

## **The Role of Sustainable Innovation in Enhancing MSME Resilience as a Driver of Community Empowerment**

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### **Abstract**

Sustainable innovation has become an important topic across various business sectors, particularly in micro, small, and medium enterprises (MSMEs). For MSMEs, sustainable innovation is crucial for surviving competition and creating significant added value for society. This study focuses on how sustainable innovation can enhance the resilience of MSMEs in fulfilling their role as a driver of community empowerment. The research employs a literature review method with a qualitative approach and descriptive analysis. Data for this study were sourced from the Google Scholar database, covering the period from 2014 to 2024. The findings indicate that sustainable innovation plays a significant role in improving the resilience of MSMEs as a driver of community empowerment. MSMEs are better equipped to face various challenges and contribute to social and economic development in their communities by adopting environmentally friendly, operationally efficient, and market-relevant innovations. Case studies such as Batik Jogja Gallery, Warung Pintar, Kampung Marketer, and EcoBali Recycling illustrate that MSMEs that successfully innovate sustainably can generate enduring economic, social, and environmental value. However, this success heavily relies on support from various stakeholders, particularly regarding access to technology, financing, and favorable regulations.

**Keywords:** Sustainable Innovation, MSME Resilience, Community Empowerment

## **Peran Inovasi Berkelanjutan dalam Meningkatkan Ketahanan UMKM sebagai Motor Pemberdayaan Masyarakat**

### **Abstrak**

Inovasi berkelanjutan telah menjadi topik penting dalam berbagai sektor bisnis, terutama pada usaha mikro, kecil, dan menengah (UMKM). Bagi UMKM, inovasi berkelanjutan penting untuk bertahan dalam persaingan dan untuk menciptakan nilai tambah yang signifikan bagi masyarakat. Penelitian ini berfokus pada bagaimana inovasi berkelanjutan dapat meningkatkan ketahanan UMKM dalam menjalankan perannya sebagai motor pemberdayaan masyarakat. Penelitian ini menggunakan metode tinjauan pustaka dengan pendekatan kualitatif dan analisis deskriptif. Data dalam penelitian ini diambil dari database Google Scholar dengan periode pencarian dari tahun 2014 hingga 2024. Hasil studi menunjukkan bahwa inovasi berkelanjutan berperan signifikan dalam meningkatkan ketahanan UMKM sebagai motor pemberdayaan masyarakat. Dengan mengadopsi inovasi yang ramah lingkungan, efisien secara operasional, dan relevan dengan kebutuhan pasar, UMKM mampu bertahan dalam menghadapi berbagai tantangan dan berkontribusi terhadap pembangunan sosial dan ekonomi masyarakat. Contoh kasus seperti Batik Jogja Gallery, Warung Pintar, Kampung Marketer, dan EcoBali Recycling menunjukkan bahwa UMKM yang berhasil berinovasi secara berkelanjutan mampu menciptakan nilai ekonomi, sosial, dan lingkungan yang berkelanjutan. Namun, keberhasilan ini sangat bergantung pada dukungan dari berbagai pihak, terutama dalam hal akses terhadap teknologi, pembiayaan, dan regulasi yang mendukung.

**Kata kunci:** Inovasi Berkelanjutan, Ketahanan UMKM, Pemberdayaan Masyarakat

## **INTRODUCTION**

Sustainable innovation has become a significant topic across various business sectors, especially in micro, small, and medium enterprises (MSMEs). Sustainable innovation refers to the continuous improvement efforts made by organizations to face challenges and dynamic changes in the business environment (Lianto et al., 2018). For MSMEs, sustainable innovation is essential for surviving competition and creating meaningful added value for society. In the context of community empowerment, MSMEs play a crucial role due to their flexibility and ability to adapt quickly to market changes. Through sustainable innovation, MSMEs can enhance their resilience while serving as a driving force for economic improvement, particularly in remote or low-income areas.

The resilience of MSMEs heavily relies on their ability to innovate continuously in response to various challenges, including technological advancements, regulatory changes, and shifting consumer preferences (Loo et al., 2023). The rapidly changing business environment, characterized by digital technology developments and globalization, compels MSMEs to move beyond traditional business models. They must develop innovative approaches in their products, processes, and business strategies to remain competitive. In Indonesia, the role of MSMEs is vital, particularly in supporting local economic growth and creating jobs for local communities. Therefore, it is crucial to examine how sustainable innovation can enhance MSME resilience, especially in facing economic uncertainties and market dynamics.

Sustainable innovation is closely related to the concept of community empowerment. Through innovation, MSMEs create jobs and provide opportunities for communities to develop their skills and capacities (Sari et al., 2022). In this context, empowerment is viewed from economic, social, and educational perspectives. MSMEs that successfully implement sustainable innovation typically have broader positive impacts, including overall improvements in community welfare. Moreover, sustainable innovation can help MSMEs build better relationships with local communities and enhance their social contributions.

However, challenges for MSMEs in adopting sustainable innovation remain significant. One of the main obstacles is the limitation of resources, including financial, technological, and knowledge constraints (Ausat & Suherlan, 2021). Many MSMEs lack access to advanced technology or sufficient capital for research and development (R&D). Additionally, low digital literacy and managerial skills also hinder innovation implementation. In this regard, the role of the government and educational institutions is crucial to help MSMEs overcome these challenges. Training programs, mentorship, and better access to resources will greatly assist in promoting sustainable innovation among MSMEs.

From a regulatory standpoint, the government plays an essential role in creating a business climate that supports sustainable innovation. Policies that facilitate ease of doing business, access to funding, and protection of intellectual property rights can encourage MSMEs to innovate further (Sukarmijan & Sapong, 2014). Conversely, inflexible policies or complicated bureaucracy often hinder MSMEs from growing. Therefore, synergy

between the government, private sector, and educational institutions is necessary to create an ecosystem that fosters sustainable innovation in the MSME sector.

As a driver of community empowerment, MSMEs that engage in sustainable innovation can also play a vital role in creating inclusive development. MSMEs can expand their market reach, both locally and globally, thereby increasing their contributions to the national economy by leveraging innovation. Furthermore, sustainable innovation enables MSMEs to be more responsive to environmental and social issues (Octasyilva et al., 2022), such as waste management, renewable energy usage, and environmentally friendly business practices. This aligns with the concept of sustainable development, which is increasingly gaining attention on a global scale.

This research focuses on how sustainable innovation can enhance MSME resilience in fulfilling their role as drivers of community empowerment. Through a literature review, the study will explore the concept of sustainable innovation within the MSME context and how its implementation can positively impact business resilience and community empowerment. Additionally, this research will discuss the factors that encourage and hinder sustainable innovation in MSMEs, as well as the roles of the government and other stakeholders in supporting the innovation ecosystem. The primary aim of this study is to provide deeper insights into the role of sustainable innovation in strengthening MSMEs and empowering communities in Indonesia.

### **Sustainable Innovation**

Sustainable innovation is the process of developing and applying new ideas that enhance business performance while considering the long-term impacts on the environment, economy, and society (Geissdoerfer et al., 2018). The primary goal of this innovation is to create solutions that support sustainable growth through resource efficiency, the use of renewable energy, and the implementation of environmentally and socially responsible business practices (Versino et al., 2023). In a business context, sustainable innovation involves adapting technologies and operational strategies that can reduce environmental footprints, improve employee well-being, and add value for consumers and the community as a whole. This makes sustainable innovation a holistic approach, focusing on short-term gains while ensuring long-term sustainability.

### **MSME Resilience**

MSME resilience refers to the ability of micro, small, and medium enterprises to survive and adapt to various challenges from both internal and external environments, such as economic changes, technological advancements, regulations, and market dynamics (Kussudyarsana et al., 2023). This resilience encompasses aspects of financial stability, operational flexibility, innovation capacity, and the ability to respond quickly and effectively to crises. Resilient MSMEs typically have strategies for product or service diversification, good risk management practices, and support from community networks and partnerships (Rusliati & Mulyaningrum, 2020). This resilience is also influenced by government policy support, access to resources, and the capacity for continuous innovation, enabling MSMEs to remain competitive and relevant in the long term.

## **Community Empowerment**

Community empowerment is the process of enhancing the capacity of individuals and groups within a community to control and utilize resources, make decisions that affect their lives, and improve their well-being in a self-sufficient and sustainable manner (Malta, 2023). This process involves providing access to education, training, and skills, allowing communities to participate more actively in economic, social, and political activities. Through empowerment, communities become beneficiaries and key actors in development, aiming to reduce dependence and increase self-reliance. Community empowerment is often linked to social inclusion, where vulnerable or marginalized groups are given equal opportunities to contribute to the economic and social growth of their communities (Waridin et al., 2018).

## **METHOD**

This study employs a literature review method with a qualitative approach and descriptive analysis. The literature review aims to identify, analyze, and synthesize relevant literature on sustainable innovation in enhancing MSME resilience as a driver of community empowerment. The objective of this research is to enrich existing literature and contribute to community service by emphasizing the role of MSMEs in the context of empowerment. Data for this study were sourced from the Google Scholar database, covering the period from 2014 to 2024. Initially, 30 relevant articles were identified. However, after a rigorous selection process based on topic suitability, research quality, and relevance to the study objectives, a total of 16 articles were used for the final analysis. These selected articles were then descriptively analyzed to outline concepts, findings, and implications that support this research. This approach aims to provide a comprehensive overview of the role of sustainable innovation within the context of MSMEs and community empowerment.

## **FINDING AND DISCUSSION**

The discussion on the role of sustainable innovation in enhancing MSME resilience as a driver of community empowerment is highly relevant amid the evolving global challenges. Sustainable innovation serves as a critical foundation for MSMEs to maintain competitiveness while making tangible contributions to improving community welfare. MSMEs that can implement sustainable innovation thrive in business competition and create significant economic and social value for their surrounding communities. In Indonesia, MSMEs play a crucial role in job creation and distributing economic benefits, especially in rural areas and low-income communities.

For example, Batik Jogja Gallery, an MSME in Yogyakarta that specializes in handicrafts, has successfully implemented sustainable innovation by integrating digital technology into its marketing and sales processes. They utilize social media and e-commerce platforms to reach a broader market, both domestically and internationally. Additionally, they adopt environmentally friendly practices in their batik production by using natural dyes. This innovation enhances their business sustainability and positively impacts the environment and the local community involved in the production process.

Batik Jogja Gallery exemplifies how sustainable innovation can strengthen MSME resilience while contributing to local empowerment through training and job creation.

The resilience of MSMEs in facing various changes in the business environment heavily depends on their ability to innovate continuously. Innovation includes product or service development and encompasses business model transformation, the adoption of new technologies, and improvements in operational efficiency (Shin et al., 2022). MSMEs that can implement such innovations are better prepared to face challenges like market fluctuations, changing consumer preferences, and technological advancements. For instance, Warung Pintar, a technology-based startup in Jakarta, has empowered small shops by digitizing their operations. Warung Pintar helps these small MSMEs become more efficient and competitive by providing a digital platform that facilitates stock management, order placement, and financial reporting. This innovation provides resilience for MSMEs amid the intensifying competition from modern retail and large e-commerce players.

However, not all MSMEs have access to adequate technology or resources for innovation. The main challenges often faced by MSMEs in adopting sustainable innovation include limited capital, lack of access to technology, and low digital literacy levels. Many MSMEs in Indonesia still rely on traditional methods and have not fully leveraged digital technology in their operations. To address the technology and resource access limitations experienced by many MSMEs in Indonesia, an integrated and collaborative approach among various stakeholders is necessary. One key solution is the development of community-based mentoring programs involving educational institutions, government, and the private sector. Educational institutions, such as universities or polytechnics, can play a crucial role by designing curricula and training programs focused on digital literacy and innovative skill development relevant to MSME needs. Students and faculty can be involved in incubation or mentoring programs to assist MSMEs in adopting appropriate technologies.

From the government's perspective, incentive policies that support sustainable innovation need to be continuously developed, such as providing subsidies or tax breaks for MSMEs that implement environmentally friendly technologies or use renewable energy in their operations. The People's Business Credit (KUR) program could also be more focused on financing sustainable innovation, enabling MSMEs interested in adopting new technologies to access capital more easily. Additionally, the government can expand digital infrastructure in remote areas, including improving affordable internet access, so that MSMEs in these regions can utilize technology in their operations and marketing.

The private sector can also play a role through strategic partnerships with MSMEs. Large companies can provide technology platforms or build business ecosystems that connect MSMEs to broader markets. For instance, technology companies could offer management software tailored for MSMEs, or e-commerce platforms could create promotional spaces specifically for innovative MSME products focused on sustainability. These partnership models can be realized through Corporate Social Responsibility (CSR)

initiatives or venture-building efforts that help MSMEs enhance their technological literacy.

Equally important is the need to enhance digital literacy among MSME actors. In addition to technical training on software and technology usage, MSME stakeholders should be educated on the strategic benefits of sustainable innovation, including cost reduction, increased efficiency, and enhanced competitiveness in the market. Training programs conducted by the government, educational institutions, and the private sector must be designed to be practical and applicable, enabling MSMEs to utilize them in their daily operations. Furthermore, existing digital platforms, such as marketplaces and financial applications, can be optimized to support MSMEs in accessing markets and managing their businesses more efficiently. For example, marketplaces could create special features for MSMEs that adopt sustainable business practices, with labels to attract environmentally conscious consumers. Digital financial platforms can also assist MSMEs in managing their finances more transparently and effectively.

Another solution is the development of business incubation programs for MSMEs focused on sustainable innovation. These incubators can provide a range of services, from business mentoring and technology training to access to networks of investors interested in funding environmentally friendly businesses. Such incubations can be initiated by the government, educational institutions, or the private sector with the aim of building a more solid ecosystem for sustainable innovation among MSMEs. Through collaborative approaches and ongoing programs, MSMEs in Indonesia will have greater opportunities to access technology, improve digital literacy, and develop innovations that meet market needs and demands. This will enhance their resilience and support the development of a more inclusive and sustainable economy for the community.

Moreover, in the context of community empowerment, MSMEs that innovate sustainably can also play a crucial role in creating jobs and enhancing community skills (Yani et al., 2023). For instance, the rattan craft industry in Cirebon has successfully empowered the local community through training in the production of high-quality rattan products that are exported to various countries. This industry has improved the welfare of the local community and strengthened Indonesia's position in the global market by leveraging sustainable innovation in product design and using environmentally friendly technology. This empowerment creates a mutually beneficial cycle between MSMEs and the community, where MSMEs provide job opportunities and skill enhancement, while the community supports the growth and resilience of MSMEs.

Another relevant case study is Kampung Marketer in Purbalingga, Central Java, which integrates community empowerment with technological innovation. This village provides digital marketing training to local residents, enabling them to work as digital marketing professionals for various companies. This innovation increases local incomes and creates economic resilience by generating new jobs that are not reliant on agriculture or traditional industries. Kampung Marketer serves as a successful example of how sustainable innovation can be used to empower communities and enhance local economic resilience through technology-based MSMEs.

Sustainable innovation also has the potential to expand MSMEs' reach into broader markets (Hendrawan et al., 2024), both nationally and internationally. In this regard, digitalization is a key factor in accelerating the adoption of sustainable innovation among MSMEs. E-commerce platforms like Tokopedia and Shopee have opened opportunities for MSMEs to sell their products throughout Indonesia and even abroad, with lower costs. This provides MSMEs with the chance to access larger markets and scale their businesses, ultimately enhancing their resilience. Additionally, innovations in logistics systems and digital payment methods also facilitate MSMEs in reaching consumers across various regions.

However, sustainable innovation is not solely about technology or market expansion; it also concerns how MSMEs can contribute to sustainable development. MSMEs that adopt environmentally friendly practices, such as using renewable energy or efficient waste management, can help reduce negative environmental impacts (Derhab & Elkhwesky, 2022). For instance, EcoBali Recycling, which produces recycled products from plastic waste in Bali, has successfully created innovative and environmentally friendly products while empowering the local community. EcoBali Recycling maintains its business resilience and positively contributes to the environment and community by focusing on sustainable innovation.

From these various case studies, it can be concluded that sustainable innovation plays a vital role in enhancing MSME resilience while empowering communities. However, the success of such innovations heavily relies on strong support from various stakeholders, including the government, financial institutions, and local communities. MSMEs that successfully innovate sustainably will be better prepared to face future challenges while contributing more significantly to the economic and social development of society.

## **CONCLUSION**

Sustainable innovation plays a significant role in enhancing the resilience of MSMEs as drivers of community empowerment. MSMEs can withstand various challenges and contribute to social and economic development in their communities by adopting environmentally friendly, operationally efficient, and market-relevant innovations. Case studies such as Batik Jogja Gallery, Warung Pintar, Kampung Marketer, and EcoBali Recycling illustrate that MSMEs that successfully innovate sustainably can create lasting economic, social, and environmental value. However, this success heavily relies on support from various stakeholders, particularly regarding access to technology, financing, and enabling regulations.

The implications of this research indicate that sustainable innovation enhances the competitiveness of MSMEs and promotes holistic community empowerment. Innovative MSMEs can act as engines of local economies, creating jobs and improving the welfare of the surrounding community. Additionally, sustainable innovation can help MSMEs access broader markets, both nationally and internationally, thereby increasing their contributions to the national economy. For policymakers, these findings highlight the importance of formulating policies that encourage the adoption of sustainable innovation,

including facilitating access to financing, training, and strengthening the digital technology ecosystem for MSMEs.

To support the adoption of sustainable innovation among MSMEs, strategic actions from various parties are necessary. First, the government should expand training programs focused on digital technology and sustainable business practices for MSMEs. Second, financial institutions need to provide easier access to funding, especially for MSMEs aiming to adopt environmentally friendly technologies and enhance operational efficiency. Third, the private sector and industry can partner with MSMEs to improve knowledge and technology transfer and create sustainable supply chains. Fourth, MSMEs themselves must continue to enhance their digital literacy, financial management, and openness to innovation in operations and marketing to become more resilient in facing future challenges.

This research has several limitations that should be considered. First, it only utilizes a literature review of articles available on Google Scholar from 2014 to 2024, which may exclude relevant literature not covered in this study. Second, the descriptive qualitative analysis employed may be limited in measuring the quantitative impact of sustainable innovation on MSME resilience. Third, this study focuses on case studies in Indonesia, so the results and findings may not be entirely generalizable to an international context. Future research could include more in-depth field studies using quantitative approaches to explore the direct impacts of sustainable innovation on MSME performance in the long term.

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