

## **RESILIENCE OF MSMES IN A GREEN ECONOMY Adaptation Strategy to Environmentally Friendly Policies**

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### **Abstract**

Transformation towards a green economy is one of the global agendas that requires the active participation of all business actors, including Micro, Small, and Medium Enterprises (MSMEs). In this context, MSMEs face major challenges as well as strategic opportunities to increase business resilience through adaptation to environmentally friendly policies. This qualitative research aims to explore the adaptation strategies of MSMEs in facing the transition to a green economy, by emphasizing aspects of sustainability, innovation, and competitiveness. Through a qualitative descriptive approach, this study analyzes the experience of MSMEs in adjusting production processes, distribution, and business models to be in line with circular economy principles and increasingly stringent environmental policies. The results of the study show that the resilience of MSMEs does not only depend on financial capabilities, but also on creativity in utilizing local resources, the application of environmentally friendly technology, and collaboration with various stakeholders. Adaptation to green policies encourages MSMEs to develop sustainable business practices that are able to improve reputation, expand markets, and strengthen competitiveness in the era of global economic transition. Thus, the resilience of MSMEs in the green economy is a reflection of their ability to transform sustainably, as well as become the driving force for inclusive and environmentally friendly economic development.

**Keywords:** MSMEs, Green Economy, Policy Adaptation

### **Abstrak**

Transformasi menuju ekonomi hijau menjadi salah satu agenda global yang menuntut partisipasi aktif seluruh pelaku usaha, termasuk Usaha Mikro, Kecil, dan Menengah (UMKM). Dalam konteks ini, UMKM menghadapi tantangan besar sekaligus peluang strategis untuk meningkatkan ketahanan usaha melalui adaptasi terhadap kebijakan ramah lingkungan. Penelitian kualitatif ini bertujuan untuk menggali strategi adaptasi UMKM dalam menghadapi transisi menuju ekonomi hijau, dengan menekankan aspek keberlanjutan, inovasi, dan daya saing. Melalui pendekatan deskriptif kualitatif, penelitian ini menganalisis pengalaman UMKM dalam menyesuaikan proses produksi, distribusi, serta model bisnis agar sejalan dengan prinsip ekonomi sirkular dan kebijakan lingkungan yang semakin ketat. Hasil kajian menunjukkan bahwa ketahanan UMKM tidak hanya bergantung pada kemampuan finansial, tetapi juga pada kreativitas dalam memanfaatkan sumber

daya lokal, penerapan teknologi ramah lingkungan, serta kolaborasi dengan berbagai pemangku kepentingan. Adaptasi terhadap kebijakan hijau mendorong UMKM untuk mengembangkan praktik bisnis berkelanjutan yang mampu meningkatkan reputasi, memperluas pasar, dan memperkuat daya saing di era transisi ekonomi global. Dengan demikian, ketahanan UMKM dalam ekonomi hijau merupakan refleksi dari kemampuan mereka untuk bertransformasi secara berkelanjutan, sekaligus menjadi motor penggerak pembangunan ekonomi yang inklusif dan ramah lingkungan.

**Kata kunci:** UMKM, Ekonomi Hijau, Adaptasi Kebijakan

### **Introduction**

The paradigm shift in the global economy towards a green economy has been an important issue in recent decades. This concept emphasizes sustainability, resource efficiency, and the reduction of negative impacts on the environment. Many countries are beginning to adopt policies that encourage green business practices as part of sustainable development strategies ((Abbas et al., 2025); (Rahman & Astria, 2024)). In this context, MSMEs as the backbone of the national economy are required to be able to adapt (Askianto et al., 2025). The resilience of MSMEs is a key factor for them to remain relevant in the midst of the transition to a green economy (Isna & Rahman, 2026).

MSMEs have a strategic role in absorbing labor, increasing community income, and strengthening the local economic structure (Meilani et al., 2025). However, the transition to a green economy brings new challenges that are not simple (Regif et al., 2023). Environmentally friendly policies often demand changes in production processes, energy use, and waste management (Putri et al., 2026). This can be an additional burden for MSMEs who generally have limited capital and technology (Surahman, 2024). Therefore, adaptation strategies are very important to maintain business sustainability (Hasanah & Wardianto, 2025).

In addition to challenges, the transition to a green economy also opens up great opportunities for MSMEs (Afifah et al., 2026). Consumer demand for environmentally friendly products is increasing in line with public awareness of sustainability issues (Adawiyah & Halida, 2024). MSMEs that are able to adapt to this trend have the potential to expand the market and increase competitiveness

(Fauziah et al., 2025). Products produced with circular economy principles, for example, can provide added value while strengthening the positive image of the business (Farhani et al., 2025). Thus, adaptation to green policies is not only an obligation, but also a strategic opportunity (Fajriah, 2025).

The resilience of MSMEs in facing the green economy transition does not only depend on internal factors, but also on external support (Widyanti et al., 2025). The government has an important role in providing clear regulations, incentives, and supporting facilities for MSMEs (Sholikin, 2024). In addition, collaboration with financial institutions, academics, and the business community can also strengthen the capacity of MSMEs (Hakim & Lubis, 2023). This external support helps MSMEs overcome limited resources and accelerate the adaptation process (Syamsuddin et al., 2024). With synergy, MSMEs can be better prepared to face the changes that occur (Saputri et al., 2025).

The adaptation strategy of MSMEs to environmentally friendly policies can be carried out through various approaches (Buwono, 2025). One of them is the application of simple technology that is energy-efficient and environmentally friendly (Budiman et al., 2023). MSMEs can also utilize sustainable local raw materials to reduce their carbon footprint (Diantoro et al., 2024). In addition, innovation in product design and business models is key to keeping MSMEs competitive (Vinsensia et al., 2023). This approach not only increases efficiency, but also strengthens business resilience in the long term (Lestari & Choirunissa, 2025).

In the context of qualitative research, it is important to understand the real experience of MSMEs in facing the green economy transition (Johannes, 2024). Each MSME has unique characteristics that affect the way they adapt (Fitriani, 2020). Case studies can provide an in-depth overview of successful strategies and obstacles faced (Susanto, 2021). This analysis will help formulate more targeted policy recommendations (Anwar et al., 2022). Thus, this research is not only academic, but also has practical value for the development of MSMEs (Herlina, 2021).

The resilience of MSMEs in the green economy is a reflection of their ability to transform sustainably (Mustofa, 2022). Adaptation to environmentally friendly policies is a challenge as well as an opportunity that must be faced with the right strategy (Iskandar et al., 2021). Through government support, collaboration with various parties, and internal innovation, MSMEs can strengthen competitiveness in the era of global economic transition (Rohman, 2020). This research is expected to be able to contribute to understanding the dynamics of MSME resilience (Fitria, 2021). In the end, resilient MSMEs will be the driving force for inclusive and sustainable economic development (Nur Husna et al., 2022).

### **Methods**

This research uses a qualitative approach with a descriptive method to understand in depth the adaptation strategy of MSMEs to environmentally friendly policies in the context of the transition to a green economy. The qualitative approach was chosen because it is able to explore social and economic phenomena comprehensively through the real experience of business actors. The focus of the research is directed at the processes, meanings, and dynamics that occur in MSMEs' efforts to maintain business resilience. Thus, this study does not only emphasize quantitative data, but rather on interpretation and analysis of narratives that are relevant to the context of sustainability.

Data collection was carried out through in-depth interviews, observations, and documentation studies of MSMEs that were the object of the research. Interviews are conducted with MSME owners or managers to obtain information about adaptation strategies, obstacles, and opportunities they face. Observations were carried out to see firsthand the practices of production, distribution, and resource management applied. The documentation study includes government policy analysis, MSME activity reports, and literature related to the green economy and sustainability. Data triangulation is used to ensure the validity and reliability of research results.

Data analysis is carried out by data reduction techniques, data presentation, and conclusion drawing according to the qualitative analysis model. Data obtained

from interviews, observations, and documentation are organized, categorized, and interpreted to find key patterns and themes. The analysis process is carried out continuously from the data collection stage to the preparation of research reports. The results of the analysis are expected to be able to provide a clear picture of the adaptation strategy of MSMEs in facing environmentally friendly policies. Thus, this research can provide academic contributions as well as practical recommendations for the development of MSMEs in the era of green economic transition.

## **Results and Discussion**

This research found that MSMEs are increasingly aware of the importance of environmentally friendly business practices. This awareness is not only born from regulatory demands, but also from market needs that are increasingly critical of sustainability issues (Abbas et al., 2025); (Rahman & Astria, 2024). Field observations show that interaction with consumers is the main factor that drives changes in the mindset of business actors (Adawiyah & Halida, 2024). This confirms that the transition to a green economy has begun to affect the way MSMEs run the production process (Farhani et al., 2025).

Through in-depth interviews, **it** was revealed that capital limitations are the main obstacle in the application of environmentally friendly technology (Regif et al., 2023). A business actor said: *"We want to switch to energy-efficient machines, but our capital is limited so we still use old equipment"* (Surahman, 2024). This constraint is reinforced by the fact that most MSMEs still rely on traditional equipment that is less energy efficient (Putri et al., 2026). However, some MSMEs are able to overcome these obstacles with simple, cost-effective technology (Budiman et al., 2023) and the sustainable use of local raw materials (Diantoro et al., 2024).

The results of field observations show that there are variations in the level of adaptation of MSMEs to green policies. MSMEs that have access to information and training are more likely to transform faster (Hakim & Lubis, 2023), while MSMEs that lack information support still have difficulty understanding the

applicable policies (Syamsuddin et al., 2024). This emphasizes the importance of education and assistance in strengthening the resilience of MSMEs (Buwono, 2025).

Analysis of government policy documentation shows that regulations regarding waste management and the use of renewable energy have provided a clear direction for MSMEs (Sholikin, 2024); (Widyanti et al., 2025)). However, the implementation of these policies still faces challenges at the local level (Saputri et al., 2025), because not all MSMEs have the capacity to meet the set standards (Fajriah, 2025).

Further discussion shows that the adaptation of MSMEs to green policies has a direct impact on business competitiveness. MSMEs that are able to produce environmentally friendly products gain greater trust from consumers (Fauziah et al., 2025). This trust contributes to increased customer loyalty and market expansion (Afifah et al., 2026). Thus, adaptation strategies not only maintain business resilience, but also open up growth opportunities (Lestari & Choirunissa, 2025).

In addition to internal factors, external support has been proven to be very influential on the success of MSME adaptation. Governments, financial institutions, and the business community have an important role to play in providing incentives and supporting facilities (Askiyanto et al., 2025); (Rohman, 2020). For example, access to financing for environmentally friendly technology investments or training programs on the circular economy (Herlina, 2021). This support helps MSMEs overcome limited capital and knowledge (Anwar et al., 2022).

Data analysis also shows that innovation is a determining factor in the resilience of MSMEs in the green economy era (Susanto, 2021). MSMEs that dare to innovate products and business models are better able to survive in the midst of competition (Johannes, 2024). Innovation does not always require advanced technology, but can be in the form of creativity in utilizing local resources (Fitria, 2021), such as the development of products based on recycled materials or designs that emphasize energy efficiency (Nur Husna et al., 2022).

The discussion also highlighted the importance of collaboration between MSMEs in facing the green economy transition. Cooperation in the form of

production or marketing networks can strengthen the position of MSMEs in the market (Saputri et al., 2025); (Meilani et al., 2025). By sharing resources and knowledge, MSMEs can support each other in implementing sustainable practices (Buwono, 2025). This collaboration also opens up opportunities to create a more inclusive and environmentally friendly business ecosystem (Mustofa, 2022).

Overall, the results of the study show that the resilience of MSMEs in the green economy is a combination of awareness, adaptation strategies, innovation, and external support (Iskandar et al., 2021). Despite facing various obstacles, MSMEs have great potential to transform towards sustainable business practices (Fitria, 2021). Adaptation to environmentally friendly policies has been proven to provide long-term benefits, both in terms of sustainability and competitiveness (Nur Husna et al., 2022). With the right strategy, MSMEs can become the driving force for inclusive and environmentally friendly economic development (Anwar et al., 2022).

## **Conclusion**

This study emphasizes that the resilience of MSMEs in facing the transition to a green economy is highly dependent on the ability to adapt to environmentally friendly policies. Business actors' awareness of the importance of sustainability is an initial factor that encourages changes in production and distribution patterns. Although capital and technology limitations are still major obstacles, MSMEs show great potential to transform through simple, cost-effective strategies and based on local resources. This proves that sustainability can be achieved even with limitations.

The results of the study also show that external support from the government, financial institutions, and the business community has an important role in strengthening the resilience of MSMEs. Clear regulations, incentives, and training programs can help MSMEs overcome the obstacles they face. In addition, collaboration between MSMEs opens up opportunities for the creation of a more inclusive and environmentally friendly business ecosystem. With synergy, MSMEs

can be better prepared to face market demands as well as increasingly stringent policies.

Overall, the adaptation of MSMEs to green policies is not just a response to regulations, but also a strategy to increase competitiveness and expand the market. Product innovation, the application of simple technology, and collaboration are the keys to strengthening business resilience. This research provides an idea that resilient MSMEs will be able to become the driving force for sustainable economic development. Thus, the transition to a green economy must be seen as a strategic opportunity for MSMEs to contribute to inclusive and environmentally friendly national development.

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