

ECOLABEL AS A STRATEGY TO INCREASE THE COMPETITIVENESS OF ENVIRONMENTALLY FRIENDLY BATIK MSMES: A CASE STUDY OF CIWARINGIN BATIK

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ABSTRACT

This study aims to analyze the role of ecolabel as a strategy to increase the competitiveness of Ciwaringin Batik MSMEs that implement environmentally friendly production based on natural dyes. The research uses a qualitative approach with a case study method. Data collection was carried out through in-depth interviews, observations, and documentation. The research informants consisted of MSME actors, cooperative administrators, companions from related agencies, and consumers. Data analysis uses the Miles, Huberman, and Saldana models through the stages of data reduction, data presentation, and conclusion drawn.

The results of the study show that ecolabels play a role as an environmentally friendly product identity that is able to increase consumer trust, strengthen brand image, and become a source of competitive advantage for Batik Ciwaringin MSMEs. However, the use of ecolabels still faces obstacles in the form of marketing limitations, low consumer literacy towards green products, and high production costs. Therefore, it is necessary to strengthen branding, expand digital marketing, and support from various parties to increase the competitiveness of MSMEs based on the green economy.

INTRODUCTION

The global industry is currently facing double pressures: market demands for eco-friendly textile products on the one hand, and the inability of most small businesses to meet desirable standards on the other. The textile sector is recognized as one of the most polluting industries in the world, thus encouraging the emergence of various poverty practices, one of which is the application of *ecolabels* as certification given to products that are proven to be environmentally friendly and meet the criteria set by the competent authorities. At the global level, this pressure is increasingly felt by consumers who are increasingly environmentally conscious. Various clothing industries are now implementing sustainable practices in response to increased environmental awareness and consumer demand, although actual purchases of green products are still relatively low due to perceptions between consumer intentions and behaviors. In the context of Indonesia, this condition also affects the batik industry as one of the cultural heritage which is also a strategy for the creative economy sector. The batik industry faces significant challenges in the form of low sustainable branding literacy, limited digital capabilities, and the lack of optimal utilization of ecological values as a competitive advantage. This condition shows that although the potential of environmentally friendly batik products is very large, the mechanism for formalizing these advantages—especially through *ecolabel* instruments has not been optimally utilized by MSME actors. (Jhon et al., 2026)

One of the most relevant and interesting cases to study is Ciwaringin Batik in Cirebon Regency, West Java. The Cirebon Regency Government fully supports the preservation of batik culture with natural dyes because this effort not only preserves traditions, but can also add to producing environmentally friendly products that have value in the market. The uniqueness of Ciwaringin Batik lies in the use of natural dyes sourced from local organic materials. The Ciwaringin Batik coloring process uses materials from plants and wood such as mango leaves, mahogany leaves, durian bark, jengkol bark, and tilapia leaves. Historically, the use of natural dyes was abandoned when synthetic dyes from abroad entered the market in the 1970s, and it was only gradually revived. In the midst of the use of synthetic dyes, Ciwaringin Batik was not able to compete with other batik centers in Cirebon Regency, namely Batik Trusmi, so its development was like a road in place. This commitment to return to natural dyes has even received formal recognition: Ciwaringin Batik has received *an ecolabel* award from the Ministry of Environment and Forestry (MoEF) as an environmentally friendly product thanks to the use of natural dyes, where this award provides added value in marketing because the use of natural dyes does not cause allergies to the skin and maintains the resistance to fabric fading. This fact is a strong starting point: *ecolabels* are not just a formal symbol, but a strategic

instrument that has the potential to fundamentally change the competitive position of Batik Ciwaringin MSMEs. (Fathnur Rohman, 2024)

However, formal recognition through the *ecolabel* has not automatically implied a measurable and sustainable increase in competitiveness. In developing countries, green certification is indeed used to increase credibility, trust, and competitiveness, but it faces challenges in the form of weak regulatory enforcement, high costs, and limited stakeholder involvement, so effective certification programs must be credible and contextual for MSMEs. A number of previous studies have focused more on the technical and quantitative dimensions of the application of environmental standards in the batik industry, such as aspects of waste treatment, production efficiency, and the application of green innovation in general. Previous studies on the readiness of the batik industry in the implementation of green industry standards have been more directed at technical aspects of production, such as water use, waste reduction, and assessment of the economic benefits of the implementation of batik SNI. Meanwhile, the deeper dimension—namely how *ecolabels* are interpreted, strategically adopted, and integrated into the batik MSME business model based on local culture—is still very minimally studied qualitatively. Publications with the theme of the desire and competitiveness of creative MSMEs increased significantly after 2019, with a shift in focus on digital transformation and the circular economy, but studies that explore in depth the process, experience, and meaning behind the adoption of the stop strategy for cultural heritage-based MSMEs are still very limited. This literary gap is the main justification for this research: there has been no qualitative study that specifically maps how *ecolabel* functions as a competitive strategy in batik MSMEs that have cultural roots and local wisdom of Ciwaringin Batik lectures. (Hernandez-Mastivaker, 2026)

Based on this background, this study aims to explore and understand in depth how *ecolabels* play a role as a strategy to increase the competitiveness of Batik Ciwaringin MSMEs, including the adoption process, obstacles faced, and the meaning constructed by business actors and related stakeholders. This study uses a qualitative approach with case studies as a research strategy, considering that the phenomena studied are contextual, complex, and require understanding from the perspective of the subjects directly involved. Theoretically, this research contributes to the development of literature on *green competitive advantages* in culture-based MSME environments, especially by integrating the *perspective of Natural Resource Based View* (NRBV) in the context of Indonesia's local creative industry. Practically, the findings of this study are expected to be a reference for policy makers, batik cooperative managers, and MSME facilitators in designing environmental certification programs that are more contextual, inclusive, and have a real impact on small business actors based on cultural heritage.

METHODS

This study uses a qualitative approach with a case study method to analyze the role of ecolabel as a strategy to increase the competitiveness of Ciwaringin Batik MSMEs in Cirebon Regency, West Java. This approach was chosen because it is able to provide an in-depth understanding of the phenomenon of implementing environmentally friendly production based on natural dyes and its implications for business competitiveness. The research informants were determined by purposive sampling which included owners and managers of Ciwaringin Batik MSMEs, cooperative administrators, companions from related agencies, and consumers of environmentally friendly batik products who were considered to have knowledge and experience in accordance with the focus of the research. Data was collected through in-depth interviews, direct observation of production activities, and documentation studies of various supporting documents, such as ecolabel certificates, product catalogs, and marketing data (Sugiyono, 2013). Data analysis was carried out interactively using the Miles, Huberman, and Saldana models which included data reduction, data presentation, and continuous conclusion drawn. To ensure the credibility of the findings, the study applied source triangulation and triangulation methods so that valid data were obtained and able to provide a comprehensive overview of the use of ecolabel as a strategy to strengthen the competitiveness of Ciwaringin Batik MSMEs in supporting the development of a sustainable creative industry (Miles, M. B., Huberman, A. M., & Saldaña, 2014).

RESULT AND ANALYSIS

Research Results

Ciwaringin Batik is one of the writing batik centers in Cirebon Regency which has distinctive characteristics in the form of the use of natural dyes as the main material of the production process. Dyes are obtained from various plants such as tilapia leaves, mahogany bark, mango leaves, jengkol bark, and several other organic materials available in the surrounding environment. This uniqueness makes Ciwaringin Batik different from other batik centers that use more synthetic dyes. The use of natural dyes has become part of the cultural identity of the Ciwaringin Batik community. In addition to maintaining local wisdom, the production practice shows a commitment to the principles of sustainability and environmental conservation. The recognition of this commitment is shown through the acquisition of an ecolabel award from the Ministry of Environment and Forestry which is proof that the products produced have an environmentally friendly character. (Oktaviyanti & Siswoyo, 2025)

The Role of Ecolabel as Product Identity and Differentiation

The results of the study show that ecolabels provide added value for Ciwaringin Batik through the formation of a product identity that is different from other batik products. Ecolabel is not only understood as a formal certification, but also as a symbol of quality, safety,

and concern for the environment. Business actors view that the existence of ecolabels is able to increase consumer confidence in the products produced. Consumers who are aware of environmental issues tend to pay more attention to products that use natural ingredients and have a lower environmental impact. The existence of ecolabels also strengthens the image of Ciwaringin Batik as a cultural product that has sustainable value. This image is an advantage that is difficult for competitor products to imitate because it is supported by the use of natural materials, traditional batik skills, and the value of local wisdom that has been inherited from generation to generation. These findings are in line with the Natural Resource Based View theory which states that unique and hard-to-replicate resources can result in a sustainable competitive advantage (Sharron Nurwinata, 2024).

The Influence of Ecolabel on Increasing the Competitiveness of MSMEs

Products that have an eco-friendly identity are easier to gain market trust. Consumers view the use of natural dyes as safer for health and does not have a negative impact on the environment. This trust affects purchasing decisions and consumer loyalty. Ecolabel helps shape the branding of Ciwaringin Batik as a green product. This advantage is a differentiator from other batik products that still use synthetic dyes. Identity as an environmentally friendly product provides added value that increases its competitive position in the market. The existence of ecolabels makes it easier for Ciwaringin Batik to participate in superior product exhibitions, government coaching programs, and green economy-based promotions. Eco-friendly products have a greater chance of entering national and international markets that are starting to pay attention to sustainability aspects. Batik products produced using natural dyes have a higher exclusivity value than mass products. Certain consumers are willing to pay a higher price because they consider aspects of quality, health, and environmental sustainability (Bhardwaj et al., 2023).

Obstacles to Utilizing Ecolabels in Increasing Competitiveness

Although it has various benefits, the results of the study show that the application of ecolabels has not been fully able to increase competitiveness optimally. Some of the obstacles found include: Most MSME actors still rely on conventional marketing so that market reach is relatively limited. The use of digital technology and social media has not been carried out optimally. This condition causes the advantages of environmentally friendly products to not be widely known by consumers. Most consumers still make price the main consideration in purchasing batik products. Awareness of the importance of eco-friendly products is still relatively low, so the existence of ecolabels has not been a major factor in purchasing decisions. The use of natural dyes requires a longer production process than synthetic dyes. The availability of raw materials, fermentation processes, and longer processing times lead to relatively higher production costs. This condition affects the selling price of products so that price competitiveness is lower than conventional batik products. Business actors still face

limitations in mastering digital marketing and technology-based brand development. This is an obstacle to expanding the market and increasing the competitiveness of products in a sustainable manner.

Strategies to Strengthen the Competitiveness of Ciwaringin Batik

The results of the study show that increasing the competitiveness of Ciwaringin Batik requires an integrated strategy between environmental, marketing, and institutional strengthening aspects (Nurul Hasanah, 2026). Strategies that can be carried out include:

1. Strengthening branding as an environmentally friendly batik product based on local wisdom.
2. Develop digital marketing through social media and e-commerce platforms.
3. Expanding cooperation with the government, cooperatives, universities, and MSME companion institutions.
4. Increase education to the public about the importance of consuming products that are oriented towards environmental sustainability.
5. Developing product innovation and diversifying motives to be able to keep up with changing market tastes.
6. Utilizing the concept of green economy and creative economy as the basis for sustainable business development.

Discussion

The results of the study show that the ecolabel in Ciwaringin Batik not only serves as a form of recognition of environmentally friendly production practices, but has developed into a strategic instrument in building the competitiveness of MSMEs. The use of natural dyes derived from local organic materials, such as tilapia leaves, mahogany bark, mango leaves, and jengkol bark, provides distinctive characteristics that distinguish Ciwaringin Batik from other batik products that are still dominated by synthetic dyes. This uniqueness is a source of differentiation that strengthens product identity and provides added value in the eyes of consumers. Thus, the competitiveness of Ciwaringin Batik is not only built through product quality, but also through the ecological and cultural values contained in it.

In addition to strengthening product identity, the results of the study also show that ecolabels play a role in building consumer trust. Products produced with natural ingredients are perceived to be safer for health and more environmentally friendly, increasing consumer confidence in product quality. This trust is an important capital in building customer loyalty and expanding market opportunities. These findings support the research of Dangelico and Vocalelli (2017) who stated that the implementation of green marketing strategies is able to improve brand image and strengthen the relationship between producers and consumers. In the case of Ciwaringin Batik, the existence of ecolabels has helped to form an image as a cultural product that has sustainability value, thereby providing a competitive advantage that

is not only economic but also symbolic. On the other hand, the results of the study show that the economic benefits of the implementation of ecolabels are not fully optimal. Low consumer literacy about environmentally friendly products causes most consumers to still make price as the main consideration in making purchase decisions. This condition shows that there is a gap between increasing environmental awareness and people's actual consumption behavior. Consumers in general have paid attention to environmental issues, but not all are willing to pay more to obtain products that are produced sustainably. These findings are in line with previous research that explains the green attitude-behavior gap, which is the difference between positive attitudes towards the environment and actual purchasing behavior (Dangelico & Vocalelli, 2017).

In addition to consumer factors, this study also found that limited digital marketing capacity is one of the main obstacles in maximizing the benefits of ecolabels as a source of competitive advantage. Most of the Batik Ciwaringin MSME players still rely on conventional marketing patterns so that information about the advantages of environmentally friendly products has not been widely conveyed to the market. In fact, the development of digital technology and electronic commerce provides a great opportunity for MSMEs to expand their marketing network. This condition shows that the success of the ecolabel strategy is not only determined by product quality and environmental certification, but also greatly influenced by the ability of business actors to communicate product added value to consumers (Aluisius Hery Pratono; Nancy Pelosi; Ananta Yudianto; Bok Gyo Jeong, 2019). Therefore, this study shows that the competitiveness of Batik Ciwaringin MSMEs cannot be built individually, but requires the support of various stakeholders. The role of local governments, cooperatives, universities, companion institutions, and communities is an important factor in strengthening the capacity of business actors through training, promotion facilitation, and market development. In other words, the success of ecolabel as a strategy to increase competitiveness requires synergy between MSMEs' internal resources and adequate external support. This shows that the sustainable competitiveness of culture-based MSMEs is not only influenced by the ownership of unique resources, but also by the ability to build networks and collaboration between stakeholders

Overall, the results of this study show that ecolabels have become a strategic instrument in increasing the competitiveness of Ciwaringin Batik MSMEs through the formation of product identity, the creation of market differentiation, increasing consumer trust, and strengthening the image as an environmentally friendly cultural product. However, the success of the strategy still faces challenges in the form of low consumer literacy, limited digital marketing, and high production costs due to the use of natural ingredients. Therefore, strengthening green product-based branding, improving digital marketing capabilities, and educating the public about the importance of sustainable consumption are steps that need to

be taken so that ecolabels are able to provide a more optimal economic impact while supporting the sustainability of the batik industry based on local culture.

CONCLUSION

This research shows that ecolabels not only function as environmental certification, but have developed into a strategic instrument in increasing the competitiveness of Ciwaringin Batik MSMEs. The use of natural dyes based on local wisdom and recognition through ecolabels is able to shape product identity, create market differentiation, increase consumer trust, and strengthen the image of Ciwaringin Batik as an environmentally friendly cultural product. These findings show that the competitive advantage of culture-based MSMEs is not only determined by product quality, but also by the ability to integrate environmental values and cultural values into sustainable business strategies.

However, the optimization of the benefits of ecolabels still faces various obstacles, such as low consumer literacy towards green products, limited digital marketing capacity, and high production costs due to the use of natural dye ingredients. This condition shows that the success of ecolabel as a strategy to increase competitiveness cannot depend on the production aspect alone, but requires institutional support, strengthening the capacity of human resources, and collaboration between MSME actors, the government, universities, cooperatives, and other stakeholders.

Theoretically, this research contributes to the development of green competitive advantage studies through the perspective of Natural Resource Based View (NRBV), especially in the context of creative MSMEs based on local culture. The findings of the study show that natural resources that are managed sustainably and supported by cultural values can be a source of competitive advantage that is difficult to replicate. From a practical perspective, the results of the research can be a reference for MSME actors and policy makers in designing creative industry development strategies oriented towards the green economy through strengthening branding, marketing digitalization, and increasing public awareness of the importance of consuming environmentally friendly products. In terms of policy, more integrated support is needed in the form of mentoring, training, marketing facilitation, and sustainable green industrial ecosystem development for cultural heritage-based MSMEs.

This research is still limited to one study object, namely Ciwaringin Batik MSMEs, so the results cannot be generalized to the entire batik industry in Indonesia. Therefore, further research is suggested to expand the research objects on various batik centers or other creative MSMEs, as well as combine qualitative and quantitative approaches in order to obtain a more comprehensive understanding of the influence of ecolabels on business performance and the sustainability of MSME competitiveness.

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