

A Systematic Literature Review on Micro, Small, and Medium Enterprises (MSMEs) Performance: National and International Evidence

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Abstract

This study investigates the performance of Micro, Small, and Medium Enterprises (MSMEs) by synthesizing evidence from recent empirical studies through a systematic literature review approach. The research analyzes thirty-three peer-reviewed journal articles published between 2020 and 2025 that explicitly discuss MSME performance from multidimensional perspectives. The data collection process followed established systematic review protocols, including identification, screening, eligibility, and inclusion of relevant literature. The methodology employed thematic content analysis to classify findings into four major categories: performance measurement, internal determinants, external support, and international comparisons. The results reveal that MSME performance is not only measured by financial indicators such as profit, revenue, and cash flow but also by non-financial aspects including innovation, customer satisfaction, and sustainability criteria. The analysis shows that innovation, entrepreneurial orientation, financial literacy, and human resource capacity are the most influential internal factors, while government policies, financial institutions, market access, and infrastructure represent crucial external enablers. The findings further indicate that digitalization and technology adoption play a pivotal role in strengthening MSME competitiveness and resilience, particularly during economic crises and the COVID-19 pandemic. Finally, the review highlights significant differences between developing and developed countries, where MSMEs in emerging economies face more structural challenges yet often experience greater marginal benefits from digital transformation.

Keywords: MSME performance; Innovation; Entrepreneurial orientation; Financial literacy; Digitalization; Sustainability; Developing and developed countries

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) make a highly significant contribution to the economy, both globally and nationally. In Indonesia, MSMEs account for more than 60% of Gross Domestic Product (GDP) and absorb a large share of the workforce. Their role therefore extends beyond serving as an engine of economic growth to functioning as a vehicle for community empowerment. However, global business dynamics, accelerated digitalization, and the impacts of the COVID-19 pandemic have created new challenges that require MSMEs to become increasingly adaptive, innovative, and resilient. This phenomenon is not limited to Indonesia; it is also evident in many other countries, making the issue of MSME performance internationally relevant.

A number of studies emphasize that MSME performance is not measured solely by financial aspects, but also includes the ability to adapt to technology, business sustainability, managerial quality, and market competitiveness. Murugan and Prabadevi (2023), for example, define MSME performance within the Industry 4.0 framework, which stresses the integration of automation and entrepreneurs' emotional intelligence. Meanwhile, Shameem, Mittal, and Gupta (2022) highlight the importance of implementing Total Quality Management (TQM) to maintain sustainability and competitiveness. Other global studies, including the OECD report (2021), also underline the persistent digital and financial gaps faced by MSMEs in developing countries compared with those in developed economies. These perspectives indicate that MSME performance is a multidimensional concept that continues to evolve.

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Despite numerous initiatives, a research gap remains regarding how MSMEs—particularly in developing countries—address structural barriers such as limited infrastructure, restricted access to financing, and low levels of digital literacy. Hadi et al. (2021) show that sustainability strategies based on crowdfunding and digital marketplaces can improve MSME performance in the post-pandemic period; nevertheless, capital constraints and the strengthening of business models remain major obstacles. Similarly, Rita et al. (2022) find that entrepreneurship-oriented finance plays an important role in enhancing the performance of batik MSMEs in Central Java, yet its implementation still depends on policy support and the broader financing ecosystem.

Furthermore, the development of digital technology presents both opportunities and challenges. Zahwa, Sutjipto, and Salim (2022) emphasize that digital literacy and innovation are key factors for women entrepreneurs in improving MSME competitiveness. Comparable findings are reported by Damiyana et al. (2021), who identify e-commerce adoption as a major lever for MSME sustainability in the digital era. However, uneven technology adoption continues to generate disparities, particularly between MSMEs in developed countries with mature digital infrastructure and those in developing countries that remain behind.

This study screened 75 articles from national and international academic journal databases relevant to the topic of MSME performance. Through a staged selection process based on exclusion criteria (year of publication, journal reputation, and the availability of full abstracts), 33 final articles were retained for further review. These articles were then analyzed in depth and grouped into the following seven main themes:

- a. Definitions and Concepts of MSME Performance.
- b. Measurement of MSME Performance, covering financial and non-financial indicators as well as sustainability criteria.
- c. Internal Determinants of MSME Performance, including innovation, entrepreneurial orientation, financial literacy, and dynamic capabilities.
- d. External Support for MSME Performance, including access to finance, government policies, and business ecosystems.
- e. The Role of Technology and Digitalization in improving MSME performance.
- f. MSME Resilience in Facing Crises, including challenges arising from global economic crises and pandemics.
- g. Comparative Studies highlighting differences in MSME performance between developing and developed countries.

The urgency of this review lies in the need for a systematic synthesis of the latest empirical evidence regarding the determinants of MSME performance across diverse contexts. By conducting a systematic literature review, this study aims to identify internal and external factors that influence MSME performance, examine the role of technology and digitalization, and analyze MSME resilience in responding to crises. The novelty of this study lies in integrating multidisciplinary perspectives—finance, management, digitalization, and public policy—while comparing national and international findings. Accordingly, the results are expected to provide conceptual and practical contributions to the formulation of strategies for strengthening sustainable MSMEs in the era of disruption.

2. Literature Review

The literature on MSME performance indicates that this concept is multidimensional and continues to evolve. A number of studies emphasize that MSME performance is not measured solely in financial terms, but also encompasses innovation, digitalization, quality management, and business sustainability. Murugan and Prabadevi (2023), for instance, underscore MSME performance within the Industry 6.0 framework, which integrates automation with entrepreneurs' emotional intelligence. Meanwhile, Shameem, Mittal, and Gupta (2022) highlight the implementation of Total Quality Management (TQM) to sustain long-term competitiveness. The OECD report (2021) also stresses the persistent digital and financial gaps experienced by MSMEs in developing countries compared with those in developed economies.

In Indonesia, recent studies reveal a variety of approaches to understanding MSME performance. Hadi et al. (2021) find that sustainability strategies based on crowdfunding and digital marketplaces can support MSME recovery in the post-pandemic period, although capital constraints remain a major challenge. Furthermore, Rio Rita et al. (2022) affirm the importance of entrepreneurship-oriented finance in improving the performance of batik MSMEs, yet its implementation remains highly dependent on policy support and the broader financing ecosystem.

Other literature also highlights the role of digital literacy and technology adoption in enhancing competitiveness. Zahwa, Sutjipto, and Salim (2022) show that digital literacy and innovation are important factors for women entrepreneurs. Damiyana et al. (2021) add that e-commerce adoption serves as a key lever for MSME sustainability. However, disparities in digital infrastructure between developed and developing countries continue to create significant gaps.

Overall, the existing literature suggests that MSME performance is shaped by a combination of internal and external factors. Internal factors include innovation, entrepreneurial orientation, and financial literacy. External factors comprise government policies, access to finance, and business ecosystems. The role of technology and digitalization has become increasingly prominent as a transformative driver of MSMEs in the era of disruption. Nevertheless, research gaps remain, particularly regarding how MSMEs in developing countries can overcome structural barriers such as limited infrastructure, constrained access to capital, and low digital literacy.

3. Methods

A Systematic Literature Review (SLR) was selected as the primary approach in this study because it offers a comprehensive, transparent, and replicable overview of developments in the literature on MSME performance. This method enables researchers to select, evaluate, and synthesize academic articles critically, so that the resulting findings are not merely descriptive but also analytical in mapping patterns, gaps, and future research directions.

This approach follows methodological standards widely used in management and information systems research, as recommended by Tranfield, Denyer, and Smart (2003) as well as Kitchenham and Charters (2007). To ensure process consistency and traceability, this study also refers to thematic coding practices and staged synthesis as described by Bandara et al. (2015) and updated in the literature review framework proposed by Syed et al. (2020). The analysis employed a quasi-deductive approach, combining established conceptual frameworks with an exploration of empirical findings from the selected articles. This strategy provides flexibility: it remains grounded in theory while remaining open to new themes emerging from the data. Accordingly, this study not only examines the relevance of existing theories but also identifies opportunities to extend conceptual understanding of the factors influencing MSME performance.

Furthermore, the SLR stages in this study include: searching the literature across national and international journal databases; selecting articles based on inclusion and exclusion criteria (year of publication, journal reputation, and manuscript completeness); extracting data to identify variables and methods used; and conducting thematic synthesis to group articles into several broad categories. Through this mechanism, the study is expected to contribute theoretically by enriching the MSME management literature while also offering practical implications for formulating strategies to strengthen MSMEs in the era of digitalization and global disruption.

3.1. Search and Extraction of the Relevant Paper Corpus

The search strategy in this study aimed to identify and select articles that comprehensively address MSME performance across various contexts, both national and international. The approach adopted was an iterative search strategy conducted through two systematic iterations to ensure that the literature retrieved was broad, relevant, and verifiable.

The initial step involved formulating key search terms such as: “MSME performance”, “SME performance”, “innovation AND MSME”, “digitalization OR e-commerce AND MSME”, and “resilience OR sustainability AND MSME”. These keywords were developed based on preliminary scanning of relevant articles and by referring to terminology commonly used in the management, entrepreneurship, and economic development literature. The search strings were applied across major academic databases, namely Scopus, Web of Science, SpringerLink, Elsevier (ScienceDirect), Taylor & Francis, Emerald Insight, and Google Scholar.

The literature search focused on the 2021–2024 period to maintain the currency of the review, covering titles, abstracts, keywords, and full-text content. The aim was to compile contemporary studies highlighting the role of MSMEs in the digital era, the post-pandemic context, and sustainable development. In the first iteration, 75 articles were identified from various databases using the specified keyword combinations. The screening process was conducted in multiple layers, as follows:

- a. Initial screening: The 75 articles were reviewed and filtered both automatically and manually, resulting in:
 - 20 articles excluded for not meeting the publication time range (outside 2021–2024),
 - 12 articles deemed irrelevant (topics not directly related to MSME performance),
 - 5 duplicate articles across databases,

- 5 articles lacking an abstract or full-text access.
- b. Total articles selected for further review: 33 articles.
- c. Subsequently, all 33 articles were re-screened through a full-text review to ensure alignment with the research objectives and eligibility criteria, namely: depth of discussion on MSME performance, the use of academically accountable scientific methods, and contributions to both conceptual and practical dimensions. These articles were then classified into the following seven overarching meta-themes:
 - Category A (n=7): Definitions and Concepts of MSME Performance.
 - Category B (n=6): Measurement of MSME Performance (financial, non-financial, sustainability).
 - Category C (n=7): Internal Determinants of MSME Performance (innovation, entrepreneurial orientation, financial literacy).
 - Category D (n=5): External Support (access to finance, policy, business ecosystem).
 - Category E (n=4): The Role of Technology and Digitalization.
 - Category F (n=2): MSME Resilience in Crisis.
 - Category G (n=2): Comparative National vs. International Studies.

Through this search and extraction mechanism, the study ensures a systematic, transparent, and replicable process, thereby strengthening the academic validity of the synthesized evidence and enhancing its practical relevance for MSME development in the era of disruption.

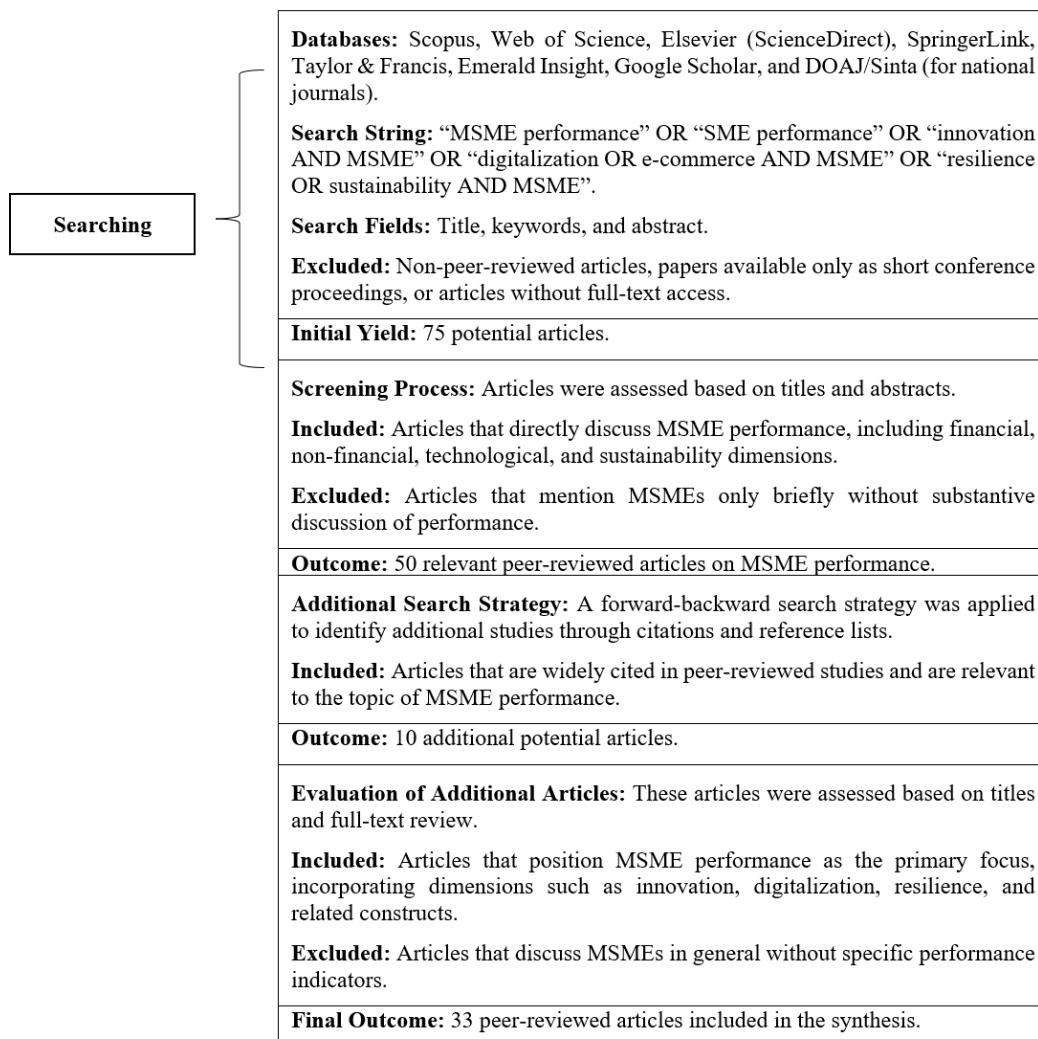


Figure 1. SLR Flow

Table 1. Research Questions & Meta-Themes (MSME Performance)

Research Questions	Meta-Themes
What are the definitions and fundamental concepts of MSME performance in the national and international literature?	Definitions and Concepts of MSME Performance
How are MSME performance indicators measured (financial, non-financial, and sustainability-related)?	Measurement of MSME Performance
Which internal factors (innovation, entrepreneurial orientation, financial management, human resource capacity) influence MSME performance?	Internal Determinants of MSME Performance
How do external factors (government policies, support from financial institutions, market access, infrastructure) influence MSME performance?	External Support for MSME Performance
What is the role of technology and digitalization in improving MSME performance?	MSME Technology and Digitalization
What are the impacts of global economic crises or pandemics on MSME performance and resilience?	MSME Resilience in Crisis
How does MSME performance differ between developing and developed countries?	National and International Comparative Studies

4. Results and Discussion

4.1. Results

The analysis From the 33 articles selected in this review reveals several major recurring themes in studies on MSME performance. Each theme reflects a distinct yet complementary perspective in explaining MSME performance, both in the short and long term. These findings are classified into four themes as follows.

a. *Measurement of MSME Performance*

This theme examines how MSME performance is defined and measured. Most articles emphasize financial indicators such as revenue, profit, cash flow, and asset growth (Purwaningtyas et al., 2021; Setyawan et al., 2022). In addition, non-financial indicators are also highlighted, including customer satisfaction, market reputation, product innovation, and the quality of relationships with partners (Shaferi et al., 2022; Kumalasari et al., 2022). Furthermore, the sustainability dimension has become increasingly important, as shown by the application of the triple bottom line framework (economic, social, and environmental) in studies of environmental accounting, e-commerce, and financial literacy (Latifah & Soewarno, 2022; Wahyundaru et al., 2022). This indicates that the measurement of MSME performance has shifted from a narrow focus on financial outputs toward a multidimensional perspective integrating long-term sustainability.

b. *Determinants of MSME Performance*

Internal factors are shown to be key determinants in explaining MSME performance. Innovation (product, process, and business model) emerges as the most consistent variable in enhancing MSME competitiveness, particularly during the COVID-19 crisis (Sudjatmoko et al., 2021; Cancellyn et al., 2021). Entrepreneurial orientation (proactiveness, innovativeness, and risk-taking) is also found to play an important role in improving performance, both directly and as a mediating variable in the utilization of digital technologies and e-commerce (Yacob et al., 2021; Rumijati & Hakim, 2021). In addition, financial management and financial literacy strongly shape the quality of business decision-making, risk management capacity, and access to financing (Susanti & Putra, 2021; Rio Rita et al., 2022). Thus, internal determinants suggest that entrepreneurs' innovative capacity, managerial competence, and financial literacy are critical to improving MSME performance.

c. *External Support for MSME Performance*

Beyond internal factors, external support plays a significant role in driving MSME performance. Access to finance through formal financial institutions, crowdfunding, and Islamic finance schemes has been shown to expand business capacity (Hadi et al., 2021; Rio Rita et al., 2022). Government policy also serves as a major catalyst, whether through COVID-19 emergency assistance packages, digitalization programs, or sustainability regulations (Agarwal & Kapoor, 2021; Mardiatmi et al., 2022). Moreover, business ecosystems—such as the role of associations, business networks,

and Quadruple Helix collaboration (academia, government, business, community)—strengthen MSMEs' adaptive capacity (Kumalasari et al., 2022; Mardiatmi et al., 2022). Nevertheless, several studies emphasize that the positive effects of external support often depend on MSMEs' internal capabilities to utilize such support effectively.

d. National and International Comparisons

Cross-country studies reveal significant differences between MSMEs in developing and developed economies. MSMEs in Indonesia and India, for example, continue to face constraints in infrastructure, access to capital, and digital literacy, resulting in relatively high dependence on government policy support (Murugan & Prabadevi, 2023; Hadi et al., 2021). In contrast, MSMEs in developed countries more readily integrate advanced technologies such as big data analytics, responsible AI, and digital business model transformation, supported by more mature innovation ecosystems (Bhatti et al., 2022; Behl et al., 2022). However, some studies show that developing-country MSMEs that successfully adopt technology can experience substantial performance gains, as the marginal effects of innovation are more pronounced under resource constraints (Wahyundaru et al., 2022; Supatminingsih et al., 2022). This comparison underscores the importance of local context in designing strategies to enhance MSME performance.

These four meta-themes provide the basis for further analytical classification in the subsequent subsections. Each theme is discussed in greater depth to identify patterns, research gaps, and policy implications derived from the reviewed literature. The following section presents key findings from the literature synthesis, organized by the main themes in the same order as described previously in Table 1.

4.2. Discussion

4.2.1. Definitions and Core Concepts of MSME Performance

From the 33 reviewed articles, 21 explicitly provide definitions or conceptual explanations of MSME performance. Another 8 discuss it implicitly through performance indicators (financial and non-financial) without formulating a formal definition. The remaining 4 articles refer to MSME performance only as a general business outcome—such as business growth or sustainability—without in-depth terminological discussion.

In general, MSME performance is defined as the achievement of business outcomes encompassing financial dimensions (profit, revenue, cash flow), operational dimensions (process efficiency, productivity), and non-financial dimensions (innovation, customer satisfaction, reputation, and social and environmental sustainability). National literature tends to emphasize performance in relation to macroeconomic contribution and market competitiveness, while international literature more frequently links it to technological integration, innovation management, and long-term sustainability.

Based on the literature analysis, definitions of MSME performance can be grouped into two broad categories:

a. Definitions Based on Economic and Managerial Aspects

This approach is the most dominant, viewing MSME performance as the capacity to generate profit, maintain cash flow, increase assets, and sustain business continuity. The primary focus is on economic and managerial measures. Representative studies include:

- 1) Purwaningtyas et al. (2021) – Emphasize MSME financial performance during the pandemic using indicators of revenue, profit, and cash flow stability.
- 2) Setyawan et al. (2022) – Use quantitative indicators (harvest output, turnover, profit, asset growth) to assess the performance of fisheries MSME clusters.
- 3) Shaferi et al. (2022) – Conceptualize performance as marketing performance through customer growth, market expansion, and sales profit.
- 4) Kumalasari et al. (2022) – Define MSME performance as a combination of financial, customer, and market performance, related to maintaining profit while ensuring customer satisfaction.

This approach is widely adopted in national studies, particularly those examining batik, culinary, and fisheries MSMEs in Indonesia.

b. Definitions Based on Innovation, Digitalization, and Sustainability

The second approach emphasizes that MSME performance is not merely an economic output but also reflects the ability to adapt to innovation, digital technology, and sustainability practices. These studies view performance as a multidimensional phenomenon linked to resilience and business transformation. Prominent examples include:

- 1) Murugan & Prabadevi (2023) – Define MSME performance within the Industry 6.0 framework, integrating automation, digital twins, and entrepreneurs' emotional intelligence.
- 2) Shameem et al. (2022) – Link performance to MSMEs' success in overcoming Total Quality Management (TQM) barriers, not solely profitability.
- 3) Damiyana et al. (2021) – View performance as the outcome of innovation, knowledge management, and e-commerce adoption that enhance business sustainability.
- 4) Latifah & Soewarno (2022) – Define performance as sustainability performance based on the triple bottom line (economic, social, environmental) through environmental accounting strategies and waste management.
- 5) Wahyundaru et al. (2022) – Highlight financial literacy and e-commerce as key drivers of sustainability performance.

This approach is more prominent in international literature (India, Malaysia, and global contexts) but is increasingly adopted in national research alongside the digital transformation of MSMEs.

Thus, the literature conceptualizes MSME performance as a multidimensional construct that has evolved from purely financial measures toward innovation, technology, and sustainability. National studies tend to emphasize MSMEs' economic and managerial contributions, whereas international studies more strongly highlight digitalization, sustainability, and resilience in response to global disruption.

4.2.2. Indicators of MSME Performance

From the 33 analyzed articles, 19 explicitly discuss financial indicators in measuring MSME performance. Nine emphasize non-financial indicators such as innovation, customer satisfaction, or entrepreneurial orientation. Meanwhile, five broaden performance measurement by incorporating sustainability criteria through the triple bottom line framework (economic, social, and environmental).

Overall, MSME performance indicators can be classified into three main categories:

a. Financial Indicators

This approach is the most frequently used, focusing on MSMEs' ability to generate profit and maintain financial stability. Dominant measures include revenue, net profit, asset growth, turnover, and cash flow.

- 1) Purwaningtyas et al. (2021) assess MSME performance using financial indicators such as revenue and cash flow stability during the pandemic.
- 2) Setyawan et al. (2022) use harvest output, turnover, and business profit as performance measures for fisheries MSME clusters.
- 3) Rio Rita et al. (2022) highlight the relationship between financial access, entrepreneurial orientation, and improved profitability among batik MSMEs.

These financial indicators are crucial for assessing short-term survival and growth.

b. Non-Financial Indicators

Several articles argue that financial measures alone are insufficient, as MSME performance is also shaped by innovation quality, marketing effectiveness, and customer satisfaction. Common non-financial indicators include operational efficiency, reputation, innovation capability, and customer loyalty.

- 1) Shaferi et al. (2022) measure batik MSME marketing performance through customer growth, market expansion, and success in launching new products.
- 2) Kumalasari et al. (2022) combine customer performance (satisfaction, loyalty) and market performance (market share, sales growth) as non-financial indicators.
- 3) Rumijati & Hakim (2021) emphasize innovative behavior and entrepreneurial leadership as drivers of non-financial performance.

Thus, non-financial indicators provide a more comprehensive picture of MSME competitiveness and continuity.

c. Sustainability Performance Indicators

Recent literature highlights that MSME performance should also be evaluated in terms of contributions to economic, social, and environmental sustainability. The triple bottom line (profit–people–planet) framework is increasingly adopted.

- 1) Latifah & Soewarno (2022) assess MSME performance through environmental accounting strategies and waste management, covering energy efficiency, waste handling, and social contributions.
- 2) Wahyundaru et al. (2022) integrate financial literacy and e-commerce to measure MSME sustainability performance, including consumer satisfaction and environmental continuity.
- 3) Damiyana et al. (2021) emphasize the role of innovation and knowledge management in strengthening MSME sustainability in the digital era.

This approach underscores that MSME performance is not only about profitability, but also about long-term contributions to society and the environment.

Accordingly, the literature maps MSME performance indicators into three primary dimensions: financial (profitability, turnover, cash flow), non-financial (innovation, customer satisfaction, market reputation), and sustainability (economic, social, environmental). National studies tend to emphasize financial and operational indicators, whereas international studies increasingly underscore sustainability and digitalization as emerging measures of performance.

4.2.3. *Internal Factors Influencing MSME Performance*

From the 33 analyzed articles, 20 explicitly discuss internal factors affecting MSME performance. Most emphasize innovation, entrepreneurial orientation, financial management, and human resource (HR) capacity. The remaining 13 address internal factors implicitly, for instance through leadership behavior, emotional intelligence, or entrepreneurial motivation.

Overall, the literature suggests that internal factors are critical determinants of MSME success because they shape the extent to which external support (policy, financing, ecosystem) can be optimized. These factors can be grouped into four main categories:

a. Innovation

Innovation—whether in products, processes, or business models—is the most consistent internal factor influencing MSME performance.

- 1) Sudjatmoko et al. (2021) show that innovation acts as a key mediator between the COVID-19 pandemic and MSME performance by encouraging product adaptation and digital marketing.
- 2) Cancelyn et al. (2021) find that business innovation combined with competitive strategies enhances the resilience of culinary MSMEs.
- 3) Damiyana et al. (2021) emphasize the role of innovation and knowledge management in strengthening MSME sustainability in the digital era.

Innovation enables MSMEs to respond more effectively to market change and enhances long-term competitiveness.

b. Entrepreneurial Orientation

Entrepreneurial orientation—proactiveness, innovativeness, and risk-taking—emerges as a major driver of MSME performance.

- 1) Yacob et al. (2021) show that entrepreneurial orientation strengthens the effect of e-commerce adoption on MSME performance.
- 2) Rio Rita et al. (2022) find that entrepreneurial orientation reinforces the impact of entrepreneurship-oriented finance on the profitability of batik MSMEs.
- 3) Rumijati & Hakim (2021) highlight that entrepreneurial leadership encourages innovative behavior with direct implications for performance improvement.

These findings indicate that entrepreneurial orientation provides an internal foundation for managing business uncertainty.

c. Financial Management

Financial capability—from financial literacy to financing strategies—strongly influences business continuity.

- 1) Susanti & Putra (2021) argue that financial literacy enhances MSMEs' ability to access financial products and manage risk, leading to better performance.
- 2) Rio Rita et al. (2022) find that entrepreneurship-oriented finance not only provides capital but also improves MSMEs' investment decision quality.

- 3) Supramono et al. (2022) show that financial behavior (managing liquidity, savings, and debt) accelerates MSME recovery after crises.

Thus, sound financial management supports not only business survival but also innovation capacity.

d. Human Resource Capacity

HR capacity, including skills, motivation, and learning ability, also contributes significantly to MSME performance.

- 1) Viphindrartin & Bawono (2023) highlight the role of learning organizations—MSMEs' continuous learning and adaptation capability—as a key driver of performance improvement.
- 2) Sukamdani & Kholil (2021) find that workforce skills are more significant than personal motivation in increasing MSME productivity.
- 3) Murugan & Prabadevi (2023) emphasize entrepreneurs' emotional intelligence as a critical internal factor in adopting Industry 6.0 technologies.

This implies that MSME performance is shaped not only by owners but also by the collective quality of teams and organizational capabilities. Overall, internal factors constitute the core foundation enabling MSMEs to leverage external opportunities and respond to global challenges.

4.2.4. External Factors Influencing MSME Performance

From the 33 analyzed articles, 18 explicitly address external factors affecting MSME performance. The remaining 15 mention external factors implicitly, for example as moderating variables or enabling conditions. These external factors include government policy, support from financial institutions, market access, and infrastructure, which collectively form a business ecosystem shaping MSME competitiveness.

In general, the literature positions external factors as enablers that strengthen the influence of internal factors (innovation, entrepreneurial orientation, financial literacy) on MSME performance.

a. Government Policy

Public policy is one of the most dominant factors supporting MSMEs, especially during crises.

- 1) Agarwal & Kapoor (2021) emphasize that India's COVID-19 relief measures improved MSME resilience and performance through collateral-free loans, interest subsidies, and e-linkage marketplaces.
- 2) Mardiatmi et al. (2022) show that Quadruple Helix synergy (academia, government, business, community) in Indonesia enhanced MSME managerial performance post-pandemic.
- 3) Hadi et al. (2021) find that SOE support and crowdfunding regulations expanded MSMEs' access to funding and markets.

These findings confirm the role of policy in developing a more inclusive ecosystem.

b. Support from Financial Institutions

Access to formal and alternative financing is essential for MSME growth and survival.

- 1) Rio Rita et al. (2022) show that entrepreneurship-oriented finance facilitated by financial institutions improved investment decision quality and performance among batik MSMEs in Central Java.
- 2) Susanti & Putra (2021) assert that strong financial literacy helps MSMEs access financing products from banks and OJK, thereby improving business performance.
- 3) Hadi et al. (2021) add that crowdfunding served as an alternative solution when formal financial access was constrained, particularly during the pandemic.

Financial support strengthens capital capacity, but its effectiveness remains contingent on MSMEs' internal readiness.

c. Market Access

MSME performance is strongly shaped by their ability to reach domestic and international markets.

- 1) Shaferi et al. (2022) find that support from distribution partners and local government agencies (Disperindagkop) expanded marketing networks for batik MSMEs in Banyumas–Purbalingga.
- 2) Yacob et al. (2021) emphasize that pro-digital policies accelerated the use of e-commerce and social media to broaden MSME markets in Jambi.

- 3) Mardatillah et al. (2022) show that cross-cultural digital marketing strategies in Indonesia and Malaysia are influenced by local media roles and regulations related to content diversity.

Broader market access increases turnover and strengthens reputation and business sustainability.

d. Infrastructure

The availability of physical and digital infrastructure is also a key determinant of MSME performance.

- 1) Sukamdani & Kholil (2021) find that limited internet infrastructure and digital skills hinder MSME productivity in Kendal.
- 2) Latifah & Soewarno (2022) highlight the importance of waste management systems and digital reporting in supporting MSME sustainability performance.
- 3) Behl et al. (2022) show that Responsible AI implementation in MSME supply chains in India is strongly influenced by digital infrastructure readiness and organizational governance.

Adequate infrastructure enhances efficiency and supports the adoption of new technologies.

Overall, MSME performance cannot be separated from a supportive external environment. National literature often highlights policy and infrastructure, while international literature places greater emphasis on global market integration, technology ethics, and digital governance.

4.2.5. The Role of Technology and Digitalization in Improving MSME Performance

From the 33 reviewed articles, 17 explicitly discuss the role of technology and digitalization in improving MSME performance. Meanwhile, 10 mention it implicitly through e-commerce, social media, or digital management systems. The remaining 6 position technology as a supporting variable within broader innovation or organizational strategy frameworks.

In general, the literature indicates that technology and digitalization have become key drivers of MSME transformation by improving operational efficiency, expanding markets, and strengthening business sustainability. This role can be mapped into four main dimensions:

a. Technology as a Driver of Efficiency and Productivity

Digitalization enables MSMEs to enhance operational efficiency and reduce production costs.

- 1) Murugan & Prabadevi (2023) define MSME performance within the Industry 6.0 framework, highlighting the use of automation, AI, digital twins, and robotics.
- 2) Shameem et al. (2022) show that digital printing and automation improved quality and sustainability in India's MSME label printing industry.
- 3) Supramono et al. (2022) add that digitalization accelerates product and process innovation, thereby expediting post-crisis recovery.

Technology thus functions not only as a tool but also as a strategic instrument for competitiveness.

b. Market and Marketing Digitalization

One of technology's most significant contributions is expanding market access through e-commerce and social media.

- 1) Damiyana et al. (2021) emphasize that e-commerce adoption improves information management, increases sales, and strengthens MSME sustainability.
- 2) Yacob et al. (2021) find that the use of social media and e-commerce during the pandemic positively correlates with performance, especially when supported by entrepreneurial orientation.
- 3) Mardatillah et al. (2022) show that cross-cultural digital marketing strategies in Indonesia and Malaysia increase brand awareness and customer satisfaction, although adaptation to algorithmic bias is required.

Market digitalization makes MSMEs more competitive amid changing consumer behavior.

c. Technology as an Enabler of Innovation and New Business Models

Technology supports not only operations but also the creation of innovation and new business models.

- 1) Zahwa et al. (2022) confirm that digital literacy and technology-based innovation enhance the competitiveness of women-led MSMEs.

- 2) Sutrisno et al. (2023) show that integrating ChatGPT and CRM strengthens operational efficiency and increases customer satisfaction and MSME sales.
- 3) Daryono et al. (2022) highlight digital business model transformation mediated by green intellectual capital, promoting growth and sustainability.

These findings underscore technology's role in driving business model transformation toward more adaptive digital ecosystems.

d. Technology and Sustainability

Several articles identify technology as an instrument for supporting MSME sustainability.

- 1) Latifah & Soewarno (2022) link technology with environmental accounting systems and digital waste management to enhance sustainability performance.
- 2) Behl et al. (2022) argue that Responsible AI improves MSME supply chain coordination, strengthens inter-partner trust, and supports sustainability.
- 3) Wahyundaru et al. (2022) highlight the role of e-commerce in bolstering sustainability performance through job creation and energy efficiency.

Thus, technology relates not only to profit but also to social and environmental outcomes. National literature tends to emphasize e-commerce and social media for market expansion, while international studies more frequently highlight advanced technologies such as AI, big data analytics, and Industry 6.0.

4.2.6. The Impact of Global Economic Crises/Pandemics on MSME Performance and Resilience

From the 33 reviewed articles, approximately 18 explicitly discuss the impact of crises—particularly the COVID-19 pandemic—on MSME performance and resilience. Nine focus on adaptation/resilience strategies (digitalization, innovation, organizational learning), while eight emphasize the effectiveness of external support (government policy, financing, and ecosystems) in mitigating market shocks. Overall, the literature indicates a two-phase pattern: (i) initial pressure on revenue, cash flow, and operational capacity; followed by (ii) a recovery phase heavily dependent on internal adaptive capabilities and well-targeted external support.

a. Initial Pressure: Declining Financial Performance and Operational Disruptions

Many studies document contractions in revenue, profit, and cash flow during the early crisis phase, accompanied by disruptions in supply chains and market demand. Purwaningtyas et al. (2021) highlight the decline in financial performance and the importance of cash flow stability during the pandemic. In fisheries clusters, Setyawan et al. (2022) show pressure on turnover and profits due to distribution constraints. At the macro level, Gaies (2020) situates MSMEs within global financial instability that tightens access to capital as risk rises—conditions that intensify shocks in developing economies.

b. Adaptive Responses: Innovation, Digitalization, and Strategic Shifts

Studies consistently conclude that firms that innovate quickly and shift to digital channels are more capable of withstanding crisis impacts. Sudjatmoko et al. (2021) show innovation as a key mediator that transforms crisis effects into opportunities for performance recovery. In culinary MSMEs, Cancelyn et al. (2021) find that combining process innovation and competitive strategies (cost leadership/differentiation) enhances resilience. Yacob et al. (2021) confirm that adopting e-commerce and social media during the pandemic is positively associated with performance, particularly when supported by entrepreneurial orientation. From a knowledge management perspective, Damiyana et al. (2021) emphasize knowledge management and e-commerce as levers for improving performance and sustainability after shocks.

c. The Role of Public Policy and Financing: Bridging Crisis and Recovery

Government and financial institution support emerges as a catalyst for faster recovery, although its effectiveness depends on MSMEs' internal readiness. Agarwal & Kapoor (2021) find that relief measures (collateral-free loans, subsidies, e-linkage marketplaces) improve resilience and performance in India. In Indonesia, Hadi et al. (2021) show that crowdfunding combined with SOE support helps restore sales, cash flow, and employment. From an ecosystem design perspective, Mardiatmi et al. (2022) demonstrate that Quadruple Helix collaboration (government–business–academia–community) improves MSME managerial performance in the new normal phase. On the capital side, Rio

Rita et al. (2022) argue that entrepreneurship-oriented finance improves investment decision quality and post-crisis profitability, while Susanti & Putra (2021) emphasize financial literacy as a prerequisite for effective financial access.

d. Recovery Capabilities: Dynamic Capabilities and Financial Behavior

Performance recovery is not solely a function of capital injection but also depends on internal capabilities to sense–seize–reconfigure. Supramono et al. (2022) show that the combination of dynamic capabilities and financial behavior (liquidity management, savings, debt control) accelerates recovery speed and supports sustainability. At the organizational level, Viphindartin & Bawono (2023) stress the importance of becoming a learning organization in maintaining performance amid macroeconomic fluctuations, while Sukamdani & Kholil (2021) find that workforce skills are more decisive than motivation alone in restoring productivity.

e. Supply Chains and Trust: The Role of Technology and Digital Governance

Several studies view crises as opportunities to strengthen supply chain coordination and inter-partner trust. Behl et al. (2022) show that implementing Responsible AI (RAI)—grounded in fairness, accountability, sustainability, and transparency—improves demand–supply synchronization and service accuracy, thus strengthening resilience under disruption. In marketing contexts, Shaferi et al. (2022) highlight the importance of relational management and local government support in securing distribution channels; meanwhile, Mardatillah et al. (2022) caution that adaptation to algorithmic bias is necessary to maintain MSME brand visibility in cross-cultural digital markets.

f. Contextual Inequality: Developing vs. Developed Countries

The literature distinguishes baseline capacities between developing and advanced economies. In Indonesia and India, structural limitations in digital infrastructure, capital access, and technological literacy make policy support more consequential (Agarwal & Kapoor, 2021; Hadi et al., 2021). In more mature international contexts, adoption of advanced technologies—big data analytics, AI, and green business model transformation—shows a strong association with recovery (Bhatti et al., 2022; Daryono et al., 2022). Nevertheless, studies highlight that marginal impacts can be larger in developing countries when digital and financing interventions are successfully implemented (Wahyundaru et al., 2022).

4.2.7. Differences in MSME Performance Between Developing and Developed Countries

From the 33 reviewed articles, 12 explicitly compare or discuss differences in MSME performance between developing and developed countries, while the rest focus on country-specific contexts without direct comparison. The literature suggests that MSME performance in developing economies is generally constrained by structural barriers such as limited financing access, weaker digital infrastructure, and lower managerial literacy. In contrast, MSMEs in developed economies are relatively more prepared to adopt advanced technologies, integrate into global markets, and prioritize sustainability.

a. Access to Finance and Infrastructure

MSMEs in developing countries face restricted capital access, higher borrowing costs, and inadequate physical and digital infrastructure. Hadi et al. (2021) highlight that Indonesian MSMEs relied heavily on alternative financing innovations such as crowdfunding to sustain performance during the pandemic. Similarly, Agarwal & Kapoor (2021) find that Indian MSMEs required policy stimulus in the form of subsidies and collateral-free loans to survive. In contrast, MSMEs in developed countries have stronger access to formal financial systems, capital markets, and digital infrastructure, making them more resilient to global crises (Bhatti et al., 2022).

b. Technology Adoption and Innovation

MSMEs in developed economies are quicker to adopt advanced technologies such as big data analytics, AI, and digital twins to enhance efficiency and innovation (Bhatti et al., 2022; Murugan & Prabadevi, 2023). Meanwhile, MSMEs in developing countries tend to focus on more basic technologies such as e-commerce, social media, and digital payment applications to expand markets and retain customers (Damiyana et al., 2021; Yacob et al., 2021). Although less sophisticated, the literature indicates that these basic technology adoptions can yield substantial marginal gains for MSMEs in developing economies (Wahyundaru et al., 2022).

c. Sustainability Orientation

MSMEs in developed countries are more likely to emphasize sustainability through green business practices, environmental accounting, and Responsible AI adoption (Behl et al., 2022; Latifah & Soewarno, 2022). In developing

countries, sustainability is often treated as an emerging or secondary consideration, becoming more salient in response to global market pressures or government policy. For example, Indonesian MSMEs have begun to integrate sustainability into business strategies, but short-term profitability and business stability remain the primary focus (Rio Rita et al., 2022).

d. Human Resource Capacity and Organizational Learning

MSME performance in developed economies is also supported by higher HR capacity, particularly in digital and managerial skills. Viphindartin & Bawono (2023) find that Indonesian MSMEs still need to strengthen learning organization capabilities to enhance long-term competitiveness. By contrast, MSMEs in developed countries are more frequently assumed to possess HR bases capable of rapid adaptation to global market changes.

5. Conclusion

This systematic literature review (SLR) analyzes 33 international and national articles published between 2020 and 2025, with a focus on the performance of MSMEs (Micro, Small, and Medium Enterprises). The review shows that the concept of MSME performance has evolved from a traditional perspective that prioritized purely financial indicators toward a multidimensional framework that also incorporates non-financial indicators (such as customer satisfaction, innovation, and entrepreneurial orientation) and sustainability performance indicators based on the triple bottom line approach (economic, social, and environmental).

First, the measurement of MSME performance indicates a clear paradigm shift. National studies still largely emphasize profit, turnover, cash flow, and asset growth as primary measures, whereas international literature increasingly employs indicators related to innovation, market reputation, and environmental sustainability. This reinforces the need to broaden performance measurement perspectives to align more closely with global challenges.

Second, internal determinants emerge as the dominant factors influencing MSME performance. Innovation is consistently identified as the most robust variable in enhancing competitiveness and business resilience. Entrepreneurial orientation strengthens MSMEs' adaptive capacity amid market changes and crises. Financial literacy and financial management are crucial for expanding access to capital and improving the quality of business decision-making. In addition, human resource capacity—particularly through learning organization practices and digital skills—has become an essential prerequisite for long-term growth.

Third, external support in the form of government policies, financial institutions, market access, and infrastructure plays a decisive role in MSME success. Stimulus policy packages, crowdfunding programs, and Quadruple Helix synergies have been shown to reinforce MSME resilience during the pandemic. Support from financial institutions, both formal and alternative, enables MSMEs to undertake productive investment. Meanwhile, market access through e-commerce and digital marketing increases growth opportunities and strengthens global competitiveness. However, the effectiveness of external support is highly dependent on MSMEs' internal readiness to utilize these resources.

Fourth, technology and digitalization have become key drivers of MSME transformation in the era of disruption. E-commerce, social media, and digital applications expand market reach and improve operational efficiency, especially in developing countries. In contrast, international literature highlights advanced technologies such as big data analytics, artificial intelligence, responsible AI, and Industry 6.0 as critical enablers of innovation, sustainability, and productivity enhancement. These findings underscore the existence of a digital divide between MSMEs in developing and developed economies.

Fifth, the impacts of global economic crises and the COVID-19 pandemic demonstrate that MSMEs are highly vulnerable to external shocks. Most MSMEs experienced declines in revenue, cash flow, and productivity during the early phase of the crisis. Nevertheless, MSME resilience has been strengthened through product innovation, the digitalization of marketing, prudent financial behavior, and supportive public policies. In this sense, crises have become pivotal moments for MSMEs to accelerate digital transformation and reinforce sustainability strategies.

Sixth, comparisons between developing and developed countries reveal substantial differences in MSME performance. In developing countries such as Indonesia and India, major constraints stem from limited access to capital, weaker infrastructure, and lower levels of digital literacy. MSMEs in these contexts tend to rely more heavily on basic technologies (e-commerce and social media) and government policy interventions. Conversely, MSMEs in developed countries are relatively better positioned to integrate advanced technologies and sustainability orientations into their business strategies. Even so, digital adoption in developing countries often generates significant performance leaps, as the marginal benefits of technological transformation are more pronounced under resource constraints.

Overall, this review confirms that MSME performance is a multidimensional phenomenon shaped by a combination of internal and external factors, with technology and digitalization serving as major levers and global crisis contexts functioning as critical tests of resilience. The academic contribution of this review lies in presenting an integrated conceptual framework of MSME performance that encompasses financial and non-financial dimensions, sustainability, internal and external determinants, the role of technology, and cross-country differences. From a practical standpoint, these findings imply that strategies to enhance MSME performance should combine the strengthening of internal capacities (innovation, entrepreneurship, financial literacy, and human resources) with inclusive external support (policy, financing, market access, and infrastructure), alongside context-appropriate digital technology adoption.

Despite offering a comprehensive synthesis of MSME performance from multiple perspectives (financial, non-financial, sustainability, internal factors, external factors, technology, and cross-country comparisons), this review has several limitations that should be acknowledged to provide context and inform future research.

This SLR includes 33 articles published mainly in international and national journals from 2020 to 2025. However, limitations arise because not all scientific databases (such as Web of Science or ProQuest) were exhaustively covered, meaning that potentially relevant articles may not have been included. Some studies were available only in abstract form, which restricted deeper examination of their conceptual and methodological details. The literature is also heavily concentrated in Asian contexts (Indonesia, India, and Malaysia), resulting in limited global representation, particularly from Europe, Africa, and Latin America.

The analyzed articles differ in how they define and measure MSME performance. Most national studies continue to use traditional financial indicators (profit, turnover, and cash flow), while international literature tends to integrate innovation, sustainability, and technology dimensions. These conceptual differences create challenges in consolidating a uniform analytical framework. As a result, the synthesis remains influenced by methodological biases embedded within individual studies.

Although some articles compare MSME performance between developed and developing economies, their number remains relatively small. Cross-country comparisons are not always conducted using consistent methodological frameworks, limiting the feasibility of quantitative benchmarking. Most studies in developing countries still emphasize the impacts of the COVID-19 pandemic, and therefore may not fully capture long-term conditions or other emerging global issues such as energy crises, climate change, and geopolitical disruptions.

The selected articles predominantly originate from Scopus-indexed or internationally reputable journals. This may introduce publication bias, as studies reporting “positive” results (for example, that digitalization improves performance) are more likely to be published than those reporting “neutral” or “negative” outcomes. Grey literature—such as policy reports, working papers, or unpublished field studies—is not included, even though such sources may offer critical data, particularly for local contexts.

While this SLR identifies major themes and general patterns, the findings cannot be fully generalized. MSME contexts are strongly shaped by local factors such as regulations, business culture, and digital infrastructure readiness. Evidence from Indonesia or India does not automatically apply to developed economies with different financial systems and business ecosystems. Moreover, several articles focus on specific sectors (batik, culinary, and fisheries), meaning that their findings may not represent MSMEs across all industries.

Finally, this review uses descriptive thematic analysis rather than a quantitative meta-analysis. Consequently, the synthesis is primarily qualitative and conceptual, without statistical weighting to estimate the magnitude of each factor’s effect on MSME performance. The heterogeneity of research designs (surveys, case studies, and experiments) further limits the consistent aggregation of quantitative evidence.

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