

COMPETITIVE STRATEGIES OF THE BAMBOO WOVEN HANDICRAFT INDUSTRY IN INDONESIA'S CREATIVE ECONOMY: PORTER'S FIVE FORCES ANALYSIS

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Abstract

The handicraft industry is a crucial subsector of Indonesia's creative economy, combining cultural value, creativity, and significant economic potential. This study aims to analyze the development of the handicraft industry, specifically bamboo weaving, using Porter's Five Forces, Driving Forces, and Key Success Factors (KSF) approaches. The method employed is a descriptive-qualitative approach. The analysis reveals that this industry is undergoing a transformation toward modernization through design innovation, digitalization, and sustainability trends. The macroenvironment presents opportunities through government support and shifts in public lifestyle toward valuing eco-friendly products. However, the Five Forces analysis reveals challenges such as the high threat of mass-produced substitute products and intense competition from countries like China and Vietnam. Additionally, internal constraints such as limited access to capital, inconsistent product quality, and a lack of young artisans remain major obstacles. This study concludes that the key factors for the success of the bamboo weaving industry lie in strengthening design innovation, ensuring product quality consistency, utilizing digital platforms, and developing industrial clusters. Synergy between community empowerment and business strategies rooted in local wisdom is essential to enhance the competitiveness of Indonesian handicrafts in the sustainable global market.

Keywords: Handicraft Industry, Bamboo Weaving, Creative Economy, Five Forces, Macro environmental Analysis

Introduction

The handicraft industry is one of the strategic subsectors in Indonesia's creative economy because it combines cultural values, traditional skills, and the economic potential based on micro, small, and medium enterprises (MSMEs). Based on data from the Ministry of Trade of the Republic of Indonesia (2026), the export value of the plant-based woven materials group (HS 14) increased from US\$554.3 million in 2024 to US\$634.1 million in 2025, or grew by 14.39%. In the January-February 2026 period, the export value reached US\$111.7 million again, an increase of 8.08% compared to the same period the previous year. The increase indicates that global demand for products made from natural weaves, including bamboo, still has positive prospects.

Craft products such as batik, bamboo weaving, ceramics, and wood crafts not only possess esthetic value and cultural identity but also contribute to job creation, increased community income, and the empowerment of local communities, especially in areas rich in cultural resources (Kusumaningrum et al., 2024). The interconnection between the handicraft industry and the tourism sector contributes to the enhancement of the added value of local products thru culture-based tourism promotion and the strengthening of the creative economy. However, the sustainability of the craft industry is still influenced by the dynamics of tourism activities, so fluctuations in the number of tourists can impact the demand for craft products (Aji, 2025).

Suhartono et al. (2026) state that one of the subsectors with great potential is bamboo weaving crafts. The availability of abundant raw materials and the easy-to-process characteristics of bamboo encourage the development and diversification of products from household needs to creative products with added value and higher competitiveness in the market. The development of product quality and innovation has become the main strategy in increasing the economic value of the bamboo craft industry. In addition to contributing to the increase in rural community income and job absorption, the utilization of bamboo also supports sustainable production practices thru the use of environmentally friendly materials (Darmawan & Kusumawati, 2020).

Although it has promising prospects, the handicraft industry is still dominated by small and medium enterprises (SMEs) with relatively small production scales, facing various challenges such as limited access to capital, inconsistent product quality, and suboptimal marketing. To enhance competitiveness in the digital and international markets, product innovation, strengthening managerial capacity, utilization of digital technology, and the development of industrial clusters supported by design training, access to financing, and the implementation of quality standards are necessary (Andansari et al., 2024; Herliana et al., 2022).

Based on these conditions, the Indonesian craft industry has great potential to continue developing as a driver of the creative economy while also preserving cultural heritage. Therefore, strengthening innovation, enhancing the capacity of SMEs, and developing a sustainable industrial ecosystem are important factors in increasing the competitiveness of Indonesian crafts, particularly bamboo weaving, in the global market.

Export Value Trend of Plant-Based Woven Materials (HS 14) in Indonesia

Comparison of Export Value in 2024, 2025, and January–February 2026

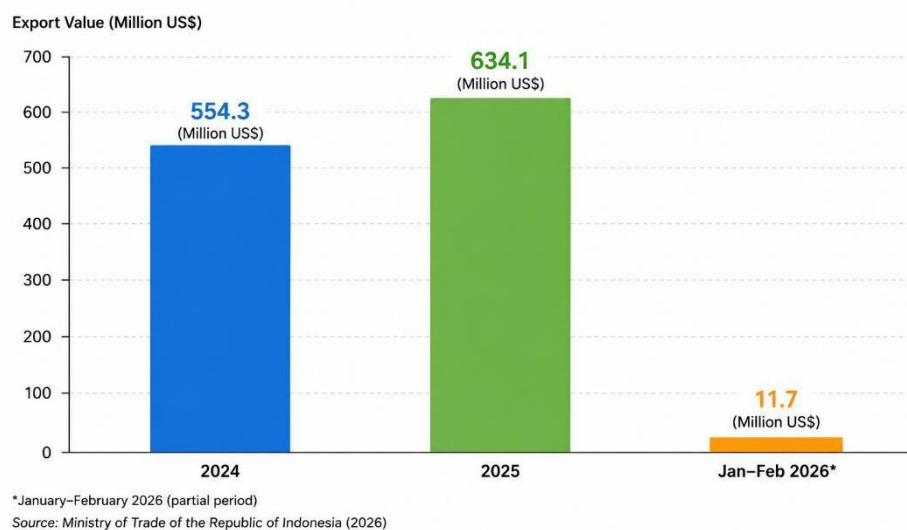


Figure 1. Export Value Trend of Plant-Based Woven Materials in Indonesia

Method

This research uses a descriptive qualitative approach by utilizing secondary data obtained from industry reports, academic publications, and various valid literature sources on the development of the handicraft industry in Indonesia. The analysis was conducted using the Five Forces Porter framework to identify the level of industry competition, as well as a macro-environment analysis (political, economic, social, technological, and demographic) to understand the external factors affecting the industry. This approach was chosen to provide a comprehensive overview of the opportunities, challenges, and attractiveness of the handicraft industry in Indonesia.

Development of the Handicraft Industry in Indonesia

The handicraft industry in Indonesia continues to undergo a transformation from a traditional sector to a more modern, innovative, and integrated creative industry with both national and global markets. This development is marked by an increasing export orientation, the utilization of digital technology, product innovation, and the strengthening of collaboration among stakeholders. The competitive advantage of the craft industry is supported by the presence of industrial clusters that facilitate access to local raw materials and skilled labor, thereby enhancing competitiveness in the international market (Lantu, 2022). In addition, the ability to innovate thru co-creation with consumers drives product development, marketing strategies, and the creation of higher added value (Nurgraha & Siddiq, 2022). The utilization of e-commerce, social media, and digital platforms also expands the market reach of craft SMEs.

In addition to the various developments that have been achieved, the craft industry still faces a number of challenges, including limited access to capital, low technology adoption, inconsistent product quality, as well as logistical constraints and compliance with export standards. Low innovation, product diversification, and brand strengthening also hinder competitiveness. From a social and cultural perspective, the handicraft industry plays a strategic role in community empowerment thru the preservation of cultural iden-

tity, strengthening social cohesion, and the regeneration of artisans based on local wisdom supported by the participation of the younger generation (Supendi et al., 2025; Suarjana et al., 2026).

One of the rapidly developing subsectors is bamboo weaving crafts. The abundant availability of raw materials and the flexible characteristics of bamboo support the development of various value-added products. Thru design innovation and modern technology, bamboo weaving has evolved from household products to decorative items and interior elements with higher esthetic value and competitiveness (Gunawarman et al., 2025). In addition to supporting job creation and environmental preservation, the increasing demand for eco-friendly products also opens up broader export opportunities for bamboo crafts (Darmawan & Kusumawati, 2020).

The promising prospects for the development of the bamboo weaving craft industry still face various challenges, such as limited access to capital, low technology adoption, and difficulties in meeting international market quality standards. Therefore, enhancing the capacity of entrepreneurs thru design training, quality certification, and optimization of digital platforms becomes an important step to strengthen the competitiveness of the industry (Andansari et al., 2024). Overall, strengthening innovation, digitalization, collaboration, and the preservation of cultural values are the main factors in driving the sustainability of Indonesia's handicraft industry, particularly bamboo weaving, as one of the pillars of the globally competitive creative economy.

Indonesia's Craft Industry Ecosystem (2026)

Key indicators of Indonesia's craft industry based on official data.

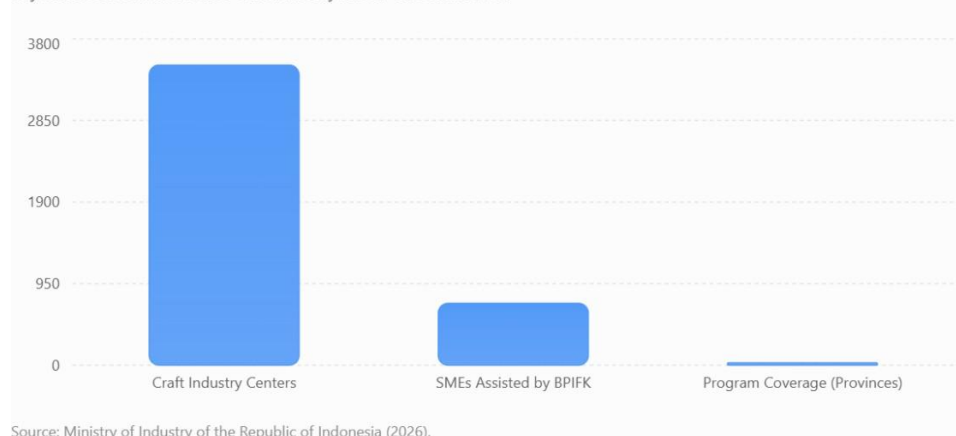


Figure 2. Indonesia's Craft Industry Ecosystem (2026)

The diagram shows that the craft industry in Indonesia has a continuously developing ecosystem. Until 2026, there are 3,496 craft SME centers that serve as hubs for the development of the craft industry in various regions. In addition, 722 craft SMEs have received assistance from the Fashion and Craft Industry Empowerment Center (BPIFK), with program coverage in 29 provinces. The data shows government support in enhancing the capacity of craft industry players thru mentoring, innovation, and strengthening competitiveness.

Macro Environment Analysis

a. Political and Legal Factors

Political stability and government policy support play a crucial role in promoting the development of MSMEs and the creative industry thru empowerment programs, training, financing, and Intellectual Property Rights (IPR) protection. These policies have proven to enhance the competitiveness of creative industry players, including the handicraft sector (Herliana et al., 2022). In addition, Law Number 20 of 2008 on MSMEs provides a legal basis for fostering and expanding market access, while IP protection plays a role in maintaining the originality of local craft products (Suparman & Widiastuti, 2021). Nevertheless, the limited understanding of regulations, trademark registration, and access to legal assistance remain challenges, so the effectiveness of the policy highly depends on its implementation at the regional level.

b. Economic Factors

National economic growth drives an increase in demand for craft products and strengthens their contribution to job creation and local economic development (Kusumaningrum et al., 2024). However, industry players still face various challenges, such as fluctuations in raw material prices, increased operational costs, limited access to capital, suboptimal global distribution, and competition with competitively priced imported products (Andansari et al., 2024). On the other hand, the development of

the digital economy opens up opportunities for artisans to expand their market reach thru e-commerce. Digitalization also plays a role in strengthening the development of creative industry clusters thru expanded market access and increased competitiveness (Lantu, 2022).

c. Demographic Factors

Indonesia has a large productive age population, creating a vast market potential while also providing an abundant workforce. Millennial and Gen Z generations also show an increasing preference for unique, environmentally friendly, and esthetically valuable local products (Darmawan & Kusumawati, 2020). The craft industry contributes to job absorption, especially for women and rural communities, although it still faces the challenge of low artisan regeneration. The development of design and collaboration between artisans and designers also drives the transformation of bamboo weaving crafts from functional products to decorative and lifestyle products that have added value and are more in line with modern market preferences (Kang & Wang, 2025).

d. Technology Factors

The development of technology has become the main driver of the transformation of the craft industry thru the utilization of social media, marketplaces, and digital marketing that expands market reach. Technology-based innovations and co-creation approaches have also proven to enhance the added value of craft products (Nurgraha & Siddiq, 2022). In addition, the use of modern production technology and Computer-Aided Design (CAD) enhances the efficiency, quality, and innovation of products. However, limited access to and mastery of technology, especially in rural areas, still pose obstacles to the optimal use of digital platforms for artisans.

e. Social and Lifestyle Factors

Changes in social values and lifestyles are driving an increase in demand for handicraft products that prioritize sustainability, cultural values, and esthetics. Natural material products, such as bamboo, are increasingly in demand because they align with modern interior design trends and an environmentally friendly lifestyle (Dalal et al., 2025). Moreover, the increasing appreciation for handmade products that possess authenticity, philosophical value, and local cultural identity opens up greater opportunities for the development of bamboo crafts as value-added products and a medium for cultural preservation.

Porter's Five Forces Analysis

Porter's Five Forces analysis is used to evaluate the level of competition and the attractiveness of the handicraft industry in Indonesia, particularly the bamboo weaving subsector. Thru the five dimensions of competition, namely the threat of new entrants, the threat of substitute products, the bargaining power of suppliers, the bargaining power of buyers, and the rivalry among industry players, factors that influence the competitive position of the industry can be identified. The summary of the analysis results is presented in Table 1.

Table 1. Porter's Five Forces Analysis

Competitor Factor	Strength Level	Brief Description	Company
Threat of New Entrants	Moderate	The entry barriers are relatively low because the capital and technology requirements are not too high, but skills, product quality, and cultural identity are the main differentiators.	Bamboo craft centers in Tasikmalaya, Yogyakarta, and Bali are still able to maintain their competitiveness thru the skills of artisans, design, and local cultural identity.
Threat of Substitute Products	Quite Strong	Plastic, resin, metal products, and imported goods have become cheaper alternatives and are mass-produced.	Home decoration products from China and Vietnam have become the main competitors of Indonesian bamboo woven products.
Bargaining Power of Suppliers	Moderate	The availability of bamboo is quite abundant, but the quality of the raw materials, seasonal factors, and dependence on certain suppliers can affect the production process.	Craftsmen in Central Java and Yogyakarta rely on quality bamboo suppliers to maintain export product standards.
Bargaining Power of Buyers	Strong	Consumers have many product choices, making them more sensitive to price, quality, design, and esthetic value.	Consumers can easily compare products thru marketplaces and social media, so artisans must continuously innovate.

Rivalry Among Exist- ing Competi- tors	Very Strong	The competition among local SMEs and with foreign producers is very intense, especially in terms of design innovation, price, and product quality.	Craft centers in Tasikmalaya, Bali, Yogyakarta, as well as imported products from China and Vietnam, compete in both the domestic and export markets.
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Source: Compiled from various literatures (2022-2026)

a. Threat of New Entrants (Moderate)

The threat of new entrants in the craft industry is relatively high due to low entry barriers, characterized by relatively simple capital, technology, and business requirements. These conditions result in this sector being dominated by SMEs that start their businesses with limited capital and simple equipment (Andansari et al., 2024). However, in the high-quality bamboo craft segment, the entry barriers tend to be higher because it requires special skills, access to quality raw materials, and mastery of the production process. Additionally, a brand image based on cultural values, reputation, and distribution networks provides a competitive advantage for established businesses, thereby reinforcing entry barriers for new competitors (Lantu, 2022).

b. Threat of Substitute Products (Quite high)

The threat of substitute products in the handicraft industry is considered high due to competition with modern synthetic products that are mass-produced and offer more competitive prices, better durability, and practicality that aligns with consumer preferences. Lifestyle shifts also drive increased competition, making design innovation an important factor in maintaining the competitiveness of bamboo crafts (Azhari et al., 2025). This condition demands entrepreneurs to continuously improve quality, diversify products, and implement adaptive marketing strategies (Suhartono et al., 2026). The increasing awareness of sustainability strengthens the competitiveness of bamboo crafts, as bamboo, being a renewable and environmentally friendly material, is increasingly favored as an alternative to less sustainable materials (Prakash et al., 2025).

c. Supplier Bargaining Power (Moderate)

The bargaining power of suppliers in the craft industry tends to be at a moderate level due to the relatively abundant availability of bamboo in various regions of Indonesia. However, the limited supply of quality bamboo and the instability of the supply chain can increase the bargaining power of suppliers, potentially affecting raw material prices and production smoothness (Anitha et al., 2026). Additionally, the dependence of SMEs on single suppliers and the weak inventory management system also increase the risk of raw material supply (Andansari et al., 2024).

d. Bargaining Power of Buyers (Strong)

The bargaining power of buyers in the craft industry is considered high because consumers have many product alternatives, whether from local crafts, manufactured products, or imports. Consumers also tend to prioritize unique designs and esthetic value, making it easy for them to switch to other products if their preferences are not met (Nurgraha & Siddiq, 2022). The development of e-commerce further strengthens the position of buyers by making it easier to compare prices and product quality, thus requiring business operators to continuously innovate and maintain competitive quality and prices. However, consumers in the art and custom product segment generally have higher loyalty, so their bargaining power is relatively lower.

e. Inter-Company Competition (Very Strong)

Competition in the Indonesian handicraft industry is quite high due to the large number of MSME players, the relatively homogeneous characteristics of the products, and the ease with which the products can be imitated. The craft industry cluster also faces intense internal competition due to the similarity of products among artisans in one region, while the presence of foreign producers further increases competitive pressure in the global market (Lantu, 2022). In addition, design innovation has become a determining factor in competitiveness, requiring business actors to continuously follow market trends to remain competitive.

Driving Forces

The development of Indonesia's handicraft industry, particularly bamboo weaving, is influenced by various driving forces that push the industry toward a more modern, competitive, and sustainable direction. The increasing public awareness of sustainability issues has made bamboo-based products more popular because they are environmentally friendly, renewable, and have a low carbon footprint (Susilowati & Hidayat, 2021). On the other hand, digital transformation through the utilization of e-commerce, social media, and digital marketing platforms has expanded market access and increased the effectiveness of marketing craft products (Nurgraha & Siddiq, 2022).

The development of the industry is also supported by various government policies through MSME development programs, training, financial assistance, Intellectual Property Rights (IPR) protection, and the strengthening of industrial centers, which contribute to the increase in capacity and competitiveness of

business actors (Herliana et al., 2022). In addition, changes in consumer preferences toward products with esthetic value, functionality, and sustainability have also increased the demand for bamboo woven products (Yuliani, 2023). The growth of the creative economy also strengthens the industrial ecosystem thru increased market access, collaboration, and product innovation (Kusumaningrum et al., 2024).

The increasing appreciation for local culture thru the tourism sector provides greater opportunities for marketing traditional craft products (Rahmawati, 2020). Collaboration between artisans, designers, academics, and creative communities also fosters the emergence of product innovations that maintain local cultural identity, thereby enhancing competitiveness amidst changing market trends (Putri & Anggraini, 2021). Thus, sustainability, digital transformation, government support, changes in consumer preferences, the growth of the creative economy, tourism, and design innovation are the main factors driving the development of Indonesia's handicraft industry.

Key Success Factors

a. Design Innovation

Design innovation is a key factor in enhancing the competitiveness of the bamboo craft industry because it is influenced by changes in trends, lifestyles, and consumer preferences. The development of product form, function, and esthetics, supported thru collaboration between artisans and professional designers, is capable of producing more competitive products in both national and international markets. The innovation also increases the selling value by developing bamboo weavings from traditional products into decorative items, furniture, accessories, and modern interior elements (Nurgraha & Siddiq, 2022).

b. Quality and Consistency of Products

Product quality is the main factor that influences consumer perception of the reliability of bamboo crafts. Strong, durable products with a good finish require proper processing, especially during the drying stage, to enhance the stability and quality of the raw materials. Therefore, the application of appropriate drying and processing techniques becomes an important factor in maintaining quality consistency and increasing the competitiveness of bamboo craft products (Sumardi et al., 2024).

c. Mastery of Digital Technology

Mastery of digital technology has become an important factor in driving the transformation of the craft industry. The utilization of e-commerce, social media, and marketplaces expands market reach, while digital marketing strategies, such as storytelling, brand persona, and visual content, enhance product competitiveness. SMEs that can integrate product creativity with digital marketing have a higher chance of success compared to those that still rely on conventional methods (Nurgraha & Siddiq, 2022). In addition, the use of design software supports the development of innovative woven patterns without losing the value of local wisdom.

d. Strengthening Local Identity

Strengthening local identity becomes a differentiation strategy that enhances the competitiveness of handicraft products in the global market. Cultural values reflected thru traditional motifs, philosophies, and local narratives add value and enhance the product's appeal. Herliana et al. (2022) state that crafts with a strong local identity are more favored by tourists and the international market because they are considered unique and authentic. In bamboo crafts, this identity can be realized thru distinctive weaving patterns, product naming, and cultural narratives in marketing strategies.

e. Availability of Quality Raw Materials

Bamboo, as the main raw material, must have stable quality and availability to ensure production continuity. Effective management of raw material supply becomes an important factor in maintaining product quality, increasing added value, and supporting the sustainability of the bamboo craft industry (Rahayu et al., 2024). Artisans also need to apply sustainability principles, such as bamboo reforestation and the use of bamboo that has reached the ideal harvesting age.

f. Strengthening Industrial Clusters

Industrial clusters are groupings of business actors in one area to strengthen the production ecosystem. Clusters such as bamboo industry centers, craft centers, or artisan tourism villages have proven effective in enhancing competitiveness. Lantu (2022) states that MSME clusters are capable of strengthening networks, facilitating access to training, accelerating technology adoption, and improving production efficiency.

g. Human Resource Capacity Development

The artisans' expertise in mastering weaving techniques, design innovation, and production processes affects the final product quality. Technical training, design workshops, and MSME incubation programs are highly necessary. According to Putri & Anggraini (2021), the enhancement of human resource capacity is positively correlated with the ability of SMEs to innovate and adapt to market changes.

h. Branding and Differentiation Strategy

Strong branding allows craft products to enter a wider market segment. Differentiation can take the form of unique designs, eco-friendly concepts, or cultural experiences. Yuliani (2023) shows that modern consumers are more interested in products with a strong brand story and consistent presence across various digital platforms.

Based on the analysis results, the key success factors for the handicraft industry include design innovation, product quality, digital transformation, strengthening local identity, raw material management, industrial cluster development, enhancement of human resource capacity, and effective branding strategies. The optimization of all these factors will enhance the competitiveness of the Indonesian handicraft industry in both domestic and international markets.

Opportunities and threats

Opportunities

The Indonesian handicraft industry, including bamboo weaving, has great potential as global demand for eco-friendly products increases. Bamboo, as a renewable material, adds value and strengthens the competitiveness of products in the international market (Darmawan & Kusumawati, 2020). The growth of the creative economy also opens opportunities for the development of craft SMEs thru increased innovation and market expansion (Kusumaningrum et al., 2024). In addition, the utilization of e-commerce and social media expands market access and enhances the competitiveness of business actors (Nurgraha & Siddiq, 2022). Government support thru the development of MSMEs, training, and protection of Intellectual Property Rights (IPR) also encourages the improvement of product quality, innovation, and access to financing (Herliana et al., 2022).

Threats

The craft industry also still faces various challenges. Competition with imported products from Asian countries has become one of the factors that pressure the competitiveness of the national industry (Lantu, 2022). The limitations in the supply and quality of raw materials also have the potential to hinder production continuity (Darmawan & Kusumawati, 2020). Changes in consumer preferences require business actors to continuously innovate so that their products remain relevant in the market (Putri & Anggraini, 2021). In addition, limited access to capital, technology adoption, and digitalization still pose challenges for most craft SMEs (Andansari et al., 2024). Inconsistency in product quality also poses a barrier to meeting international market standards and enhancing export competitiveness (Herliana et al., 2022).

Based on the analysis results, the Indonesian handicraft industry, particularly bamboo weaving crafts, has promising prospects as one of the competitive subsectors of the creative economy. Development opportunities are supported by the increasing demand for eco-friendly products, advancements in digital technology, government support, and the growth of the creative economy. However, this industry still faces challenges such as global competition, limited raw materials, low technology adoption, and inconsistent product quality. Therefore, strengthening innovation, digitalization, quality standardization, and collaboration among stakeholders are important factors in enhancing the competitiveness and sustainability of the craft industry in the global market.

Conclusion and Recommendations

Based on the discussion results, the craft industry is one of the subsectors of the creative economy that plays a strategic role in driving economic growth while preserving Indonesia's cultural heritage. Bamboo weaving crafts have great potential because they are supported by the availability of raw materials, cultural value, and their contribution to increasing community income, creating jobs, and applying sustainability principles. Nevertheless, this industry still faces various challenges, such as limited capital, low technology adoption, market competition, and the regeneration of artisans. On the other hand, the development of digital technology, e-commerce, and the increasing appreciation for handmade and environmentally friendly products open significant opportunities to expand the market and enhance the competitiveness of the craft industry on a global scale.

The development of the handicraft industry requires synergy between the government, business actors, academics, and the community thru strengthening access to capital, enhancing human resource competencies, utilizing digital technology, and product innovation. In addition, strengthening brand identity based on local culture and the regeneration of artisans thru collaboration with educational institutions need to be continuously improved. These efforts are expected to strengthen the competitiveness of the craft industry, particularly bamboo weaving, so that it can develop sustainably and contribute more significantly to the national creative economy.

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