

Empowering MSMEs Through Product Branding Innovation and Rengginang Location Digitalization: A Case Study in Mainan Village

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ABSTRACT

Empowering Micro, Small, and Medium Enterprises (MSMEs) is a strategic agenda for driving inclusive economic growth in Indonesia. This study explores MSME empowerment strategies through rengginang product innovation in Mainan Village. Using a descriptive qualitative approach and case studies, the research highlights various aspects of product development, marketing digitalization, and branding strategies. The results show that product innovation, packaging, and the use of digital technology can improve business competitiveness and sustainability. Continuous mentoring, multi-stakeholder collaboration, and a locally-based approach are key factors in the success of MSME empowerment in this village.

Keywords: MSMEs, Product Innovation, Rengginang, Empowerment, Digitalization, Branding.

I. Introduction

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy, contributing significantly to the provision of employment and equitable distribution of social welfare. However, MSMEs are also the sector most vulnerable to economic changes and market dynamics. In an era of increasingly competitive competition, MSMEs are required to innovate products and strengthen their position in the market through creative and adaptive approaches (Saffana Putri Arifa & Nurfahmiyati, 2024; Yani et al., 2023). Micro, Small, and Medium Enterprises (MSMEs) have long been recognized as a key pillar of the Indonesian economy. Numbering over 60 million businesses, MSMEs not only contribute significantly to Gross Domestic Product (GDP) but also serve as the largest workforce absorbers and key drivers of economic activity in various regions. However, amidst the developments of globalization and the digital revolution, the challenges facing MSMEs are increasingly complex. Competition with large-scale products, increasingly critical changes in consumer behavior, and global market dynamics require MSMEs to continue innovating to survive and thrive. In this context, product branding innovation and the use of digitalization are two important strategies for increasing MSME empowerment. Both help MSMEs move up a class, but also provide stronger competitiveness in local, national, and international markets.

Branding is an important aspect in developing MSMEs because it is directly related to the product image in the eyes of consumers. Many MSMEs have high-quality products, but they remain under-recognized



because they lack a proper branding strategy. Branding goes beyond simply creating a name or logo; it encompasses all efforts to build product identity, establish trust, and foster consumer loyalty. Product branding innovation requires MSMEs to consider how their products can add value, create a story, and differentiate themselves from similar products. For example, traditional food products packaged with modern designs and given a distinctive regional identity will attract more consumers than similar products without a clear brand. Therefore, product branding innovation is key to unlocking broader market opportunities. The importance of branding in empowering MSMEs also lies in its ability to create emotional value. Consumers not only buy products based on functional needs, but also on the emotional value inherent in them. For example, local coffee with branding that highlights the stories of farmers, the authenticity of the process, and the richness of Indonesian flavors will be more appealing to consumers than coffee without a distinct identity. This type of branding creates an emotional connection with the product, fostering long-term loyalty. This is where the role of branding innovation becomes important to elevate local excellence while strengthening the competitiveness of MSMEs in the global market.

Branding innovation must also be supported by the right communication strategy. MSMEs need to ensure that their brand messages are conveyed well through various media. In the digital era, communication strategies are no longer limited to print media or traditional promotions, but can be carried out through social media, websites, marketplaces, and other digital platforms. This branding communication innovation enables MSMEs to reach consumers more quickly, widely, and efficiently. Through creative content such as quality product photos, promotional videos, and storytelling, MSMEs can build a positive image while creating engagement with consumers. In addition to product branding innovation, digitalization has become an important instrument in empowering MSMEs in the modern era. Digitalization includes the use of digital technology in all aspects of business, from production, management, marketing, to distribution. The presence of digital technology opens up huge opportunities for MSMEs to improve operational efficiency, expand markets, and increase competitiveness. For example, through the use of financial recording applications, MSMEs can manage cash flow more professionally. Likewise, the use of marketplaces allows MSMEs to sell products to consumers across regions without geographical boundaries. Digitalization not only accelerates business processes but also helps MSMEs compete with larger, more established companies.

Digital marketing is a real form of digitalization that is very relevant for MSMEs. Through social media platforms like Instagram, Facebook, TikTok, or WhatsApp Business, MSMEs can promote their products at a relatively low cost but with a big impact. With the right digital marketing strategy, MSMEs can build direct interactions with consumers, understand market needs, and respond quickly to trends. Marketplaces such as Tokopedia, Shopee, Lazada, and Bukalapak also provide space for MSMEs to market their products more widely. This is clearly different from conventional methods, which only rely on sales in traditional markets or physical stores with limited reach. Beyond marketing, digitalization also supports innovation in supply chain management and distribution. MSMEs can use logistics applications or e-commerce platforms to streamline product delivery to consumers. This helps reduce distribution barriers, a common problem for MSMEs. With a digital system, MSMEs can track orders, manage inventory, and provide better service to consumers. Fast, transparent, and professional service is one of the determining factors for consumer satisfaction, thus strengthening the competitiveness of MSMEs.

While product branding innovation and digitalization hold significant potential for empowering MSMEs, they also face challenges. One major challenge is limited human resources, particularly in terms of digital literacy and branding understanding. Many MSMEs still view branding as simply a logo or name, without understanding the essence of creating identity and added value for their products. Similarly, with digitalization, many MSMEs are still unfamiliar with digital technology due to limited skills, internet access, or devices. Another challenge is limited capital to carry out branding and digitalization innovation. Although branding and digital marketing are relatively inexpensive compared to conventional advertising, costs still need to be incurred for design, packaging, paid advertising, and social media management. Apart from internal challenges, fierce competition is also a major obstacle. MSME products not only compete with similar products at the local level, but also with imported products, which are often cheaper and have more attractive

packaging. Therefore, branding and digitalization innovation must be implemented consistently to enable MSME products to stand out in a highly competitive market. Product quality must also be maintained, as strong branding and digitalization will not last long if the products offered do not meet consumer expectations.

To optimize MSME empowerment through product branding innovation and digitalization, the active role of various parties is required. The government, for example, can provide training and mentoring for MSMEs related to branding strategies, product design, and the use of digital technology. Business incubation programs, digital marketing training, and product legality and certification facilitation are essential for MSMEs to compete in the modern market. Financial institutions can also support by providing easier access to financing, for example, through People's Business Credit (KUR) or financial technology (fintech)-based financing schemes. Besides the government, the private sector and academics also have an important role. Large companies can partner with MSMEs through corporate social responsibility (CSR) programs or supply chain collaboration. Academics can contribute through research, innovation, and mentoring to help MSMEs improve product quality and branding strategies. Meanwhile, MSME associations or communities can be a forum for sharing knowledge, experiences, and strengthening business networks. With multi-party collaboration, empowering MSMEs through branding innovation and digitalization can run more optimally.

In the long term, product branding innovation and digitalization will not only help MSMEs survive but also enable them to move up from small to medium and even large businesses. With strong branding, MSMEs can build a product identity that is recognized by the market, while with digitalization, they can expand their market reach to an international scale. Several MSMEs in Indonesia have successfully proven this; for example, local coffee producers have succeeded in penetrating the global market thanks to strong branding and effective digital marketing. Another example is a culinary MSME actor who has succeeded in increasing turnover through online sales and creative promotions on social media. These successes prove that branding and digitalization innovation are not just concepts, but real strategies that can lead MSMEs to success. One form of local business that still maintains its traditional practices is the production of rengginang, a sticky rice-based snack that is part of the community's culinary identity. Mainan Village is known as one of the rengginang-producing villages in the region. The rengginang products from this village have a distinctive taste and have been made for generations by residents, but still face various obstacles in business development. Challenges faced by MSMEs include a lack of product variety, unattractive packaging, and the absence of a digital footprint for their business locations, making them difficult for consumers outside the region to reach (Probolinggo et al., 2021; Saefullah et al., 2023).

As a form of academic contribution to community development, the Thematic Community Service Program (KKN-T) from the Indo Global Mandiri University (UIGM), Faculty of Economics, is present in Mainan Village to encourage community strengthening. Rengginang MSMEs through an innovation-based approach and local potential. The involvement of KKN-T students is clearly visible in business mentoring activities, with an emphasis on practical solutions that directly contribute to increasing product excellence. Some concrete steps taken by the UIGM KKN-T team include helping MSMEs develop new flavor variants, such as spicy flavors, to suit current market tastes. In addition, assistance is also provided in creating a distinctive visual identity, such as a product logo, label design, and graphic elements that reflect the characteristics of the Toy Village as the origin of the product. Another important initiative is to help MSMEs add rengginang production locations to Google Maps.

This step aims to increase the digital visibility of the business and make it easier for consumers and potential buyers to access the business location. Even though not many MSMEs in Mainan Village actively use social media, the existence of digital points on the Google Maps platform is the first step in building a digital footprint for their business. Which can be utilized in the long term (Rokhmatulloh et al., 2024) With a participatory approach and based on the real needs of the community, the UIGM KKN-T program not only provides learning experiences to students but also becomes a real means of empowering village communities. Therefore, this study aims to examine how product innovation, visual identity creation, and business location

mapping through the KKN-T program can increase the capacity and competitiveness of rengginang MSMEs in Mainan Village sustainably.

II. Theoretical Review

2.1. Micro, Small, and Medium Enterprises

Micro, Small, and Medium Enterprises (MSMEs) are a vital economic sector in the national economy, particularly in developing countries like Indonesia. Their contribution to employment, unemployment reduction, and income growth makes them the backbone of the country's economy. According to data from the Ministry of Cooperatives and SMEs, the number of MSMEs in Indonesia has reached over 60 million, representing over 99% of the total national business. MSMEs are a driving force behind the people's economy, as most are rooted in the regions and directly meet the needs of the community. Their significant role is also evident in their contribution to Gross Domestic Product (GDP), which exceeds 60%. With these numbers and contributions, it is clear that MSMEs are not just a supporting sector, but are the main foundation of national economic growth.

MSMEs have unique characteristics compared to large businesses. These include relatively small capital requirements, simple management, and direct owner involvement in operational processes. MSME owners often serve as managers, production staff, and marketers. This is both a strength and a weakness of MSMEs. In terms of strength, the direct involvement of owners makes MSMEs more flexible, adaptive, and able to quickly adjust products according to consumer needs. However, in terms of weaknesses, limited human resources and unprofessional management often become obstacles for MSMEs to grow bigger. One of the important roles of MSMEs is in creating jobs. Many workers in Indonesia have not been absorbed by the formal sector due to the limited number of job vacancies. MSMEs are present as alternative job providers that can absorb workers with various qualifications, ranging from those with low to secondary education. With recruitment flexibility, MSMEs often become a place for people to learn and practice before entering the formal sector. In fact, some people use MSMEs as a stepping stone to develop their own businesses in the future. This is one of the reasons why MSMEs are very important in reducing unemployment rates and improving people's welfare.

In terms of economic equality, MSMEs also make a large contribution. MSMEs are widely spread across rural areas and small towns, thus enabling them to drive the local economy evenly. Unlike large companies, which are generally concentrated in major cities, MSMEs can reach remote areas. Thus, economic activity is not concentrated solely in large cities but also spreads to rural areas. This creates equitable development and reduces disparities between regions. MSMEs operating in the agricultural, trade, and craft sectors are a real example of how regional economies can thrive thanks to the contribution of MSMEs. In addition, MSMEs also have a role in preserving local culture. Many MSME products are based on local wisdom, whether in the form of handicrafts, traditional culinary arts, or art products. Through these products, MSMEs not only create economic value but also preserve regional cultural identity. For example, batik, as an Indonesian cultural heritage, is mostly produced by small-scale MSMEs that still maintain traditional techniques. Likewise, regional culinary specialties are passed down from generation to generation and developed by MSMEs, enabling them to survive amidst the onslaught of global products. Thus, MSMEs are not only economic actors, but also agents for preserving the nation's culture.

However, despite their significant contribution, MSMEs face various challenges that cannot be ignored. One of the biggest challenges is limited access to capital. Many MSMEs still have difficulty getting loans from formal financial institutions such as banks. This is due to the lack of guarantees, messy financial reports, and business risks that are considered high. This condition causes many MSMEs to rely on personal capital or loans from family to run their businesses. In fact, to develop and increase production capacity, MSMEs require quite a large amount of capital. Limited access to capital makes it difficult for many MSMEs to expand their businesses. Besides the capital, another challenge faced by MSMEs is low management and

technological literacy. Many MSMEs operate their businesses traditionally without a clear business strategy. Financial records are often still manual and mixed with personal finances, making it difficult to evaluate the business. In addition, the use of digital technology is still not optimal. In today's digital era, the presence of MSMEs on online platforms is crucial for reaching a wider market. However, many MSMEs still haven't utilized social media, marketplaces, or websites to market their products. This puts them at a competitive disadvantage compared to more modern products in terms of marketing.

The next challenge is the issue of product quality and competitiveness. Although many MSMEs have unique and promising products, many still face quality issues. From raw materials and production standards to packaging, many still don't meet broader market standards. This makes it difficult for MSME products to compete, especially when marketed nationally or internationally. In fact, today's consumers are increasingly critical and demand high quality. Therefore, improving product quality is a must if MSMEs want to survive amidst global competition. To overcome these various challenges, a comprehensive MSME empowerment strategy is needed. The government has a major role in supporting MSMEs, both through regulations, facilitation, and development programs. One of the steps the government has taken is to provide People's Business Credit (KUR) with low interest rates to make it easier for MSMEs to access capital. In addition, the government also provides training in management, technology, and digital marketing to increase the capacity of MSMEs. Legal support, such as trademark registration, halal certification, and distribution permits, is also crucial for enhancing the credibility of MSME products in the market.

The role of academics and educational institutions is also very important in supporting the empowerment of MSMEs. Universities can help MSMEs through community service programs, research, and mentoring. With their knowledge, academics can help MSMEs improve product innovation, production efficiency, and marketing strategies. Furthermore, collaboration between MSMEs and large corporations can also be a synergistic strategy. Through partnerships, MSMEs can become part of larger companies' supply chains, thereby securing more stable markets. In addition to external support, MSMEs themselves must have a spirit of innovation and a willingness to develop. Innovation is the main key for MSMEs to survive amidst dynamic market changes. Innovation isn't just limited to products, but also encompasses management, marketing, and customer service. For example, culinary MSMEs that boldly innovate with new flavors will attract more consumers. Likewise, craft MSMEs that innovate in design and combine traditional and modern elements will have greater appeal in the global market.

Digitalization is one of the important keys to the development of MSMEs in the modern era. The use of digital technology enables MSMEs to expand their markets without geographical boundaries. Through social media, marketplaces, and websites, MSMEs can reach consumers throughout Indonesia and even abroad. Digitalization also simplifies business management, from financial recording and stock management to distribution. Therefore, digital literacy is a mandatory skill for MSMEs. The government, communities, and the private sector need to continue providing training so that MSMEs are not left behind in the digital transformation. Furthermore, branding also plays a significant role in empowering MSMEs. Quality MSME products will not be optimal without a strong brand identity. Branding helps MSME products become recognized, trusted, and remembered by consumers. Many MSMEs fail to develop because they pay less attention to branding aspects. In fact, with good branding, products can have added value and greater competitiveness. For example, traditional food products with modern packaging and strong branding will be more easily accepted in the global market. Therefore, MSMEs need to be provided with understanding and guidance on branding strategies.

In the long term, strengthening MSMEs will have a significant impact on the national economy. If MSMEs can move up a class, from micro to small, from small to medium, and ultimately to large, Indonesia's economic structure will become more robust. Economic resilience will also be more assured because MSMEs can survive crises. The experience of the 1998 economic crisis demonstrated that MSMEs are the most resilient sector compared to large sectors. Therefore, strengthening MSMEs is not only beneficial for business actors but also for the overall economic stability of the nation. MSMEs are a major pillar of the national economy, contributing significantly to GDP, employment, equitable development, and cultural preservation. However,

various challenges such as limited capital, low management and digital literacy, and product quality issues must be addressed immediately. Support from the government, academia, the private sector, and the public is essential to empower MSMEs to compete in the global market. Furthermore, MSMEs must be committed to continuous innovation, strengthening their branding, and leveraging digital technology. With the right strategy, MSMEs will not only be the backbone of the people's economy but also a key driving force in creating national independence and competitiveness.

2.2. Branding

Product branding is a key element in the modern business world, determining how a product is perceived by consumers and how it can survive in the midst of intense market competition. Simply put, branding is not just about giving a name, logo, or packaging design, but rather a comprehensive strategy that encompasses identity, values, image, and the message you want to convey to consumers. Branding is a communication tool that differentiates one product from similar products, provides added value, and creates an emotional bond between consumers and the product. In this context, product branding functions not only to introduce the product but also to build perception, trust, and long-term consumer loyalty. The importance of product branding can be seen from its role in influencing consumer purchasing decisions. In a market full of choices, consumers tend to choose products with a strong and trusted identity. Products with clear branding are more easily remembered, recognized, and chosen by consumers than products without a clear identity. For example, two coffee products with nearly identical taste, but one with strong branding in the form of modern packaging, a catchy name, and a story about the coffee's origins, tend to be more popular with consumers. This shows that branding provides significant differentiation even though the products are relatively similar in quality.

Branding also has an important role in creating added value for products. Products with good branding can be sold at a higher price because consumers are not only buying the product's function, but also the symbolic and emotional value attached to the brand. For example, local fashion products with exclusive branding can be marketed at a higher price than similar products that do not have a brand identity. This proves that branding is able to create a perception of quality, exclusivity, and prestige that provides economic benefits for business actors. In the process of building product branding, there are several important elements to consider. First, brand identity, which includes the name, logo, colors, typography, and other visual elements. Brand identity must be designed in such a way that it reflects the product's values and character. Second, brand value is related to the benefits and uniqueness offered by the product. Brand values must be clear so that consumers understand why the product is worth choosing. Third, brand positioning, which shows the product's position in the minds of consumers compared to competitors. Strong positioning makes the product more memorable and has clear differentiation. Fourth, brand experience encompasses consumer interactions with the product, from viewing an advertisement to purchasing it, to using it. A positive experience will foster lasting consumer loyalty.

Product branding strategies must also pay attention to communication aspects. Brand messages must be delivered consistently across multiple communication channels, both conventional and digital. This consistency is important so that the brand image does not confuse consumers. For example, if a brand wants to be known as an eco-friendly product, all branding elements, from packaging and promotions to social activities, must reflect that value. This way, consumers will believe the brand is committed to environmental sustainability. In today's digital era, product branding is increasingly closely related to the use of technology and digital media. Social media, websites, marketplaces, and other digital platforms are the main means of building brand identity. Through creative content in the form of photos, videos, articles, or stories, business actors can build a positive image, increase interaction, and strengthen relationships with consumers. Digital branding allows products to reach a wider audience at a relatively affordable cost. Additionally, digital strategies also provide brands with the opportunity to interact directly with consumers, listen to feedback, and respond quickly to market needs.

One of the trends in product branding is storytelling, which is building a brand by telling stories that are touching and relevant to consumers. Today's consumers aren't just buying products, but also the stories behind them. For example, a traditional food product said to be derived from a family recipe will provide an emotional connection that makes consumers feel closer to the product. Storytelling helps brands create deeper emotional connections with consumers, thereby increasing loyalty and appeal. Besides storytelling, the visual aspect of branding is also no less important. Visual branding, such as logos, colors, and packaging design, is the first element consumers see. Colors, for example, have certain psychological meanings that can influence consumer perception. The color red is often associated with energy and enthusiasm, while the color green is often associated with nature and health. Therefore, the selection of visual elements must be in accordance with the values and identity of the brand you want to build. Product packaging must also be well designed because it is the first representation of the product that interacts directly with consumers.

However, product branding is not limited only to external appearance. Product quality remains a key factor in branding success. Strong branding without good product quality will only last temporarily. Consumers may be initially attracted by a compelling brand identity, but if product quality disappoints, trust will be lost and the brand image will be damaged. Therefore, branding must go hand in hand with continuous product quality improvement. In the context of MSMEs, product branding has a strategic role that can help small and medium enterprises compete with large companies. Many MSMEs have quality products but are less well-known because they do not have clear branding. With the right branding strategy, MSMEs can build product identity, expand markets, and increase sales value. For example, local handicrafts with culture-based branding can attract national and international consumers because of their uniqueness. MSMEs that utilize digital media to build branding can also reach consumers outside the region and even abroad without having to have a physical store.

However, building product branding is not an easy thing. Common challenges faced by business owners include a limited understanding of the concept of branding, a limited budget for design and promotion, and the inability to maintain a consistent brand identity. Many small businesses consider branding to be limited to just a logo or product name, when in fact, branding encompasses a broader and more in-depth strategy. Furthermore, branding requires time and consistency to build an image and trust. It is not uncommon for business people to give up too quickly because they feel that branding does not provide instant results. To overcome these challenges, support from various parties is needed. The government can provide training and assistance regarding branding strategies to MSMEs. Educational institutions and academics can also contribute through research and development of branding concepts that suit local needs. In addition, collaboration with designers, consultants, or creative agencies can also help business actors design a more professional brand identity. With this support, MSMEs can understand the importance of branding and are able to build a strong product identity.

Product branding is also closely related to the development of consumer trends. Today's consumers are increasingly concerned about values such as sustainability, authenticity, and business ethics. Therefore, products with branding that emphasizes these values tend to be more popular. For example, products with eco-friendly packaging and brand communications that emphasize sustainability will be more readily accepted by the younger generation who care about the environment. This demonstrates that product branding must be adaptive to changing trends and consumer needs. The success of product branding can be measured through several indicators. One indicator is brand awareness, which is the extent to which consumers recognize and remember the brand. Another indicator is brand loyalty, which indicates the extent to which consumers remain loyal to a product despite the presence of many other options. Furthermore, brand equity is also an important measure, namely the added value a product possesses due to its brand. Products with high brand equity are usually more readily accepted by the market, can be sold at premium prices, and have stronger competitiveness.

In the global market, product branding is a determining factor in expanding international market reach. Products from developed countries generally have strong branding, so they are able to dominate the world market. Indonesia, with its abundant natural and cultural resources, actually has great potential to

compete in the global market. However, to realize this potential, local products must be supported by strong and professional branding. Branding that highlights local stories, quality, and uniqueness can create a unique appeal in the international market. In conclusion, product branding is a fundamental strategy that plays a significant role in the success of a business. Branding is not just about a name and logo, but also about the identity, values, image, and experience offered to consumers. Through branding, products can differentiate themselves from competitors, create added value, and build consumer loyalty. In the digital age, branding is increasingly important because it allows products to reach a wider market at a relatively low cost. Despite facing challenges, product branding remains the main path for business actors, including MSMEs, to move up a class and compete in national and international markets. With the right strategy, support from various parties, and consistency in building brand identity, product branding can be the key to business success and sustainability.

2.3. Digitalization

With business units dominating more than 99% of the total national business units, MSMEs are the primary drivers of the economy, the largest workforce absorbers, and significant contributors to Gross Domestic Product (GDP). However, in the era of the industrial revolution 4.0 and global digital transformation, MSMEs face significant challenges to remain relevant and competitive. Changes in increasingly digital consumer behavior, intense competition with global products, and demands for business efficiency are driving MSMEs to adapt through digitalization. The digitalization of MSMEs is not just a trend, but an urgent need for this sector to survive, grow, and even compete in the international market. The digitalization of MSMEs can be understood as the process of applying digital technology to various aspects of business operations, from production and management to marketing and distribution, to customer service. The primary goal of digitalization is to increase efficiency, expand market reach, and provide a better experience for consumers. While MSMEs previously relied heavily on conventional methods to run their businesses, digitalization allows them to optimize technology for greater speed, transparency, and competitiveness. Therefore, digitalization is not merely the use of technological devices, but also a shift in mindset, strategy, and work culture that is oriented toward innovation and sustainability.

One of the most visible aspects of MSME digitalization is marketing transformation. In the past, MSMEs relied solely on word-of-mouth promotion, marketing through brochures, or direct sales in physical stores. However, advancements in digital technology have opened up significant opportunities for MSMEs to utilize online platforms as marketing tools. Social media platforms like Instagram, Facebook, TikTok, and WhatsApp Business have become effective tools for building branding, introducing products, and connecting with consumers. Through creative content in the form of photos, videos, and product stories, MSMEs can attract a wider consumer base at a relatively low cost. Besides social media, marketplaces such as Tokopedia, Shopee, Lazada, Bukalapak, and Blibli provide very broad market access without geographical limitations. The presence of MSMEs in the marketplace also allows consumers from various regions and even abroad to purchase products easily.

Besides marketing, digitalization also brings major changes in transaction systems. The development of financial technology (fintech) enables MSMEs to accept digital payments through e-wallets, QR codes, and mobile banking. This not only makes things easier for consumers but also increases the transparency and security of transactions. With digital record-keeping, MSMEs can more easily manage cash flow, separate personal and business finances, and prepare simple financial reports. This financial transparency is crucial because it makes it easier for MSMEs to access financing from formal financial institutions such as banks or fintech lenders. Thus, digitizing transactions helps MSMEs improve their professionalism and business credibility. Digitalization of MSMEs also includes more efficient internal management. Through various applications and software, MSMEs can manage inventory, monitor sales, and manage customer relationships more systematically. For example, a simple accounting application allows MSMEs to record income and expenses in real time, making it easier to evaluate the business. Likewise, Customer Relationship Management

(CRM) applications help MSMEs understand consumer behavior, maintain communication, and build customer loyalty. Using management technology like this allows even small MSMEs to operate more professionally, just like large companies.

On the production side, digitalization also has a significant impact. The use of modern machines integrated with digital technology helps MSMEs improve product quality, quantity, and consistency. Digital design technology also enables MSMEs to create more attractive, innovative products in line with market trends. Furthermore, information technology makes it easier for MSMEs to source raw materials, build relationships with suppliers, and optimize supply chains. With digitalization, previously manual and slow production chains can become faster, more efficient, and more cost-effective. Another important aspect of MSME digitalization is export opportunities and global market access. Through global e-commerce platforms like Amazon, eBay, Alibaba, or Etsy, Indonesian MSME products have the potential to penetrate international markets. Effective digital branding and online marketing strategies enable MSMEs to reach consumers worldwide without having to open physical stores abroad. This potential is enormous, given that many Indonesian MSME products, particularly in the culinary, fashion, handicraft, and creative sectors, possess a unique appeal that garners global demand. Digitalization provides a bridge for MSMEs to expand their markets while increasing the country's foreign exchange earnings.

However, although digitalization offers great opportunities, its implementation is not without various challenges. One of the main challenges is the low digital literacy among MSMEs. Many MSMEs, especially in rural areas, are not yet accustomed to using digital devices such as smartphones, applications, or online platforms to run their businesses. Some still believe that digitalization is only necessary for large businesses. Another challenge is limited internet access in some areas, which makes it difficult for MSMEs to implement digital strategies. Furthermore, limited capital is also a barrier, as some technologies require costs for training, equipment, and app subscriptions. Apart from internal challenges, competition in the digital world is also a significant issue. As more MSMEs enter digital platforms, competition is intensifying. MSMEs that fail to innovate in their products or marketing strategies will struggle to stand out in a crowded market. Therefore, digitalization requires MSMEs not only to be present on digital platforms but also to have the right strategies to win over consumers. From branding, storytelling, product quality, to customer service, everything must be considered so that MSMEs can compete.

To optimize the digitalization of MSMEs, support from various parties is needed. The government has a major role in providing digital infrastructure, such as widespread internet access even in remote areas, as well as digital literacy training programs for MSMEs. Digitalization mentoring programs, such as e-commerce training, digital marketing, and the use of financial applications, must continue to be promoted. The government also needs to provide incentives for MSMEs that actively pursue digitalization, for example, in the form of training subsidies, promotional facilities, or special access to capital. Besides the government, the private sector can also support through collaboration. Technology companies can provide MSME-friendly platforms, offer affordable service packages, and assist MSMEs in adapting to technology more easily. Academics and educational institutions also have an important role in supporting the digitalization of MSMEs. Universities can provide relevant education, research, and innovation to help MSMEs transform digitally. Students, for example, can be involved in community service programs to train MSMEs in using social media, marketplaces, and management applications. With synergy between the government, private sector, academics, and the community, MSME digitalization can be more effective and inclusive.

In the future, digitalization of MSMEs is predicted to become increasingly important due to rapid technological developments. Concepts such as big data, artificial intelligence (AI), and the Internet of Things (IoT) will be increasingly used in the business world. MSMEs that are able to utilize these technologies will have a greater competitive advantage. For example, big data analysis can help MSMEs understand market trends and consumer behavior, allowing them to develop more targeted strategies. AI can be used for automated customer service through chatbots, while IoT can help MSMEs manage their supply chains more intelligently. Thus, digitalization is not only limited to being present on social media or marketplaces, but also utilizes advanced technology to optimize business. Digitalization of MSMEs also plays a role in supporting

financial inclusion. As more and more MSMEs use digital payment systems, their access to formal financial institutions becomes more open. Digital transaction data can be used by banks or fintech companies to assess creditworthiness, making it easier for MSMEs to obtain financing. This is important to encourage business growth because access to capital is often a major obstacle. With digitalization, MSMEs not only develop market share but also have greater opportunities to obtain financial support.

From a consumer perspective, the digitalization of MSMEs provides many benefits. Consumers can more easily find, compare, and purchase MSME products through online platforms. The presence of MSME products in the digital world also enriches consumer choices, so they don't just rely on large-scale or imported products. In addition, digitalization allows consumers to have a more convenient, faster, and transparent shopping experience. Thus, digitalization creates a mutually beneficial relationship between MSMEs and consumers. Overall, digitalization of MSMEs is a strategic step to face global challenges while taking advantage of existing opportunities. Digitalization is not just about technology, but also about changing business paradigms, mindsets, and work culture. With digitalization, MSMEs can increase efficiency, expand markets, improve service quality, and build stronger relationships with consumers. Despite the challenges, digitalization remains the primary path for MSMEs to advance and compete in the global market. With support from the government, private sector, academics, and the public, along with a commitment from MSMEs to continuous learning and innovation, digitalization can be a driving force for MSME empowerment and national economic development.

III. Research Method

This Thematic Community Service Lecture (KKNT) activity took place in Pulau Mainan Village, Sembawa District, Banyuasin Regency, South Sumatra Province. The implementation of rengginang MSME empowerment activities in Mainan Village was carried out through a participatory and applied approach, directly involving MSME actors in every stage of the activity. KKN-T students from the Faculty of Economics, Universitas Indo Global Mandiri (UIGM) collaborated with local business actors and were accompanied by local resource persons. The implementation steps include:

- a. Observation and problem identification
Direct observation was carried out on the production, packaging, and distribution processes of rengginang to identify obstacles and potential that could be developed.
- b. Discussion and coordination with business actors
Students discussed with MSME actors and village leaders to determine the focus of activities, including taste innovation and business promotion needs.
- c. Product innovation development
Business actors are assisted in developing spicy flavor variants as innovations that suit market tastes while maintaining traditional flavors.
- d. Visual identity creation
Students helped design the product logo, packaging label, and simple visual elements that reflect the characteristics of the Toys Village rengginang product.
- e. Adding location points in Gmaps
One form of initial digitalization was carried out by adding the rengginang production location to Google Maps, so that it would be easier for consumers and buyers from outside the area to find.

Activity targets. This is a rengginang MSME actor in Mainan Village, especially a business owned by one of the community members, namely Ceu Eem, as the main partner. In addition, the activity also involved village communities who were interested in developing traditional food businesses, as well as the UIGM Faculty of Economics KKN-T students as program implementers. The developed rengginang products are expected to reach local and international consumers through quality improvement and digital promotion.

IV. Results and Discussion

The Community Service Program (KKN-T) in Mainan Village is part of the implementation of the Tri Dharma of Higher Education, specifically in community service through empowering MSMEs. In this context, students from the Faculty of Economics, Universitas Indo Global Mandiri (UIGM), implemented an approach focused on strengthening local potential through product innovation, enhancing visual appeal, and basic digital business introduction strategies. The development of tradition-based snack businesses, one of which is rengginang. However, like many other rural MSMEs, the rengginang business in this village is still run conventionally, without innovation in flavor, packaging, or marketing strategies. In this KKN-T activity, students not only identify problems but also strive to offer realistic solutions that are in accordance with the capacity of local MSME actors. Through direct field mentoring, a number of empowerment activities were conducted, including flavor exploration, product identity design, and location recognition on Google Maps. Students acted as facilitators and discussion partners at every stage of the process. The success of this program demonstrates that empowering MSMEs doesn't always require major interventions like capital or high-tech assistance, but rather requires a simple, targeted approach.



Figure 1. Group photo of business actors and rengginang products

4.1. Rengginang Product Innovation: Spicy Flavor Variant

Product innovation is the first step in increasing the added value and competitiveness of local rengginang products. In this activity, KKN-T students, along with business partners (Ceu Eem), developed a new flavor variant, a spicy rengginang flavor, which had never been previously tried on a production scale. The choice of the spicy flavor variant was based on market observations and local consumer preferences, which indicated a high interest in snacks with strong flavors, particularly spicy ones. Additional ingredients, such as chili powder and local spices, are readily available locally, so this innovation didn't require significant additional costs. A series of repeated trials was conducted, including adjusting seasoning measurements, mixing methods, and frying techniques to maintain consistent flavor and texture. This activity took place in a collaborative atmosphere, where students not only contributed ideas but also assisted in the production process and evaluation of the results.

The resulting spicy variant received positive feedback from local consumers. Initial sales showed increased demand, particularly among teenagers and housewives. This product also demonstrated that rengginang could be packaged in a contemporary way without abandoning its traditional roots.



Figure 2. Spicy Rengginang and Original and Spicy Rengginang Results

4.2. Product Identity Strengthening

Besides taste innovation, the visual aspect of the product is also an important focus in this activity. Previously, rengginang produced by MSME partners was packaged without a brand or label, so it lacked a strong visual appeal and made it difficult for consumers to recognize the product as belonging to a particular business. To that end, KKN-T students designed a simple visual identity that included a logo, product name, and packaging label. The label used bright, contrasting colors and included important information such as the business name, product flavor, and contact information. This visual identity has a significant impact on the product's appeal. Rengginang products now look more professional and can be distinguished from other similar products in the local market. The existence of labels also opens up opportunities for products to be marketed through grocery stores or even digital platforms in the future.



Figure 3. New Packaging, Logo, and Banner Installation

4.3. Early Digitalization: Adding Production Locations to Google Maps

As an initial step in introducing the business digitally, the rengginang production location was registered on Google Maps. This step aims to ensure that Ceu Eem's business location can be easily found by potential buyers from outside the village, especially customers who rely on digital maps to search for local products. The information listed includes the business name, product type, operating hours, and contact number. This mapping is expected to make it easier for consumers to go directly to the production location, while also serving as a form of digital documentation of the existence of these MSMEs. This simple form of digitalization is the initial foundation for MSMEs in Mainan Village to develop their understanding of the digital world.

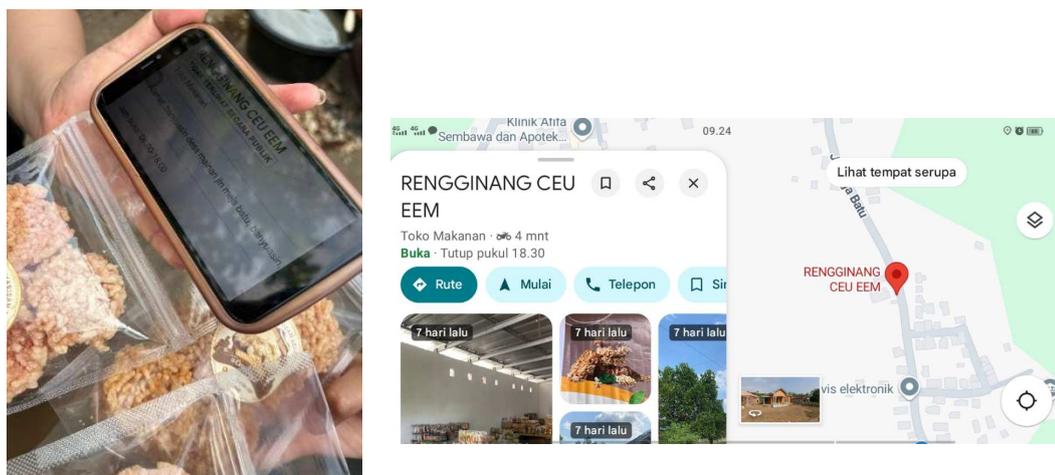


Figure 4. Location Marking of Rengginang Ceu Eem Production House

4.4. Collaboration and Direct Engagement

All activities are carried out through a participatory and collaborative approach. KKN-T students not only provide one-way education, but also actively involve MSME partners in every stage of the activity, from planning, production, evaluation, to initial marketing. Ceu Eem's presence as a local figure and key partner has been very helpful in building community trust and facilitating program implementation. He also acts as an intermediary between students and other MSME actors, so that the empowerment process is not limited to one business actor alone, but becomes a shared learning experience that can be replicated by other residents.



Figure 5. Direct Involvement of KKN-T in the Rengginang Business



Figure 6. Group Photo Session

4.5. Challenges and Limitations

During the implementation of the activity, several challenges were faced. Firstly, the time factor is the main obstacle, where the implementation of KKN-T must be carried out in a short period, thus requiring a high intensity of activities. Second, limited equipment and the absence of modern production machines mean that the innovation process must be adapted to the available manual tools. Third, digital literacy among MSMEs is still low, so technology introduction is carried out gradually and simply. Nevertheless, this activity is still able to provide real results. Innovations in spicy flavor variants, visual identity design, and the presence of businesses on Google Maps have brought about positive changes that can be continued to be developed after the KKN-T activities are completed.

V. Conclusion

The Thematic Community Service Program (KKN-T) carried out by students of the Faculty of Economics, Universitas Indo Global Mandiri (UIGM) in Mainan Village, Sembawa District, Banyuasin Regency, made a significant contribution to empowering local MSMEs. The main focus of this activity is Ceu Eem's rengginang business, which has been managed conventionally without innovation in products or marketing strategies. Through a collaborative approach and direct mentoring, this activity succeeded in producing several key achievements. The innovative spicy flavor of rengginang creates a new appeal that can reach a wider consumer base. Furthermore, creating a visual identity for the product, such as a logo and packaging label, enhances its visual appeal and creates simple brand awareness locally.

This activity also succeeded in carrying out initial digitalization by registering rengginang production locations on Google Maps. This simple step can increase business accessibility, so that consumers or buyers from outside the village can find out and visit the production site directly. The implementation of this program, which is oriented towards direct solutions and is based on local potential, shows that innovation does not always require high technology or large costs. With a participatory approach, utilization of local resources, and strong partnerships between students and business actors, MSME empowerment activities can run effectively and produce real impacts.

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