The Role of Financial Literacy, FinTech, and Digital Accounting in Enhancing MSME Performance in the Digital Economy

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ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the Indonesian economy, contributing significantly to employment and national economic growth. In the digital economy era, MSMEs face both challenges and opportunities. Challenges include efficient financial management, access to digital financial services, and adaptation to technology-based record-keeping. This study aims to explore the vital role of financial literacy, financial technology (FinTech), and digital accounting in improving the performance of MSMEs in Indonesia. This study employs a case study approach to analyse SMEs' experiences in managing finances, adopting FinTech, and implementing digital accounting. Data collection methods include in-depth interviews with SME owners, direct observation of business activities, and documentation of financial records. The research findings are expected to provide a comprehensive overview of how financial literacy, FinTech, and digital accounting interact to improve SME performance. The contributions of this research include an in-depth understanding of best practices in SME financial management, policy recommendations to support SME digitalisation, and practical implications for business owners, the government, financial institutions, and technology developers. Key findings indicate that improved financial literacy strengthens the managerial capacity of SMEs, the use of FinTech facilitates transactions and access to financing, while digital accounting enhances the quality of financial information.

Keywords: *SMEs, Financial Literacy, FinTech, Digital Accounting, Digital Economy.*

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of Indonesia's economy. MSMEs contribute more than 60% to the Gross Domestic Product (GDP), and this sector accounts for over 97% of the workforce (OECD, 2023). In recent years, the digital economic transformation in Indonesia has created new opportunities for MSMEs, but it has also posed significant challenges. Changes in consumer behaviour, increasingly fierce competition, and the need to adapt to new technologies require MSMEs to continuously innovate and improve operational efficiency.

Digital transformation in MSME financial management remains uneven and is often only partial (Kurniasari et al., 2023). Many SMEs in Indonesia still face limitations in financial literacy, low utilisation of FinTech services, and suboptimal use of digital accounting in business operations. This can hinder business growth and sustainability. Limited financial literacy leads to difficulties in financial planning, cash flow management, and investment decision-making (Gunawan et al., 2023). Low adoption of FinTech limits SMEs' access to digital financial services such as payments, loans, and insurance (Thathsarani & Jian-guo, 2022). Meanwhile, suboptimal use of digital accounting leads to difficulties in accurate financial recording, performance analysis, and financial reporting.

This study aims to gain a deep understanding of how financial literacy, FinTech, and digital accounting contribute to improving SME performance amid Indonesia's digital economic growth. Focusing on case studies, this research seeks to provide a comprehensive overview of best practices in SME financial management, as well as policy recommendations to support SME digitalisation in Indonesia.

METHOD

This study employs a case study approach focused on MSMEs in Indonesia. The case study approach was chosen because it allows researchers to gain an in-depth understanding of the experiences of MSME operators in managing finances, adopting FinTech services, and using digital accounting in their daily business activities. Case studies enable a rich and detailed exploration of how various factors (financial literacy, FinTech, and digital accounting) interact within the real-world context of MSMEs.

This study employs a qualitative case study design. This design enables the researcher to deeply explore complex phenomena within a real-world context. The case studies will be conducted on several SMEs in Indonesia, selected based on specific criteria (see the informant selection section).

Informants in this study were selected using purposive sampling. Purposive sampling is a sampling technique in which the researcher selects informants based on specific criteria relevant to the research objectives. The criteria for selecting informants include:

1. SMEs that have been in operation for at least 2 years.
2. SMEs located in regions of Indonesia (e.g., Banten, Jakarta, West Java, or specific cities).
3. SMEs with a basic understanding of financial management.
4. SMEs that use or plan to use FinTech services.
5. SMEs that use or plan to use digital accounting.

Informants will be selected from various SME sectors, such as food and beverages, trade, fashion, services, and the creative industry. The number of informants to be interviewed will be adjusted according to the need to achieve data saturation. Data saturation is achieved when no new information emerges from additional interviews.

In-Depth Interviews: In-depth interviews were conducted with MSME owners to gather information about their experiences in managing finances, adopting FinTech services, and using digital accounting. Interviews will be conducted in person or via video conferencing platforms, depending on the informants' availability. Interview guidelines will be used to ensure consistency in data collection, but questions will be open-ended to allow for deeper exploration.

Participant Observation: Observation is conducted to directly observe MSME business activities, including transaction processes, financial record-keeping, and technology use. Observations will be conducted with the permission of the SME owners, and the researcher will participate in daily business activities (if possible) to gain a better understanding of the business context.

Documentation: Relevant documents, such as financial statements, transaction records, and other supporting documents, will be collected to supplement the data obtained from interviews and observations. This documentation will help researchers validate findings and gain a more comprehensive picture of SME financial management practices.

Questionnaire (Optional): A questionnaire may be used as a tool to collect additional quantitative data, such as financial literacy levels, FinTech usage, and the adoption of digital accounting. The questionnaire will be distributed to informants after interviews and observations are completed.

Data analysis is conducted qualitatively using thematic analysis techniques. The data analysis process includes:

Data Reduction: Collected data (interview transcripts, observation notes, documents) will be reduced to identify information relevant to the research objectives. Irrelevant information will be excluded.

Data Presentation: The reduced data will be presented in the form of descriptive narratives. The narratives will describe the informants' profiles, business characteristics, the financial management systems used, the business owners' level of financial literacy, the use of FinTech

services, and the forms of digital accounting implementation in daily business activities. Tables and diagrams may be used to present data visually.
Drawing Conclusions: Conclusions will be drawn based on the data analysis conducted. The conclusions will address the research questions and provide an overview of the role of financial literacy, FinTech, and digital accounting in improving SME performance.

RESULTS AND DISCUSSION



Picture 1. Roadmap to MSME Performance Increases: Financial Literacy, Fintech Services, and Digital Accounting within a Digital Ecosystem

The findings of this study are presented based on the results of data analysis from case studies of MSMEs in Indonesia. This section will describe the profiles of business owners, business characteristics, the financial management systems used, the level of financial literacy among business owners, the use of FinTech services, and the forms of digital accounting implementation in daily business operations. These findings will provide a comprehensive overview of how financial literacy, FinTech, and digital accounting contribute to improving the performance of MSMEs.

Business Owner Profiles and Business Characteristics

The case study involved several SMEs located in the Banten region. The selected SMEs came from various sectors, including food and beverages, trade, and services. Business owner profiles varied, ranging from owners with a high school education to those with a bachelor's degree. The majority of the SMEs studied have been in operation for more than 5 years, indicating stability and experience in running their businesses. The business characteristics of the SMEs are also diverse, ranging from micro-scale (fewer than 5 employees) to small-scale (5–19 employees).

Financial Management Systems

The financial management systems used by SMEs vary. Some SMEs still use manual record-keeping, such as cash books and expense ledgers. However, the majority of SMEs have transitioned to using simple accounting software or spreadsheet applications (e.g., Microsoft Excel) to record financial transactions. The level of understanding regarding accounting principles also varies. Some business owners have a basic understanding of financial statements, such as income statements and balance sheets, while others have limited knowledge.

Level of Financial Literacy

The level of financial literacy among business owners is a key factor influencing business decision-making. This study found that higher levels of financial literacy are positively correlated with SMEs' ability to manage their finances effectively. SMEs with high financial literacy tend to have a better understanding of budgeting, financial planning, and cash flow management. They are also better able to make sound investment decisions and manage financial risks. (Gosal & Nainggolan, 2023) Also, highlight the importance of financial literacy for SME performance. These findings align with previous research indicating that financial literacy is a key factor in SME success (Hasan et al., 2024).

Use of FinTech Services

The use of FinTech services by SMEs in the Banten region is quite diverse. The majority of SMEs use digital payment services, such as QRIS, to facilitate transactions with customers. Some SMEs also use online lending services to obtain business capital. However, the use of other FinTech services, such as investment and insurance, remains relatively low. The adoption rate of FinTech is influenced by several factors, including ease of use, transaction costs, and trust in service providers. (Thathsarani & Jian-guo, 2022) and (Kilay et al., 2022) found that the use of FinTech contributes to improved SME performance. This study aligns with these findings, showing that the use of FinTech simplifies transactions, enhances access to financing, and helps SMEs manage their finances more efficiently.

Implementation of Digital Accounting

The implementation of digital accounting in SMEs varies. Most SMEs have been using simple accounting software or spreadsheet applications to record financial transactions and create basic financial reports. However, the use of more advanced digital accounting features, such as automated bookkeeping, financial data analysis, and integration with FinTech services, remains limited. The level of digital accounting implementation is influenced by several factors, including cost, ease of use, and the business owner's skills. (Kurniasari et al., 2023) Highlight the importance of digital adoption in improving SME performance. This study found that SMEs using digital accounting tend to have more accurate, timely, and comprehensive financial information, which supports better business decision-making.

Impact on SME Performance

Data analysis indicates a positive relationship between financial literacy, FinTech usage, digital accounting, and SME performance. SMEs with high financial literacy, those utilising FinTech, and those using digital accounting tend to perform better, as measured by profitability, sales growth, and business sustainability. These findings align with previous research indicating that these three factors interact and create a synergistic effect that can enhance SME performance (Angeles, 2022). Improved financial literacy strengthens the managerial capabilities of SME owners, the use of FinTech facilitates transactions and access to financing, while digital accounting enhances the quality of financial information

The findings of this study provide a comprehensive overview of the role of financial literacy, FinTech, and digital accounting in improving the performance of MSMEs in Indonesia's digital economy. The results of the case study in the Banten region indicate that these three factors are interrelated and have a significant impact on the success of MSMEs.

Improving Financial Literacy and Managerial Capacity

Improving financial literacy has been shown to strengthen the managerial capacity of SME owners. A better understanding of financial concepts, budgeting, financial planning, and cash flow management enables business owners to make more informed business decisions. SMEs with high levels of financial literacy tend to be better equipped to manage financial risks, identify investment opportunities, and increase profitability. These findings align with previous research emphasising the importance of financial literacy for SME success (Hasan et al., 2024; Egbo et al., 2020). According to (Lontchi et al., 2022), improved financial literacy

positively influences sustainable development. This indicates that investing in financial literacy programs is crucial for supporting the sustainable growth of SMEs.

Utilisation of FinTech and Financial Access

The use of FinTech has proven to simplify transactions and improve SMEs' access to financing. The use of digital payment services, such as QRIS, makes it easier for SMEs to receive payments from customers, reduces the risks associated with cash, and enhances transaction efficiency. Access to online lending services also provides SMEs with the opportunity to obtain working capital more quickly and easily. These findings align with research by (Thathsarani & Jian-guo, 2022) and (Kilay et al., 2022), which indicates that FinTech contributes to improved SME performance. According to (El Hajj & Farran, 2024), the use of FinTech can enhance financial inclusion. Thus, promoting the use of FinTech is an effective strategy to support SME growth and improve financial inclusion in Indonesia.

Digital Accounting and the Quality of Financial Information

The use of digital accounting has been proven to improve the quality of financial information to support business decision-making. SMEs that use accounting software or digital financial applications have more accurate, timely, and comprehensive financial records. High-quality financial information enables business owners to monitor financial performance more effectively, identify business trends, and make more informed decisions. (Kurniasari et al., 2023) Highlight the importance of digital adoption in improving SME performance. The implementation of digital accounting, according to (Gosal & Nainggolan, 2023), also influences SME financial behaviour. Thus, promoting the adoption of digital accounting is a crucial step toward enhancing financial management efficiency and supporting better decision-making.

Digital Transformation of SMEs in Indonesia

The findings of this study contribute to the understanding of SME digital transformation in Indonesia. Improving financial literacy, leveraging FinTech, and utilising digital accounting are integral parts of SME digital transformation. (Buteau, 2021) presents a roadmap for digital technologies supporting the SME ecosystem in India, which is relevant to the Indonesian context. (Aminullah et al., 2022) Discuss the interactive components of the SME digital ecosystem. The government needs to continue promoting SME digitalisation through various policies and programs, such as providing financial literacy training, supporting the use of FinTech, and offering incentives for the adoption of digital accounting.

Government Policies and SME Digitalisation

Government policies play a crucial role in supporting SME digitalisation. The government needs to create an environment conducive to SME growth, including the provision of adequate digital infrastructure, regulatory simplification, and support for access to financing. The government also needs to improve coordination among relevant agencies to ensure the effectiveness of SME digitalisation programs. (Tritto et al., 2020) Discuss P2P lending regulations in Indonesia. (OECD, 2023) also guides SME financing.

Increased Use of Digital Financial Services

The increased use of digital financial services is a significant trend in the digital economy era. SMEs need to continue adapting to changes in technology and consumer behaviour. Improving financial literacy, leveraging FinTech, and adopting digital accounting will help SMEs remain competitive and sustainable. (Ahmed & Sur, 2021) Discuss the use of digital banking services by SMEs. (Lottu et al., 2023) Provide an overview of digital transformation in Nigeria's banking sector. According to (Behera & Kumra, 2023), the growing use of digital financial services also requires a better understanding of consumer behaviour.

CONCLUSION

This study concludes that financial literacy, FinTech, and digital accounting are key factors in improving the performance of SMEs in Indonesia's digital economy. Improved financial

literacy strengthens the managerial capacity of SME owners; the use of FinTech facilitates transactions and access to financing; and digital accounting enhances the quality of financial information to support business decisions.

This study offers contributions both academically and practically. Academically, it provides empirical evidence regarding the vital role of financial literacy, FinTech, and digital accounting in improving SME performance. It also contributes to the development of theories concerning the digital transformation of SMEs. Practically, the study offers recommendations for SME operators, the government, financial institutions, and digital technology developers to support SME digitalisation in Indonesia.

DAFTAR PUSTAKA

Ahmed, S., & Sur, S. (2021). Change in the usage pattern of digital banking services by Indian rural MSMEs during demonetization and Covid-19 pandemic-related restrictions. *Vilakshan – XIMB Journal of Management*. https://doi.org/10.1108/xjm-09-2020-0138

Akpuokwe, C. U., Chikwe, C. F., & Eneh, N. E. (2024). Leveraging technology and financial literacy for women's empowerment in SMEs: A conceptual framework for sustainable development. *Global Journal of Engineering and Technology Advances, 18*(3), 0041. https://doi.org/10.30574/gjeta.2024.18.3.0041

Al–Shami, S. A., Damayanti, R., Adil, H., Farhi, F., & Al Mamun, A. (2024). Financial and digital financial literacy through social media use towards financial inclusion among batik small enterprises in Indonesia. *Heliyon*. https://doi.org/10.1016/j.heliyon.2024.e34902

Aminullah, E., Fizzanty, T., Nawawi, N., Suryanto, J., Pranata, N., Maulana, I., Ariyani, L., Wicaksono, A., Suardi, I., Aziz, N. L. L., & Budiatri, A. P. (2022). Interactive Components of Digital MSMEs Ecosystem for an Inclusive Digital Economy in Indonesia. *Journal of the Knowledge Economy*. https://doi.org/10.1007/s13132-022-01086-8

Angeles, I. T. (2022). The Moderating Effect of Digital and Financial Literacy on the Digital Financial Services and Financial Behaviour of MSMEs. *Review of Economics and Finance*, *20*, 57. https://doi.org/10.55365/1923.x2022.20.57

Ashta, A. (2023). How Can Fintech Companies Get Involved in the Environment? *Sustainability, 15*(13), 10675. https://doi.org/10.3390/su151310675

Behera, C. K., & Kumra, R. (2023). Two decades of mobile payment research: A systematic review using the TCCM approach. *International Journal of Consumer Studies, 47*(3), 1162–1205. https://doi.org/10.1111/ijcs.13003

Ben Naceur, S., Beck, T., Belhaj, M., & Barajas, A. (2020). Financial Inclusion: What Have We Learned So Far? What Do We Have to Learn? *IMF Working Paper*. https://doi.org/10.5089/9781513553009.001

Biallas, M. O., & O'Neill, F. (2020). *Artificial Intelligence Innovation in Financial Services*. International Finance Corporation. https://doi.org/10.1596/34305

Buteau, S. (2021). Roadmap for digital technology to foster India's MSME ecosystem—opportunities and challenges. *CSI Transactions on ICT*. https://doi.org/10.1007/s40012-021-00345-4

Charfeddine, L., Umlai, M. I., & El-Masri, M. (2024). Impact of financial literacy, perceived access to finance, ICT use, and digitisation on credit constraints: evidence from Qatari MSME importers. *Financial Innovation*. https://doi.org/10.1186/s40854-023-00557-4

Delgado-Sánchez, E., Calderón, R., & Herrera, F. (2025). Artificial Intelligence Adoption in SMEs: Survey Based on TOE–DOI Framework, Primary Methodology and Challenges. *Applied Sciences, 15*(12), 6465. https://doi.org/10.3390/app15126465

Egbo, O. P., Ezeaku, H. C., Igwemeka, E., & Okeke, O. M. (2020). Financial literacy and access: revisiting the bridges and barriers to women entrepreneurship in Nigeria. *Revista Amazonia Investiga, 9*(29), 48–56. https://doi.org/10.34069/ai/2020.29.05.48

Kilay, A. L., Simamora, B. H., & Putra, D. P. (2022). The Influence of E-Payment and E-Commerce Services on Supply Chain Performance: Implications of Open Innovation and Solutions for the Digitalisation of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. *Journal of Open Innovation Technology Market and Complexity, 8*(3), 119. https://doi.org/10.3390/joitmc8030119

Lestari, E. D., Abd Hamid, N., Shamsuddin, R., Kurniasari, F., & Yaacob, Z. (2024). Investigating the factors of SMEs' business resilience in the post-pandemic crisis of COVID-19 with technology adoption as a quasi-moderator: a multigroup analysis of Indonesian and Malaysian SMEs. *Cogent Business & Management, 11*(1), 2301135. https://doi.org/10.1080/23311975.2023.2301135

Lontchi, C. B., Yang, B., & Su, Y. (2022). The Mediating Effect of Financial Literacy and the Moderating Role of Social Capital in the Relationship between Financial Inclusion and Sustainable Development in Cameroon. *Sustainability, 14*(22), 15093. https://doi.org/10.3390/su142215093

Malik, K., Meki, M., Morduch, J., Ogden, T., Quinn, S., & Said, F. (2020). COVID-19 and the future of microfinance: evidence and insights from Pakistan. *Oxford Review of Economic Policy, 36*(Supplement_1), S253–S272. https://doi.org/10.1093/oxrep/graa014

Menne, F., Mardjuni, S., Yusuf, M., Ruslan, M., Arifuddin, A., & Iskandar, I. (2023). Sharia Economy, Islamic Financial Performance and Factors That Influence It—Evidence from Indonesia. *Economies, 11*(4), 111. https://doi.org/10.3390/economies11040111

OECD. (2023). *OECD Financing SMEs and Entrepreneurs Scoreboard: 2023 Highlights*. OECD SME and entrepreneurship papers. https://doi.org/10.1787/a8d13e55-en

Osman, I. (2023). Advancing Ethical and Sustainable Economy: Islamic Finance Solutions for Environmental, Social, & Economic Challenges in the Digital Age. *International Journal of Membrane Science and Technology, 10*(5), 2515–2524. https://doi.org/10.15379/ijmst.v10i5.2515.