

THE ROLE OF FINANCIAL LITERACY AND ACCESS TO FINANCE IN DRIVING MSME GROWTH IN THE DIGITAL ERA

PERAN LITERASI KEUANGAN DAN AKSES PEMBIAYAAN DALAM MENDORONG PERTUMBUHAN UMKM DI ERA DIGITAL

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ABSTRACT

The growth of Micro, Small and Medium Enterprises (MSMEs) in the digital era is greatly influenced by financial literacy and access to financing. However, many MSMEs face challenges in understanding financial management amidst digital transformation. This research aims to identify the dimensions of financial literacy that are most critical for the sustainability and growth of MSMEs in the digital era. Using a Systematic Literature Review (SLR) approach with the PRISMA framework, this research analyzes 60 relevant scientific articles from the Scopus, Web of Science, and Springer databases, published between 2017 and 2024. The findings show five main dimensions of financial literacy that have a significant influence on MSME performance, namely basic financial knowledge, digital financial skills, ability to adopt technology, financial risk management, and strategic financial planning. This research makes an important contribution to the development of financial literacy theory by integrating digital aspects, as well as offering practical guidance for governments and financial institutions in designing more effective financial literacy programs for MSMEs.

Keywords: financial literacy, MSMEs, digitalization, risk management, financial planning

ABSTRAK

Pertumbuhan Usaha Mikro, Kecil, dan Menengah (UMKM) di era digital sangat dipengaruhi oleh literasi keuangan dan akses terhadap pembiayaan. Namun, banyak UMKM menghadapi tantangan dalam memahami pengelolaan keuangan di tengah transformasi digital. Penelitian ini bertujuan untuk mengidentifikasi dimensi literasi keuangan yang paling penting bagi keberlanjutan dan pertumbuhan UMKM di era digital. Menggunakan pendekatan Systematic Literature Review (SLR) dengan kerangka kerja PRISMA, penelitian ini menganalisis 60 artikel ilmiah relevan dari basis data Scopus, Web of Science, dan Springer, yang diterbitkan antara tahun 2017 dan 2024. Temuan menunjukkan lima dimensi utama literasi keuangan yang memiliki pengaruh signifikan terhadap kinerja UMKM, yaitu pengetahuan keuangan dasar, keterampilan keuangan digital, kemampuan mengadopsi teknologi, manajemen risiko keuangan, dan perencanaan keuangan strategis. Penelitian ini memberikan kontribusi penting bagi pengembangan teori literasi keuangan dengan mengintegrasikan aspek digital, serta menawarkan panduan praktis bagi pemerintah dan lembaga keuangan dalam merancang program literasi keuangan yang lebih efektif untuk UMKM.

Kata Kunci: literasi keuangan, UMKM, digitalisasi, manajemen risiko, perencanaan keuangan

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are pivotal in fostering economic growth, job creation, and enhancing income equality, particularly in Indonesia. The Ministry of Cooperatives and SMEs of the Republic of Indonesia reported that MSMEs contribute over 60% to the national Gross Domestic Product (GDP) and absorb approximately 97% of the workforce, highlighting their crucial role in the economic structure (Pratiwi & Rahayu, 2022; Fikri & Nahda, 2023). As the digital economy evolves, the significance of MSMEs becomes even more pronounced due to digital transformation, which provides new avenues for market access, operational efficiency, and competitive advantages (Hendrawan et al., 2024).

However, the digital era presents unique challenges, particularly surrounding financial literacy. MSMEs often grapple with understanding financial management in a technology-driven landscape, which includes navigating digital transaction platforms and fintech solutions (Lestari et al., 2020; Irman et al., 2021). For instance, the rise of digital payment systems and online financing avenues has made it necessary for MSME owners to possess sound knowledge of both traditional and digital financial products to make informed decisions (Hussain et al., 2018; Hamid et al., 2024). The lack of adequate financial literacy can stifle MSMEs' potential to harness these digital tools effectively (Mangabon et al., 2023).

Financial literacy encompasses more than mere knowledge of financial management; it includes the capacity to utilize financial services and products in a technologically enhanced environment. A comprehensive understanding of digital payment instruments, online loan applications, and cash flow management tools is essential (Wulandari et al., 2023; Hertina et al., 2024). Prior research illustrates that financial literacy not only empowers MSMEs to make informed financial decisions but also enhances their access to formal financing and helps to buffer against potential financial risks in an increasingly complex economic landscape (Ye & Kulathunga, 2019; Tubastuvi & Rusydiana, 2024).

Strengthening financial literacy specifically tailored to MSMEs is critical for their sustained growth and survival amidst the rapid digital transformation. Initiatives aimed at augmenting financial literacy can bolster the overall performance and competitiveness of MSMEs, enabling them to thrive even during economic shocks (Fitrianti et al., 2023; Yanto et al., 2022; . Thus, a targeted approach in mapping the financial literacy dimensions most pertinent for MSMEs is essential to support their evolution in the digital economy, ensuring that they remain resilient and capable of leveraging the opportunities presented by digitalization (Yanto et al., 2022; Perdana et al., 2024).

Various previous studies have shown that financial literacy has a positive influence on the performance and sustainability of MSME businesses. For example, Huston (2010) and Lusardi & Mitchell (2014) emphasize that good financial literacy can help individuals and business actors make more rational financial decisions. However, most of this research still tends to discuss general financial literacy, without considering the complexity and specific characteristics of MSMEs operating in the digital environment. In addition, very few studies have explicitly explored or mapped the specific dimensions of financial literacy that are relevant and most crucial for MSMEs in facing the challenges of digitalization. Aspects such as digital financial literacy, adoption of financial technology (fintech literacy), digital risk management, and security of technology-based transactions are still rarely the main focus in existing literature.

Another gap identified is the lack of integration between financial literacy studies and issues related to the digitalization of MSMEs. In fact, in practice, MSMEs' financial literacy skills in the digital era cannot be separated from digital skills themselves. Therefore, a systematic study is needed that is able to identify, summarize and map the dimensions of financial literacy that specifically support the survival and growth of MSMEs in the digital era. Based on the background and identification of the research gap, this research is focused onto answer the following main research questions: "What dimensions of financial literacy are most critical for MSMEs to survive and grow digitally?". This research question is directed at exploring and systematically identifying the specific dimensions of financial literacy that most influence the ability of UMsKM in surviving, adapting and developing in a digitalized business environment.

This research is expected to make an important contribution, both theoretically and practically, in the development of financial literacy studies in the digital era. Theoretically, this research will enrich the literature by presenting a digital-based mapping of financial literacy dimensions that are relevant for MSMEs. It is hoped that the results of this research can become an academic reference in developing a financial literacy concept or framework that is more contextual to the needs of MSMEs in the digital era. Apart from that, this research also

contributes to expanding understanding of the intersection between financial literacy, technology and MSME management.

From a practical perspective, the results of this research can be a guide for the government, financial institutions and MSMEs in designing financial literacy capacity building programs that are more focused and in line with real needs in the field. Identification of these critical financial literacy dimensions can also be used to formulate more effective policies, training and interventions in supporting the sustainability and growth of MSMEs in the digital era.

2. METHODS

2.1 Research Design

This research uses an approach Systematic Literature Review (SLR) as the main method for exploring, evaluating and synthesizing various previous research related to financial literacy and the growth of MSMEs in the digital era. The SLR method was chosen because this approach allows researchers to systematically identify, select and analyze various scientific studies that have been published in order to answer research questions in a comprehensive and structured manner.

In implementing SLR, this research adopted a framework PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). The PRISMA framework was chosen because it has been recognized internationally as a standard guideline for carrying out systematic reviews, especially to increase transparency, validity and replicability of the article selection process. The use of PRISMA is very relevant to ensure that each stage in the process of searching, filtering and analyzing literature is carried out objectively and measurably.

2.2 Inclusion and Exclusion Criteria

To obtain relevant and high quality literature, this study applied the following inclusion and exclusion criteria:

Inclusion Criteria:

- Articles published in reputable journals and have gone through the proshis peer review.
- Studies published over a period of time 2017 to 2024 to guarantee relevance to today's digital context.
- Research that explicitly discusses financial literacy and MSMEs, especially in the context of challenges or opportunities in the digital era.
- Articles in English or Indonesian that can be accessed in full (full text).

Exclusion Criteria:

- Article non-peer reviewed, such as opinion articles, editorials, annual reports, or working papers without a peer review process.
- Studies that are not directly related to financial literacy or MSMEs, or only discuss one without digital relevance.
- Studies with a main focus on sectors other than MSMEs.
- Publication before 2017 which is considered less relevant to the development of financial literacy in the digital era.

2.3 Data Sources

The data sources in this research were obtained from three main scientific databases that have high credibility in international publications, namely:

- Scopus
- Web of Science (WoS)

- Springer

These three databases were chosen because they have broad literature coverage, are cross-disciplinary, and provide access to high-quality articles from various reputable international journals.

2.4 Search Process & Selection

The article search process is carried out systematically by formulating a relevant and specific keyword strategy. The combination of keywords used in the literature search process includes: "Financial Literacy" AND "MSME" OR "SME" AND "Digital Era". KThis combination is designed to capture literature that specifically discusses the relationship between financial literacy, MSMEs, and challenges or opportunities in the digital context. The article selection process follows the PRISMA stages as follows:

1. Identification

This stage is carried out by searching for all articles containing keywords according to search strategies from various databases.

2. Screening

Next, an initial screening was carried out on the articles found based on the title and abstract to ensure relevance to the research focus.

3. Eligibility

At this stage, an in-depth review of the full text of articles that have passed the screening stage is carried out to ensure compliance with the inclusion and exclusion criteria.

4. Included Studies

Articles that meet all the criteria are then included in the analysis and synthesis process to answer the main research question in this study.

3. RESULTS

3.1 Descriptive Analysis

Based on the literature selection process that has been carried out through the PRISMA stages, this research succeeded in identifying and analyzing as many as 60 scientific articles met the inclusion criteria. ArThese articles come from various journals of international reputation and were published within the last ten years, namely between 2017 to 2024. The purpose of choosing this time period is to capture the latest developments in literature relevant to the dynamics of financial literacy and digitalization of MSMEs.

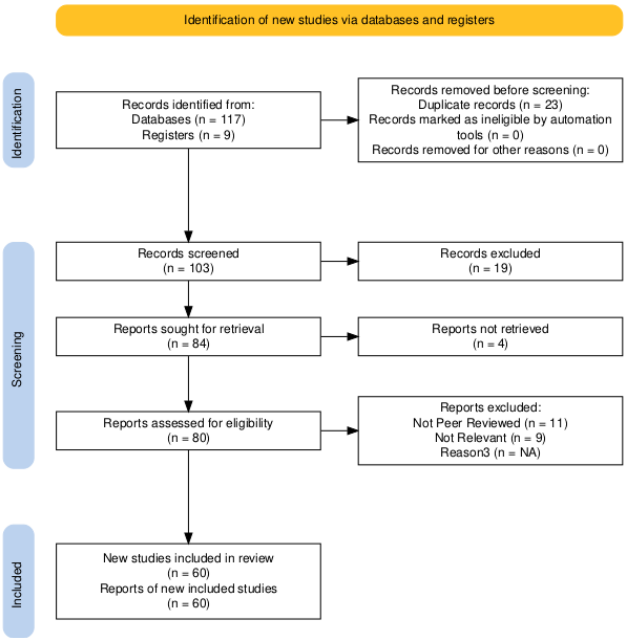


Figure 1. Prisma Diagram
Source: Processed Data, 2025

The process of identifying and selecting articles in this study used a Systematic Literature Review (SLR) approach with PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The stages of the literature search and selection process are carried out systematically through several stages, namely identification, screening, eligibility and inclusion.

At the level identification, a total of 126 articles were identified from two main sources, namely databases with 117 articles and registers with 9 articles. Next, an initial screening process was carried out to eliminate duplicate articles. A total of 23 articles were identified as duplicates, leaving 103 articles ready for further filtering.

At the level screening, of the 103 articles screened based on title and abstract, 19 articles were eliminated because they were not relevant to the focus of this study. Thus, a total of 84 articles entered the full document search stage (full-text retrieval). However, there were 4 articles that were not successfully accessed, so only 80 articles could be evaluated for eligibility (eligibility assessment).

Level eligibility This was done by evaluating 80 articles based on predetermined inclusion and exclusion criteria. As a result, 20 articles were eliminated because they did not meet the inclusion criteria, with details: 11 articles were not published in peer-reviewed journals, 9 articles were not relevant to the topic of financial literacy and MSMEs in a digital context, while there were no other reasons.

Finally, on the level inclusion, a total of 60 articles met all the criteria and were declared suitable for further analysis in this study. These articles are the main basis for the process of synthesizing research findings related to dimensions of financial literacy that are critical for the sustainability and growth of MSMEs in the digital era.

3.2. Publication Distribution



Figure 2. Distribution of articles
Source: Processed Data, 2025

Based on the results of an analysis of article distribution from 2017 to 2024, it was found that the trend of research publications related to financial literacy and MSMEs in the digital era shows a trend that continues to increase over time. In detail, in the initial period,

namely 2017, the number of articles identified was still relatively small, namely only 2 articles. This condition continued moderately in 2018 with 3 articles and increased to 5 articles in 2019.

A significant increase has begun to be seen since 2020, where 9 articles were published. This surge can be attributed to the massive adoption of digital technology, including in the MSME sector, as well as increasing attention to the issue of digital financial literacy, especially due to the impact of the COVID-19 pandemic which accelerated digital transformation.

The peak number of publications occurred in 2021 with a total of 13 articles. This shows that academics' attention to the theme of MSME financial literacy in the digital era is getting stronger, along with the increasing urgency of digitalization in MSME business activities. In 2022 and 2023, the number of publications will still remain high, with 12 articles and 10 articles respectively.

Meanwhile, in 2024 (data until the collection process is carried out), there will be 6 articles relevant to this research topic. Although the number has decreased slightly compared to previous years, this may be due to limited publication time in the current year.

Overall, from 2017 to 2024, the total number of articles analyzed in this research was 60 articles. This distribution pattern illustrates the increasing attention and consistent scientific contributions from researchers to the issue of financial literacy and MSMEs in the digital era, especially amidst the ongoing challenges and dynamics of technological development.

3.3. Geographical Research

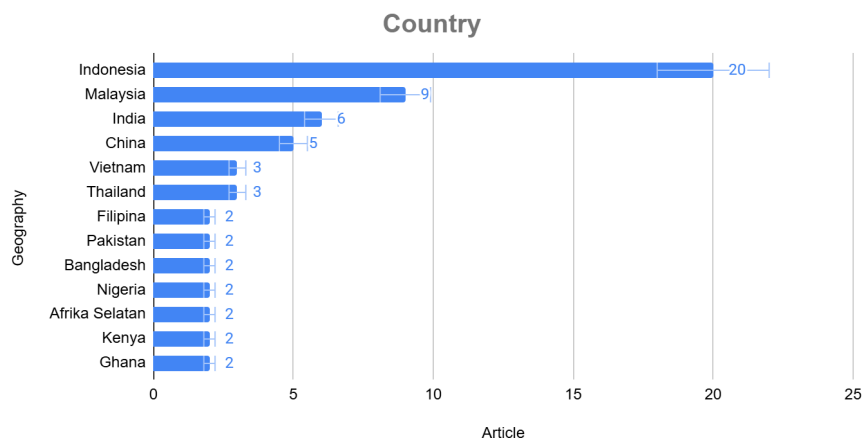


Figure 3. Geographical Research

Source: Processed Data, 2025

Based on an analysis of the 60 articles selected in this study, the geographical distribution of research shows the dominance of research in the Asian region, especially Indonesia. Indonesia occupies the highest position as a research location with 20 articles. This shows the high level of attention of academics to the issue of MSME financial literacy in the digital context in Indonesia, in line with the strategic role of MSMEs as the main driver of the national economy.

Furthermore, Malaysia (7 articles), India (6 articles), and China (5 articles) are also countries that have been studied quite a lot in the literature related to this topic. Several other countries in Southeast Asia such as Vietnam (3 articles), Thailand (3 articles), and the Philippines (2 articles) are also the focus of research, reflecting the challenges and development of MSMEs in the regional area.

Outside Asia, research on financial literacy and MSMEs in the digital era was also found in several other developing countries, such as Pakistan (2 articles), Bangladesh (2 articles), Nigeria (2 articles), South Africa (2 articles), Kenya (2 articles), and Ghana (2 articles). These findings show that the issue of financial literacy for MSMEs in the digital era is not only relevant in the Asian region, but also in the African region, especially countries that have MSME-based economic characteristics.

In general, the geographical distribution of this research shows that financial literacy and digitalization of MSMEs is a global issue, but with a more dominant concentration of studies in developing countries, especially in Asia and Africa.

3.4. Previous Research Methods

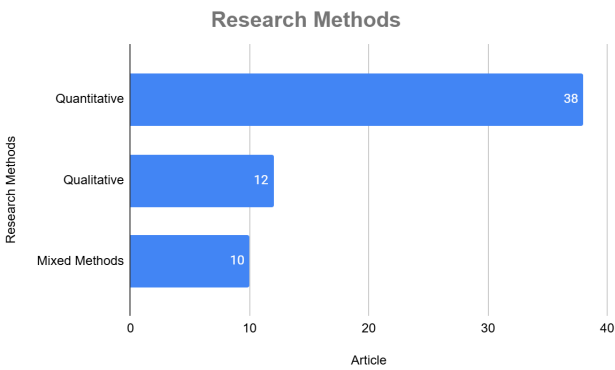


Figure 4. Research Methods
Source: Processed Data, 2025

Based on analysis of 60 selected articles, the majority of studies on MSME financial literacy in the digital era used a quantitative approach, namely 38 articles. This shows that many variables related to MSME financial literacy are measured statistically, either through surveys, questionnaires or other numerical data analysis. Meanwhile, there are 12 articles that use a qualitative approach. These studies generally focus more on exploring phenomena in depth through interviews, case studies, or observations of MSME actors.

Apart from that, 10 other articles applied mixed methods, namely a combination of quantitative and qualitative approaches. This approach is used to obtain a more comprehensive and in-depth picture of the role of financial literacy in supporting MSME performance in the digital era.

These findings reflect that the trend in MSME financial literacy research is still dominated by a quantitative approach, but the use of mixed methods is starting to develop to produce a more holistic analysis.

3.5. Synthesis of Key Dimensions of Financial Literacy

The results of the literature synthesis show that there are five main dimensions of financial literacy that are most critical for the sustainability and growth of MSMEs in facing challenges and opportunities in the digital era. Each dimension has its own characteristics and strategic role, which complement each other in forming the complete financial literacy capacity of MSMEs.

First: Basic financial knowledge is essential for actors in Micro, Small, and Medium Enterprises (MSMEs) as it encompasses an understanding of fundamental financial concepts such as cash flow management, financial record-keeping, cost calculations, and the grasp of

basic financial products. This foundational knowledge is critical for MSMEs to effectively integrate digital advancements into their financial management systems. A thorough comprehension of financial management, including the management of cash flows and meticulous transaction recording, is fundamental to the success and sustainability of MSMEs. According to Kaban, this understanding serves as a cornerstone for achieving financial viability and growth (Kaban, 2024). The importance of accurate financial practices is echoed in the findings of Yanto et al., which emphasize that entrepreneurial skills significantly enhance the performance of MSME owners, fostering innovation in finance and digital technology and thereby improving overall business outcomes, especially during challenging times like the COVID-19 pandemic (Yanto et al., 2022). Furthermore, lack of financial knowledge has been identified as a barrier that many MSME owners face, limiting their access to essential financial resources, which in turn affects their operational efficiency and competitiveness (Kaban, 2024).

Moreover, basic financial knowledge is not merely about understanding numbers but also involves utilizing appropriate financial tools for better decision-making. For instance, tools such as the "3-in-1" financial reporting model have shown to help MSMEs present their financial information more clearly, allowing for better performance evaluation and resource allocation (Perdana et al., 2024). The inadequacy of financial record-keeping, as noted by Salim and Frederica, can lead to a poor understanding of financial health, thus impeding growth and operational effectiveness (Salim & Frederica, 2020). This illustrates that without foundational financial knowledge, MSMEs may struggle to realize the full benefits of integrating digital technologies in their operations (Apriyanti & Yuvitasari, 2021).

Finally, despite the push towards digitization, many MSMEs remain reliant on traditional accounting methods, which can hinder their competitiveness in a rapidly evolving market. This reliance is problematic as it may prevent MSME actors from leveraging financial data for strategic decision-making or responding effectively to market changes (Badria & Hasanah, 2024). Therefore, providing training and assistance in financial literacy is crucial for MSMEs to optimize their financial management practices and enhance their performance in the digital era (Simamora et al., 2024). In summary, basic financial knowledge is a pivotal element in the operational framework of MSMEs, serving as the foundation that supports subsequent digital strategies. With a strong grasp of financial concepts, MSME actors are better equipped to utilize digital tools for enhanced financial management and overall business success.

Second: Digital financial skills are essential for micro, small, and medium enterprises (MSMEs) as they navigate the complexities of managing finances in an increasingly digital economy. These skills encompass the ability to use various digital applications and tools such as mobile banking, e-wallets, digital accounting applications, and e-commerce platforms, all of which collectively enhance operational efficiency and market access for MSMEs. A crucial aspect of this skillset is digital literacy, which has a profound impact on MSME performance. Studies indicate a significant correlation between digital literacy and the successful utilization of e-commerce platforms, thereby improving the operational capabilities of these enterprises [1]. Enhanced digital literacy empowers MSMEs to implement effective marketing strategies and adapt to changing market dynamics, which has become increasingly critical in the post-COVID-19 landscape [2]. The COVID-19 pandemic has intensified the need for MSMEs to seamlessly integrate digital tools into their operations, facilitating not only survival but also growth in competitive environments [3].

Moreover, financial literacy plays a parallel role in boosting the resilience of MSMEs. A solid understanding of financial management principles allows MSMEs to make informed decisions regarding budgeting, funding, and investment, thereby enhancing overall financial health [4]. The convergence of digital literacy and financial literacy enables MSMEs to take advantage of digital financial services, improving their access to capital and financial resources

[5]. By utilizing digital financial tools, MSMEs can streamline their financial operations, thus promoting better financial outcomes and ensuring long-term sustainability [6].

Expanding market access is another critical benefit arising from the adoption of digital tools. Researchers have noted that MSMEs utilizing e-commerce and social media platforms to engage with customers have reported increased visibility and sales [7]. This shift towards digital marketing not only elevates operational efficiency but also aligns MSMEs with contemporary consumer behaviors that favor online interactions [8]. As a result, businesses equipped with these digital financial skills are better positioned to navigate the challenges posed by both economic downturns and identity shifts in consumer behavior.

In conclusion, the development of digital financial skills among MSMEs is integral for fostering operational efficiency and broadening market reach. By prioritizing both digital and financial literacy, MSMEs can not only enhance their competitiveness but also ensure their resilience in an evolving market landscape defined by digital transformation and the impacts of global events such as the COVID-19 pandemic.

Third: The adoption of technology, particularly financial technologies such as fintech, digital payments, and blockchain, is crucial for Micro, Small, and Medium Enterprises (MSMEs) to enhance their competitiveness within an expanding digital business landscape. Research indicates that technology readiness concerning blockchain is significantly high among MSMEs, suggesting a preparedness for such innovations (Wahyuni & Juraida, 2022). Furthermore, the successful adoption of technologies is significantly influenced by the readiness and adaptability of MSMEs to embrace e-business models, with studies highlighting performance improvements correlated with technological adoption (Mas'ud et al., 2022; , Cueto et al., 2022).

A robust digital ecosystem is essential for MSMEs to thrive, particularly in response to economic challenges like those posed by the COVID-19 pandemic. Enhanced financial literacy and a supportive technological environment are crucial for boosting the resilience and competitiveness of MSMEs during such crises (Fitrianti et al., 2023; , Heliani, 2023). Government policies that encourage digital transformation and provide resources for technology adoption are critical to enable MSMEs to leverage new financial technologies effectively (Haqqi, 2023). This alignment of governmental and sector-specific initiatives can create an ecosystem that fosters innovation and adaptation among MSMEs, allowing them to survive and thrive in a competitive digital economy (Zamani, 2022).

Moreover, the application of technologies such as the Internet of Things (IoT) can enhance operational efficiencies within MSMEs, improving production quality and managing processes more effectively. However, barriers such as high costs and limited understanding of technology benefits can hinder this adoption, necessitating targeted support mechanisms (Mardiani et al., 2024; , Coco et al., 2023). Research emphasizes the strategic importance of a technological capability that encompasses not only the ability to adopt technologies but also to integrate them effectively within existing business models (Keyboard, 2024).

In conclusion, the capability of MSMEs to adapt to new financial technologies is critical in maintaining their competitiveness within the digital economy. Facilitating this capability requires comprehensive support in terms of financial literacy, government policy, technological infrastructure, and community engagement, ensuring MSMEs can not only adopt but also innovate through the utilization of these technologies (Metris et al., 2024; , Soleh et al., 2020; , Misrofinjah et al., 2024).

Fourth: The topic of financial risk management for Micro, Small, and Medium Enterprises (MSMEs) encompasses the ability of these businesses to identify, analyze, and manage various financial risks that are exacerbated by the ever-evolving landscape of digital business practices. This is increasingly crucial considering the surge in operational, digital payment, and data security risks that stem from the digitalization of business processes.

Financial literacy emerges as a fundamental element that enhances the capacity of MSMEs to navigate these risks. For instance, Herrera et al. argue that financial literacy plays a

pivotal role in debt management, which is essential for improving the financial performance of MSMEs (Hererra et al., 2023). This point is strengthened by Dwyanti, who emphasizes that government and institutional support through targeted financial education initiatives is critical for MSMEs to improve their understanding of financial risk management (Dwyanti, 2024). Such education can prepare MSMEs to face operational risks directly related to digital transactions, as seen in studies examining the relevance of financial and technological literacy in enhancing firm performance (Aeni et al., 2024; Kulathunga et al., 2020).

Moreover, the rise of fintech solutions presents both opportunities and challenges in managing financial risks. For example, Akhtar and Yan-Ping highlight that while business owners may have adequate financial knowledge, they also need a positive financial attitude to convert that knowledge into actionable outcomes, which concurrently enhances firm performance (Akhtar & Yan-ping, 2018). Digital platforms can amplify these risks, as noted by Khan et al., who link financial literacy to the capacity of entrepreneurs to manage the financial aspects of their operations effectively (Khan et al., 2021). This understanding is vital, as financial data security has become an increasing concern in the digital realm, underscored by Mardiani et al. regarding the high implementation costs and security constraints MSMEs face when adopting innovative technologies (Mardiani et al., 2024).

Additionally, the adoption of digital payment systems necessitates a thorough assessment of associated security risks, which can deter use if not properly managed. For instance, research by Afandi and Amin points out that security risks such as fraud and hacking must be mitigated for MSMEs to engage confidently in digital transactions (Afandi & Amin, 2023). To this end, establishing trust through enhanced financial literacy and the effective use of fintech can bolster the resilience of MSMEs against these digital threats (Kembabazi et al., 2024). Furthermore, initiatives aimed at fostering cybersecurity awareness, such as those proposed by Batmetan, are crucial in educating MSMEs about the risks inherent in digital transactions and the importance of protective measures (Batmetan, 2023).

In conclusion, the intersection of financial literacy, operational risk management, and the evolving digital landscape presents multifaceted challenges for MSMEs. Addressing these challenges through targeted financial education, enhanced financial technology adoption, and robust cybersecurity measures will empower MSMEs to mitigate risks effectively and thrive in a digital economy.

Fifth: Strategic financial planning is critical for micro, small, and medium-sized enterprises (MSMEs) as it involves the formulation of investment strategies, effective working capital management, and planning for technology-driven business expansion. This capacity for strategy formulation enables MSMEs to navigate financial challenges, enhance profitability, and adopt sustainable practices.

The importance of effective financial management in MSMEs is well-documented. Poor financial management is frequently cited as a primary cause of business failures among these enterprises (Karadağ, 2015). Strategic financial management allows MSMEs to identify and overcome challenges related to working capital, which is essential for their operational sustainability. According to research, effective management of working capital can directly influence the profitability and overall performance of SMEs (Tran et al., 2017; Douglas et al., 2018). Effective practices in managing current assets and liabilities are crucial for sustaining day-to-day operations and ensuring financial resilience (Court & Obolo, 2024; .

Investment strategies require a nuanced understanding of financial landscapes and resources, especially in the context of limited access to long-term capital markets that is typical for MSMEs (Karadağ, 2015). The adoption of technology and e-commerce solutions can also enhance financial performance. For instance, e-commerce and digital marketing have been shown to positively impact MSMEs' sustainability during challenging circumstances such as the COVID-19 pandemic, illustrating the potential for tech-driven strategic expansions (Gao et al., 2023). The move towards adopting such innovative strategies is essential for maintaining

competitive advantage and fostering growth in rapidly changing market environments (Yaniar et al., 2021; HRIVNÁK & MORITZ, 2021).

Moreover, the role of managerial commitment to strategic planning cannot be ignored. Managers who adopt a strategic approach to corporate management are more likely to drive their enterprises towards sustainability and profitability (Kaiyue & Karim, 2023; Chukwubueze & Oko, 2024). Effective leadership styles that support the psychological capital of employees also play a significant role in enhancing organizational commitment and performance within MSMEs (Huynh & Hua, 2020). This interrelationship between management practices and employee engagement reflects the broader implications of strategic financial planning on operational efficiency and capacity for growth (Majama & Magang, 2017; Joshi et al., 2024).

Finally, it's important to note that working capital management is a decisive factor in an SMEs ability to execute its strategic financial plans. Research highlights that MSMEs should manage their working capital adeptly to ensure liquidity without over-investing (Nastiti et al., 2019). Addressing the structural and operational challenges that these enterprises face often requires a comprehensive approach to strategic planning, encompassing financial, operational, and technological considerations simultaneously (Court & Obolo, 2024; Baker et al., 2017).

In summary, strategic financial planning within MSMEs fundamentally influences their ability to grow sustainably. Through effective management of investments, working capital, and the adoption of innovative technologies, MSMEs can enhance their competitive positioning and stability in the market.

These five dimensions collectively form a relevant and contextual financial literacy framework for MSMEs in the digital era. Each dimension does not stand alone, but rather interacts with each other in determining the ability of MSMEs to survive, adapt and grow amidst rapid technological change.

4. DISCUSSION

4.1 Theoretical Implications

The main findings of this research contribute significantly to the development of financial literacy theory, especially in the context of MSMEs in the digital era. One of the most prominent theoretical implications is the need to formulate new models or frameworks that describe Critical Dimensions of Financial Literacy for Digital MSMEs. This model not only maps the key dimensions of conventional financial literacy, but also adds digital literacy elements as an integral part of MSME financial capabilities.

This model conceptually integrates theory of financial literacy presented by Huston (2010), which focuses on aspects of financial knowledge And financial behavior, with concepts digital readiness (Westerman et al., 2014) which assesses the readiness of individuals or organizations to face digital transformation. This integration expands the understanding of financial literacy, no longer limited to basic financial knowledge and skills, but also includes the capacity to adopt financial technology (fintech), digital risk management skills, and the ability to utilize technology-based financial applications.

Another theoretical implication is the need to redefine financial literacy for the digital MSME context, because the characteristics and needs of MSMEs in the digital era are very different compared to traditional MSMEs. This opens up space for the development of new conceptual frameworks that are more relevant, adaptive and contextual according to the challenges of the digital era.

4.2 Practical Implications

Apart from theoretical contributions, the results of this research also have important practical implications for various stakeholders in the digital MSME ecosystem.

First, for the government, these findings provide an important basis for designing and implementing digital-based financial literacy programs. It is no longer enough for educational

programs to just emphasize basic financial management aspects, but must be integrated with increasing digital skills, such as using digital payment applications, managing cloud-based financial data, and mitigating digital security risks.

Second, for financial institutions, especially banks and fintech service providers, the results of this research encourage the need for more financial product design, user-friendly and literacy-based. Financial products for MSMEs need to be adapted to the digital literacy level of target users, so that they are more easily accessed and understood by small businesses.

Third, for MSME players themselves, the practical implications lie in the importance of strengthening digital skills in managing business finances. Utilizing financial applications, digital recording, and real-time cash flow management are essential capabilities that must be possessed so that MSMEs are able to survive and grow in the digital business landscape.

4.3 Future Research Agenda

Although this study has succeeded in identifying critical dimensions of financial literacy for digital MSMEs, there are still a number of areas for further research that need to be developed.

First, a more in-depth empirical study based on primary data is needed to test the validity and relevance of the resulting framework model, especially in the context of developing countries which have diverse characteristics of MSMEs and digital infrastructure.

Second, further research can focus on empirical testing of framework models through quantitative approaches, such as Structural Equation Modeling (SEM) or Partial Least Square (PLS), to measure the relationship between each dimension of financial literacy and the performance and growth of digital MSMEs.

Third, a future research agenda could also explore integration between fintech adoption and financial behavior in the context of MSMEs, so as to enrich understanding of how the financial behavior of MSME players is influenced by the use of modern financial technology.

Thus, future research directions are very open to developing theories, validating models, and designing practical intervention strategies that are more effective in strengthening MSME financial literacy in the digital era.

5. CONCLUSION

This research aims to explore and map the key dimensions of financial literacy that are most crucial for the sustainability and growth of MSMEs (Micro, Small and Medium Enterprises) in the digital era. Through approach Systematic Literature Review (SLR) based on the PRISMA framework, this research succeeded in identifying and synthesizing various findings from previous studies that are relevant in the range of time 2017 to 2024.

5.1. Summary of Key Findings

The synthesis results show that there are five main dimensions of financial literacy that are crucial for the resilience and development of MSMEs in the digital context, namely:

1. Basic Financial Knowledge — basic ability to understand financial concepts and principles.
2. Digital Financial Skills — the ability to use financial applications and technology effectively.
3. Technology Adoption Capability — readiness and adaptation to the use of new financial technologies.
4. Financial Risk Management — the capacity to identify, manage and mitigate financial risks, especially digital risks.

5. Strategic Financial Planning — the ability to plan long-term finances strategically, utilizing technology as a tool.

These five dimensions emphasize that financial literacy for MSMEs in the digital era is no longer conventional, but must be integrated with digital capabilities and technological readiness.

5.2. Contributions to Theory and Practice

Theoretically, this research contributes to the development of a new conceptual framework in the form of Critical Dimensions of Financial Literacy for Digital MSMEs which integrates financial literacy theory with aspects of digital readiness. This framework expands the scope of understanding financial literacy to address the challenges of MSMEs in the era of digitalization.

Practically, the findings of this research provide strategic guidance for various parties, including:

- The government and policy makers, in designing digital-based financial literacy education programs that are more structured and applicable.
- Financial institutions, in designing financial products and services that are technology friendly and suit the needs of digital MSMEs.
- MSME players, in strengthening financial and digital skills to increase business resilience and competitiveness.

5.3. Research Limitations

This study has several limitations that need to be acknowledged. First, the data source is only focused on scientific articles from certain databases such as Scopus, Web of Science, and Google Scholar, so there may be relevant studies outside these sources that are not identified. Second, this SLR approach is conceptual and empirical testing has not been carried out on the model developed. Third, most of the studies analyzed come from developed country contexts, so the relevance in developing countries still needs further exploration.

5.4. Recommendations for Further Research

Based on the limitations identified in this research, there are a number of important follow-up research agendas that need to be carried out to strengthen and expand understanding of MSME financial literacy in the digital era. First, empirical studies are needed to test the validity and reliability of the model *Critical Dimensions of Financial Literacy* which has been proposed, especially in the context of MSMEs in developing countries such as Indonesia. Considering that the characteristics of MSMEs in developing countries have their own complexities and challenges, testing this model at a practical level will make an important contribution in ensuring the relevance and applicability of this conceptual framework.

Second, further research is recommended to explore other factors that have the potential to act as intermediate variables (*mediator*) or moderator variables in strengthening the relationship between financial literacy and MSME performance. These factors include, among others *fintech adoption* (financial technology adoption), *digital trust* (trust in digital technology), and *financial behavior* (financial behavior). Understanding the role of these factors will enrich theoretical models and provide a more comprehensive picture of the dynamics of digital financial literacy.

Third, a methodological approach based on mixed-methods is also highly recommended in follow-up studies. The combination of quantitative and qualitative data will allow researchers to capture deeper insights regarding the challenges and opportunities for strengthening digital financial literacy for MSMEs. Through this approach, research will not only

focus on numerical measurements, but will also be able to explore the perspectives, experiences and real needs of MSME players.

Finally, it is also important for future research to examine more broadly the role of the digital ecosystem and institutional support, both from the government, financial institutions and digital platforms, in encouraging the accelerated financial literacy of MSMEs in a sustainable manner. Strengthening financial literacy does not only depend on the abilities of individual business actors, but also on the existence of a conducive environment, supportive policies, and access to inclusive digital resources.

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