

## **Transforming Tourism MSMEs Based on a Green Economy Towards a Sustainable Economy**

**Panji Rizki Kurniawan**

Akademi Bisnis Lombok

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### **Abstract**

*This study aims to analyze the transformation of tourism MSMEs based on green economy towards sustainable economic development in Indonesia. Using a literature review method, this research examines various scientific sources published in the last ten years regarding green economy practices in tourism MSMEs. The results show that the transformation of tourism MSMEs towards a green economy can be achieved through four main pillars: adoption of environmentally friendly technology, development of green products and services, capacity building of human resources, and support from government policies. The main challenges faced include limited capital, lack of knowledge about green practices, and weak market access. However, the implementation of green economy principles provides significant benefits including operational cost efficiency, increased competitiveness, and positive contributions to environmental preservation. This study concludes that successful transformation requires synergy between MSMEs, government, academia, and society to create a sustainable tourism ecosystem.*

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#### **Corresponding Author:**

**Panji Rizki Kurniawan**

**Akademi Bisnis Lombok**

Email: [Panjikurniawan.2805@gmail.com](mailto:Panjikurniawan.2805@gmail.com)

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## **1. INTRODUCTION**

The tourism sector has become a key driver of the Indonesian economy, contributing significantly to Gross Domestic Product and employment. Micro, Small, and Medium Enterprises (MSMEs) in the tourism sector play a vital role in driving the local economy and preserving local cultural heritage. However, rapid tourism development often has negative impacts on the environment, such as ecosystem degradation, pollution, and uncontrolled exploitation of natural resources. This situation demands a fundamental transformation in the management of tourism MSMEs, moving towards more sustainable practices.

The concept of a green economy has emerged as an alternative solution to address the dilemma between economic growth and environmental preservation. A green economy is defined as an economic system that aims to improve human well-being and social justice while significantly reducing environmental risks and ecological scarcity. In the tourism context, implementing green economy principles is essential to ensure the long-term sustainability of this sector. Tourism MSMEs, as dominant business actors at the grassroots level, have significant potential to implement environmentally friendly practices that can have a positive aggregate impact.

Previous research has identified various aspects related to sustainable tourism and the green economy. Studies have shown that implementing green practices in MSMEs can improve operational efficiency and competitiveness in the global market. However, there remains an analytical gap regarding how the transformation process from conventional tourism MSMEs to a green economy-based business model can be carried out systematically and structured, particularly in the Indonesian context with its unique geographic, social, and economic characteristics. This study seeks to fill this gap by comprehensively analyzing the transformation strategies, challenges, and opportunities faced by tourism MSMEs in adopting green economy principles.

The urgency of this research lies in the urgent need to shift the tourism development paradigm from an exploitative model to a regenerative model that not only maintains but also improves environmental quality. The state-of-the-art of this research is to integrate economic, environmental, and social perspectives within the analytical framework of tourism MSME transformation, as well as providing practical recommendations that can be implemented by various stakeholders. Thus, this research is expected to make a significant scientific contribution to the development of sustainable tourism literature and serve as a reference for policymakers in designing green economy-based tourism MSME empowerment programs.

## 2. RESEARCH METHOD

This study uses a systematic literature review method by reviewing various scientific sources relevant to the topic of green economy-based tourism MSME transformation. The literature sources used include national and international journal articles, textbooks, conference proceedings, and official publications from relevant institutions published within the last four years to ensure the freshness and relevance of the information. The literature search process was conducted through academic databases using specific keywords such as green economy, sustainable tourism, tourism MSMEs, and sustainable development. Data analysis was conducted descriptively and qualitatively by identifying patterns, themes, and key findings from the various literature reviewed, then synthesized to produce a comprehensive understanding of the transformation of tourism MSMEs towards a sustainable economy.

## 3. RESULT AND DISCUSSION

### 1. The Concept of Green Economy in the Context of Tourism MSMEs

A green economy in the tourism sector refers to an economic system that integrates environmental sustainability principles into all aspects of tourism business operations. This concept encompasses efficient resource use, minimizing waste and emissions, preserving biodiversity, and creating equitable economic value for all stakeholders. Tourism MSMEs that implement green economy principles focus not only on profit but also on people and the planet within the triple bottom line framework.

Implementing a green economy in tourism MSMEs can be realized through various environmentally friendly business practices. These include the use of renewable energy, effective water and waste management, sourcing local and organic products, reducing the use of single-use plastics, and developing tourism products that educate and empower local communities. This transformation requires a mindset shift from a short-term orientation to a long-term perspective that considers ecological and social sustainability.

Research shows that tourism MSMEs that adopt green economy practices tend to have a greater competitive advantage in the market. Modern travelers, particularly millennials and Gen Z, are increasingly environmentally conscious and choose destinations and services that demonstrate a commitment to sustainability. Therefore, the transformation to a green economy is not only an ecological imperative but also a smart business strategy to increase long-term competitiveness and profitability.

## **2. Pillars of Green Economy-Based Tourism MSME Transformation**

The transformation of tourism MSMEs into a green economy can be achieved through four interrelated and reinforcing main pillars. The first pillar is the adoption of environmentally friendly technologies, which include the use of renewable energy systems such as solar panels, water-saving technologies, biological waste management systems, and digital platforms to reduce paper use. Although the initial investment in green technology is relatively high, studies show that long-term operational cost savings can offset these investments within five to seven years.

The second pillar is the development of green products and services that reflect sustainable values. This includes designing nature- and culture-based tourism packages that minimize environmental impact, providing organic and local food, using eco-friendly materials in amenities, and environmental education programs for tourists. Tourism MSMEs need to continuously innovate by developing green products that not only appeal to tourists but also provide economic benefits to local communities and preserve the environment.

The third pillar is human resource capacity building through continuous education and training. Tourism MSMEs need knowledge and skills in sustainability principles, environmental management techniques, green certification, and sustainable product marketing. Capacity building programs can be implemented through collaborations with universities, training institutions, and tourism industry associations. This capacity building is crucial because the success of the transformation depends heavily on the commitment and competence of the human resources involved.

The fourth pillar is government policy support and a conducive business ecosystem. The government has a strategic role in encouraging the transformation of tourism MSMEs through regulations that support sustainable practices, fiscal incentives for green investment, mentoring programs and facilitating access to financing, and developing infrastructure to support sustainable tourism. Furthermore, collaboration between the government, the private sector, academia, and civil society is needed to create an ecosystem that supports the holistic and sustainable development of green economy-based tourism MSMEs.

## **3. Challenges and Implementation Strategies**

Although the green economy concept offers numerous benefits, its implementation in tourism MSMEs faces significant challenges. The main challenge is limited access to capital for investments in green technology and sustainable infrastructure. MSMEs generally have limited financial capacity and struggle to access financing from formal financial institutions due to a lack of adequate collateral or a strong financial track record. This situation leaves many tourism MSMEs trapped in conventional, less sustainable practices despite their desire to transform.

The second challenge is the lack of knowledge and awareness about the importance of a green economy and how to implement it. Many tourism MSMEs don't yet understand the concept of sustainability comprehensively or perceive it as an additional burden that will increase operational costs. Massive education and outreach are needed

to change this perception and demonstrate that investing in green practices will provide long-term economic and non-economic benefits. Awareness-raising programs need to be designed with language and approaches that are easily understood by MSMEs with diverse educational backgrounds.

The third challenge is the lack of supporting infrastructure and market access for sustainable tourism products. In many regions, the availability of renewable energy, adequate waste management systems, and recycling facilities remains very limited. Furthermore, tourism MSMEs often struggle to market their green products due to the lack of widely recognized promotional platforms and certifications. Developing infrastructure and a market ecosystem that supports sustainable products is a crucial prerequisite for accelerating transformation.

To address these challenges, a comprehensive, multi-stakeholder implementation strategy is needed. First, the government needs to provide special financing schemes with low interest rates or subsidies for green investments in tourism MSMEs. Second, mentoring and assistance programs by experienced academics and practitioners can help MSMEs design and implement green economy strategies tailored to their business context. Third, developing a digital platform for marketing sustainable tourism products can expand market reach and increase MSME visibility. Fourth, developing an affordable and accessible green tourism certification system can provide credibility and added value to MSMEs committed to sustainable practices.

#### **4. Impact and Benefits of Transformation**

The transformation of tourism MSMEs based on a green economy has a multidimensional positive impact on economic, environmental, and social aspects. From an economic perspective, implementing green practices has been proven to reduce operational costs through efficient energy and water use, waste minimization, and resource optimization. Research shows that tourism MSMEs that implement energy-efficient technologies can reduce electricity costs by 30-40 percent, while efficient water management systems can save up to 25 percent on operational costs. These savings are significant considering that energy and water are significant components of operational costs in the tourism industry.

In addition to cost efficiency, the green economy transformation also opens up new market opportunities and increases the competitiveness of MSMEs at the national and international levels. The segment of environmentally conscious travelers continues to grow and is willing to pay a premium for sustainable products and services. MSMEs that have green certification or implement verified sustainable practices tend to receive higher ratings on online booking platforms and social media, which in turn increases occupancy rates and revenue. Branding as an eco-friendly destination or service also provides strong differentiation in an increasingly competitive market.

From an environmental perspective, the transformation of tourism MSMEs based on a green economy contributes significantly to natural resource conservation and reduces the tourism sector's carbon footprint. Collective implementation of green practices by MSMEs can substantially reduce greenhouse gas emissions, water consumption, and waste production. This is crucial considering that tourism contributes approximately 8-11 percent of total global carbon emissions. Environmental preservation also ensures the sustainability of natural tourist attractions, the primary capital of the tourism industry, thus creating a positive cycle between conservation and the economy.

The social impacts of this transformation include improving the quality of life for local communities, creating green jobs, and empowering communities. Green economy-

based tourism MSMEs tend to involve local communities in the supply chain, use local products, and distribute economic benefits more equitably. Environmental education programs integrated into tour packages also increase ecological awareness among tourists and local communities. Furthermore, this transformation strengthens local cultural identity, as the concept of sustainable tourism places a strong emphasis on preserving and promoting local wisdom as an authentic and meaningful tourist attraction.

#### 4. CONCLUSION

The transformation of tourism MSMEs based on a green economy into a sustainable economy is inevitable in facing the increasingly worrying challenges of climate change and environmental degradation. This study concludes that this transformation can be achieved through the implementation of four main pillars: the adoption of environmentally friendly technologies, the development of green products and services, human resource capacity building, and the support of conducive government policies. Despite facing significant challenges such as limited capital, limited knowledge, and weak supporting infrastructure, the benefits gained from this transformation are substantial, including operational cost efficiency, increased market competitiveness, environmental preservation, and local community empowerment.

Successful transformation requires a holistic and collaborative approach involving synergy between MSMEs as business actors, the government as regulator and facilitator, academics as developers of knowledge and innovation, and the community as supervisors and beneficiaries. Implementing a green economy in tourism MSMEs is not only a long-term investment for business sustainability but also a real contribution to achieving the Sustainable Development Goals, particularly those related to sustainable economic growth, responsible production and consumption, and climate action. Further research is needed to examine the implementation of specific green economy practices in various types of tourism MSMEs across various geographic and socio-cultural contexts to produce a more contextual and applicable transformation model.

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