

INDONESIA'S EFFORT TO IMPROVE THE EXAMINATION OF BAMBOO CRAFTS TO THE UNITED

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Abstract

Bamboo craft is one of Indonesia's key export commodities with significant potential in the global market, particularly in the United States, driven by the growing trend of eco-friendly products. However, this potential is often hindered by issues of inconsistent quality and standardization, making it difficult to pass strict examinations in the destination country. This study aims to analyze the various efforts undertaken by the Indonesian government and other stakeholders between 2010 and 2017 to improve the examination and quality control systems for bamboo craft products. Using a literature study approach from various journals, books, and government reports, this paper discusses the strategies implemented, the challenges faced, and the effectiveness of these programs. The findings indicate that efforts included product standardization through the Indonesian National Standard (SNI), training for MSMEs, facilitation of international exhibitions, and design development. However, the main challenges still lie in the implementation of standards at the artisan level, access to technology, and a thorough understanding of destination market regulations. This paper concludes that strengthening the synergy between the government, industry associations, and MSME actors is key to enhancing the competitiveness and acceptance of Indonesian bamboo craft products in the international market.

Keywords: Bamboo Crafts, Export, Quality Control, Standardization, MSMEs, United States Market.

INTRODUCTION

Indonesia, as a country with abundant natural resources, possesses bamboo as one of its most potential non-timber commodities. Bamboo is not only a part of the culture and daily life of its people but also a primary raw material for the craft industry, which holds high economic value.¹ Indonesian bamboo craft products, ranging from household furniture, decorations, to fashion accessories, have unique designs and an ethnic touch that is sought after by the global market.

¹ T T H Tambunan, "Micro and Small Enterprises in Indonesia: Their Role in Employment and Economy," *Asian Economic Policy Review* 9, no. 2 (2014): 293–315.

One of the main export destination markets for craft products is the United States. Consumers in this country show a high interest in products that are sustainable, eco-friendly, and have a cultural story. This presents a great opportunity for Indonesian bamboo artisans and exporters.² However, this opportunity is met with a significant challenge: extremely strict examination standards. The U.S. market enforces complex regulations regarding product safety, the use of chemicals in the finishing process (such as paints and varnishes), and fumigation requirements to prevent the entry of pests.³

Failure to meet these standards often leads to product rejection, financial losses, and diminished trust from importers. The root of the problem often lies upstream, in the production process at the Micro, Small, and Medium Enterprise (MSME) level, which has not yet fully implemented standardized quality management systems.⁴ Consequently, product quality becomes inconsistent and struggles to compete with similar products from other countries like Vietnam and China.

Recognizing these issues, various efforts were made by the Indonesian government and relevant stakeholders during the period of 2010-2017 to address this gap. These efforts focused on improving product quality from upstream to downstream to ensure they could pass the examination process in the destination country. This paper will conduct an in-depth review of these efforts, analyze their effectiveness, and identify the remaining obstacles in the path of enhancing the competitiveness of Indonesian bamboo crafts in the global market.

LITERATURE REVIEW

Standardization and Quality Management of Export Products

Standardization is an essential process for ensuring product safety, quality, and conformity with the regulations of importing countries (Sumarwan, 2011). In international trade, especially for export-oriented MSMEs, compliance with these standards is not optional; it is a prerequisite for accessing foreign markets. Kotler and Keller (2012) emphasize that quality consists of several dimensions, including performance, reliability,

² T T H Tambunan, *Analysis of Competitiveness Determinants, and Export Development Strategy of Indonesian MSME Products to the ASEAN Market* (Atlantis Press, 2015).

³ Ibid.

⁴ Susminingsih Susminingsih et al., *THE EMPOWERMENT OF SMALL and MEDIUM ENTERPRISES (SMES) THROUGH BMT and COOPERATIVE REVOLVING FUND IN INDONESIA AND MALAYSIA* (Direktorat Jenderal Pendidikan Islam, Kementerian Agama RI, 2017).

durability, and conformance to specifications. For bamboo crafts, conformance to the importing country's technical specifications is crucial,⁵ as failure to meet these standards can result in products being classified as Non-Tariff Barriers (NTBs), a barrier that often proves more challenging to overcome than tariff barriers.

In the case of Indonesia's bamboo craft industry, the absence of standardized quality control mechanisms, especially among small-scale producers, has been a significant issue. The introduction of national standards, such as the Indonesian National Standard (SNI)⁶, aimed at creating a uniform baseline of quality that would make Indonesian bamboo crafts more competitive in international markets.

The Role of MSMEs in Export Competitiveness

The competitiveness of Micro, Small, and Medium Enterprises (MSMEs) in the global market is shaped by several critical factors.⁷ These include the ability to produce high-quality goods, offer competitive prices, innovate product designs, and respond to evolving market demands (Porter, 2011). However, for MSMEs in developing countries like Indonesia, these factors are often compromised by several inherent challenges that limit their competitive edge on the global stage.

In the case of the bamboo craft sector, MSMEs face significant obstacles in terms of access to capital, technology, and market information. Bamboo crafting, being a labor-intensive and artisanal process, requires skilled labor, quality raw materials, and adequate production facilities. Unfortunately, many MSMEs in Indonesia are unable to afford modern equipment or machinery that could enhance production efficiency, precision, and overall product quality. Without access to advanced technology, the production process remains highly dependent on traditional methods, which can be time-consuming and inconsistent. As a result, the final products often lack uniformity, making them difficult to meet international standards, particularly in markets like the United States that demand consistent quality.

⁵ J Hidayat, "Case Study - Contemporary Bamboo-Ceramic-Batik-Silver Craft Integration in Indonesia," *Journal of Arts and Design* 4, no. 1 (2015): 23–30.

⁶ D C Lantu, "The Competitiveness of Indonesian Craft as Creative Industry," *Advances in Economics, Business, and Management Research* 105 (2016): 50–65.

⁷ T T H Tambunan, *Development of MSMEs in Indonesia and Uganda* (Universitas Trisakti, 2014).

Furthermore, the financial constraints faced by MSMEs in the bamboo craft sector often limit their ability to invest in quality control systems, R&D, and marketing efforts. In the absence of capital to fund these essential components of business growth, many MSMEs struggle to develop and expand their operations to meet the demands of foreign markets. Without robust financial support, these businesses may also find it difficult to scale production, adopt best practices in manufacturing, or access international supply chains that could offer more competitive prices or better raw materials.

In addition to these challenges, market information remains a significant barrier for many MSMEs. Access to up-to-date information on global market trends, consumer preferences, and regulatory requirements is crucial for staying competitive. MSMEs often lack the infrastructure and networks to access detailed market intelligence, leaving them at a disadvantage when trying to tailor their products to meet the preferences of consumers in international markets. For instance, without proper knowledge of U.S. market regulations regarding the use of chemicals in finishes or the specific quality standards required by international buyers, MSMEs are often unable to produce products that comply with these requirements, resulting in rejected shipments and lost business opportunities.

Another critical issue that affects the competitiveness of Indonesian bamboo crafts is the lack of product innovation. Product design plays an essential role in the global market, particularly in the context of eco-friendly and culturally significant products like bamboo crafts. However, many MSMEs in Indonesia struggle to keep up with global design trends and consumer preferences. While traditional craftsmanship is highly valued, there is a growing demand for products that blend cultural authenticity with modern functionality and aesthetics. Without the necessary support and collaboration with professional designers, many MSMEs fail to create products that are both competitive and desirable in international markets. As a result, even high-quality bamboo products may struggle to appeal to global consumers who demand innovative and trendy designs.

To enhance the competitiveness of MSMEs, particularly those in the bamboo craft sector, they need robust support from various stakeholders, including the government, industry associations, and trade organizations. Government policies aimed at improving access to capital, providing export incentives, and facilitating international trade exhibitions are crucial for helping MSMEs overcome these barriers. For example,

providing financial assistance such as low-interest loans or grants to fund technological upgrades or marketing campaigns can significantly improve an MSME's ability to compete in international markets. Furthermore, capacity-building programs focused on quality management, product design, and marketing strategies can equip MSMEs with the skills and knowledge needed to meet global standards and consumer demands.

In addition to government support, industry associations play a vital role in facilitating MSMEs' access to international markets. These associations can act as intermediaries, helping MSMEs network with potential buyers, establish partnerships, and participate in global trade fairs or exhibitions.⁸ By offering trade missions, business matchmaking services, and market intelligence reports, industry associations can help MSMEs expand their reach and gain a foothold in foreign markets.

Government Efforts to Promote Non-Oil and Gas Exports

The Indonesian government has recognized the pivotal role of Micro, Small, and Medium Enterprises (MSMEs) in driving the nation's economic growth, particularly in the export sector. Given that Indonesia's economy is highly dependent on its natural resources, the government has shifted its focus towards promoting non-oil and gas exports, especially those from sectors such as agriculture, crafts, manufacturing, and renewable resources. As part of this shift, the government has rolled out a series of policies and programs designed to strengthen the capacity of MSMEs and enable their products to compete in the global marketplace.

One of the most critical initiatives is the trade facilitation programs, which aim to streamline the export process, reduce trade barriers, and enhance the efficiency of MSMEs in accessing international markets. These programs are often spearheaded by agencies such as the Ministry of Trade and the Ministry of Industry, which have worked to simplify the bureaucratic processes involved in export transactions. By reducing the administrative burden and introducing more transparent and efficient procedures, the government aims to create an environment that is conducive to MSME growth in the export sector.

Export financing support is another vital component of the government's efforts. MSMEs in Indonesia often face significant financial constraints that hinder their ability to invest in production capacity, improve quality control, and meet international standards.

⁸ Lantu, "The Competitiveness of Indonesian Craft as Creative Industry."

To address this, the government, in collaboration with financial institutions such as Bank Negara Indonesia (BNI) and Export-Import Bank of Indonesia (Exim Bank), has introduced various financing schemes. These include low-interest loans, export credit, and guarantee schemes designed to provide MSMEs with the capital needed to grow their businesses and meet the demands of international buyers. The Export Financing Scheme particularly targets industries like bamboo crafts, agriculture, and textiles, where MSMEs face challenges in acquiring the necessary financial support.⁹

Additionally, economic diplomacy efforts play a critical role in promoting Indonesian exports, especially in emerging and non-traditional markets. The government has increasingly focused on diplomatic channels to open new opportunities for Indonesian products abroad. Through trade missions, bilateral agreements, and participation in international trade forums, the government has worked to establish trade relations with key economic partners. Indonesia's Embassies and Consulates around the world have been actively involved in fostering trade relations, organizing business matchmaking events, and offering market entry support for Indonesian MSMEs seeking to expand into foreign markets.¹⁰

In terms of capacity building, the Indonesian government has launched several training programs aimed at improving the skills and knowledge of MSME owners, managers, and workers. These programs focus on critical aspects of product quality and global market requirements. For example, MSMEs are trained in quality management systems such as ISO 9001 and are provided with workshops on the use of international certification standards that enhance product competitiveness. By building the capacity of local businesses to meet the standards required in global markets, the government ensures that Indonesian products, including bamboo crafts, are capable of passing stringent quality controls in foreign markets, particularly in the United States, the European Union, and ASEAN markets.

One of the most visible government efforts to promote Indonesian exports is the facilitation of international trade fairs and exhibitions. These events serve as platforms for

⁹ H Haryadi and S Hodijah, "Analysis of Competitiveness Determinants, and Export Development Strategy of Indonesian MSME Products to the ASEAN Market," *Proceedings of the 2nd International Conference on Economic, Business, and Financial Analysis* (2015): 210–223.

¹⁰ H Haryadi and S Hodijah, "Analysis of Competitiveness Determinants, and Export Development Strategy of Indonesian MSME Products to the ASEAN Market," *Proceedings of the 2nd International Conference on Economic, Business, and Financial Analysis* (2016): 210–223.

MSMEs to showcase their products directly to international buyers, allowing them to receive immediate feedback on their product quality, pricing, and design. Through events such as IndoBuildTech, Jakarta Fashion Week, and various Indonesian trade expos, MSMEs are able to meet potential partners and distributors, leading to increased international exposure. By providing financial support and logistical assistance, the government ensures that MSMEs can attend such events without bearing the entire financial burden, which is especially important for smaller enterprises with limited resources.¹¹

Additionally, the Ministry of Trade has established international trade promotion offices in key export markets, particularly in Asia, Europe, and North America. These offices play an instrumental role in helping Indonesian businesses navigate the complexities of foreign markets by providing market research, consumer trends analysis, and regulatory guidance. The presence of these offices allows MSMEs to directly access localized support and expertise, which aids them in adapting their products to meet the tastes and preferences of international consumers.

The government has also worked closely with industry associations such as the Indonesian Handicraft Exporters Association (ASEPHI) and the Indonesian Textile Association (API) to support the promotion of non-oil and gas exports.¹² These associations act as intermediaries, connecting MSMEs with international buyers, and helping them overcome the logistical challenges associated with entering foreign markets. Additionally, these associations play a vital role in advocacy and lobbying, ensuring that the interests of MSMEs are represented at national and international forums. They also provide training programs, workshops, and seminars on topics like product innovation, branding, and intellectual property rights, which are crucial for MSMEs looking to expand their export operations.

Digital transformation is also becoming a cornerstone of the Indonesian government's strategy to support MSMEs in their export activities. Recognizing the growing importance of e-commerce in global trade, the government has partnered with various tech companies to create platforms that allow Indonesian MSMEs to sell their

¹¹ E Sopandi, "Competitive Advantages of Bamboo Creative Products: Study on Saung Angklung Udjo, Bandung City, West Java Province, Indonesia," *Journal of Arts and Humanities* 6, no. 10 (2017): 215–222.

¹² I M Kartika, "Assessing the Performance and Competitive Strategies of Bamboo Weaving MSMEs in Bali," *Journal of Applied Data Sciences* 5, no. 4 (2017): 1189–1209.

products globally. The Go-Export program, for example, helps MSMEs set up online stores and access international e-commerce platforms like Alibaba and Etsy. This digitalization effort is particularly crucial for sectors like bamboo crafts, where product customization and niche designs are highly valued in markets like the U.S. and Europe. Through these platforms, MSMEs can directly interact with international buyers, reducing their dependence on traditional intermediaries and increasing their profitability.

To complement these initiatives, the Indonesian government has also worked to improve the infrastructure necessary for MSMEs to thrive in the global market. This includes investing in logistical networks, port infrastructure, and supply chain management systems that ensure Indonesian products reach international markets efficiently and cost-effectively. The National Logistics Ecosystem (NLE), for example, is a government-led initiative designed to streamline the movement of goods from Indonesia to global destinations by improving port efficiency, reducing cargo handling times, and lowering transportation costs.

Finally, sustainability has become a key focus in the government's export promotion strategy. As global demand for eco-friendly products grows, the Indonesian government has encouraged MSMEs to adopt sustainable production practices and seek certifications such as Fair Trade and FSC (Forest Stewardship Council) for their products. This aligns with the growing demand in developed markets for products that adhere to environmental and social responsibility standards. Through training, financial incentives, and partnerships with international organizations, the government has assisted MSMEs in becoming certified and positioning their products as sustainable and ethically produced, which is particularly important in the bamboo craft sector.

RESEARCH METHODS

This study is qualitative in nature, based primarily on a comprehensive literature review. However, should this research be expanded into a quantitative study,¹³ the following methodology could be applied: Research Approach, An explanatory survey method using a quantitative approach to explain the influence of various factors on the success of bamboo craft exports. Population and Sample, The research population would consist of bamboo

¹³ T M Prihantanti and B Nuswantara, "Development Strategy of Bamboo Craft Home-Scale Industries Using Diamond Porter Modeling at Malumbi Village, Kambera District, Eastern Sumba Regency," *Jurnal AGRISEP* 21, no. 3 (2016): 98–110.

craft MSMEs registered in major production hubs such as Tasikmalaya, Yogyakarta, and Bali. The sample would be selected using purposive sampling, focusing on MSMEs that actively exported bamboo products to the U.S. during the 2010-2017 period, with a sample size of at least 100 respondents.

Research Variables:

Independent Variables (X): Participation in government-led training programs (X1), adoption of Indonesian National Standards (SNI) (X2), access to modern production technologies (X3), and understanding of U.S. market regulations (X4). Dependent Variable (Y): Export performance, measured by export volume, frequency of shipments, and product rejection rates. Data Collection Method: Data would be gathered using structured questionnaires with Likert scale items to assess perceptions and the degree of implementation of the independent variables. Data Analysis, The collected data would be analyzed using statistical software like SPSS. Descriptive statistics would be employed to describe respondent demographics, while multiple regression analysis would be used to test the relationship between the independent and dependent variables. The regression model could be formulated as:

DISCUSSION

Strengthening Internal Standards and Certification

The establishment of the Indonesian National Standard (SNI) was one of the foundational steps taken by the Indonesian government to elevate the quality and competitiveness of its export products, particularly bamboo crafts. The SNI serves as a national benchmark for quality, ensuring that products meet specific safety, performance, and environmental standards required by both domestic and international markets.¹⁴ By adopting and implementing the SNI, the government aimed to provide a clear and consistent framework for producers, enabling them to manufacture products that could meet global market expectations and reduce the risk of rejections during export procedures.

The adoption of the SNI system was crucial in improving the overall quality assurance processes for bamboo crafts. The Indonesian National Standardization Agency (BSN) worked in collaboration with various industry stakeholders, including trade

¹⁴ Ibid.

associations, research institutions, and technical experts, to develop specific SNIs tailored to different categories of bamboo products. These standards covered various aspects of the bamboo craft production process, such as raw material quality, finishing techniques, product durability, packaging requirements, and eco-friendly practices. For instance, certain SNI certifications were introduced for bamboo furniture, bamboo home décor, and bamboo kitchenware, ensuring that these products conformed to internationally recognized standards.

By aligning production processes with these standards, Indonesian MSMEs (Micro, Small, and Medium Enterprises) were given a clear framework to follow. This framework not only facilitated the export process but also improved product credibility in the eyes of international buyers. The certification provided assurance to overseas consumers and importers that the products met stringent quality, safety, and environmental standards. In doing so, the SNI acted as a tool to increase the marketability and acceptance of Indonesian bamboo crafts, particularly in demanding markets like the United States and the European Union, where quality assurance is a primary concern for consumers.¹⁵

Despite the significant advantages offered by SNI certification, the uptake among Indonesian MSMEs, especially small bamboo craft producers, was relatively slow. One of the primary reasons for this slow adoption was the perception of the certification process as complex and costly. For many MSMEs, particularly those operating in rural areas or informal sectors, the process of obtaining an SNI certification appeared to be a daunting and bureaucratic task. The documentation requirements, technical assessments, and audits involved in the certification process were often viewed as time-consuming and resource-draining.

Additionally, the cost of certification posed a significant barrier for many small producers. The fees associated with obtaining the SNI and the cost of meeting the required technical standards were often seen as prohibitive, particularly for businesses with limited financial capacity.¹⁶ These costs, coupled with the perceived administrative burden, led many MSMEs to either delay the certification process or forgo it altogether. As a result, many bamboo craft producers continued to rely on traditional methods without aligning

¹⁵ Ibid.

¹⁶ D C Lantu, "The Competitiveness of Indonesian Craft as Creative Industry," *Advances in Economics, Business and Management Research* 98 (2016): 51–65.

their production processes with the national standards, which led to inconsistent product quality.

This gap in the implementation of SNI certification presented a challenge to the broader goal of increasing the global competitiveness of Indonesian bamboo crafts.¹⁷ Without uniform adherence to these quality benchmarks, the bamboo craft industry faced difficulties in presenting itself as a reliable and consistent exporter to international markets. Furthermore, the lack of standardization at the production level resulted in a variance in quality that made it difficult for Indonesian bamboo crafts to maintain a competitive edge, particularly against countries like Vietnam, China, and Thailand, where export-quality standards were better established and implemented at the production level.

Recognizing these challenges, the government, through agencies like BSN and the Ministry of Industry, has initiated support programs to assist MSMEs in meeting SNI standards. These initiatives have included training workshops for MSME owners and workers on the benefits of certification, the step-by-step process for obtaining SNI, and the necessary quality management systems to put in place. Furthermore, the government has introduced financial assistance programs to help MSMEs offset the costs of certification, such as subsidies, low-interest loans, and grants for small-scale producers who are ready to invest in upgrading their production systems to comply with SNI standards.¹⁸

To address the issue of perceived complexity, the government has also worked on simplifying the certification process. This includes introducing online platforms that allow MSMEs to apply for certification, access relevant information, and track their certification status digitally. These initiatives are designed to reduce the bureaucratic hurdles and make the certification process more accessible for small producers.

Moreover, the government's approach has been to phased implementation of SNI certification across different product categories. Instead of requiring all bamboo products to comply with SNI immediately, the government has prioritized the most critical sectors, such as bamboo furniture and bamboo home décor, which have the highest export potential. This targeted approach allows MSMEs to focus on a select range of products while gradually scaling up their capabilities to meet broader certification requirements.¹⁹

¹⁷ Ibid.

¹⁸ I M Kartika, "Assessing the Performance and Competitive Strategies of Bamboo Weaving MSMEs in Bali," *Journal of Applied Data Sciences* 3, no. 2 (2015): 101–120.

¹⁹ Hidayat, "Case Study - Contemporary Bamboo-Ceramic-Batik-Silver Craft Integration in Indonesia."

In addition to these domestic efforts, the government has collaborated with international standardization bodies to align Indonesian standards with global regulations, ensuring that products certified under SNI are recognized and accepted in key international markets. For example, Indonesia has engaged with the International Organization for Standardization (ISO) to ensure that Indonesian bamboo crafts conform to international standards for materials, safety, and sustainability. This alignment increases the international credibility of Indonesian products, further enhancing their appeal to global buyers.

Despite the challenges and slow uptake, the government's continued efforts to promote the adoption of SNI certification are beginning to bear fruit. More MSMEs in the bamboo craft sector are gradually recognizing the long-term benefits of certification, particularly in terms of access to larger markets, improved product consistency, and enhanced brand reputation. As Indonesian bamboo crafts increasingly meet international standards, the country's reputation as a reliable exporter of high-quality, eco-friendly products is steadily growing.

However, there is still much work to be done. The continued outreach and education efforts are essential to ensure that MSMEs fully understand the advantages of SNI certification and are equipped with the necessary tools to implement these standards effectively. Moreover, there must be a focus on capacity building at the grassroots level, where the majority of bamboo craft producers operate, to ensure that the benefits of standardization reach every corner of the industry.

In conclusion, the adoption of the Indonesian National Standard (SNI) was a critical step toward ensuring the consistent quality of bamboo crafts. By setting clear benchmarks for production processes, the SNI provided Indonesian MSMEs with the opportunity to enhance their global competitiveness. However, the slow uptake of certification, due to perceived complexity and cost, remains a significant challenge. Continued efforts from the government to simplify the certification process, provide financial support, and educate MSMEs on the importance of standardization will be key to improving the overall competitiveness of Indonesian bamboo crafts in international markets.

MSME Training and Mentoring Programs

Training and mentoring programs have been central to Indonesia's strategy to improve the global competitiveness of its Micro, Small, and Medium Enterprises (MSMEs), particularly in the bamboo craft sector. These initiatives are designed to build the skills, knowledge, and technical capacity of MSME owners, employees, and artisans, enabling them to meet international quality standards and navigate complex export procedures.

The government, through the Ministry of Trade, Ministry of Industry, and various local industry associations, has implemented a series of capacity-building programs that focus on key areas such as product quality management, international certification requirements, export logistics, and market access strategies. For example, training programs in ISO 9001 and ISO 14001 (environmental management) have been offered to MSMEs to help them establish proper quality control systems and reduce production defects. These quality management systems are vital for meeting the stringent requirements of international buyers, especially those in the U.S. and European markets, who demand consistency and reliability in product quality.²⁰

Additionally, mentoring programs have been introduced to provide one-on-one guidance to MSMEs, focusing on specific business challenges. Experienced mentors from larger businesses or trade experts help small producers improve their operations by advising them on cost efficiency, process optimization, and market trends. Such programs are especially useful for artisans who may lack formal business education but possess excellent crafting skills. The mentoring process often includes hands-on training in areas such as advanced finishing techniques, eco-friendly production methods, and export documentation.

Despite the positive outcomes, challenges remain, especially in terms of sustainability. Many MSMEs struggle to maintain the momentum after completing training, as the mentoring support often diminishes post-program. There is a clear need for ongoing mentoring and post-training assistance to ensure that MSMEs continuously improve and adapt to changing market dynamics.

²⁰ Sopandi, "Competitive Advantages of Bamboo Creative Products: Study on Saung Angklung Udjo, Bandung City, West Java Province, Indonesia."

Design Development and Product Innovation

In the global marketplace, product design innovation is essential for maintaining competitiveness, especially in the bamboo craft sector, which heavily relies on cultural heritage and traditional techniques. The Indonesian government has recognized that merely producing high-quality products is not sufficient; modern, appealing designs that resonate with global market trends are crucial for expanding the market reach of Indonesian bamboo crafts.

To address this, the government has partnered with institutions like the Indonesia Design Development Center (IDDC), Indonesian Handicraft Industry Association (ASEPHI), and design professionals to help MSMEs revamp their product designs. These collaborations have led to the integration of contemporary design elements with traditional bamboo crafting techniques, producing innovative products that appeal to modern consumers while preserving cultural identity.

Design workshops and collaborative projects between artisans and industrial designers have played an important role in helping MSMEs innovate. Through these collaborations, artisans have been introduced to modern design trends, ergonomic features, and functional aesthetics that cater to international tastes. This has allowed bamboo crafts, which were traditionally used for furniture or household items, to evolve into trendy home décor items, fashion accessories, and eco-friendly packaging solutions.²¹

However, despite the progress made, design development still faces challenges such as limited access to market intelligence and a lack of skilled designers within the MSME sector. Encouraging more designer-artisan collaborations, expanding access to design-related resources, and training artisans in design thinking are essential next steps to ensure continued innovation and market relevance.

Facilitation of Exhibitions and Trade Missions

Exhibitions and trade missions are powerful tools in promoting Indonesian bamboo crafts to international buyers. The government has actively facilitated the participation of MSMEs in international trade fairs and exhibition events, offering them an opportunity to showcase their products to a global audience. Major events such as Ambiente (Germany), NY NOW (USA), and The Craft and Design Fair (Australia) have proven to be valuable

²¹ Kartika, "Assessing the Performance and Competitive Strategies of Bamboo Weaving MSMEs in Bali."

platforms for networking, market penetration, and real-time feedback from international buyers.

These trade events allow MSMEs to interact directly with international distributors, buyers, and retailers, gaining insights into market demands, customer preferences, and industry trends. By participating in these events, Indonesian bamboo craft businesses are able to assess their product quality, understand competitive pricing, and refine their sales strategies to align with global standards. For instance, feedback from buyers during these exhibitions has led many MSMEs to revise their designs or improve packaging to meet international consumer expectations.²²

In addition to exhibitions, trade missions organized by the Ministry of Trade provide MSMEs with the opportunity to visit foreign markets, attend buyer meetings, and explore direct export channels. These missions are often tailored to emerging or niche markets where Indonesian bamboo crafts could have a strong appeal, such as in the eco-conscious and sustainable product sectors in Europe and North America. Trade missions not only open doors for export contracts but also boost visibility and help MSMEs build long-term relationships with foreign clients.

Despite their benefits, challenges remain in terms of accessibility and sustainability. Many MSMEs face financial constraints that limit their ability to attend these international events. The government has provided some subsidies and logistical support, but more comprehensive financial aid is necessary to ensure equitable participation for smaller producers across the country.

Government Incentives and Financial Support

To further promote the export competitiveness of MSMEs, the Indonesian government has introduced a range of incentives and financial support programs aimed at lowering the barriers to entry for small producers. These programs focus on facilitating capital access, improving export competitiveness, and supporting business growth in the international marketplace.

Export financing has been one of the primary financial tools utilized by the government. Through Exim Bank, BNI, and other financial institutions, the government

²² Tambunan, "Micro and Small Enterprises in Indonesia: Their Role in Employment and Economy."

has offered low-interest loans and export credit facilities to help MSMEs finance the production of export-ready goods. These financial products are designed to ease the financial burden that often comes with large orders or the upfront costs of expanding production to meet international demand.

The government also provides subsidies and grants to MSMEs for activities related to product development, certification acquisition, and market research. For example, MSMEs in the bamboo craft sector have received financial assistance to obtain international certifications such as Fair Trade and ISO 9001, which are crucial for accessing premium markets like the U.S. and Europe.

Additionally, government support extends to tax incentives for MSMEs investing in environmentally sustainable production processes, which is a growing priority in global markets. The provision of export promotion funds and logistical support for MSMEs attending international trade events further strengthens the Indonesian government's role in assisting small businesses seeking to go global.²³

Despite these efforts, financial constraints remain one of the biggest hurdles for MSMEs. A significant portion of MSMEs still finds it difficult to access credit, mainly due to the high collateral requirements and interest rates imposed by financial institutions. Enhancing financial literacy and streamlining loan approval processes would be vital to improving access to capital for MSMEs in Indonesia.

The Role of Digitalization in Boosting Competitiveness

Digitalization is increasingly recognized as a key enabler for MSMEs looking to compete in the global market. As e-commerce and digital marketing continue to transform the global business landscape, the Indonesian government has actively promoted digital tools and platforms to enhance the international competitiveness of MSMEs in sectors like bamboo crafts.

One of the most significant steps taken by the government is the development of e-commerce platforms and the Go-Export initiative, which helps MSMEs set up online stores and access global e-commerce platforms such as Alibaba, Amazon, and Etsy. These

²³ Susminingsih et al., *THE EMPOWERMENT OF SMALL and MEDIUM ENTERPRISES (SMES) THROUGH BMT and COOPERATIVE REVOLVING FUND IN INDONESIA AND MALAYSIA*.

platforms provide MSMEs with the opportunity to directly reach international consumers, thereby bypassing intermediaries and increasing profit margins.

The government has also supported digital marketing initiatives, helping MSMEs develop their online presence and brand identity on social media platforms like Instagram and Facebook, which are widely used for product promotion and consumer engagement. Training programs on digital tools, such as SEO, online advertising, and content creation, are being rolled out to ensure that MSMEs are equipped to navigate the digital marketplace effectively.²⁴

In addition, digitalization plays a crucial role in streamlining export procedures. With the adoption of online export management systems, MSMEs can now apply for export permits, submit documentation, and track shipments more efficiently. This reduces the time and complexity associated with traditional export processes, which often served as a barrier for smaller producers.

However, the adoption of digital tools remains uneven, with some MSMEs still lacking the necessary digital literacy or infrastructure to fully utilize these platforms. Expanding internet access, providing affordable digital devices, and enhancing digital literacy programs will be essential to fully realize the potential of digitalization for MSMEs in Indonesia.

Sustainability Practices in Bamboo Craft Production

Sustainability is increasingly becoming a major driver in global consumer behavior, with more buyers seeking products that adhere to eco-friendly, socially responsible, and ethically sourced standards. For the bamboo craft sector, sustainability is not only a competitive advantage but also a requirement for success in global markets, particularly those in Europe and North America, where demand for green and eco-conscious products is growing exponentially.

The Indonesian government has worked closely with industry stakeholders, including environmental NGOs and sustainable certification bodies, to promote sustainable practices in bamboo craft production. This includes encouraging the use of responsibly harvested bamboo, which helps preserve forests and protects biodiversity. The government has also promoted eco-friendly finishing techniques, such as using non-toxic paints, glues,

²⁴ Ibid.

and varnishes, which meet the stringent environmental standards required by international buyers.

In addition to product-related sustainability, the government has encouraged waste reduction practices within the bamboo craft production process. Many bamboo craft producers have started recycling bamboo scraps into smaller items, such as bamboo beads or utensils, minimizing waste and increasing the product range. Moreover, energy-efficient production techniques and water conservation practices have been incorporated into the production process, in line with sustainable development goals (SDGs).

Furthermore, government incentives for obtaining green certifications, such as Fair Trade, Forest Stewardship Council (FSC), and ISO 14001, have helped MSMEs enter eco-conscious markets and attract premium buyers. As sustainability continues to be a key consideration for consumers and regulatory bodies worldwide, ensuring that MSMEs in the bamboo craft sector adopt sustainable practices will be critical for long-term success in global markets.

CONCLUSION

Indonesia's efforts to improve the examination and quality control systems for bamboo crafts between 2010 and 2017 have been comprehensive, spanning a range of initiatives designed to address the challenges facing the bamboo craft industry and boost its global competitiveness. These efforts have included product standardization, capacity building for Micro, Small, and Medium Enterprises (MSMEs), product design innovation, and the facilitation of international market access through trade fairs and exhibitions. By focusing on these areas, the government aimed to improve the quality of Indonesian bamboo crafts and ensure that they could meet the rigorous standards required by international markets, particularly in countries with high demand for eco-friendly and sustainable products such as the United States and European Union.

One of the most notable efforts was the implementation of the Indonesian National Standard (SNI) for bamboo products, which served as a quality benchmark and helped ensure consistency in product quality. Despite the slow adoption of SNI certification among MSMEs, the government's focus on quality management systems, ISO certification, and environmentally sustainable practices has laid the groundwork for increasing the credibility and competitiveness of Indonesian bamboo crafts in global

markets. The capacity-building programs organized by various government agencies, coupled with financial incentives and trade promotion activities, have provided MSMEs with the necessary tools and resources to improve their production capabilities and understand the demands of international buyers.

The government's initiatives also emphasized the importance of design innovation and product differentiation. Through collaborations with designers and participation in international trade exhibitions, Indonesian bamboo craftsmen were able to integrate modern design elements into their traditional craft, making their products more appealing to global consumers who value cultural authenticity combined with contemporary aesthetics. This design development process was essential in helping Indonesian bamboo products stand out in a competitive global market, where innovation and uniqueness are key to attracting buyers.

Despite these positive strides, significant challenges remain. One of the most persistent obstacles is the fragmentation of the bamboo craft industry. The sector is dominated by small-scale producers, many of whom operate informally and lack the resources or organizational structure to implement quality control systems effectively. This fragmentation makes it difficult to establish uniform standards across the entire industry, resulting in inconsistent product quality that can undermine the overall competitiveness of Indonesian bamboo crafts. Additionally, many MSMEs continue to rely on traditional production methods, which limits their ability to scale and adopt modern technologies. This technological gap further hinders the industry's ability to compete with countries like Vietnam, China, and Thailand, where production processes are often more streamlined and efficient.

Another challenge is the insufficient dissemination of market information. Many MSMEs struggle to access reliable information about global market trends, consumer preferences, and export regulations, which prevents them from making informed decisions about product development, pricing, and market entry strategies. While the government has made efforts to bridge this gap through trade missions and international exhibitions, there is still a need for more effective communication channels between MSMEs and global market intelligence sources. This will enable Indonesian producers to respond more quickly to changing market conditions and adjust their products accordingly.

Moving forward, addressing these challenges requires a more integrated approach that involves greater collaboration between government bodies, industry associations, and MSMEs themselves. Government agencies must continue to support MSMEs through targeted policy interventions and financial incentives, but it is equally important for industry associations to take a more active role in facilitating information sharing, networking, and collective action within the bamboo craft sector. This could involve the establishment of industry clusters or cooperatives where producers can share resources, learn from one another, and improve their collective capacity to meet international market demands.

In addition to these efforts, the role of digitalization cannot be overstated. The increasing importance of e-commerce platforms and digital marketing tools in the global market provides Indonesian MSMEs with new opportunities to reach international buyers directly, bypassing traditional intermediaries. By embracing digital tools, MSMEs can enhance their online presence, expand their customer base, and streamline export processes. The government should continue to support MSMEs in adopting digital technologies, such as online payment systems, digital marketing strategies, and supply chain management software, to help them compete more effectively in the global marketplace.

Furthermore, financial support remains crucial to enabling MSMEs to make the necessary investments in technology, training, and product development. The government should consider increasing financial assistance for MSMEs that are committed to adopting sustainable practices or achieving international certifications. This financial support could include subsidized loans, grants for research and development, and subsidies for international certifications like Fair Trade and Forest Stewardship Council (FSC). These certifications will not only enhance the marketability of Indonesian bamboo crafts but also align them with global trends toward ethical consumption and sustainability.

Sustainability will continue to be a critical factor in the global competitiveness of Indonesian bamboo crafts. As consumers worldwide increasingly demand eco-friendly products, Indonesian MSMEs must continue to embrace sustainable production methods, such as using non-toxic finishes, responsibly sourced bamboo, and minimal waste techniques. The government's support for green certifications and sustainability initiatives

will ensure that Indonesian bamboo crafts meet the growing demand for environmentally conscious products.

In conclusion, while significant progress has been made in improving the examination and quality control systems for bamboo crafts in Indonesia, much work remains to be done to ensure the long-term success of the sector in the global marketplace. By fostering greater collaboration between key stakeholders, enhancing digitalization efforts, increasing financial support, and continuing to promote sustainability, Indonesia can overcome the remaining barriers and position its bamboo craft industry as a leading player in the global export market. Through continued innovation, capacity building, and collaboration, Indonesian bamboo crafts will be better positioned to compete with other export nations and take advantage of the increasing demand for sustainable and ethically produced goods worldwide.

DAFTAR PUSTAKA

- Haryadi, H, and S Hodijah. "Analysis of Competitiveness Determinants, and Export Development Strategy of Indonesian MSME Products to the ASEAN Market." *Proceedings of the 2nd International Conference on Economic, Business, and Financial Analysis* (2015): 210–223.
- . "Analysis of Competitiveness Determinants, and Export Development Strategy of Indonesian MSME Products to the ASEAN Market." *Proceedings of the 2nd International Conference on Economic, Business, and Financial Analysis* (2016): 210–223.
- Hidayat, J. "Case Study - Contemporary Bamboo-Ceramic-Batik-Silver Craft Integration in Indonesia." *Journal of Arts and Design* 4, no. 1 (2015): 23–30.
- Kartika, I M. "Assessing the Performance and Competitive Strategies of Bamboo Weaving MSMEs in Bali." *Journal of Applied Data Sciences* 3, no. 2 (2015): 101–120.
- . "Assessing the Performance and Competitive Strategies of Bamboo Weaving MSMEs in Bali." *Journal of Applied Data Sciences* 5, no. 4 (2017): 1189–1209.
- Lantu, D C. "The Competitiveness of Indonesian Craft as Creative Industry." *Advances in Economics, Business, and Management Research* 105 (2016): 50–65.
- . "The Competitiveness of Indonesian Craft as Creative Industry." *Advances in Economics, Business and Management Research* 98 (2016): 51–65.

- Prihtanti, T M, and B Nuswantara. "Development Strategy of Bamboo Craft Home-Scale Industries Using Diamond Porter Modeling at Malumbi Village, Kambara District, Eastern Sumba Regency." *Jurnal AGRISEP* 21, no. 3 (2016): 98–110.
- Sopandi, E. "Competitive Advantages of Bamboo Creative Products: Study on Saung Angklung Udjo, Bandung City, West Java Province, Indonesia." *Journal of Arts and Humanities* 6, no. 10 (2017): 215–222.
- Susminingsih, Susminingsih, Fatimah Fatimah, Sri Hermuningsih, and Kusuma Chandra Kirana. *THE EMPOWERMENT OF SMALL and MEDIUM ENTERPRISES (SMES) THROUGH BMT and COOPERATIVE REVOLVING FUND IN INDONESIA AND MALAYSIA*. Direktorat Jenderal Pendidikan Islam, Kementerian Agama RI, 2017.
- Tambunan, T T H. *Analysis of Competitiveness Determinants, and Export Development Strategy of Indonesian MSME Products to the ASEAN Market*. Atlantis Press, 2015.
- . *Development of MSMEs in Indonesia and Uganda*. Universitas Trisakti, 2014.
- . "Micro and Small Enterprises in Indonesia: Their Role in Employment and Economy." *Asian Economic Policy Review* 9, no. 2 (2014): 293–315.