Conventional and Modern Methods of Credit Risk Assessment in Financial Institutions: Implications for Micro, Small and Medium Enterprises* (

MSMEs ) Submitted to : December.

- Kulathunga, K., Ye, J., Sharma, S., & Weerathunga, P. . (2020). How does technological and financial literacy influence SME performance. *Information (Switzerland)*, 11(297), 20.
- Łasak, P. (2022). The role of financial technology and entrepreneurial finance practices in funding small and medium-sized enterprises. *Journal of Entrepreneurship, Management and Innovation*, 18(1), 7–34. <https://doi.org/10.7341/20221811>
- Lu, Z., Wu, J., Li, H., & Nguyen, D. K. (2022). Local Bank, Digital Financial Inclusion and SME Financing Constraints: Empirical Evidence from China. *Emerging Markets Finance and Trade*, 58(6), 1712–1725. <https://doi.org/10.1080/1540496X.2021.1923477>
- Markovic, S., Koporcic, N., Arslanagic-Kalajdzic, M., Kadic-Maglajlic, S., Bagherzadeh, M., & Islam, N. (2021). Business-to-business open innovation: COVID-19 lessons for small and medium-sized enterprises from emerging markets. *Technological Forecasting and Social Change*, 170(May), 120883. <https://doi.org/10.1016/j.techfore.2021.120883>
- Pizzi, S., & Corbo, L. (2020). Fintech and Smes Sustainable Business Models: Reflections and Considerations for a Circular Economy. *Baltic Journal of Management*, 15(2), 141–147.
- Pramono, R., Sondakh, L. W., Bernarto, I., Juliana, J., & Purwanto, A. (2021). Determinants of the Small and Medium Enterprises Progress: A Case Study of SME Entrepreneurs in Manado, Indonesia. *Journal of Asian Finance, Economics and Business*, 8(1), 881–889. <https://doi.org/10.13106/jafeb.2021.vol8.no1.881>
- Pranata, N., Soekarni, M., Mychelisda, E., Novandra, R., Eko NUGROHO, A., Rifai, B., Buhaerah, P., Zulhamdani, M., & Rizki Dini YULIANA, R. (2022). Technology Adoption Issues and Challenges for Micro, Small and Medium Enterprises: A Case Study of the Food and Beverage Sub-Sector in Indonesia\*. *Journal of Asian Finance*, 9(3), 265–0274. <https://doi.org/10.13106/jafeb.2022.vol9.no3.0265>
- Setiawan, R. (2021). *Small and medium sized enterprises' contribution in digital technology*.
- Shoaib, H. M., Rafique, M. Z., Nadeem, A. M., & Huang, S. (2020). Impact of financial development on CO2 emissions: A comparative analysis of developing countries (D8) and developed countries (G8). *Environmental Science and Pollution Research*, 27(11), 12461–12475. <https://doi.org/10.1007/s11356-019-06680-z>
- Suryanto, S., Rusdin, R., & Dai, R. M. (2020). Fintech As a Catalyst for Growth of Micro, Small and Medium Enterprises in Indonesia. *Academy of Strategic Management Journal*, 19(5), 1–12.