

Resilience of SMEs in Facing Economic Crises: Business Model Adaptation, Product Diversification, and Resource Optimization

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Abstract. SMEs play a strategic role in the economy but are highly vulnerable to economic crises. This study aims to analyze SME resilience strategies in navigating economic downturns through business model adaptation, product diversification, and resource optimization. Using a literature review approach with qualitative methods and descriptive analysis, data were collected from Google Scholar and other credible sources for the period 1957–2025. From the initial 50 articles identified, a rigorous selection process resulted in 34 relevant articles. The findings indicate that SMEs capable of adjusting their business models to market dynamics have a higher chance of survival. Product diversification has been proven effective in reducing business risks, while resource optimization enhances operational efficiency and competitiveness. The theories of Organizational Resilience, Business Model Canvas, and Resource-Based View serve as the foundation for understanding the factors influencing SME resilience. Case studies demonstrate that Indonesian SMEs adopting digital innovations and adaptive strategies perform better in times of crisis. This study provides implications for business practitioners, policymakers, and academics in designing more adaptive strategies to enhance SME sustainability.

Keywords: SME Resilience, Economic Crisis, Business Model Adaptation, Product Diversification, Resource Optimization, Digital Innovation.

1. Introduction

Micro, Small, and Medium Enterprises (SMEs) have been a crucial pillar of Indonesia's economy, contributing significantly to job creation and Gross Domestic Product (GDP) [1]. However, SMEs are also among the most vulnerable sectors to economic shocks, whether on a national or global scale. Economic crises, such as those triggered by the COVID-19 pandemic, inflation surges, or exchange rate fluctuations, often have direct impacts on small-scale businesses [2]. In such conditions, the ability to endure and recover becomes critical. The issue of SME resilience is increasingly relevant, particularly in relation to concrete strategies that can be employed to navigate recurring economic crises.

Organizational resilience in SMEs refers to the adaptive capacity of business owners in managing pressures, modifying strategies, and optimizing resources to ensure business continuity. When a crisis strikes, SMEs are required not only to survive in the short term but also to restructure their business models to align with changing market conditions. Shifts in consumer behavior, distribution disruptions, and capital constraints are among the main challenges forcing SMEs to develop high adaptability [3]. Therefore, discussions on SME resilience in a crisis context should not only focus on endurance but also on proactive and innovative aspects in crafting solutions based on available resources.

One of the primary strategies employed by SMEs in response to crises is business model adaptation. This adaptation involves changes in marketing approaches, operational process redesign, and digital transformation that enable SMEs to continue reaching customers despite physical restrictions. For instance, many SMEs that previously relied on offline sales have shifted to e-commerce platforms and social media as their primary consumer engagement channels [4]. This adaptation process is not straightforward, as it requires a mindset shift,

enhanced technological capacity, and significant investment of time and resources. However, SMEs that can implement these changes swiftly and effectively demonstrate a higher level of resilience.

In addition to business model adaptation, product diversification has emerged as a widely adopted strategy among SMEs to navigate economic uncertainty. Diversification allows business owners to avoid reliance on a single product or market, ensuring that if one business line is disrupted, alternative revenue streams remain available [5]. This practice can take various forms, such as expanding product variations that align with new consumer needs, entering new markets, or even pivoting to an entirely different business direction. The success of diversification heavily depends on an SME's ability to recognize market trends, innovate creatively, and respond rapidly to emerging opportunities.

Optimizing resources is also a crucial pillar in strengthening the resilience of Micro, Small, and Medium Enterprises (MSMEs). In this context, resources encompass not only financial capital but also human resources, social networks, knowledge, and technology. MSMEs that can efficiently and creatively manage their resources have a competitive advantage in maintaining operations even under intense pressure [6], [7]. For instance, by leveraging local resources, establishing strategic partnerships, and retraining employees, MSMEs can enhance their internal capacity to navigate uncertainties [8]. On the other hand, a lack of access to resources or an inability to manage them effectively exacerbates MSME vulnerability during crises.

In this literature review, it is essential to link various theories and approaches relevant to the concept of MSME resilience. Organizational Resilience Theory explains that an organization's resilience is determined by its adaptive capacity, innovation, preparedness, and effective communication. Additionally, the Resource-Based View (RBV) approach emphasizes the importance of managing unique resources as a key factor in building sustainable competitive advantages. Previous studies also indicate that MSMEs with high flexibility, agile organizational structures, and leadership responsive to change have a greater chance of surviving crises [9], [10], [11]. Therefore, a strong theoretical foundation is necessary to comprehensively examine the strategies implemented by MSMEs.

The local context in Indonesia also adds a unique dimension to the discussion of MSME resilience. Various government policies, such as subsidized interest rates on People's Business Credit (KUR), MSME digitalization programs, and fiscal stimulus during crises, serve as external factors influencing business sustainability. However, not all MSMEs have equal access to these policies, necessitating a more inclusive and community-based approach. In many cases, strong social networks and support from the surrounding environment become the primary determinants of MSME survival [12]. Thus, understanding local dynamics and business culture is essential in developing more effective resilience strategies.

A review of previous literature reveals that although numerous strategies have been proposed for building MSME resilience, few studies systematically integrate the three key aspects—business model adaptation, product diversification, and resource optimization—within a single analytical framework. However, these three approaches are often interconnected, forming a synergy that can strengthen overall MSME resilience. By analyzing the relationships among them, this study aims to provide a more comprehensive understanding of how MSMEs can not only survive but also grow amidst ever-changing economic uncertainties.

Based on this background, this study aims to examine in depth how MSMEs in Indonesia build resilience through business model adaptation, product diversification, and resource optimization. A literature review approach is employed to identify common patterns, best practices, and knowledge gaps that can serve as a foundation for future policies and strategic interventions. Therefore, the findings of this study are expected to provide both theoretical and practical contributions to strengthening MSME sustainability in facing future economic crises.

1.1. MSME Resilience

MSME resilience refers to the ability of micro, small, and medium enterprises (MSMEs) to withstand, adapt to, and recover from external pressures, including economic crises, market changes, and operational disruptions. This concept is rooted in the Organizational Resilience Theory developed by Burnard & Bhamra (2011), which emphasizes the importance of flexibility, innovation, and recovery capacity in sustaining business continuity [13]. In the MSME context, resilience can be achieved through strategies such as revenue diversification, business digitalization, and strengthening social networks and partnerships. Case studies in Indonesia reveal that highly resilient MSMEs often adjust their business strategies to market conditions, as exemplified by Kopi Kenangan, which shifted from offline to online sales during the COVID-19 pandemic, allowing it to survive and expand.

1.2. Economic Crisis

An economic crisis is a condition characterized by significant economic instability, marked by declining economic growth, rising unemployment, uncontrollable inflation, or prolonged recession. In the MSME context, economic crises often lead to decreased market demand, difficulties in accessing financing, and disruptions in supply chains and production. According to Economic Crisis Management Theory (Grewal & Tansuhaj, 2001), businesses that survive crises are those that implement risk mitigation strategies, business model innovation, and operational efficiency [14]. The 1998 financial crisis and the COVID-19 pandemic are concrete examples where many MSMEs went bankrupt due to weak financial resilience and lack of market adaptation, while others thrived through digital innovation and revenue diversification.

1.3. Business Model Adaptation

Business Model Adaptation is the process of adjusting business strategies to remain relevant amid external environmental changes, whether in market dynamics, regulations, or technology. This concept is based on Business Model Innovation Theory (Chesbrough, 2010), which asserts that organizations capable of modifying their business models to meet market demands gain a competitive edge [15]. MSMEs that successfully adapt their business models typically exhibit high flexibility in operations and marketing, as demonstrated by Gudeg Yu Djum, which expanded its reach by integrating online delivery services. This traditional business has remained resilient despite significant shifts in consumer trends by shifting to digital platforms and expanding distribution networks.

1.4. Product Diversification

Product Diversification is a strategy employed by MSMEs to develop product or service variations to mitigate business risks and expand market opportunities. This strategy is based on Product Diversification Theory (Ansoff, 1957), which explains that businesses offering a broader range of products tend to be more resilient to shifts in consumer demand and market volatility [16]. In practice, many MSMEs in Indonesia's culinary and fashion sectors adopt this strategy, such as Makaroni Ngehe, which initially sold only one type of snack but later introduced multiple flavor variants to attract a broader market segment. Product diversification also enables MSMEs to remain adaptable to changing consumer preferences and market trends.

1.5. Innovative Strategies

Resource Optimization refers to MSMEs' efforts to efficiently and effectively utilize their resources—whether financial capital, workforce, business networks, or technology—to enhance productivity and competitiveness. This concept is grounded in the Resource-Based View (RBV) Theory developed by Barney (1991), which posits that competitive advantage can be achieved through strategic management and optimization of internal resources [17]. Many MSMEs in Indonesia have begun implementing this strategy, such as Es Teler 77, which improved operational efficiency by adopting a technology-based inventory management system to minimize raw material wastage. MSMEs can reduce costs and ensure long-term business sustainability by optimizing resources.

1.6. Digital Innovative

Digital Innovation in the MSME context refers to the utilization of digital technology to enhance operational efficiency, expand market reach, and improve customer engagement. Based on Digital Transformation Theory by Westerman et al. (2014), businesses that adopt digital technology tend to be more resilient and competitive in dynamic markets [18]. Many Indonesian MSMEs have transitioned to digital platforms, such as Batik Trusmi, which leverages e-commerce and social media to access a wider market, including exports. MSMEs can increase brand visibility by adopting digital innovation, streamline transactions, and enhance customer experience, thereby boosting competitiveness and survival prospects in uncertain economic conditions.

2. Method

This study is a literature review conducted using a qualitative approach. This approach was chosen to gain an in-depth understanding of various MSME resilience strategies in facing economic crises through the interpretation of previous research findings. This study does not involve primary data collection through surveys or interviews but instead relies on secondary data in the form of relevant scientific articles and publications published between 1957 and 2025. The analytical method used in this study is qualitative descriptive analysis, which involves classifying, interpreting, and elaborating on findings from various literature sources to identify common patterns, themes, and strategies employed by MSMEs in building resilience. The analysis is conducted

by systematically reviewing the content of articles to explore how business model adaptation strategies, product diversification, and resource optimization are applied by MSMEs in various economic crisis contexts. The data sources for this study were obtained from Google Scholar as the primary academic search engine, as well as from credible websites such as official ministry pages, international organizations, and nationally and internationally indexed journals. The selection criteria for articles included relevance to the research focus, MSME context, publication period within 1957–2025, and the methodological quality and empirical contribution of each article. The initial search process yielded 50 articles that matched the main keywords, such as “MSME resilience,” “business strategies during crises,” “MSME product diversification,” and “small business resource management.” However, after a rigorous selection process based on relevance, originality, and contribution to the research focus, only 34 articles were ultimately used as primary sources for analysis. This selection process was carried out to ensure that the reviewed articles provide substantive contributions to understanding MSME resilience dynamics. During the analysis process, each article was thoroughly examined to identify concrete strategies used by MSMEs in responding to crises, both at the individual entrepreneur level and the organizational level. The collected findings were then categorized into three main focuses: business model adaptation, product diversification, and resource optimization. These categorizations were then used as the basis for constructing an interpretative narrative and conceptual conclusions in this study.

3. Result and Discussion

The resilience of micro, small, and medium enterprises (MSMEs) in facing economic crises is not merely a reflection of their ability to survive but also demonstrates their adaptive and innovative capacity in responding to the dynamic business environment. As explained in the Organizational Resilience theory by Burnard and Bhamra (2011), this theory highlights the importance of absorptive capacity in absorbing shocks, adaptive capacity in adjusting operations, and restorative capacity in rebuilding a stronger system after a crisis, indicating that resilient MSMEs do not merely endure but also evolve with improved strategies [13]. For instance, batik MSMEs in Kampung Batik Laweyan, Solo, successfully mitigated the pandemic's impact by shifting sales from physical stores to online platforms like Shopee and Tokopedia [19]. They also adopted digital marketing through social media and innovated with health-themed batik designs to attract consumer interest. This demonstrates that resilience is not only about risk mitigation but also about seizing opportunities and building sustainable competitiveness.

Business model adaptation strategies in building MSME resilience represent not only tactical adjustments but also strategic capabilities to pivot based on market dynamics and resource constraints. As described in the Business Model Canvas theory by Osterwalder and Pigneur (2010), this framework emphasizes the importance of flexibility in adjusting value propositions, distribution channels, and customer relationships amid uncertainty [20]. A concrete example is seen in culinary MSMEs such as Sambal Bakar Indonesia, which initially relied on dine-in services but later shifted to a delivery-based model through digital platforms like GoFood and ShopeeFood. They simplified their menu to enhance production and distribution efficiency, optimized pricing strategies to remain competitive, and leveraged customer data analytics for personalized promotions and loyalty programs [21]. This demonstrates that business transformation is not only about survival but also about building new competitive advantages through technology utilization, operational efficiency, and adaptation to shifting consumer behavior caused by external disruptions such as pandemics or market preference changes.

Product diversification is an additional strategy and a fundamental step in strengthening MSME resilience by creating more stable revenue streams and adapting to changes in market demand. As explained in the Product Portfolio Management theory by Henderson (1970), diversification is crucial to reducing dependence on a single business line and enhancing marketing strategy flexibility [22]. In practice, MSMEs like Kopi Tuku rely on selling coffee beverages while expanding their product portfolio to include snacks and merchandise such as tumblers and tote bags [23]. These products serve as both additional revenue streams and marketing tools that reinforce brand identity. This strategy is further strengthened by leveraging social media to build a loyal customer community, utilizing data analytics to identify consumer preferences, and integrating with e-commerce platforms to expand market reach. This shows that effective diversification is not just about adding product variations but must also align with comprehensive branding and distribution strategies to enhance competitiveness and business sustainability in uncertain economic conditions.

Resource optimization within MSMEs is both an operational efficiency measure and a strategy to create sustainable competitive advantages through the utilization of unique and difficult-to-replicate assets. As explained in the Resource-Based View (RBV) theory by Barney (1991), business success is significantly determined by how MSME actors manage and combine tangible resources such as capital, raw materials, and technology as well as intangible resources such as workforce skills, local knowledge, and business networks

[17]. A real example can be seen in Tenun Ikat MSMEs in Sikka Regency, East Nusa Tenggara, which differentiate their products through natural dyes and traditional motifs while employing a collective strategy by forming cooperatives to strengthen their bargaining power in national and international markets [24], [25], [26]. They also leverage digital media to expand distribution reach and adopt a community-based approach to enhance production quality and maintain sustainable raw material supplies. This illustrates that resource optimization is not only about cost reduction but also about building synergy between product uniqueness, production efficiency, and market access to ensure long-term business sustainability.

The unpreparedness of MSMEs in implementing optimal strategies, particularly in terms of digitalization and business management, reflects their limited internal capacity to absorb, understand, and apply new knowledge. As explained in the Absorptive Capacity theory by Cohen and Levinthal (1990), the success of an organization in adopting external innovations depends significantly on its ability to internalize and implement the acquired information [27]. In the context of MSMEs in rural areas, many entrepreneurs still face challenges in utilizing digital technologies such as e-commerce, app-based bookkeeping, or data-driven marketing. This is due to low digital literacy and limited access to relevant training [4]. Although digital transformation opportunities are widely available, they struggle to fully capitalize on them. This underscores the need for intervention from the government, financial institutions, and digital platforms to build an ecosystem that supports the internal capacity strengthening of MSMEs. This can be achieved through technical assistance, continuous digital literacy programs, and access to resources that enable them to integrate technology into their business models. Thus, MSMEs can not only survive competition but also develop stronger competitiveness in the ever-evolving digital economy.

Public policy and ecosystem support play a crucial role in enhancing MSME resilience by creating a conducive environment for innovation and business growth. As explained in the Institutional Support theory, the sustainability of MSMEs is influenced not only by internal factors but also by the quality of regulations, access to financing, and technological support provided by governments and related institutions [28], [29]. Programs such as *Bangga Buatan Indonesia* (BBI) and digital training from the Ministry of Cooperatives and SMEs have provided incentives for MSMEs to adapt to market changes. However, their effectiveness largely depends on how well MSME players can optimize these opportunities. This can be seen in the craft MSMEs sector in Yogyakarta, which has successfully utilized training programs to develop digital marketing skills, gain access to People's Business Credit (KUR) for expansion capital, and shift to an e-commerce-based business model that allows them to reach export markets [30], [31], [32]. The success of public policies in supporting MSME resilience is not only determined by the presence of these programs but also by the synergy between adaptive regulations, technological readiness, and the active involvement of MSME players in adopting the provided opportunities to ensure sustainable growth amid economic challenges.

Collaboration is a key element in building MSME resilience, as explained in the Collaborative Advantage concept by Kanter (1994) [33]. This concept emphasizes that cross-sector collaboration can create greater value than individual efforts by enabling resource sharing, expanding market access, and enhancing competitiveness through synergies of expertise and social capital. In practice, communities such as the *Indonesia Creative Cities Network* (ICCN) play a strategic role in strengthening the MSME ecosystem. They provide industry-based training, business incubation programs that connect entrepreneurs with mentors and investors, and facilitate collaboration among creative players to develop innovative products and expand distribution channels [34]. In times of crisis, such collaborations serve as an effective risk mitigation mechanism. MSMEs can share supply chain networks, gain access to collective funding, and leverage joint marketing platforms to increase product visibility both nationally and globally. This demonstrates that MSME resilience is not solely dependent on internal strategies but also on active participation in a collaborative ecosystem that provides continuous support in navigating dynamic market challenges.

MSME resilience is not a static attribute but rather the result of a complex dynamic between internal adaptation strategies, resource utilization, and external ecosystem support. These three elements interact and shape business endurance in the long run. Various theories, such as Organizational Resilience, Resource-Based View, Absorptive Capacity, and Collaborative Advantage, suggest that MSME resilience cannot be achieved through a single approach. Instead, a holistic strategy is required, encompassing digital-based business model transformation, product diversification as a market risk mitigation strategy, and the optimization of existing resources to enhance operational efficiency. Additionally, collaboration with various stakeholders is a crucial factor in strengthening competitiveness and access to new opportunities. The success of MSMEs in overcoming crises depends on both the resilience of individual entrepreneurs and the effectiveness of public policies. Supportive regulations, ease of access to financing, and training programs focused on improving technical skills while providing continuous strategic assistance are essential elements of this ecosystem. Only through a comprehensive approach that includes business innovation, strengthening collaborative networks, and inclusive

regulatory support can MSMEs in Indonesia transform from merely surviving to thriving sustainably amid global economic uncertainties.

4. Conclusion

This study confirms that the resilience of micro, small, and medium enterprises (MSMEs) in facing economic crises is significantly influenced by business model adaptation strategies, product diversification, and resource optimization. Based on the theories of Organizational Resilience, Business Model Canvas, and Resource-Based View, the findings indicate that MSMEs capable of adjusting their business models to market conditions have a higher chance of survival compared to those that do not implement changes. Product diversification has also proven to be an effective strategy in mitigating business risks, while resource optimization helps MSMEs enhance efficiency and competitiveness. Case studies from various MSME sectors in Indonesia demonstrate that innovation, technology adoption, and business ecosystem support significantly contribute to business resilience. Therefore, the sustainability of MSMEs amid crises depends on a combination of adaptive internal strategies and a supportive external environment.

The theoretical implications of this study contribute to the literature on organizational resilience, particularly in the context of MSMEs. The integration of Organizational Resilience, Business Model Adaptation, and Resource-Based View theories provides a holistic perspective on the factors influencing MSME resilience during economic crises. These findings support previous research, which suggests that MSMEs with flexible strategies and optimized resources tend to be more resilient in unstable economic conditions. The practical implications for MSME actors highlight the importance of business model innovation, product diversification, and maximizing resource utilization to enhance business endurance. The adoption of digital technology is also a crucial factor in ensuring business sustainability. The case studies presented illustrate that MSMEs actively pivoting their strategies—such as developing digital-based services or expanding their markets—demonstrate higher resilience in dealing with economic uncertainties. The policy implications of this study provide a foundation for governments and other stakeholders to design more adaptive policies that cater to MSME needs. Programs such as digital mentoring, innovation-based financing access, and more flexible fiscal policies for MSMEs undergoing business transformation need to be strengthened to support the sector's sustainability during crises.

For MSMEs, business owners must actively monitor market changes and be willing to adjust their business models based on trends and customer demand. Developing internal capacity in digital technology usage and improving financial literacy are also strategic steps to enhance business resilience. For governments and support institutions, increasing MSME access to digital training and business model innovation is essential. Tax incentive policies, performance-based capital assistance, and the integration of MSMEs into the supply chains of large industries should be reinforced to improve the sector's competitiveness. For academics and researchers, further studies are needed to explore MSME resilience strategies in specific sectors such as manufacturing, services, or the creative economy. Comparative regional analyses are also required to understand the factors influencing the success of adaptation strategies in different geographical and economic contexts.

The limitations of this study include the use of literature reviews as the primary source, with data obtained from Google Scholar and certain credible websites from 1957 to 2025. The lack of access to primary data or direct interviews with MSME actors may affect the depth of the analysis regarding resilience factors in daily business practices. Generalization limitations also pose a challenge in this study, as the findings cannot be universally generalized due to the varying characteristics of MSMEs depending on sector, location, and access to resources. The case studies used in this research are primarily from Indonesia, meaning that the implications of the findings may not be fully applicable to a global context. The variable scope limitation in this study focuses only on three main strategies: business model adaptation, product diversification, and resource optimization. Other factors, such as the role of social networks, regulatory policies, and the adoption of specific technologies, still need further exploration to provide a more comprehensive picture of MSME resilience during crises.

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