

The Influence of Financial Literacy, Financial Inclusion, and Fintech Usage on MSME Financial Performance: Study on MSME Actors of the Batik Handicraft Industry Center in Solo Raya

Lady Noor Majid¹, Imronudin²

^{1,2}Universitas Muhammadiyah Surakarta, Indonesia

¹b100210599@student.ums.ac.id, ²imronudin@ums.ac.id

ABSTRACT

MSMEs are the main pillar of the Indonesian economy, playing a major role in employment, increasing GDP, and exporting local products. The government targets 90% financial inclusion by 2024, but low financial literacy is a challenge. MSMEs' performance could be improved by using fintech, however optimizing economic impact and guaranteeing business sustainability require a strong grasp of finance. With an emphasis on the connection between these factors and MSME performance, this study attempts to investigate how financial inclusion, financial literacy, and financial technology use affect MSMEs' financial success. The research involved 160 MSME owners from the Solo Besar Batik Craft Center, all of whom have adopted fintech-based payment systems. A straightforward random sampling procedure was used to choose the sample. Using a Likert scale, a questionnaire was used to gather primary data. Data analysis was conducted using SmartPLS 3 software, applying the probability sampling method (simple random sampling). The findings revealed that financial literacy, financial inclusion, and the use of financial technology significantly and positively influence the financial performance of MSMEs. Financial literacy aids in better management and increased profitability, financial inclusion broadens access to financial services, and financial technology enhances access to capital and improves transaction management. This research confirms the importance of these three factors for the growth and sustainability of MSMEs.

Keywords: *Financial Literacy, Financial Inclusion, Fintech Usage, Financial Performance, MSMEs.*

ABSTRAK

UMKM merupakan pilar utama perekonomian Indonesia, berperan besar dalam lapangan kerja, peningkatan PDB, dan mengeksport produk lokal. Pemerintah menargetkan inklusi keuangan 90% pada tahun 2024, tetapi literasi keuangan yang rendah menjadi tantangan. Kinerja UMKM dapat ditingkatkan dengan menggunakan fintech, namun mengoptimalkan dampak ekonomi dan menjamin keberlanjutan bisnis membutuhkan pemahaman keuangan yang kuat. Dengan penekanan pada hubungan antara faktor-faktor ini dan kinerja UMKM, penelitian ini mencoba untuk menyelidiki bagaimana inklusi keuangan, literasi keuangan, dan penggunaan teknologi keuangan mempengaruhi keberhasilan keuangan UMKM. Riset tersebut melibatkan 160 pemilik UMKM dari Balai Kerajinan Batik Solo Besar, yang semuanya telah mengadopsi sistem pembayaran berbasis fintech. Prosedur pengambilan sampel acak langsung digunakan untuk memilih sampel. Dengan menggunakan skala Likert, kuesioner digunakan untuk mengumpulkan data primer. Analisis data dilakukan dengan menggunakan perangkat lunak SmartPLS 3, menerapkan metode *probability sampling* (*simple random sampling*). Temuan tersebut mengungkapkan bahwa literasi keuangan, inklusi

keuangan, dan penggunaan teknologi keuangan berpengaruh secara signifikan dan positif terhadap kinerja keuangan UMKM. Literasi keuangan membantu dalam manajemen yang lebih baik dan meningkatkan profitabilitas, inklusi keuangan memperluas akses ke layanan keuangan, dan teknologi keuangan meningkatkan akses ke modal dan meningkatkan manajemen transaksi. Penelitian ini menegaskan pentingnya ketiga faktor ini bagi pertumbuhan dan keberlanjutan UMKM.

Kata kunci: Literasi Keuangan, Inklusi Keuangan, Penggunaan Fintech, Kinerja Keuangan, UMKM.

INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) are the most common type of economic activity carried out by Indonesians as a basis for generating income to continue living. The role of MSMEs in the economy of Indonesian, whose share is more dominant than large corporations, is not only to absorb labor, but also to introduce various local products to the international world (Bengkalis-riau & Susie, 2018). MSMEs hold a crucial position in the framework of the Indonesian economy (Kemenkop & UKM, 2024). Micro, Small, and Medium Enterprises (MSMEs) play a significant role in absorbing a substantial amount of labor and contributing to the generation of national foreign exchange. According to data from the “Planning Bureau of the Ministry of Cooperatives” and “SMEs of the Republic of Indonesia”, MSMEs demonstrate high labor absorption capacity and make a considerable contribution to the country's GDP. They also serve as key drivers in economic recovery efforts, maintaining financial system stability, and fostering sustainable and stable economic growth. Therefore, MSMEs can be regarded as the backbone (soko guru) of Indonesia's economy. Therefore, improving the performance of MSMEs by using local products without relying on imported products will boost national economic development. The government recently set a goal to increase the national financial inclusion rate to 90% by 2024, given how important it is to the country's economy. Bank Indonesia's Deputy Governor said that he is optimistic about the target, given the increasing trend of financial inclusion in society. Coordinating Minister for Economic Affairs Airlangga Hartarto (2024) targets financial inclusion to reach 95% by 2029. High inclusion rates and low literacy indicate high potential risks. While people may have access to financial services, they often lack an understanding of their functions and associated risks. Enhancing financial literacy is crucial to ensure that the increased inclusion leads to more productive outcomes while minimizing potential risks. The number of growing MSMEs is proportional to the amount of labor that can be absorbed. This is influenced by the number of MSMEs and their successful management. Furthermore, the adoption of fintech by MSMEs can enhance their financial inclusion. As a result, the more MSMEs that use Fintech, the greater the impact on customers. For MSME entrepreneurs, understanding and mastering financial inclusion and literacy is essential, as effective financial management directly impacts their performance and long-term sustainability. As a result, MSMEs require

strategic efforts to achieve superior performance and business sustainability. Therefore, understanding financial literacy is critical to addressing such issues. This study aims to investigate the factors that impact the financial performance of MSMEs. It focuses on analyzing how financial literacy enhances financial comprehension and management, evaluating the role of financial inclusion in broadening access to financial services and analyzing the effect of financial technology on improving the efficiency and productivity of MSMEs in managing their finances.

REVIEW OF LITERATURE

Financial Performance

Performance is description of the implementation achieved in achieving the mission, vision, objectives, and goals of the organization. Good performance will be able to provide services in the fields of production, finance, marketing, or sales. These things are prerequisites for the survival of MSMEs (Management & Entrepreneurship, 2022). With good performance, MSMEs are expected to play an important role and become a solid backbone of the national economy. According to (Oktariani et al., 2022) MSME performance can be achieved when economic actors are able to carry out their business activities to achieve predetermined goals. The obstacles faced by MSME business entities in Indonesia include human resources, financing, financial management knowledge, skills, technology, and there are several other challenges and limitations that impede the growth and development of MSMEs. As a result, strategic efforts are necessary to enhance the performance of MSME businesses.

According to Minuzu, “there are two types of factors that affect the performance of MSMEs, namely internal factors and external factors.” Internal factors include several aspects that come from within the organization or company itself. First, the aspect of human resources which is the potential in humans to carry out their social roles adaptively and transformatively. In this case, entrepreneurial resources have an important role, especially in management which triggers the production process. An entrepreneur needs to have the ability to manage, combine labor, plan, organize, direct, and control well. Second, the financial aspect includes the processes, market institutions, and instruments for transferring money between individuals, businesses, and governments. Business capital is the main thing in this aspect because it is the main staple for generating wealth. Third, the technical and operational aspects that involve a series of production activities to produce goods or services from inputs to outputs. Analysis of this aspect focuses on the readiness of the company through assessment of the location, layout, and tools used. Fourth, the marketing aspect which includes identifying, creating, and communicating to customers to maximize profits. The marketing process involves market segmentation, target market, and market positioning to create a match between products and consumer needs.

Meanwhile, external factors include elements that are beyond the direct control of MSMEs but have a significant influence on their performance. The first is the government policy aspect, which consists of various strategic actions to solve societal problems in order to achieve certain goals. These policies can facilitate or even restrict the development of MSMEs, depending on the regulations implemented. Second, the social, cultural and economic aspects that relate to people's behavior patterns both in their daily lives and in a broader scope. This factor directly or indirectly affects MSME activities, both in terms of consumer habits and the business environment formed. It is the combination of these internal and external factors that shape the dynamics of overall MSME performance.

Financial Literacy

Financial literacy refers to the knowledge and abilities needed to manage personal finances effectively when making decisions (Budyastuti, 2021). The Financial Services Authority (OJK) describes financial literacy as the integration of knowledge, skills, and confidence that influence attitudes and behaviors, fostering better financial decision-making and management to attain financial well-being. A World Bank survey conducted in 2015 found that only 32% of Indonesian adults possess financial literacy, emphasizing the critical need for Indonesia to improve financial education and implement effective strategies. Soekarno and Pranoto (2020) “describe financial literacy as a set of knowledge, skills, and attitudes essential for individuals to ensure their financial stability and that of their families in modern society”. Financially literate individuals possess a strong understanding of monetary and pricing concepts and can manage personal or family budgets, including overseeing financial assets and debts at various stages of life. Financial literacy is a key part of broader business literacy, which includes skills such as earning income, assessing how personal decisions affect current and future earnings, navigating the job market, and making informed decisions about spending.

Despite this urgency, financial literacy is still very low, even in some countries where financial markets are developed and people actively participate in financial markets. According to OECD surveys, financial literacy levels in many countries are still low. Countries that rank low in the G7 and G20 groups. Financial illiteracy is not only widespread in society, but is particularly acute among some demographic subgroups that are already economically vulnerable (Lusardi & Messy, 2023).

Financial Inclusion

The Ministry of Finance (MoF) defines financial inclusion as a state where all segments of society have access to quality formal financial services that are timely, efficient, safe, and affordable, based on their needs and capabilities, with the aim of enhancing their welfare. These financial services should address diverse community needs and be easily accessible in terms of both requirements and the services offered.

Furthermore, secure financial services are intended to safeguard individuals' rights and obligations against potential risks.

The Financial Services Authority (OJK) defines financial inclusion as the provision of access to a range of financial institutions, services, and products that are suited to the needs and capabilities of the community, particularly in remote areas, with the goal of enhancing their welfare. Kamalesh Shailesh C. Chakrobarty added that financial inclusion encourages better financial management, this includes fostering a savings culture, broadening access to credit for business activities and consumption, and offering more efficient payment systems, thus having a positive impact on the economy.

From the explanation above, it can be concluded that financial inclusion involves expanding financial services to local communities, with the goal of eliminating both price and non-price barriers, particularly in remote or difficult-to-reach areas (Rangkuti et al., 2023).

Fintech Usage

Bank Indonesia explains financial technology as the use of technology in the financial system to develop various innovations, both in the form of products, services, technology, and business models. This technology has the potential to affect monetary and financial system stability, while improving efficiency, operational smoothness, security, and reliability in the payment system.

Considering the advancements and evolution of technology in the context of the Fourth Industrial Revolution (4.0), many new innovations and breakthroughs in the aim of facilitating all human activities and electronic product technology have developed into various fields. One of them is the financial services sector as a technology development sector such as financial technology (fintech). Currently, several MSMEs in Indonesia have used financial technology or commonly called fintech as a means of payment (Oktariani et al., 2022). Financial technology (fintech) has transformed the financial industry, reshaped the banking system, and spurred the development of new business models, processes, and financial products. Operating within a constantly changing environment, fintech faces rapid technological progress, regulatory challenges, and growing competition. These challenges can threaten financial stability, so it is important to continue to monitor the risks that arise as innovations in the financial sector are made (Ferilli et al., 2024).

In recent years, financial technology (fintech) has grown rapidly around the world. Although financial technology (fintech) can positively contribute to unforeseen economic growth and poverty alleviation through enhanced development and financial inclusion, it also carries the potential to affect both consumers and investors. The consequences could extend further, influencing the overall stability and integrity of the financial system (Koranteng & You, 2024).

RESEARCH METHOD

The population for this study consisted of MSMEs in the Greater Solo Batik Craft Industry Center. The sample was selected representatively using probability sampling methods, specifically simple random sampling, with a total of 160 participants. The sample was obtained by distributing questionnaires to MSME business actors in the Greater Solo Batik Craft Center. Primary data in this study were collected through questionnaires filled out by the MSME owners.

Calculation with the Slovin method:

$$n = N / (1 + (N \times e^2))$$

Description:

n : the sample

N : the population

e : standard error

This research categorizes variables such as financial performance, financial technology, financial inclusion, and financial literacy of MSMEs, which are assessed using a Likert scale ranging from 1 to 5. The response options include strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). The collected data is subsequently processed and analyzed using Smart PLS 3 software to perform “Partial Least Squares-Structural Equation Modeling (PLS-SEM)”. This analysis is designed to examine the relationships between the research variables and assess both the measurement and structural models concurrently.

RESULTS AND DISCUSSION

Convergent Validity

Table 1. Loading Factor Value

| Indicator | (X1) Financial Literacy | (X2) Financial Inclusion | (X3) Fintech Usage | (Y) MSME Financial Performance |
|-----------|-------------------------------|--------------------------------|--------------------------|--------------------------------------|
| X1.1 | 0,823 | | | |
| X1.2 | 0,829 | | | |
| X1.3 | 0,811 | | | |
| X1.4 | 0,836 | | | |
| X1.5 | 0,791 | | | |
| X1.6 | 0,796 | | | |
| X2.1 | | 0,829 | | |
| X2.2 | | 0,794 | | |
| X2.3 | | 0,840 | | |
| X2.4 | | 0,814 | | |
| X2.5 | | 0,785 | | |

| | |
|------|-------|
| X2.6 | 0,799 |
| X3.1 | 0,819 |
| X3.2 | 0,810 |
| X3.3 | 0,827 |
| X3.4 | 0,794 |
| X3.5 | 0,789 |
| X3.6 | 0,813 |
| Y1 | 0,798 |
| Y2 | 0,817 |
| Y3 | 0,844 |
| Y4 | 0,805 |
| Y5 | 0,816 |
| Y6 | 0,774 |

Source: Data Analysis (2024).

It can be seen in the table above that all indicators in this study are declared valid, this is because the loading factor value generated by each indicator is > 0.7.

Another measuring tool in measuring validity is AVE (Average Variance Exctrated). The AVE value must be > 0.5. Can be seen in the table below. That the Financial Literacy Variable has the highest AVE value, which is 0.663. While the one with the lowest AVE value is the Fintech Usage Variable with a value of 0.654.

Table 2. Average Variance Extracted (AVE) Value

| Variable | AVE |
|---------------------------------------|-------|
| (X1) Financial Literacy | 0,663 |
| (X2) Financial Inclusion | 0,657 |
| (X3) Fintech Usage | 0,654 |
| (Y) MSME Financial Performance | 0,655 |

Source: Data Analysis (2024).

It can be seen from the table above that the entire AVE value of each variable is > 0.5. It can be concluded that the loading factor and AVE values have met the Convergent Validity requirements.

Table 3. Heterotrait-monotrait ratio (HTMT)

| Variable | (X1) Financial Literacy | (X2) Financial Inclusion | (X3) Fintech Usage |
|---------------------------------|-------------------------------|--------------------------------|--------------------------|
| (X2) Financial Inclusion | 0,779 | | |

| | | | |
|---------------------------------------|-------|-------|-------|
| (X3) Fintech Usage | 0,698 | 0,612 | |
| (Y) MSME Financial Performance | 0,791 | 0,768 | 0,746 |

Source: Data Analysis (2024).

It can be seen in the table above, all variables have an HTMT value below 1, so it can be concluded that the variable passes the HTMT test stage.

Table 4. Results of Hypothesis Test

| Variable | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values |
|--|---------------------|-----------------|----------------------------|--------------------------|----------|
| (X1) Financial Literacy -> (Y) MSME Financial Performance | 0,307 | 0,314 | 0,149 | 2,066 | 0,039 |
| (X2) Financial Inclusion -> (Y) MSME Financial Performance | 0,305 | 0,307 | 0,137 | 2,226 | 0,026 |
| (X3) Fintech Usage -> (Y) MSME Financial Performance | 0,309 | 0,306 | 0,135 | 2,288 | 0,023 |

Source: Data Analysis (2024).

The criteria for accepting the hypothesis is if the T-Statistic is more than 1.96 and the P-Value is less than 0.05, then H_a is accepted and H_0 is rejected, and vice versa, while the hypothesis is proposed as follows:

First Hypothesis Test

Financial Literacy Variables have a Positive and Significant Effect on MSME Financial Performance Variables. It can be seen from the regression coefficient value of 0.307. and from the results of data management there is a T-Statistic value of 2.066 greater than the T-Table value of 1.96 with a P-Value of 0.039 smaller than 0.05, therefore the Financial Literacy Variable has a Positive and Significant Effect on the MSME Financial Performance Variable.

Second Hypothesis Test

The Financial Inclusion Variable has a Positive and Significant Effect on the MSME Financial Performance Variable. It can be seen from the regression coefficient value of 0.305. and from the results of data management there is a T-Statistic value of 2.226 greater than the T-Table value of 1.96 with a P-Value of 0.026 smaller than 0.05,

therefore the Financial Inclusion Variable has a Positive and Significant Effect on the MSME Financial Performance Variable.

Third Hypothesis Test

The variable use of Fintech has a positive and significant effect on the MSME financial performance variable. It can be seen from the regression coefficient value of 0.309. and from the results of data management there is a T-Statistic value of 2.288 greater than the T-Table value of 1.96 with a P-value of 0.023 smaller than 0.05, therefore the Fintech Usage Variable has a Positive and Significant Effect on the MSME Financial Performance Variable.

CONCLUSIONS AND SUGGESTIONS

The objective of this study is to assess how financial literacy, financial inclusion, and the adoption of fintech influence the financial performance of MSMEs. The analysis shows that financial literacy has a significant positive effect on MSME performance, suggesting that a strong grasp of financial principles can enhance the management and profitability of these enterprises. In addition, financial inclusion also contributes positively to financial performance, indicating that better access to financial services supports the growth and sustainability of MSMEs. The use of fintech has proven to have a significant impact, with financial technology that makes it easier for MSMEs to access capital and manage financial transactions. Overall, these findings emphasize the importance of financial literacy, financial inclusion, and the use of fintech to improve the financial performance of MSMEs.

For future research, it is recommended that the scope of research be expanded by involving MSMEs from various sectors and regions, so that the results can be more representative and generalizable to a wider population. Future studies could also utilize qualitative approaches, such as in-depth interviews or case studies, to explore the factors affecting the financial performance of MSMEs in greater detail. Additionally, future research should incorporate other variables that could influence MSME financial performance, such as market conditions, management practices, and external factors, to present a more complete analysis. Lastly, it is suggested to conduct longitudinal studies that track changes in the financial performance of MSMEs over time, as well as examine the effects of government policies and advancements in financial technology on these businesses.

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