



Resilience of Small and Medium Businesses

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A SYSTEMATIC REVIEW ON THE ROLE OF POLICY INTERVENTIONS AND INSTITUTIONAL NETWORKS IN STRENGTHENING SME RESILIENCE

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ABSTRACT

Objective: This study also explores the role of policy interventions, institutional support, digital transformation, and networks in strengthening the resilience capacity of MSMEs.

Research Design & Methods: This study employed a Systematic Literature Review (SLR) approach by searching the academic databases Scopus, Web of Science, and ScienceDirect. Articles were selected based on strict inclusion criteria, focusing on peer-reviewed, academic publications relevant to MSME resilience. Analysis used thematic coding techniques and a synthesis matrix to examine interrelationships across studies.

Findings: Four core components significantly influencing MSME resilience are Entrepreneurial Orientation, Networking, Digital Literacy, and Adaptability. Digital transformation has proven crucial for MSME survival, enabling adaptation to changing consumer patterns and increasing operational efficiency.

Implications & Recommendations: These findings imply the need for a holistic and integrated policy approach, increased digital capacity, strengthened networks and ecosystems, and responsive and collaborative institutional support.

Contribution & Value Added: This research broadens the understanding of MSME resilience by viewing it as a 'meta-capability' influenced by internal and external factors. Its contribution lies in strengthening the Resource-Based Theory (RBV) and institutional theory, and providing an evidence-based framework for policy reform and institutional strengthening to support MSMEs' long-term competitiveness and resilience.

Keywords: SME Resilience, Policy Intervention, Entrepreneurial Orientation.

JEL codes: L26, L53, O38

Article type: research paper

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of economies in various countries, not only because of their contribution to job creation but also because of their vital role in driving inclusive economic growth and regional development (Surya et al., 2021). Amid global crises such as the COVID-19 pandemic and disruptions to international supply chains, MSME resilience is a crucial indicator of economic sustainability (Agarwal et al., 2023). One of the key strengths in developing MSME resilience lies in the government's increasing attention to the strategic role of this sector through a series of policy interventions—including financial stimulus, entrepreneurship training, and digitalization incentives—supported by a growing institutional ecosystem (Juergensen et al., 2020). A study by Cowling et al. (2020) shows that policy interventions based on inter-institutional collaboration can significantly accelerate MSME recovery after the

crisis, especially when combined with digital infrastructure support and entrepreneurial networks. Various weaknesses in existing policy practices and designs also overshadow MSME resilience. Overlapping government programs, weak cross-institutional coordination, and low policy literacy at the business level are key obstacles to optimizing interventions (Castro & Zermelo, 2021). Furthermore, many policies remain top-down, not based on the contextual needs of MSMEs in various regions, and lack the involvement of local institutions in the planning and evaluation stages (Okamuro et al., 2019). In the scientific literature, approaches to MSME resilience also tend to be partial and fragmented—focusing on internal aspects such as social capital or innovation—without integrating external influences such as fiscal policy, institutions, and macro-environmental dynamics (Battisti & Deakins, 2017). This indicates a research gap in efforts to comprehensively understand the synergistic role of policy interventions and institutional support in building MSME resilience across contexts.

A significant strategic opportunity exists to develop a more adaptive and collaborative MSME support system. Accelerated digital transformation, the growth of the green economy, and the growing global commitment to sustainable development (SDGs) create space to design new, more inclusive and innovative policies (Omrani et al., 2024). International initiatives like the World Bank and UNDP's COVID-19 recovery programs also provide new incentives and resources for developing countries to strengthen institutional capacity oriented toward MSME resilience (Satpathy et al., 2025). Digitalization and cross-sector collaboration can be key levers in promoting local entrepreneurial resilience, provided they are supported by flexible and responsive regulations (Ratten, 2021). This momentum provides an essential foundation for systematic literature studies that can identify successful patterns and best practices in strengthening MSMEs through policy and institutional approaches. The complexity of the external environment also presents significant threats to the sustainability of these efforts. Geopolitical uncertainty, the climate crisis impacting global supply chains, and implementation gaps across levels of government pose fundamental challenges to the consistency and effectiveness of MSME policies (Sahoo & Thakur, 2023). In some countries, overly rapid or reactive policy changes create confusion and uncertainty among small business owners (Cook & Karau, 2023). Information asymmetry, complex bureaucracy, and dependence on external donors also hinder the development of independent and sustainable local institutions. Therefore, evidence-based studies highlighting the sustainability aspects of policy design and institutional capabilities are essential for MSMEs to survive and thrive.

This study aims to conduct a Systematic Literature Review (SLR) to identify, classify, and synthesize academic evidence on the role of policy interventions and institutional networks in strengthening MSME resilience. This research is designed to answer three main questions: (1) What are the forms and mechanisms of policy interventions and institutional support used to build MSME resilience? (2) In what contexts have these approaches proven effective? (3) How can the ideal configuration of policies and institutions be designed contextually and sustainably. The theoretical contribution of this article is to enrich interdisciplinary understanding of entrepreneurial resilience, policy coherence, and institutional embeddedness in the context of small and medium enterprises. Its practical contribution is to provide an evidence-based foundation for policy reform and institutional strengthening that supports the transformation of MSMEs towards long-term competitiveness and resilience.

LITERATURE REVIEW

The Concept of MSME Resilience

Resilience in the context of MSMEs is a dynamic capacity that encompasses the ability to anticipate, respond to, and adapt to various forms of environmental uncertainty and disruption, whether economic, social, or ecological (Williams & Shepherd, 2016). Resilience is not simply a process of surviving a crisis; it also involves organizational learning and strategic transformation to ensure a business remains relevant and competitive amidst change (Awad & Rojas, 2024). This concept was theoretically developed from a complex adaptive systems approach that positions businesses as active agents of change in reshaping their business processes (Bhamra et al., 2011).

Within this framework, resilient MSMEs can restore business functions after disruption, explore new opportunities, and create innovations in response to environmental pressures (Aggarwal & Joshi, 2024). Key characteristics of MSMEs with high levels of resilience include the ability to make quick decisions in crises, operational flexibility, access to external resource networks, and substantial social capital (Mandojana & Bansal, 2016). Furthermore, trust among local and regional business network actors strengthens MSMEs' resilience when facing turbulent conditions (Sindhwani et al., 2023).

Resilience is also rooted in the ability of business actors to develop risk mitigation strategies, strengthen internal information systems, and manage uncertainty through continuous organizational learning (Bhamra et al., 2011). Therefore, a conceptual approach to MSME resilience must consider structural dimensions (resources, policies, institutions), behavioral dimensions (adaptive capacity and decision-making), and the environmental context in which the business operates (Sindhwani et al., 2023). MSME resilience is increasingly relevant in volatile and uncertain global conditions, as reflected in public health crises, climate change, and technological disruption (Kwasie et al., 2023). From this perspective, MSMEs must have short-term responses and long-term strategic resilience that connect survival and sustainability (Agarwal et al., 2023). Integrating individual business resilience and external support from government institutions, financial institutions, and local communities is crucial in developing a holistic resilience model (Adekola & Clelland, 2020). Therefore, a conceptual understanding of MSME resilience must be studied multidisciplinary, linking managerial, institutional, and public policy aspects.

Public Policy Interventions in Strengthening MSMEs

Public policy interventions for MSMEs are part of the state's regulatory and facilitative framework to ensure the sustainability of the small business sector, which significantly contributes to economic inclusion and local development (Crespi & Zuniga, 2012; Onyeje et al., 2022). These interventions encompass not only the provision of economic stimulus but also structural reforms to address systemic barriers MSMEs face, such as information gaps, access to financing, and institutional capacity gaps (Lalita et al., 2025). Theoretically, public policy in the context of MSMEs can be categorized into three main domains: market regulation, economic incentives, and entrepreneurship-supporting infrastructure (Onyeje et al., 2022). Market regulation involves government efforts to create fair competition through adjustments to licensing regulations, protection of small businesses from monopolistic market domination, and legal guarantees for business rights (Wang & Yan, 2025). Economic incentives often include tax exemptions, low-interest loans, and government procurement programs favoring micro and small businesses (Desalegn et al., 2024). Entrepreneurial infrastructure includes training services, MSME digitalization, and support for business incubation and inclusive distribution networks (Hawkins, 2015).

Effective policy implementation depends on synergy between central and regional government levels and the bureaucracy's ability to translate macro policies into contextual programs (Williams, 2021). In cross-country comparative studies, locally based interventions involving businesses, communities, and local governments have proven more responsive to the challenges faced by MSMEs than centralized, top-down approaches (Malik et al., 2022). Flexibility in policy design is crucial so that interventions can adapt to socio-economic dynamics and sudden disruptions such as financial crises or pandemics (Vasin, 2023). Public policies can also be counterproductive if not based on accurate needs mapping and data-driven evaluation. Inaccurate targeting, inefficient aid distribution, and weak oversight mechanisms can reduce the positive impact of designed interventions (Ninghardjanti et al., 2023). An evidence-based policymaking approach is crucial to ensure that each intervention addresses the root causes of problems MSMEs face (Ilavarasan, 2017). Integrating quantitative data and qualitative insights from business actors can strengthen the government's capacity to design more adaptive and sustainable interventions (Li et al., 2019).

The Role of Institutional Networks in MSME Resilience

In the context of entrepreneurship development, institutional networks refer to the functionally connected formal and informal structures that create a supportive environment for the sustainability of small and medium-sized businesses (Ibidunni et al., 2022). Institutions are not viewed as single institutions, but as configurations of actors interacting through norms, regulations, and resources within a complex economic system (Andersen & Geels, 2023). Within these networks, MSMEs access various forms of support, such as alternative funding, business incubation, managerial training, and market connectivity through structured strategic interventions (Krishnan et al., 2020). The concept of institutional embeddedness explains that the success of MSMEs is significantly influenced by the extent to which business actors are embedded in institutional networks that support innovation, adaptive response, and operational sustainability (Granovetter, 1985). These networks encompass cross-sector interactions between local governments, financial institutions, universities, training centers, and trade associations, collectively creating collective capabilities. When MSMEs can build connections with these actors, a synergistic effect is created, increasing resilience in the face of external pressures such as economic disruption, disasters, or market volatility (Rahardjo et al., 2024).

The primary function of institutional networks in building MSME resilience lies in their ability to create flexible yet coordinated support structures. Business incubators act as resource mediators and growth accelerators, while universities and training institutions act as agents of knowledge and innovation production (Hassan, 2024). Business associations contribute to building horizontal solidarity among business actors and serve as channels for championing collective interests in the public policymaking process (Kuteesa & Mawejje, 2016). Thus, MSME resilience is a product of interactions between institutional entities operating within a collaborative and trust-based framework (Manfredi & Capik, 2022). The literature also highlights the importance of quality dimensions in institutional relations, such as relationship stability, reciprocity, and normative legitimacy, which can strengthen MSMEs' trust in the system (Purnomo & Purwandari, 2025). Without inclusive and adaptive institutional relations, MSMEs face obstacles in accessing market opportunities, new technologies, and protection from external risks (Saifurrahman & Kassim, 2024). Building an institutional ecosystem responsive to MSME needs is a prerequisite for creating sustainable, locally context-based business resilience (Charisma et al., 2025).

Integrating Policy and Institutional Interventions within a Single Ecosystem

The ecosystem approach to supporting MSME sustainability is rooted in the principle of interconnectedness between actors and structures that shape the holistic business environment (Autio et al., 2018). In this context, integrating public policy and institutional networks is an administrative coordinating relationship and a synergistic process that emphasizes role allocation, institutional cohesion, and adaptive responses to external dynamics (Luo et al., 2024). This integration is necessary to ensure that interventions are not fragmented but coordinated within a collective action framework based on the local context (Wee & Salie, 2025). An ecosystem that supports MSME resilience relies on the roles of diverse actors—from the public sector, the private sector, civil society, and informal institutions—each of which contributes to creating added value and strengthening the foundations of small businesses in a multi-layered manner (Spigel, 2017). Formal government policies must be calibrated to align with real needs at the micro level, mediated by supporting institutions such as business incubators, cooperatives, local associations, and universities. On the other hand, informal actors such as entrepreneurial networks, digital community groups, and creative economy actors also provide social networking, mentoring, and organic resource sharing (Nambisan et al., 2019).

The government in this ecosystem acts not as a hierarchical entity controlling policy implementation but as an orchestrator or facilitator, bridging various stakeholders to connect them synergistically (Mazzucato, 2016). This function includes providing adaptive regulations, strengthening local capacity, and creating participatory spaces for non-state institutions to determine the direction of strategic interventions. This is crucial because the disconnect between policymakers and institutional realities often leads to policy inconsistencies and low program

absorption (Sandfort & Moulton, 2014). Furthermore, institutional and policy integration within a single ecosystem is crucial in addressing systemic disruptions such as the global economic crisis, climate change, and pandemics, where collaboration between actors enables stronger systemic resilience (Rashid & Ratten, 2021). In such situations, comprehensive cross-sectoral support is key to reducing MSMEs' dependence on a single resource or institution (Stam & Ven, 2021). Inclusive ecosystems open to innovation and have interagency feedback mechanisms will be better able to adapt and maintain local economic resilience (Audretsch et al., 2021).

METHODS

This study uses a Systematic Literature Review (SLR) approach to explore and evaluate scientific findings that discuss the relationship between public policy interventions and institutional networks in strengthening the resilience of Micro, Small, and Medium Enterprises (MSMEs). The SLR approach was chosen because it provides a systematic, transparent, and replicable methodological foundation, allowing for the structured identification of conceptual patterns and gaps in previous research (Tranfield et al., 2003). Literature sources were collected from three leading academic databases, namely Scopus, Web of Science, and ScienceDirect, with keywords formulated based on a combination of terms: SME resilience, policy intervention, institutional support, and entrepreneurial ecosystems. Selected articles must meet the inclusion criteria: academic publications in English relevant to the research focus and have undergone a peer review process. Non-scientific, duplicate, and irrelevant articles were excluded from the analysis.

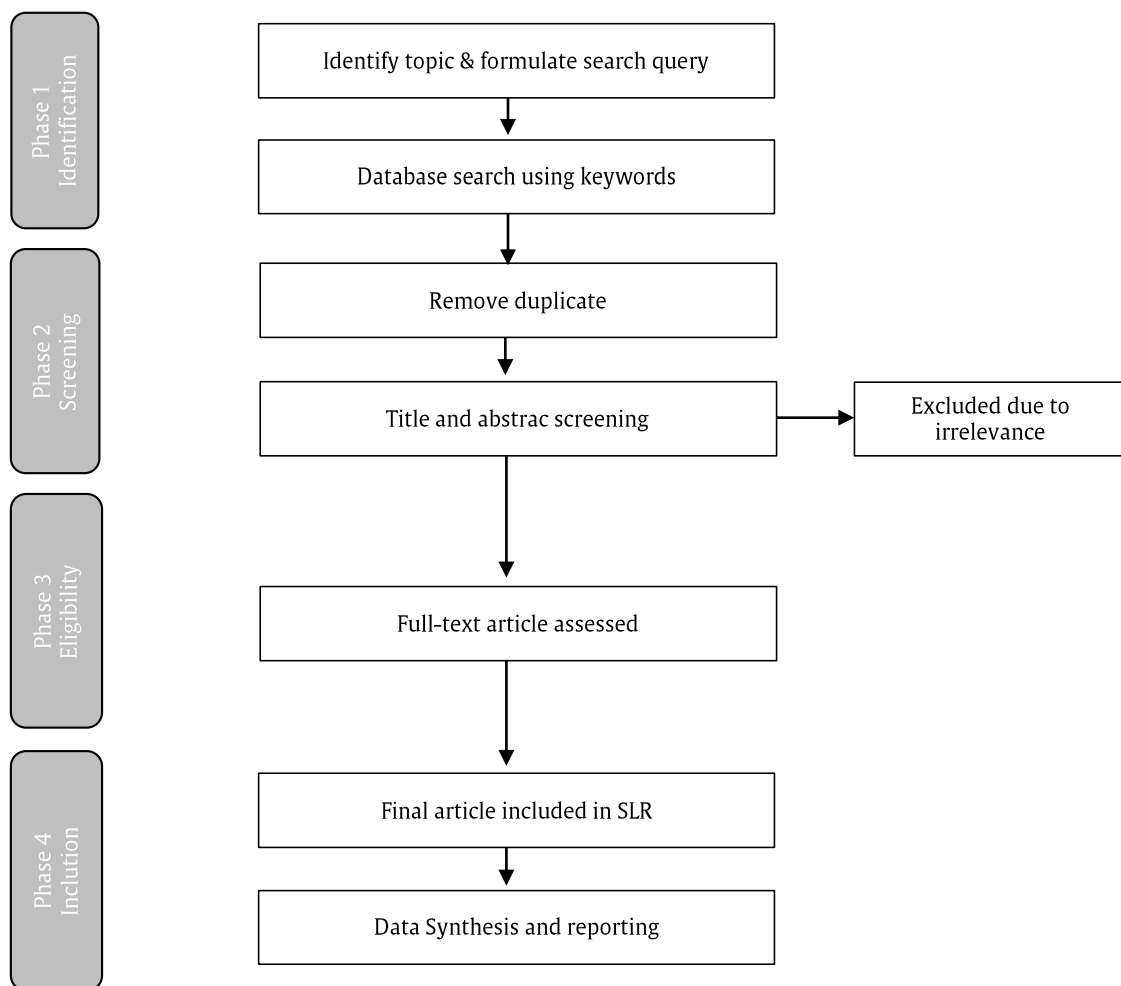


Figure 1 Article Selection Diagram Based on SLR Process

The stages of the SLR process in this study follow the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, which consist of the identification phase, screening, eligibility evaluation, and final inclusion. Each stage was conducted systematically, considering the quality and relevance of each article's content. A visualization of this selection process is shown in Figure 1, which shows the literature screening process leading to the final set of articles used for thematic analysis.

After the selection process, the analysis was conducted using thematic coding techniques, grouping articles into key conceptual themes reflecting policy approaches, institutional support structures, and the dynamics of MSME resilience. Next, a synthesis matrix was developed to examine interrelationships across studies, country contexts, and the temporal dimension of policy. This analysis was enriched by constructing a visual conceptual framework, depicting the causal relationships between policies, institutions, and the MSME resilience ecosystem. Additionally, this study integrated an interpretive approach based on SWOT analysis during the discussion phase to evaluate the strengths, weaknesses, opportunities, and threats of the MSME support system as represented in the reviewed literature. This approach provides a richer analytical framework for understanding the policy and institutional context across sectors and countries.

RESULT

The Concept and Components of MSME Resilience

The literature on MSME resilience shows significant variation in its definition and measurement, and there is no consensus on the factors that definitively influence it. However, in an organizational context, resilience is generally understood as a system's capacity to withstand and recover after experiencing disruption (Barasa et al., 2018). It also encompasses the organization's ability to adapt and respond quickly and effectively to emerging changes or challenges. Beyond simply the ability to return to its original state, resilience can be conceptualized as a meta-capability, meaning it is an organization's fundamental ability to reconfigure and allocate its resources with high flexibility and adaptability (Karman, 2020). This understanding demonstrates that resilience is not a static state, but rather a dynamic process involving continuous learning and the ability to transform crises into opportunities for innovation (Kyrdoda et al., 2023). The ability to adapt and continuously learn is at the heart of resilient organizations, enabling them not only to survive but also to thrive amidst turmoil.

Table 1 Key Components of MSME Resilience and Their Description

Key Components of MSME Resilience	Description Contribution to MSME Resilience
Entrepreneurial Orientation	The ability to identify and capitalize on opportunities, accept risks, and innovate in crises.
Networking	Access to strategic resources (knowledge, technology, finance, skills) and collaboration with external stakeholders, which are sources of resilience and sustainability.
Digital Literacy	Leveraging digital technology and online platforms for business operations, marketing, and innovation is crucial for survival in the modern era.
Adaptability	The organization's capacity to adapt quickly to environmental changes, reconfigure resources, and respond effectively to disruptions.
Leadership	The ability to provide clear direction, make strategic decisions, and motivate teams amidst uncertainty.
Communication	Effective and transparent information flow, both internally and externally, facilitates proactive planning and organizational preparedness.

A systematic literature review identified four core components that significantly influence MSME resilience: Entrepreneurial Orientation, Networking, Digital Literacy, and Adaptability. Furthermore, leadership, adaptability, and communication collectively foster resilience amidst turmoil. Resilient organizations not only adapt to change but also foster a culture that encourages adaptability and continuous learning. Table 1 summarizes these key components and their

descriptions, providing a clear picture of the fundamental elements that shape MSME resilience. Understanding that MSME resilience is a dynamic and multidimensional concept is crucial. The variety of definitions available in the literature suggests that resilience is not simply the ability to recover to a pre-existing state, but rather the capacity to change and reconfigure in response to disruptions. This means that building MSME resilience requires more than one solution; it requires continuously cultivating organizational capacity to learn, adapt, and reconfigure resources. This is a continuous journey, not a final destination. Adaptability, as a key component, directly reflects this dynamic nature. This dynamic process enables MSMEs to transform crises into opportunities for innovation, demonstrating that resilience is an active and proactive process, not a passive one.

The Role of Digital Transformation in MSME Resilience

Digital transformation has become a crucial strategy for the survival of MSMEs, especially during the COVID-19 pandemic (Mishrif & Khan, 2023). Movement restrictions and social distancing protocols have fundamentally altered consumer shopping and consumption patterns, shifting preferences to online services. This shift has forced MSMEs to adopt a new business mindset and embrace digital platforms to offer their products and services. MSMEs that have effectively leveraged digital platforms through technology adoption, digital marketing, and innovation have achieved significant success and profitability (Gao et al., 2023). Digital marketing, in particular, has been highlighted as a powerful tool for increasing promotion and visibility, even under conditions of limited liquidity. This demonstrates that digital transformation is not simply a crisis response but a proactive strategy that builds intrinsic resilience (Williams & Shepherd, 2016). This transformation enables new business models, increases efficiency, and opens up new market opportunities, fundamentally changing the operational landscape of MSMEs.

Furthermore, digital technology also plays a role in improving internal efficiency and productivity, as well as offering new opportunities for companies (Hossain et al., 2022). Cloud-based technology, for example, helps companies navigate crises, provide better market services, and increase MSMEs' responsiveness to customer needs (Hossain et al., 2022). The concept of organizational ambidexterity is also relevant here, referring to an organization's ability to adopt technology to effectively address crises. Recent studies have shown that MSMEs that adopt proactive strategies, embrace digital transformation, and leverage network connectivity are more likely to survive and adapt effectively (Saezow & Sukhabot, 2025). This reinforces the notion that digital transformation is a catalyst for resilience, not just a tool (Yang et al., 2025). Shifts in consumer behavior triggered by the crisis act as external pressures, making digital adoption a necessity for survival, not just a competitive advantage (Salunkhe et al., 2023). The link between digital transformation and organizational ambidexterity demonstrates that this transformation is closely intertwined with an organization's internal capacity to adapt and innovate. Therefore, external shocks such as the COVID-19 lockdown have driven a shift in consumer preferences toward online, which in turn makes digital transformation imperative for the survival of MSMEs. This, in turn, leads to increased internal efficiency, new market opportunities, and ultimately, increased resilience and profitability.

Institutional Support and Government Policies

1. Forms and Mechanisms of Government Policies

Governments around the world implement various support policies for MSMEs. This support includes financial assistance, such as subsidies, tax incentives, loan guarantees, and direct lending programs (Sakib & Rahman, 2024). Additionally, there are policies to encourage innovation, including innovation subsidies and intellectual property protection measures. Favorable regulatory frameworks are also designed to create a better development space for MSMEs. Capacity-building programs help MSMEs enhance their internal capabilities, while market access initiatives help them expand their reach (Junaidi et al., 2025; Sakib & Rahman, 2024).

Institutional support also manifests itself in the form of a strong entrepreneurial ecosystem, which provides a conducive environment and support systems for the production, promotion, and proliferation of start-ups (Jan et al., 2025; Pustovrh et al., 2020). This ecosystem consists of actors,

resources, and processes that facilitate entrepreneurship, including market dynamics, government agencies, financial institutions, and educational institutions. These policies are designed to correct market failures, create a better environment for MSMEs, and enhance their positive role in economic growth, job creation, and innovation (Sakib & Rahman, 2024).

2. Policy Effectiveness and Regional/Industry Variations

A systematic literature review indicates that government policies generally have a positive impact on MSMEs (Onyeje et al., 2022; Sakib & Rahman, 2024). However, the effectiveness and fairness of policy implementation vary widely across countries, regions, and industries. For example, in Zimbabwe, ineffective implementation resulted in policies failing to alleviate MSME financing difficulties. Challenges such as misallocation of resources, discrimination based on ownership and scale, and uneven regional development can hamper policy effectiveness.

3. Policy Synergy and Its Impact

Policy synergy refers to the phenomenon where multiple policies work together in a coordinated manner, producing a combined effect greater than the sum of the individual effects of each policy (Sakib & Rahman, 2024). This synergy can improve resource allocation efficiency, enhance policy effectiveness (e.g., innovation incentive policies and talent acquisition policies can jointly enhance MSMEs' innovation capabilities), improve performance (profitability, growth rate, market share), and increase resource utilization. The adaptability of MSMEs to the policy environment is also an indicator of good policy synergy (Das & Rangarajan, 2020).

Understanding policy synergy is crucial. This suggests that isolated policies, while beneficial, may not achieve optimal outcomes (Kosow et al., 2022). Conversely, a coordinated approach where policies reinforce each other will lead to greater efficiency in resource allocation and increased overall effectiveness (Onyeje et al., 2022). The concept of an "entrepreneurial ecosystem" supports this, as it describes a complex network of interconnected components that collectively create a favorable environment (Fernandes & Ferreira, 2022). The challenge lies not only in the types of policies to be implemented, but in how they are designed and implemented simultaneously to create a supportive ecosystem (Pustovrh et al., 2020). This shifts the focus from a fragmented approach to a holistic and integrated policy framework. Variations in effectiveness suggest that context-specific design and flexible implementation are crucial to achieving true synergy and impact. Fragmented or isolated policies can lead to suboptimal resource allocation and varying effectiveness, thus limiting the overall resilience and development of MSMEs. Conversely, integrated policy synergy within a strong entrepreneurial ecosystem will result in efficient resource allocation, increased policy effectiveness, and improved MSME performance and adaptability, ultimately supporting the sustainable growth and resilience of MSMEs (Dhar et al., 2024).

4. Formal and Informal Institutional Support

In the context of strengthening the resilience and competitiveness of companies, particularly MSMEs, institutional support can be classified into two main forms: formal and informal (Cao et al., 2022). Both have been shown to positively influence company performance and growth (Octasyilva et al., 2022; Retnaningdiah & Muafi, 2023; Sari & Sari, 2022). Formal support refers to structural and regulatory-based instruments, such as the provision of program policies, access to information technology, and government-facilitated financial support. This form of support, for example, includes soft loan schemes, incentive payments, and streamlined business processes, which can directly reduce operational and production risks while encouraging innovative business activities. Formal support initiatives generally originate from central and regional government agencies, and businesses need to carefully evaluate whether this form of support aligns with their business transformation needs before optimally utilizing it.

Informal support is more relational and contextual, relying on a company's ability to build strong relationships with government agencies and key actors in the ecosystem (Parente et al., 2019). This support does not rely on a basic regulatory framework, but rather on emotional, social, and behavioral connections, often mediated through informal networks and personal relationships. Through this approach, companies can obtain strategic information, expand access to policy

opportunities, and strengthen their bargaining position in public procurement processes (Crovini et al., 2021). Informal connections also contribute to building trust and consensus among stakeholders, ultimately leading to strategic collaboration and cross-sector partnerships. Both formal and informal support play a crucial role in helping companies, particularly MSMEs, overcome challenges arising from imperfect institutional systems. Through the presence of protective mechanisms and facilities from government agencies, businesses can easily adapt to market dynamics and policy uncertainty. The government, in this regard, plays a crucial role in planning support systems, ensuring that any interventions and assistance provided are systematic, inclusive, and contextual. Structured institutional support and a structured framework for external risk mitigation, strengthening competitiveness, and accelerating the transformation process are long-term strategies (Bari et al., 2022; Moore & Manring, 2009).

This understanding highlights the dual role of institutions in shaping MSME behavior. Formal support provides a structured environment and direct data sources, while informal support offers flexibility, timely information, and access to data sources outside formal channels (Sharma, 2021). This dual nature means that institutions are not simply created but also facilitated and enabled through explicit and implicit rules. The stronger influence of informal support suggests that trust and personal connections can sometimes overcome bureaucratic barriers, especially in developing country contexts. For policymakers, this means that while strong formal policies are crucial, creating an environment where informal networks and relationships can grow (ethically) is equally crucial for the holistic development and sustainability of MSMEs (Elshani, 2024). Formal institutional support provides structured resources, mitigates risks, and ensures policy compliance, which directly improves performance. Meanwhile, informal support, through political connections and timely information, fosters greater innovation and competitive advantage, often with a stronger impact. Both types of support work together to address institutional deficiencies and enhance competitiveness (Kusminov & Boldyreva, 2024).

Table 2 Forms and Mechanisms of Institutional/Government Policy Support for MSMEs

Form of Institutional/Policy Support Impact	Mechanism/Description
Financial Assistance	Subsidies, tax incentives, loan guarantees, and direct loan programs reduce financial pressure, promote technological innovation, and increase capital liquidity.
Innovation-Enhancing Policies	Innovation subsidies and intellectual property protection stimulate R&D investment, facilitate the output and transformation of technological innovation achievements.
Favorable Regulatory Frameworks	Create a better development space for MSMEs, reduce bureaucratic burdens, and ensure streamlined compliance.
Capacity Building Programs	Help MSMEs improve their internal capabilities through skills training and management development.
Market Access Initiatives	Help MSMEs expand their reach through export support and local market promotion.
Formal Support	Provide structured programs and policies, information technology, and financial support; reduce production and operational risks, encourage innovation, and improve performance.
Informal Support	Obtained through strong relationships with government departments, provides useful information, promotes innovation, and enhances competitive advantage through political connections.

Networks and Entrepreneurship Ecosystems

MSMEs rely heavily on external networks to access essential strategic resources, such as knowledge, technology, finance, or skills, which are necessary for innovation and growth (Partanen et al., 2020). These networks are not only tools for growth but also a vital source of resilience and sustainability for MSMEs. Networks can take various forms, going beyond traditional buyer-supplier

relationships, reflecting the relationships MSMEs develop with their ecosystems through exchanging products, services, and assets, or through open innovation and collaboration (Partanen et al., 2020). These include production networks, knowledge and innovation networks (involving universities and knowledge-intensive business service providers), and strategic partnerships. Network competence, namely the ability of MSMEs to manage and leverage their networks, significantly mediates the positive relationship between institutional drivers and MSME international performance (Torkkeli et al., 2019). This suggests that a conducive institutional environment can foster networking competencies, enabling more successful internationalization.

An entrepreneurial ecosystem is a complex network of interconnected components that collectively provide a conducive environment for establishing, expanding, and sustaining business ventures (Roundy et al., 2017). Components of an entrepreneurial ecosystem include actors, resources, and processes that facilitate entrepreneurship, including market dynamics, government agencies, financial institutions, and educational institutions (Roundy et al., 2017). Studies show that a robust entrepreneurial ecosystem, encompassing entrepreneurship education, an entrepreneurial culture, government support, social support, and ongoing digital innovation, plays a crucial role in influencing sustainable business performance (Pustovrh et al., 2020). A robust entrepreneurial ecosystem ensures start-ups' production, promotion, and proliferation by offering a conducive environment and support system. Social support, a crucial component of the entrepreneurial ecosystem, encompasses all informal and formal networks that provide positive reinforcement, emotional resources, and guidance to entrepreneurs (Pustovrh et al., 2020).

Networks serve as social and intellectual capital for MSME resilience (Daou et al., 2019). Given that MSMEs often face limited resources, knowledge, and technical capabilities, external networks act as a vital channel to overcome internal constraints. Networks democratize access to resources that larger firms may lack internally. Therefore, policy interventions should actively promote network formation and strengthen ecosystem components. MSMEs' reliance on external networks to access strategic resources such as knowledge, finance, and skills leads to greater innovation, growth, and resilience. Furthermore, a robust entrepreneurial ecosystem, encompassing social and government support, creates a conducive environment for collaboration and information sharing, which in turn enhances start-up proliferation and business sustainability (Závodská & Šramová, 2018).

DISCUSSION

Synthesis of Key Findings

The Relationship between Resilience Components, Digital Transformation, Institutional Support, and Networks: MSME resilience cannot be attributed to a single factor but results from a complex interaction between internal capabilities and external support. Internal capabilities include entrepreneurial orientation, adaptability, digital literacy, and leadership (Saezow & Sukhabot, 2025). Digital transformation, driven by digital literacy, has emerged as a key strategy mediating MSMEs' ability to adapt and innovate during times of crisis (Ghrbeia & Alzubi, 2024). This process is also strengthened by digital networks facilitating knowledge transfer and network effects. Institutional support, formal (such as policies and subsidies) and informal (such as political connections), significantly influences MSME innovation and performance. This, in turn, enhances their capacity to undertake digital transformation and effectively utilize networks. A strong entrepreneurial ecosystem, encompassing government, educational, cultural, and social support, creates a conducive environment for MSMEs to develop these resilience components and overcome existing obstacles (Sahu & Panda, 2024).

MSME resilience results from the convergence of internal and external strategies (Sindhvani et al., 2023). These findings indicate that the previously discussed components are not separate pillars but deeply interconnected. For example, digital literacy, a component of resilience, directly supports digital transformation as a strategy. Institutional support can provide the resources necessary for digital transformation, while networks facilitate knowledge transfer for digital adoption and foster an entrepreneurial orientation. The concept of resilience meta-

capabilities demonstrates the ability to integrate these various elements (Saezow & Sukhabot, 2025).

This suggests that truly resilient MSMEs build strong internal capabilities and actively leverage and are supported by their external environment (DiBella et al., 2023). A holistic approach is needed, where policies, ecosystem development, and internal strategic choices must be aligned. Failure in one area, such as a lack of government support for digital infrastructure, can undermine efforts in other areas, such as the ability of MSMEs to adopt digital technologies. Therefore, internal capabilities (entrepreneurial orientation, adaptability, and digital literacy) and external support (networks, institutional support, and entrepreneurial ecosystems) synergistically enhance MSME resilience. Specifically, institutional support (both formal and informal) enables digital transformation and network utilization, which then directly contributes to MSME adaptive capacity and overall resilience (Hokmabadi et al., 2024).

1. Key Challenges Faced by MSMEs and Coping Strategies

MSMEs face critical constraints, including cash flow shortages and supply chain disruptions, exacerbated by a lack of preparedness and over-reliance on internal funds and local institutions. Other significant challenges include limited resources, knowledge, technical capabilities, resistance to change, short-term profit-oriented myopia, and difficulties accessing advanced technology. Figure 2 shows that this coping strategy represents a paradigm shift from passive reaction to proactive adaptation. The challenges faced by MSMEs are inherent, but the response to them can be transformative, leading to new business models and increased competitiveness. This implies the need for a mindset shift for MSME owner-managers, who may initially perceive their impact as minimal or prefer the government to take the lead. The crisis and critical constraints MSMEs face, such as cash flow shortages and supply chain disruptions, create an urgent need for strategic adaptation (Parker et al., 2009).



Figure 2: Strategies to overcome challenges faced by MSMEs

This encourages implementing proactive coping strategies, including digital transformation, collaboration, and innovation, which ultimately enhance resilience and the ability to create opportunities, moving beyond mere survival to sustainable growth.

Theoretical and Practical Implications

1. Contribution to Resilience and Entrepreneurship Theory

This study enriches the understanding of MSME resilience by synthesizing key components: Entrepreneurial Orientation, Networks, Digital Literacy, and Adaptability. Furthermore, this study conceptualizes resilience as a meta-capability that enables resource reconfiguration (Saezow & Sukhabot, 2025). This contributes to Resource-Based Theory (RBV) by demonstrating how MSMEs can achieve a competitive advantage by strategically using existing resources, especially in rapidly changing conditions. This study also broadens the understanding of how institutional factors, both formal and informal, and network capabilities mediate entrepreneurial outcomes. This approach combines institutional theory and the dynamic capabilities view to explain the successful internationalization of MSMEs. The emphasis on policy synergies fills a gap in existing research on how various policy interventions interact to influence MSME development (Das & Rangarajan, 2020).

2. Implications for Policymakers and MSME Managers

The findings of this study have important implications for policymakers and MSME managers, particularly in the context of the need for an adaptive and collaborative framework. As demonstrated by the crisis and the varying characteristics of MSMEs, the complex and dynamic environment makes static and isolated interventions ineffective. Therefore, an adaptive and collaborative framework that encompasses policy synergies, formal/informal support, and ecosystem development is needed to enhance MSME capacity to face uncertainty and achieve sustainable resilience.

Parties	Strategy/Intervention	Explanation
Policy Makers	Holistic and Integrated Policy Approach	To strengthen the resilience and growth of MSMEs, design integrated policies (finance, innovation, and regulation) like the model in Thanh Hoa, Vietnam.
	Digital Capacity Building	Improve MSME digital literacy, adopt technologies such as cloud and cybersecurity, and encourage digital innovation.
	Network and Ecosystem Strengthening	Encourage MSME collaboration with universities, service providers, and other businesses; strengthen an entrepreneurial culture and government support.
	Responsive and Collaborative Institutional Support Focus on Internal Adaptability and Innovation	Streamline bureaucracy, provide liquidity assistance, and tax relief during and after the crisis. Encourage MSMEs to develop adaptability and innovation through crisis management teams and a culture of organizational ambidexterity.
	Continuous and Evidence-Based Research	Support research highlighting policy synergies, sector-specific impacts, and long-term analysis, especially in developing countries.
MSME Managers	Developing an Entrepreneurial Orientation	Enhance the ability to seek opportunities and take risks as part of business strategy.
	Investing in Digital Literacy	Make digital transformation a core strategy by adopting technology and digital marketing.
	Building and Leveraging External Networks	Actively collaborate to access resources, knowledge, and strategic opportunities.
	Enhancing Organizational Adaptability	Strengthen the ability to reconfigure resources and foster a culture of continuous learning.
	Establishing a Crisis Management Team Seeking Institutional Support	Develop proactive resilience plans to effectively face and respond to shocks. Accessing assistance from formal and informal institutions to overcome obstacles and seize available opportunities.

Research Limitations and Future Research Directions

While this systematic review provides a comprehensive understanding of MSME resilience, there are several limitations in the existing literature that need to be addressed in future research. First, the literature on MSME resilience varies widely in its definition and measurement, and is not

yet conclusive regarding the factors that influence it universally. This creates interpretive ambiguity that can limit study comparisons (Saad et al., 2021).

Second, there is a lack of in-depth research on policy synergies, namely, how various policy interventions interact and produce greater combined effects. Understanding these synergies is crucial for designing more effective policy frameworks (Sakib & Rahman, 2024). Third, existing studies often lack comprehensive sector-specific analysis, which can impact the contextual relevance of the findings. The characteristics and needs of MSMEs can vary significantly across sectors, making the generalizability of findings challenging (Saezow & Sukhabot, 2025).

Fourth, previous research on the effects of disasters on MSMEs and their coping strategies remains limited, with little reflection on the long-term impacts of epidemics (Hossain et al., 2022). Furthermore, research examining MSME crises and crisis recovery strategies from the practical experiences of MSME businesses is scarce (Hossain et al., 2022). Finally, there is a significant knowledge gap in understanding how dimensions of institutional support influence the sustainability of women-owned businesses in developing countries.

Table 3: Future research directions based on the identified limitations

Research Direction	Research Focus	Relevance
In-depth Empirical Research	Testing the MSME resilience framework and the specific mechanisms of its formation, particularly in the context of transitional entrepreneurship.	Important for theoretical validation and strengthening contributions
Policy Synergy Analysis	Examining policy combinations (financial, digital, regulatory) and their impact on various MSME performance indicators.	Assisting in the formulation of integrated and effective policies
Contextual Case Study	Exploring qualitative studies across sectors and regions to understand policy implementation and network dynamics.	Uncovering local dynamics not covered by surveys
Long-Term Impact of Digital Transformation	Analyzing the long-term effects of digitalization on MSME resilience and the development of organizational ambidexterity.	Relevant in the post-pandemic era and technological disruption
Institutional Support for Vulnerable Groups	Focusing on vulnerable MSMEs, such as women-owned ones in developing countries, and how they access relevant institutional support.	Reducing inequality and strengthening inclusivity
The Role of Socio-Cultural Factors	Investigating the influence of cultural and social norms (e.g., stigma against failure) on entrepreneurial activity and business resilience.	Supporting policies based on local wisdom and culture

CONCLUSION

This systematic literature review confirms that MSME resilience is a dynamic concept formed by the interaction of entrepreneurial orientation, digital literacy, external networks, and organizational adaptability. Digital transformation plays a central role in strengthening the adaptive capacity of MSMEs, while institutional support and government policies have been shown to enhance business sustainability, although their effectiveness is highly dependent on regional and sectoral contexts. Facing financial crises and supply chain disruptions, proactive strategies based on innovation and collaboration have been shown to significantly enhance MSME resilience. Therefore, a holistic and synergistic policy approach is recommended across sectors, strengthening MSME digital literacy and capabilities, and facilitating collaborative entrepreneurial networks and ecosystems. At the institutional level, rapid response and targeted support, including streamlining bureaucracy and providing fiscal incentives, are essential, particularly during crises. Internally, MSMEs need to enhance their innovation and adaptation capacity through the establishment of crisis management teams and an ambidexterous organizational culture. To strengthen the basis for policymaking, in-depth, contextual, and evidence-based research is needed, including sector-specific studies, policy synergy analyses, and mapping the needs of vulnerable MSME groups such as women-owned businesses in developing countries.

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