

## Revolutionizing Batik: How Fintech Empowers Malang's MSMEs for Economic Growth

Umi Nandiroh<sup>1\*)</sup>, Irma Hidayati<sup>2)</sup>, Puji Handayati<sup>3)</sup>, Agus Hermawan<sup>4)</sup>

<sup>1,2)</sup>Student Of The Doctoral Program In Management Science, Faculty Of Economics And Business, Unvesitas Negeri Malang And Lecture Of Universitas Islam Malang, Indonesia

<sup>3,4)</sup>Faculty Of Economics And Business, Unvesitas Negeri Malang

\*Corresponding Author

Email: [uminandiroh@unisma.ac.id](mailto:uminandiroh@unisma.ac.id)

---

### Abstract

*The study looks at how MSME's traditional business practices are being revolutionized by fintech, digital financial services, especially given Indonesia's burgeoning digital economy. The difficulty of MSMEs in obtaining Standard Financial Services is a major issue in this study, which has historically hindered their ability to grow and run more efficiently. Fintech solutions are becoming an important tool for small businesses because of their accessibility, cost efficiency, and simple procedures. Batik Malang MSMEs can break through financial barriers, gain access to new markets, and become more competitive by implementing fintech. Using in-depth interview techniques with owner Samtana Indonesia, one of Malang Batik entrepreneurs. The research explores a range of fintech services, including online lending platforms, digital payments, and e-commerce integration, showing how these services can promote a wider range of consumers, better financial management, and higher sales. Fintech integration improves the overall performance and sustainability of these MSMEs by enabling them to interact with the digital economy, which is not limited to a single country. The results of this case study also address the broader impact of fintech adoption on the Indonesian economy. It highlights how fintech is helping to advance financial inclusion, especially for small and medium-sized businesses, which is critical to Indonesia's economic expansion. In conclusion, the results of this study offer a thorough insight into how fintech adoption is transforming Batik Malang MSMEs, emphasizing the role of fintech adoption in increasing business productivity, expanding financial accessibility, and advancing Indonesia's overall economic growth.*

**Keywords:** *Fintech, Digital Finance, MSMEs Performance, Case Study*

---

## INTRODUCTION

Micro, small, and medium-sized enterprises (MSMEs) have emerged as the principal economic force in Indonesia, encompassing the city of Malang as well. The batik industry is one of the best-known MSME industries. Malang Batik, with its distinctive patterns and motifs, serves as a means of subsistence for numerous villages in addition to serving as a symbol of the richness of the local culture. Sustainable local economic growth depends on Malang Batik MSMEs' ability to preserve and expand this cultural legacy while adjusting to technology and market changes.

Malang Batik MSMEs encounter a number of difficulties that may impede their expansion and long-term viability. First, there are restrictions on the sources of money and cash available. Many Batik MSME players find it challenging to get finance from regular lenders since they don't have sufficient credit histories or guarantees (Adistyasari, 2020). Secondly, there are marketing and distribution issues, particularly when trying to reach a larger market beyond the local area. Third, there are problems with financial management and operational effectiveness, which are frequently subpar because of a lack of resources and expertise (Nugraha et al., 2022).

Financial technology, or fintech, has completely changed how businesses function and engage with their clientele in the digital age. Fintech adoption offers UMKK Batik Malang solutions for financial management, payments, and access to business finance, in addition to expanding its market reach through e-commerce (Morgan & Trinh, 2020). These MSMEs can benefit from fintech's assistance in overcoming a number of obstacles, including restricted access

to traditional financial institutions, ineffective cash management, and a lack of resources for growth. By seizing these chances, Batik Malang MSMEs can enhance their business sustainability and competitiveness in a fast-paced, cutthroat industry, in addition to overcoming current obstacles (Nangin et al., 2020).

The purpose of this study is to examine how Batik Malang MSMEs' performance can be enhanced by the implementation of fintech. This study explores data to determine the true effects of integrating financial technology in MSME operations, with an emphasis on areas like financial capability, market accessibility, and operational efficiency. This study will explore further the ways in which fintech may specifically support Malang Batik MSMEs in addressing contemporary issues and seizing the possibilities presented by this digital age. This study is relevant because it may help MSME owners, policymakers, and other stakeholders maximize fintech's potential as a growth accelerator for their businesses by offering actionable insights and strategic recommendations. It is anticipated that this study will significantly advance the body of knowledge on Indonesia's development of the digital economy, particularly as it relates to MSMEs' empowerment.

## RESEARCH METHODS

This study combines a case study methodology with a qualitative approach. The use of fintech in Malang Batik MSMEs is one example of a phenomenon that can be deeply understood using qualitative approaches. Case studies are used to paint a complete and accurate image of how financial technology is incorporated into business operations by Batik MSMEs, particularly Samtana Indonesia, and how this affects business performance.

Malang Batik MSMEs under the brand name Samtana Indonesia comprise the study's sample. Based in Malang, Samtana Indonesia is a Batik MSME renowned for its distinctive and superior batik designs. The primary location of Samtana Indonesia is in Sarinah Plaza, Malang City, which serves as both the company's hub for product sales and exhibitions. With exports to numerous nations in Asia, America, and Europe, Samtana Indonesia has effectively plied its trade internationally, a testament to the caliber and allure of their merchandise. Samtana Indonesia regularly takes part in a range of national and international fashion events and exhibitions to broaden their brand's exposure and enhance their reputation.

In-depth interviewing methods were the primary means of gathering data for this study. To acquire a direct and comprehensive viewpoint from people with information and experience relevant to the research topic, in-depth interviews are carried out. The primary speaker was Mrs. Lisa, who is the manager and owner of Samtana Indonesia Batik. The purpose of the discussion with Ms. Lisa was to learn more about how Samtana Indonesia's operations and business strategy use and incorporate fintech. The interview will address a variety of subjects, including the strategic choices made when implementing fintech, how fintech affects corporate operations, how difficult it is to deploy, and how much people believe fintech improves business performance.

Researchers will be able to examine rich qualitative data and obtain a comprehensive grasp of the dynamics of fintech application in Malang Batik MSMEs, particularly Samtana Indonesia, thanks to the utilization of in-depth interviews in this study. The data gathered from this interview will serve as the foundation for the case study's analysis and discussion.

## RESULT AND DISCUSSION

### **Fintech Adoption by Samtana Indonesia**

According to research, financial technology, or fintech, has become a crucial component of Samtana Indonesia and other Malang Batik MSMEs' business strategies. Fintech adoption is seen in a number of their business strategies and operational facets.

**Market Expansion via Online Sales.** Samtana Indonesia uses an online shopping portal to reach a wider audience. This offers opportunities to foreign markets in addition to raising brand awareness in the local market. They may more easily contact customers in other nations thanks to e-commerce platforms, which opens up potential to boost sales and grow the clientele (Imam et al., 2022).

**Solutions for Financial Management.** Fintech applications offer practical ways to improve financial management. Samtana Indonesia manages bookkeeping, cash flow, and financial transactions with the use of financial software and applications. They can monitor their income and expenses more easily and organize their finances more precisely as a result (Utami & Sitanggang, 2021). **Operational Efficiency and Digital Payments.** Transactions can happen more quickly and effectively thanks to the integration of digital payment methods. This lessens reliance on cash transactions and facilitates the management of both domestic and foreign customer payments (Nangin et al., 2020).

**Obtaining Business Finance.** Samtana Indonesia uses peer-to-peer lending and other fintech channels to get venture financing. This helps with business expansion and product development by enabling them to get around obstacles in the way of getting finance from traditional banking institutions. Samtana Indonesia can get around restrictions on obtaining loans from banks or other traditional financial institutions by using fintech as an alternative source of funding. This is crucial for MSMEs in particular, as they frequently struggle to fulfill credit standards (Thottoli, 2023).

### **Adoption of Fintech and Its Effect on Performance Enhancement**

This study demonstrates how fintech assists Samtana Indonesia in overcoming a range of obstacles. Enhanced cash management efficiency is one of them. Fintech use makes cash management more transparent and efficient while also decreasing errors and improving accuracy in financial management.

Fintech makes it possible to automate bookkeeping, which was formerly done by hand. Human error is decreased when data entry is done more quickly and accurately with financial management software. Additionally, instead of spending their time and resources on administrative duties, business owners may now devote their attention to other areas of the company thanks to automation (Van Nguyen et al., 2022). Fintech apps give users easier access to and comprehension of dashboards and data, improving cash flow visibility. The inflow and outflow of their funds from the company are visible to entrepreneurs in real time. This facilitates the process of making better-informed choices about debt management, expenditures, and investments (Singh et al., 2020).

The acceptance and payment procedure is facilitated by a digital payment system that is integrated with fintech platforms. This minimizes cash flow delays by reducing the requirement for cash handling and expediting the transaction process (Song et al., 2023). Fintech gives MSME owners, like Samtana Indonesia, instant access to financial data so they may make well-informed decisions. In a dynamic corporate climate where market conditions can change quickly, this is extremely crucial.

Fintech applications come with advanced features for monitoring and managing funds. By putting up notifications for low balances, large transactions, or unusual activity, employers can improve security and identify potential financial problems before they worsen. Financial

planning and analysis tools are often included in fintech platforms (Adistyasari, 2020). The ability of MSMEs to more effectively manage their budgets, examine expenditure patterns, and create financial projections is essential for long-term growth.

Fintech adoption can overcome constrained resources for expansion in addition to more effective financial management. Samtana Indonesia can overcome its low resources, which frequently become roadblocks to corporate progress, with easier access to business financing and improved financial management (Jünger & Mietzner, 2018).

Peer-to-peer lending and crowdsourcing are two alternative funding sources that are made accessible through fintech. This is particularly crucial for MSMEs, such as Samtana Indonesia, as their limited collateral or credit histories may make it difficult for them to get loans from traditional financial institutions. When compared to traditional banks, fintech platforms typically provide a quicker and easier application process (Adistyasari, 2020). Loan decisions can be obtained faster and with typically less documentation. Fintechs frequently provide more accommodating loan conditions, such as interest rates and payback schedules, that can be adjusted to meet the requirements and financial capabilities of MSMEs (Yadi et al., 2019).

Samtana Indonesia can execute bookkeeping and financial reporting more precisely and effectively with the use of financial management software. This enables them to make data-driven decisions and keep an eye on the company's financial health in real time. Fintech technologies ensure the most efficient use of resources by facilitating improved budgeting and financial planning. Fintech ensures that there is enough liquidity for both long-term investments and daily operations by assisting in more efficient cash management (Trianto et al., 2023).

Improved finance accessibility would enable Samtana Indonesia to make investments in the creation of new products and services, which is essential for expansion and creativity. The extra funding makes it possible to expand into new local and foreign markets, which broadens the client base and boosts revenue possibilities. Samtana Indonesia can invest in the infrastructure and technology required to enable business expansion, such as building e-commerce platforms or boosting production capacity, thanks to its access to capital.

The study's findings demonstrate that Batik Malang MSMEs' use of fintech, particularly Samtana Indonesia, has significantly improved their operations and financial performance. By leveraging fintech, Samtana Indonesia has been able to grow their market share while simultaneously enhancing operational effectiveness and fortifying financial management. This demonstrates the enormous potential that fintech integration has to assist MSMEs in overcoming current obstacles and seizing fresh chances presented by the digital age.

### **Challenges Associated with Fintech Adoption**

Even though fintech adoption has many advantages, Samtana Indonesia continues to encounter barriers when implementing fintech in its daily operations. Among these challenges is a dearth of technology know-how and digital literacy. Utilizing financial technology necessitates specific digital competencies. Fintech adoption and utilization may be hampered by Samtana Indonesia personnel' low level of digital literacy. To help staff use technology effectively, more training and education are required, which takes time and money.

Concerns about data security and privacy are significant when using fintech, particularly in light of the increase in cyberattacks. Samtana Indonesia has the capacity or knowledge to put robust security procedures in place, which raises the possibility of data breaches (Pascucci et al., 2022). Fintech-using MSMEs may become targets of ransomware, malware, phishing, and DDoS attacks, among other intrusions. Financial transactions are by their very nature appealing targets for cybercriminals.

Internal opposition may arise when fintech is introduced to replace the conventional financial system, particularly if employees are accustomed to operating in the previous manner. It can be difficult to integrate fintech solutions with current systems; this calls for adjustments to company



procedures (Nangin et al., 2020). Since it necessitates major adjustments to current business processes, fintech solution integration into existing systems in MSMEs like Samtana Indonesia sometimes presents considerable obstacles. Altering IT infrastructure, updating operating procedures, and providing workers with new technology training are a few examples of these improvements. For instance, moving from a manual bookkeeping system to digital financial management software necessitates not only the installation and configuration of the software but also the safe and effective transfer of current data to the new platform (Morgan & Trinh, 2020). Furthermore, employees must receive training in order to comprehend and utilize the novel capabilities provided by fintech, which frequently call for more time and money. In several instances, this integration necessitates an examination of data security protocols and compliance protocols to guarantee that the novel system conforms with relevant regulatory norms. The limited resources and technical skills that MSMEs typically have make this challenge even more challenging, thus the integration process is not just a technical step but also a strategic and operational transformation (Kumar et al., 2023).

MSMEs might start relying on fintech companies for services. Business operations may be impacted by problems such service policy changes, outages, or price adjustments. The seamless running of a business can be impacted by the quality and dependability of fintech services, which differ throughout suppliers. MSMEs like Samtana Indonesia may find it difficult to conduct business when there is disparity in the quality and dependability of fintech services offered by different providers. Inadequate customer support, transaction failures, and frequent system outages are just a few of the issues that can arise from choosing fintech service providers poorly. These issues can interfere with daily operations and possibly lower consumer satisfaction (Breidbach et al., 2019). For instance, if there are frequent disruptions to digital payment networks, this can negatively impact MSMEs' capacity to process transactions quickly, impede cash flow, and damage their standing with clients. Similar to this, an accounting application's inability to deliver timely and accurate financial reporting can make corporate decision-making more difficult. Therefore, it's essential to select a trustworthy and respected fintech supplier that provides consistent service and prompt support to make sure that the integration of financial technology enhances rather than hinders corporate operations (Imam et al., 2022).

Regulations pertaining to the fintech sector frequently change quickly. To guarantee compliance, MSMEs must continually adapt to changing rules. For MSMEs, it can be difficult to comprehend and abide by the legal and financial requirements pertaining to digital transactions. MSMEs face a great deal of difficulty in adhering to legal and financial laws pertaining to digital transactions, particularly when using fintech (Imam et al., 2022; Singh et al., 2020; Thottoli, 2023). These laws are frequently intricate and dynamic, particularly in the digital age when geographical barriers are less of an impediment to transactions. MSMEs are responsible for making sure that all of their digital transactions—from online payments to managing client data—comply with rules pertaining to tax compliance, data protection, and anti-money laundering (Imam et al., 2022). MSMEs frequently struggle with a lack of resources and legal knowledge, which makes this problem worse. Ignoring these financial and legal ramifications may lead to penalties, legal repercussions, or severe reputational harm. Therefore, in order to guarantee that their business activities remain compliant with applicable regulations and minimize needless legal risks, MSMEs must actively educate themselves about pertinent legal requirements, possibly with the assistance of legal or accounting specialists.

Fintech adoption by MSMEs, such as Samtana Indonesia, has many benefits, but it also presents a number of issues that need to be resolved. It takes careful planning to strike a balance between those advantages and disadvantages, which includes making investments in infrastructure improvements, training, and the creation of efficient security and compliance plans.

## CONCLUSION

According to this study, Samtana Indonesia and other Malang Batik MSMEs have benefited greatly from the implementation of financial technology, or fintech, in terms of increased productivity and operational effectiveness. Through the use of fintech, Samtana Indonesia is able to more easily acquire business capital, manage finances more effectively, and increase its market reach through e-commerce. Some of the common problems faced by MSMEs, including restricted access to traditional financial institutions, ineffective cash management, and barriers to business growth, are mitigated by this invention.

Fintech integration does, however, come with certain difficulties. Key issues include things like digital literacy, privacy and data security, and dependency on outside services. Serious attention must be paid to these issues, including choosing the best financial service provider, educating employees, and making investments in security infrastructure. For MSMEs using fintech, operational complexity is further increased by the requirement to adhere to legal and fiscal laws relevant to digital transactions.

Overall, this study shows that fintech can significantly enhance MSMEs' performance, but it must be handled carefully. This entails taking into account the particular requirements of the company, having the flexibility to implement new technology, and being able to handle obstacles as they appear. MSMEs like Samtana Indonesia must continue to innovate and adjust to technology developments in an increasingly digital global context in order to sustain their growth and competitiveness in the market.

## REFERENCES

- Adistyasari, N. (2020). Analyzing the Use of P2P Lending Mobile Applications in Greater Jakarta. *International Journal of Advanced Trends in Computer Science and Engineering*, 9(2), 2010–2020. <https://doi.org/10.30534/ijatcse/2020/172922020>
- Arslan, A., Buchanan, B. G., Kamara, S., & Al Nabulsi, N. (2022). Fintech, base of the pyramid entrepreneurs and social value creation. *Journal of Small Business and Enterprise Development*, 29(3), 335–353. <https://doi.org/10.1108/JSBED-10-2020-0370>
- Breidbach, C. F., Keating, B. W., & Lim, C. (2019). Fintech: Research directions to explore the digital transformation of financial service systems. *Journal of Service Theory and Practice*, 30(1), 79–102. <https://doi.org/10.1108/JSTP-08-2018-0185>
- Christian, S., Wiradinata, T., Herdinata, C., & Setiobudi, A. (2020). Environmental Factors Affecting the Acceleration of Financial Technology (Fintech) Adoption by SMEs in the East Java Region. *Proceedings of the 8th International Conference on Entrepreneurship and Business Management (ICEBM 2019) UNTAR*. 8th International Conference of Entrepreneurship and Business Management Untar (ICEBM 2019), Kuala Lumpur, Malaysia. <https://doi.org/10.2991/aebmr.k.200626.065>
- Firmansyah, E. A., Masri, M., Anshari, M., & Besar, M. H. A. (2022). Factors Affecting Fintech Adoption: A Systematic Literature Review. *FinTech*, 2(1), 21–33. <https://doi.org/10.3390/fintech2010002>
- Goswami, S., Sharma, R. B., & Chouhan, V. (2022). Impact of Financial Technology (Fintech) on Financial Inclusion(FI) in Rural India. *Universal Journal of Accounting and Finance*, 10(2), 483–497. <https://doi.org/10.13189/ujaf.2022.100213>

- Imam, T., McInnes, A., Colombage, S., & Grose, R. (2022). Opportunities and Barriers for FinTech in SAARC and ASEAN Countries. *Journal of Risk and Financial Management*, 15(2), 77. <https://doi.org/10.3390/jrfm15020077>
- Jünger, M., & Mietzner, M. (2018). Banking goes digital: The adoption of FinTech services by German households.
- Kumar, V., Sindhwani, R., Behl, A., Kaur, A., & Pereira, V. (2023). Modelling and analysing the enablers of digital resilience for small and medium enterprises. *Journal of Enterprise Information Management*. <https://doi.org/10.1108/JEIM-01-2023-0002>
- Liu, F., Wang, Q., Zhang, Z., Fang, M., & Xiao, S. (Simon). (2023). Lean inventory, fintech and financing: Interactive influences on Chinese SMEs. *Management Decision*, 61(8), 2302–2321. <https://doi.org/10.1108/MD-06-2022-0878>
- Morgan, P. J., & Trinh, L. Q. (2020). Fintech and financial literacy in Viet Nam.
- Nangin, M. A., Barus, I. R. G., & Wahyoedi, S. (2020). The Effects of Perceived Ease of Use, Security, and Promotion on Trust and Its Implications on Fintech Adoption. *Journal of Consumer Sciences*, 5(2), 124–138. <https://doi.org/10.29244/jcs.5.2.124-138>
- Nugraha, D. P., Setiawan, B., Nathan, R. J., & Fekete-Farkas, M. (2022). Fintech Adoption Drivers for Innovation for SMEs in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4), 208. <https://doi.org/10.3390/joitmc8040208>
- Pascucci, F., Domenichelli, O., Peruffo, E., & Gregori, G. L. (2022). Family ownership and the export performance of SMEs: The moderating role of financial constraints and flexibility. *Journal of Small Business and Enterprise Development*, 29(4), 602–626. <https://doi.org/10.1108/JSBED-03-2021-0113>
- Qureshi, A. M., Rehman, F., Khan, M. K., & Khan, A. (2023). Nexus between Fintech Adoptability and Customer's Perception towards Fintech in the Islamic Banking Industry. *Pakistan Journal of Humanities and Social Sciences*, 11(3), 3155–3174. <https://doi.org/10.52131/pjhss.2023.1103.0603>
- Singh, S., Sahni, M. M., & Kovid, R. K. (2020). What drives FinTech adoption? A multi-method evaluation using an adapted technology acceptance model. *Management Decision*, 58(8), 1675–1697. <https://doi.org/10.1108/MD-09-2019-1318>
- Song, H., Han, S., Liu, W., & Ganguly, A. (2023). What role do FinTech companies play in supply chain finance? A signaling intermediary perspective. *Journal of Business & Industrial Marketing*, 38(6), 1279–1294. <https://doi.org/10.1108/JBIM-12-2021-0587>
- Thottoli, M. M. (2023). The tactician role of FinTech in the accounting and auditing field: A bibliometric analysis. *Qualitative Research in Financial Markets*. <https://doi.org/10.1108/QRFM-11-2021-0196>
- Trianto, B., Nik Azman, N. H., & Masrizal, M. (2023). E-payment adoption and utilization among micro-entrepreneurs: A comparative analysis between Indonesia and Malaysia. *Journal of Science and Technology Policy Management*. <https://doi.org/10.1108/JSTPM-12-2022-0207>
- Utami, N., & Sitanggang, M. L. (2021). The Effect of Fintech Implementation on The Performance of SMEs. *Journal of International Conference Proceedings*, 4(3). <https://doi.org/10.32535/jicp.v4i3.1342>
- Yadi, L., Yuning, S., Jiayue, Y., Yingfa, X., Yiyuan, W., & Xiaoping, Z. (2019). Big-data-driven Model Construction and Empirical Analysis of SMEs Credit Assessment in China. *Procedia Computer Science*, 147, 613–619. <https://doi.org/10.1016/j.procs.2019.01.205>