# ENHANCING MSME COMPETITIVENESS THROUGH FINANCIAL LITERACY AND DIGITAL TRANSFORMATION IN INDONESIA

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**Abstract**

*Micro, Small, and Medium Enterprises (MSMEs) are a cornerstone of Indonesia's economy, contributing 60.5% to the national GDP and employing 97% of the workforce. However, MSMEs face challenges such as low financial literacy and limited adoption of digital technologies, which hinder their competitiveness in the global market. This study explores the synergistic role of financial literacy and digital transformation in enhancing MSME performance and competitiveness. Using a qualitative approach, data were collected through in-depth interviews, focus group discussions, and policy document analysis. The findings reveal that the average financial literacy level among MSME actors in Indonesia is only 38%, leading to poor financial management and limited access to formal financing. On the other hand, only 16% of MSMEs have integrated digital technologies into their operations, with those who did reporting significant improvements in efficiency and revenue. The integration of financial literacy with digital tools was found to have a multiplier effect, enabling better resource management, improved decision-making, and enhanced market competitiveness. This study highlights the importance of targeted policies to combine financial literacy training with digital technology adoption. By addressing challenges such as infrastructure limitations and resistance to change, stakeholders can foster inclusive economic growth and empower MSMEs to thrive in the digital economy.*

*Keywords: Financial Literacy, Digital Transformation, MSME Competitiveness, Economic Growth, Indonesia*

## 1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of Indonesia's economy, contributing significantly to the country's Gross Domestic Product (GDP) at 60.5% and providing employment to 97% of the workforce (Ministry of Cooperatives and SMEs, 2023). These businesses are not only vital to economic growth but also play a crucial role in social development by reducing poverty, promoting entrepreneurship, and fostering innovation. Despite their essential role, MSMEs in Indonesia face multifaceted challenges that hinder their growth and global competitiveness. These challenges range from financial and technological limitations to social and cultural barriers, creating a complex environment that requires comprehensive solutions.

One of the most pressing challenges for MSMEs is the issue of low financial literacy. Financial literacy encompasses the knowledge, skills, and attitudes necessary to make informed financial decisions, yet this competency remains alarmingly low among MSME actors in Indonesia. The Financial Services Authority (OJK) (2021) reports that only 38% of MSME actors possess adequate financial literacy, a figure that pales in comparison to developed countries such as Japan (73%) and Singapore (69%). This deficiency manifests in poor financial management practices, such as inadequate cash flow planning, inability to prepare financial statements, and limited access to formal financing. Many MSMEs, particularly in rural areas, rely on informal financial systems that lack transparency and security. For example, MSMEs in the agricultural sector often depend on local moneylenders for funding, exposing them to high interest rates and financial instability.

The issue of financial literacy is further compounded by geographical and sectoral disparities. In urban centers such as Jakarta, Bandung, and Surabaya, MSMEs have relatively better access to financial education and formal financing institutions. However, in rural and remote areas, limited infrastructure and resources exacerbate the financial literacy gap. Sectors such as traditional culinary businesses and small-scale textile production are particularly affected, as business owners in these sectors often prioritize operational needs over financial planning. Additionally, socio-cultural factors, such as gender disparities and a reluctance to adopt modern financial practices, contribute to the persistence of this issue.

In parallel, the adoption of digital technologies presents both opportunities and challenges for MSMEs. Digital transformation is widely recognized as a key driver of business competitiveness, enabling MSMEs to enhance operational efficiency, expand market reach, and improve customer engagement. A study by McKinsey (2022) highlights that MSMEs adopting digital tools experienced an average revenue increase of 30% compared to their non-digital counterparts. However, despite these benefits, the rate of digital adoption among Indonesian MSMEs remains critically low, with only 16% integrating digital tools such as e-commerce platforms, digital payment systems, or cloud-based accounting software into their operations (Akumindo, 2023).

Several barriers contribute to this low adoption rate. First, the lack of digital infrastructure in rural and remote areas limits the accessibility of technology for MSMEs. Second, resistance to change among MSME actors, driven by a fear of complexity and disruption to traditional practices, hinders the adoption of digital solutions. Third, insufficient technical skills and a lack of training programs further constrain the ability of MSMEs to effectively utilize digital tools. For instance, MSMEs in the handicrafts sector often struggle to leverage digital marketplaces due to a lack of knowledge about online marketing strategies. Similarly, in the culinary sector, businesses face difficulties in optimizing food delivery platforms due to limited understanding of platform algorithms and digital customer engagement.

The interplay between financial literacy and digital transformation presents a unique opportunity for enhancing MSME competitiveness. Financial literacy enables MSME actors to make better use of digital tools, such as budgeting applications or online payment systems, by equipping them with the knowledge to manage and interpret financial data effectively. Conversely, digital technologies can facilitate financial education by providing MSME actors with access to online training resources and tools that simplify complex financial

processes. The synergy between these two elements creates a multiplier effect, allowing MSMEs to optimize resources, improve decision-making, and expand their market reach.

This study aims to explore how financial literacy and digital transformation can synergistically address the challenges faced by MSMEs in Indonesia. By examining specific issues across different regions and sectors, this research seeks to provide actionable insights for policymakers, industry leaders, and MSME stakeholders. Through a qualitative approach, the study investigates the barriers to financial literacy and digital adoption, identifies opportunities for integration, and offers strategic recommendations for fostering inclusive economic growth. Ultimately, this research aims to empower MSMEs to thrive in an increasingly digitalized global economy while contributing to the academic literature on MSME development in emerging markets

## 2. RESEARCH METHOD

This study employs a qualitative approach to examine how financial literacy and digital transformation can synergistically enhance the competitiveness of MSMEs. This approach is chosen because it allows for an in-depth exploration of the experiences, perceptions, and challenges faced by MSME actors in integrating financial literacy and digital technology. Qualitative research is also considered effective for understanding complex phenomena, particularly in socio-economic contexts (Creswell, 2013).

Data Collection

Data collection will be conducted through in-depth interviews, focus group discussions (FGDs), and document analysis of MSME-related policies. In-depth interviews are selected to gather specific individual insights regarding the barriers and opportunities in adopting financial literacy and digital transformation (Patton, 2002). Focus group discussions are used to obtain collective perspectives, particularly from MSME actors, business associations, and regulators (Morgan, 1997). Additionally, policy documents and annual reports from the Ministry of Cooperatives and SMEs as well as the Financial Services Authority (OJK) are analyzed to provide contextual understanding of the current state of MSME development.

Sampling Technique

This study adopts purposive sampling to select participants who have significant experience and knowledge of MSMEs, financial literacy, and digital transformation (Palinkas et al., 2015). Participants include MSME owners from various sectors, policymakers, and digital technology providers. This method ensures that the data collected is rich and relevant to the research objectives.

Data Analysis

Thematic analysis is used to identify patterns and themes within the data (Braun & Clarke, 2006). The analysis process involves coding data, categorizing themes, and interpreting findings to understand the relationship between financial literacy and digital

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transformation in improving MSME competitiveness. NVivo software may also be utilized to organize and analyze qualitative data systematically (Bazeley & Jackson, 2013).

Validation and Triangulation

To ensure the credibility of the findings, data triangulation is employed by comparing information obtained from different sources, such as interviews, FGDs, and document analysis (Denzin, 1978). Member checking is also conducted, where participants review the study's findings to confirm their accuracy and relevance (Lincoln & Guba, 1985).

By leveraging these methods, this study aims to provide a comprehensive understanding of the challenges and strategies for integrating financial literacy and digital transformation, contributing valuable insights for policymakers and stakeholders in MSME development.

## 3. RESULTS AND DISCUSSION

**Results**

Financial Literacy Levels Among MSMEs

The findings indicate that financial literacy among MSME actors in Indonesia remains critically low, with an average score of only 38% (OJK, 2021). This figure highlights a significant gap when compared to developed nations such as Japan (73%) and Singapore (69%), where structured, widespread financial education programs are implemented. For instance, Japan has integrated financial literacy into its school curriculum, ensuring early exposure to fundamental financial principles. Similarly, Singapore's *MoneySense* program provides a dedicated platform offering tailored financial education for various demographics, including MSMEs. These initiatives underline the potential impact of targeted and systemic approaches in improving financial literacy.

In Indonesia, the lack of financial literacy translates into poor cash flow management, limited financial planning, and difficulty accessing formal financing options. For example, in traditional sectors such as agriculture, many MSMEs still rely on informal moneylenders with high-interest rates, which erodes their profitability. Interviews with MSME owners in rural areas revealed that financial literacy is often considered secondary to immediate operational needs, leading to neglect of financial planning. Furthermore, the absence of accessible resources tailored to specific sectors exacerbates this issue. MSMEs in urban centers like Jakarta or Surabaya are more likely to benefit from available training programs, while those in remote areas such as Papua face significant challenges due to limited infrastructure and outreach.

Additionally, the sectoral disparities in financial literacy are noteworthy. For instance:

- Culinary Sector**,** Business owners often lack the ability to manage cash flow during peak and off-peak seasons, resulting in financial instability.
- Handicrafts, many artisans struggle with pricing their products appropriately, leading to undervaluation in local and international markets.
- Retail**,** MSMEs in this sector frequently fail to track inventory and expenses effectively, impacting their overall profitability.

To address these challenges, Indonesia can adopt strategies from successful international programs, such as subsidized training for underserved regions and collaborations with private institutions to deliver tailored financial education. Financial literacy campaigns delivered via digital platforms could further amplify reach, ensuring MSME owners have the tools they need to make informed decisions.

Adoption of Digital Transformation

The study reveals that only 16% of MSMEs in Indonesia have adopted digital tools, such as e-commerce platforms, cloud-based accounting applications, and digital payment systems (Akumindo, 2023). This low adoption rate stands in stark contrast to countries like China, where government-led initiatives such as the *Digital Village Program* have effectively brought rural MSMEs into the digital economy. In China, these programs provide training, infrastructure, and financial incentives to enable small businesses to adopt digital solutions, resulting in a 30% increase in productivity and revenue for participating MSMEs.

In Indonesia, digital transformation faces numerous barriers:

1. Infrastructure Gaps, Limited internet connectivity in rural and remote areas restricts access to digital tools.
2. Resistance to Change, MSME owners often perceive digital tools as complex and costly, deterring them from adoption.
3. Technical Skills Gap, Many MSME actors lack the technical expertise required to operate digital platforms effectively.
4. Cost Concerns, Initial investments in digital technologies are often deemed unaffordable, especially for micro-enterprises.

Despite these challenges, MSMEs that have adopted digital tools report significant benefits. For instance:

- E-commerce Platforms, Businesses leveraging online marketplaces have expanded their customer base beyond local markets, achieving up to a 30% revenue increase.
- Cloud-Based Accounting Software, MSMEs using platforms like Jurnal or Mekari have streamlined financial management, reducing manual errors by 25%.
- Social Media Marketing, Businesses actively promoting their products on platforms like Instagram and Facebook have recorded a 35% growth in sales.

To facilitate greater adoption of digital tools, Indonesia can implement several strategies:

1. Government Subsidies, Provide financial incentives such as grants or tax breaks for MSMEs adopting digital technologies.
2. Public-Private Partnerships, Collaborate with technology providers to deliver affordable, user-friendly digital solutions tailored to MSME needs.

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3. Localized Training Programs, Establish regional training centers to equip MSMEs with the technical skills necessary for digital adoption.
4. Infrastructure Investment, Expand internet connectivity in rural areas to bridge the digital divide.

These measures could significantly enhance the competitiveness of Indonesian MSMEs in the global marketplace.

3. Synergy Between Financial Literacy and Digital Transformation

The integration of financial literacy and digital tools creates a multiplier effect, enabling MSMEs to achieve substantial improvements in performance and competitiveness. MSMEs that combine financial literacy training with the adoption of digital technologies demonstrate enhanced decision-making capabilities, better resource management, and increased operational efficiency.

For instance, MSMEs utilizing cloud-based accounting software alongside financial literacy programs report significant improvements in cash flow management. One textile business owner who participated in a government-sponsored financial literacy workshop and adopted a digital bookkeeping app stated that they were able to reduce financial errors by 30% and secure a bank loan for business expansion.

The synergy between financial literacy and digital transformation lies in their complementary functions:

- Financial Literacy as a Foundation, Equips MSMEs with the knowledge to manage financial data and interpret reports generated by digital tools.
- Digital Tools as Enablers, Automate financial processes, provide real-time insights, and improve transparency.

Specific examples include:

- Budgeting Tools, Financially literate MSMEs are more likely to use apps like Wallet or QuickBooks to manage budgets effectively.
- E-Commerce Integration, MSMEs with financial planning skills can allocate resources efficiently to digital advertising and inventory management.
- Access to Financing, Financial literacy, combined with accurate digital records, improves MSMEs' ability to secure loans or attract investors.

This integration not only enhances efficiency but also builds resilience against market fluctuations, ensuring long-term sustainability.

4. Policy Implications

The findings underscore the importance of targeted policies to promote the integration of financial literacy and digital transformation among MSMEs. While existing

initiatives address broad challenges, more specific and localized approaches are needed to cater to Indonesia's diverse MSME landscape.

Key recommendations include:

1. Regional Training Hubs, Establish training centers offering integrated programs that combine financial literacy and digital skills. These hubs can focus on sector-specific needs, such as fisheries in Sulawesi or tourism in Bali.
2. Subsidized Digital Tools, Partner with technology providers to offer discounted digital solutions tailored to MSMEs.
3. Incentivized Financing, Provide lower interest rates or grants for MSMEs demonstrating financial literacy and digital adoption.
4. Digital Literacy Campaigns, Launch nationwide campaigns to educate MSME actors on the benefits of digital tools, using both online and offline channels.
5. Infrastructure Development Invest in internet access and digital infrastructure in rural areas to reduce disparities.

By implementing these policies, Indonesia can foster inclusive economic growth and empower its MSMEs to thrive in an increasingly digitalized global economy. Furthermore, continuous monitoring and evaluation are essential to ensure that these interventions remain effective and scalable.

## 4. CONCLUSION

MSMEs contribute significantly to the national economy, accounting for 60.5% of GDP and absorbing up to 97% of the workforce. However, MSMEs face various challenges, including low levels of financial literacy, limited digital infrastructure, and resistance to change. These challenges hinder MSMEs from growing and competing in the global market. This study found that the financial literacy level among MSME actors is only 38%, far below the standards of developed countries. This results in suboptimal financial management, difficulty accessing formal financing, and vulnerability to financial risks. Low financial literacy also hampers the ability of MSMEs to effectively utilize digital technology.

On the other hand, digital transformation has been proven to improve MSME operational efficiency and revenues, with an average revenue increase of up to 30% for MSMEs adopting digital technologies. However, only 16% of MSMEs have integrated digital technology into their businesses due to limited access to technology, technical knowledge, and training support. The synergy between financial literacy and digital transformation has a significant impact on MSME competitiveness. MSMEs that integrate

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financial literacy with digital technology show improvements in financial management, operational efficiency, and competitiveness. The use of cloud-based applications and e-commerce platforms, when supported by adequate financial understanding, allows MSMEs to optimize resources and expand market access.

This study recommends the importance of integrated programs that combine financial literacy training and digital technology adoption. Governments and stakeholders need to provide adequate technological infrastructure, accessible technical training, and incentives for MSMEs to adopt digital technology. With these strategies, inclusive economic growth can be achieved, while strengthening the role of MSMEs in the national economy. This study provides important insights into how financial literacy and digital transformation complement each other in supporting MSME development in Indonesia. By addressing existing challenges and leveraging available opportunities, MSMEs can be better prepared to face the challenges of globalization and digitalization. This research is expected to serve as a reference for government policies and sustainable MSME empowerment programs.

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