From Marine Potential To Superior Local Products: Empowering Kerupuk Klejat MSMEs In Serangan Village, Bali Through Packaging Innovation And Digital Marketing

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Abstract.
Micro, Small, and Medium Enterprises (MSMEs) are one of the primary drivers of Indonesia's local economy, particularly in coastal communities that depend on marine resources. Serangan Village, Denpasar, Bali, possesses abundant marine potential, including the production of Kerupuk Klejat, a traditional seafood-based cracker made from local shellfish. Despite its unique taste and cultural value, the product faces challenges related to unattractive packaging, limited branding, and conventional marketing practices, which reduce its competitiveness in modern markets. This community engagement program aimed to enhance the competitiveness of Kerupuk Klejat MSMEs through packaging innovation and digital marketing assistance. The activities were conducted on 29–30 June 2026 using participatory methods consisting of observation, interviews, discussions, packaging redesign, branding assistance, and digital marketing education. The mentoring process encouraged collaboration between university students and local entrepreneurs in developing product identity while preserving its traditional characteristics. The results indicate improvements in product appearance, increased awareness of branding, and enhanced understanding of digital marketing strategies among MSME owners. Furthermore, the program strengthened the confidence of business owners in promoting their products to broader markets beyond the local community. The collaboration demonstrates that simple innovations supported by academic knowledge and local wisdom can create sustainable economic value for coastal MSMEs. This initiative contributes to the achievement of Sustainable Development Goal (SDG) 8 by promoting inclusive economic growth and SDG 12 through responsible production and sustainable business practices.
Keywords: *Community engagement; MSMEs; Packaging innovation; Digital marketing; Coastal economy; Kerupuk Klejat.*

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have become one of the most important sectors supporting Indonesia's economic development. Besides contributing significantly to employment opportunities, MSMEs also encourage regional economic growth by utilizing local resources and preserving cultural heritage. In tourism areas such as Bali, MSMEs play an essential role in providing local products that strengthen the identity of tourist destinations while improving

community welfare. The sustainability of these businesses depends not only on product quality but also on their ability to compete in increasingly dynamic and digital markets.

Serangan Village, located in South Denpasar, Bali, is widely recognized as one of the coastal villages possessing abundant marine resources. The majority of local residents depend on fisheries, marine tourism, and seafood processing industries as their primary source of income. Various seafood products are processed into value-added commodities by local households, including fish crackers, dried seafood, and traditional shellfish-based snacks. Among these products, Kerupuk Klejat represents one of the unique culinary products that reflects the cultural identity and marine potential of the village.

Kerupuk Klejat is produced from locally harvested klejat shellfish processed using traditional techniques passed down through generations. The product offers a distinctive savory taste and crispy texture, making it attractive to tourists seeking authentic Balinese culinary souvenirs. Despite possessing high product quality and unique local characteristics, the marketing performance of Kerupuk Klejat remains relatively limited. Most MSMEs still rely on conventional sales methods, such as direct selling to local consumers or word-of-mouth promotion, which restrict market expansion and business growth.

Based on field observations conducted on the Kerupuk Klejat MSME in Serangan Village, it was found that the initial business condition was still relatively simple and not yet optimal in terms of business development. The production of Kerupuk Klejat is carried out on a home-based scale with limited capacity, approximately ±50–100 packages per month, and involves 2–3 workers, most of whom are family members. From a financial perspective, the revenue generated prior to the assistance program was relatively low and heavily dependent on direct sales to local consumers.

Field observations conducted during the community engagement program revealed several challenges faced by the MSME. One of the most significant issues was the unattractive product packaging. The crackers were generally packed in transparent plastic bags with simple labels containing minimal product information. Such packaging failed to reflect the premium quality of the product and was less competitive compared to similar products available in souvenir shops and modern retail markets. Furthermore, the absence of attractive branding reduced consumer confidence and limited opportunities for product differentiation.

Another important challenge involved limited utilization of digital technology in marketing activities. The MSME owner had not fully adopted social media or online marketplaces as promotional channels. Consequently, potential consumers outside Serangan Village had very limited access to information regarding Kerupuk Klejat products. This situation illustrates that the primary obstacles experienced by the MSME were not associated with product quality but rather with product presentation and marketing strategies.

The rapid development of digital technology has significantly transformed consumer behavior. Modern consumers tend to evaluate products based on visual appearance before making purchasing decisions. Attractive packaging, informative labels, and strong product branding have become strategic components influencing purchasing intentions. Previous studies indicate that packaging innovation not only improves product attractiveness but also increases perceived product quality, consumer trust, and purchasing decisions. Likewise, digital marketing enables MSMEs to reach broader markets with relatively low promotional costs while strengthening customer engagement.

Universities play an essential role in supporting MSME development through community engagement activities. As part of the implementation of the university's Tri Dharma, students are encouraged to apply academic knowledge in solving practical problems experienced by society. Through collaboration between higher education institutions and local communities, innovative solutions can be developed without eliminating local wisdom or traditional production methods.

The uniqueness of this community engagement program lies in the integration of marine-based local identity into packaging design and the introduction of simple digital marketing strategies tailored to household-scale seafood MSMEs in coastal tourism areas. Community engagement therefore becomes a strategic bridge connecting academic knowledge with community needs.

Based on these considerations, students from Universitas PGRI Semarang conducted a community engagement program in Serangan Village on 29–30 June 2026. The program focused on assisting the Kerupuk Klejat MSME through packaging innovation and digital marketing education. Rather than changing the traditional production process, the activities emphasized improving product competitiveness by strengthening visual identity, developing informative packaging, and introducing digital promotional strategies. The mentoring process was designed collaboratively, allowing the MSME owner to actively participate in every stage of product development.

The outputs generated from this community service activity include several important aspects in developing partner businesses, namely new, more attractive and informative packaging designs, the creation of product logos as visual identities, the preparation of training materials to improve partner understanding, the creation and management of social media accounts as a digital marketing tool, and the publication of scientific articles as a form of dissemination of the results of the activity. These outputs are expected to increase product sales value and expand the marketing reach of partners.

The expected outcome of this program was not merely the improvement of product appearance but also the enhancement of entrepreneurial capacity among MSME owners. By combining academic knowledge with local experience, the collaboration aimed to create sustainable business development capable of increasing product competitiveness while preserving the authenticity of Kerupuk Klejat as one of Serangan Village's culinary heritage products. Moreover, this initiative contributes to achieving the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production) through the empowerment of local MSMEs and sustainable business innovation.

Table 1. Success indicator table

Stages	Activity	Success Indicators
Initial observations	Direct observation to the production process and informal interviews	Comprehensive data was obtained regarding the production process, marketing system, product display, and the identification of the main problems faced by MSMEs.

Identification and discussion of problems	Interactive discussion	Achieving a mutual agreement regarding priority issues and the direction of business development that is in accordance with the capacity of MSMEs.
Packaging and branding assistance	Packaging innovation assistance	Increasing understanding of MSME actors regarding the importance of packaging and improving packaging design to be more informative and attractive.
Digital marketing education	Introducing marketing strategies	MSMEs are able to implement simple marketing strategies independently through digital media.
Evaluation	Discussion with the owner MSMEs	Positive response from MSME actors and their readiness to implement the innovations that have been provided.

II. METHODS

This community engagement program was conducted on 29–30 June 2026 in Serangan Village, South Denpasar District, Bali Province, focusing on one household-based MSME producing Kerupuk Klejat, a traditional seafood cracker made from locally harvested shellfish. The activity was carried out by four students from Universitas PGRI Semarang under the supervision of Liyandri Rasbina Tarigan, S.E., M.M. The program aimed to improve the competitiveness of the MSME by strengthening product packaging, branding, and digital marketing capabilities while maintaining the authenticity of the traditional product.

The implementation adopted a participatory community engagement approach, emphasizing collaboration between the student team and the MSME owner. Instead of introducing drastic

business changes, the mentoring activities were designed to accommodate the needs, experiences, and local wisdom possessed by the business owner. This approach allowed both parties to exchange knowledge and jointly develop practical solutions that could be sustainably implemented.

The implementation of the program consisted of five stages.

1. Preliminary Observation

The first stage involved direct observation of the production site to understand the overall business conditions. The student team observed the production process, packaging techniques, marketing methods, and product display. Informal interviews were also conducted with the MSME owner to identify existing challenges and opportunities for business development.

The observation revealed several major issues. The product was packaged using transparent plastic bags without an attractive visual identity. Product labels contained only limited information and lacked branding elements capable of attracting consumers. Marketing activities remained dependent on local buyers and personal recommendations without utilizing digital media.

2. Problem Identification and Discussion

Based on the observation findings, an interactive discussion was conducted with the MSME owner. This activity aimed to prioritize the problems requiring immediate attention while considering the business owner's capacity and available resources.

The discussion concluded that three priority issues should become the focus of the community engagement program:

Improvement of product packaging appearance. Strengthening product branding.

Introduction to digital marketing strategies.

The participatory discussion ensured that every innovation remained compatible with the MSME owner's production capacity and business characteristics.

3. Packaging and Branding Assistance

The next stage involved mentoring in packaging innovation. Students introduced the importance of packaging as an element influencing consumer perception and purchasing decisions. The assistance included discussions regarding packaging design, color selection, typography, product information, and branding concepts.

The proposed packaging improvements emphasized several components:

- Attractive product logo.
- Clear product identity.
- Ingredient composition.
- Product weight.
- Production and expiration information.
- Contact information for consumers.

Students also explained that packaging functions not only as product protection but also as a marketing communication tool capable of increasing product value.

4. Digital Marketing Education

The fourth stage focused on improving digital literacy among the MSME owner. Students introduced several simple digital marketing strategies suitable for small businesses.

The educational activities included:

Product photography using smartphones. Writing attractive product descriptions. Creating promotional content for social media.

Understanding customer interaction through digital platforms. Introduction to online marketing opportunities.

The training emphasized practical implementation so that the MSME owner could independently continue promotional activities after the completion of the community engagement program.

5. Evaluation

The final stage involved evaluating the implementation of the activities through discussions with the MSME owner. Evaluation focused on identifying participant responses, understanding the usefulness of the mentoring process, and determining opportunities for future business development.

Overall, the MSME owner expressed positive responses toward the program and demonstrated enthusiasm for implementing the suggested innovations.

III. RESULTS AND DISCUSSION

Improvement of Product Packaging as a Competitive Strategy One of the most visible achievements of the community engagement program was the increased awareness of the importance of packaging innovation. Before the mentoring activities, Kerupuk Klejat products were packaged using simple transparent plastic bags with minimal labeling. Although the product possessed excellent taste and quality, the packaging failed to communicate its uniqueness and cultural value to potential consumers.

Following discussions and assistance provided by the student team, the MSME owner gained a broader understanding that packaging serves not only as a protective medium but also as an essential marketing instrument. Attractive packaging contributes significantly to product differentiation and enhances consumers' first impressions.

The recommended packaging improvements focused on visual attractiveness while maintaining production efficiency. Product labels were redesigned to provide clearer information, including product identity, ingredients, producer information, and branding elements representing Serangan Village's marine identity.

Such improvements are expected to increase consumer confidence because informative packaging reflects product professionalism and food safety awareness. Previous studies have shown that packaging innovation positively influences consumer purchasing decisions by enhancing product credibility and perceived quality.

Strengthening Product Branding

Besides packaging innovation, branding became another major focus of the mentoring activities. Prior to the program, the MSME had not developed a consistent brand identity capable of distinguishing Kerupuk Klejat from competing seafood snack products.

Students introduced the concept of branding as a long-term business investment rather than merely creating a logo. Branding represents the product's identity, values, and uniqueness, enabling consumers to remember and recognize the product more easily.

Several branding elements discussed during the mentoring activities included:

- Product logo.

- Brand colors.
- Typography.
- Product storytelling.
- Product uniqueness.
- Local cultural identity.

The incorporation of Serangan Village's coastal identity into product branding was considered important because local authenticity has become an attractive selling point within culinary tourism markets. Consumers increasingly seek products that provide authentic experiences rather than merely satisfying functional needs.

A stronger brand identity also supports future promotional activities through social media, exhibitions, and souvenir centers.

Increasing Awareness of Digital Marketing

One of the main limitations identified during the observation stage was the absence of digital marketing practices. Product marketing remained dependent on local customers and repeat buyers without utilizing broader promotional channels.

During the mentoring process, students introduced practical digital marketing strategies appropriate for small-scale MSMEs. Rather than emphasizing complicated technologies, the training focused on simple activities that could be implemented immediately.

The MSME owner learned basic techniques for producing attractive product photographs using a smartphone, selecting appropriate lighting, arranging product displays, and writing persuasive product descriptions. Students also demonstrated how social media platforms can become effective promotional tools for introducing products to consumers outside Serangan Village.

Digital marketing offers significant advantages for MSMEs because it reduces promotional costs while expanding market reach. Through consistent online promotion, businesses have greater opportunities to attract new consumers, build customer relationships, and strengthen brand awareness.

Although the mentoring program was conducted within a relatively short period, it successfully increased the MSME owner's understanding of digital promotion and encouraged greater confidence in utilizing online media for business development

III. RESULTS AND DISCUSSION

Student–Community Collaboration in MSME Empowerment

One of the most valuable outcomes of this community engagement program was the establishment of collaborative learning between university students and the MSME owner. Rather than acting solely as knowledge providers, the students positioned themselves as facilitators who worked together with the business owner to identify problems and formulate practical solutions.

The mentoring process demonstrated that local entrepreneurs possess valuable experiential knowledge regarding product quality, consumer preferences, and traditional production techniques. Meanwhile, students contributed academic knowledge related to branding, packaging innovation, and digital marketing. The integration of these two forms of knowledge created a mutually beneficial partnership capable of producing sustainable innovation without eliminating local identity.

This collaborative approach also increased the participation of the MSME owner throughout the implementation process. Every recommendation regarding packaging, branding, and promotional strategies was discussed openly before implementation. Consequently, the innovations reflected both market needs and the cultural values embedded in Kerupuk Klejat production.

Community participation is widely recognized as one of the key success factors in community empowerment programs because sustainable development can only be achieved when beneficiaries actively participate in decision-making processes.

Impacts of the Community Engagement Program

Although the mentoring activities were conducted within two days, several positive impacts were identified during the evaluation stage.

Improved Product Appearance

The most visible improvement involved the transformation of product packaging concepts. The MSME owner developed a better understanding that attractive packaging functions as an important marketing medium capable of increasing consumer confidence.

Modern consumers often evaluate product quality based on visual presentation before making purchasing decisions. Therefore, improvements in packaging design are expected to enhance product competitiveness, particularly within souvenir shops and tourism markets.

Increased Entrepreneurial Confidence

Another significant outcome was the increased confidence demonstrated by the MSME owner in promoting products to wider markets.

Before the mentoring activities, marketing efforts focused mainly on local consumers and repeat customers. After discussions regarding branding and digital marketing, the MSME owner expressed greater motivation to introduce Kerupuk Klejat to broader consumer segments.

Confidence is an important intangible outcome because entrepreneurial motivation strongly influences business sustainability and innovation adoption.

Improved Understanding of Digital Marketing

The educational activities successfully introduced practical digital marketing concepts suitable for household-scale MSMEs. The business owner became familiar with: Creating attractive product photographs. Writing promotional captions. Building product identity through social media. Utilizing online communication with consumers. Maintaining consistent promotional activities. Although digital transformation requires continuous learning, the mentoring activities served as an important first step toward broader market accessibility. Contribution to Sustainable Local Economic Development

The community engagement program contributes not only to individual business development but also to the broader objective of strengthening the local economy. Kerupuk Klejat represents one of Serangan Village's traditional culinary products with significant tourism potential. Enhancing product competitiveness through packaging innovation and digital marketing may increase product visibility among domestic and international tourists visiting Bali.

Furthermore, successful development of local culinary products contributes to preserving cultural heritage while generating additional income opportunities for coastal communities.

The findings support previous studies suggesting that university-community collaboration can become an effective strategy for improving MSME competitiveness through knowledge transfer, innovation, and community empowerment.

IV. CONCLUSION

The community engagement program conducted in Serangan Village successfully demonstrated that simple innovations can significantly improve the competitiveness of household-scale MSMEs. The mentoring activities focused on packaging innovation, branding development, and digital marketing education without altering the authenticity of Kerupuk Klejat as one of the village's traditional culinary products.

The participatory approach encouraged active collaboration between university students and the MSME owner, allowing practical solutions to be developed according to local needs and business conditions. The program enhanced awareness regarding the importance of attractive packaging, product branding, and digital marketing as strategic instruments for expanding market opportunities.

The mentoring program demonstrated significant achievements in improving the visual quality and added value of MSME products. This was reflected in the success in producing more aesthetic and communicative packaging designs that more strongly represented brand identity. Strengthening branding aspects not only increased product appeal in the eyes of consumers but also contributed to the formation of a more competitive product positioning in the market. Furthermore, this program also increased the cognitive capacity and practical skills of MSME owners in understanding and implementing digital marketing strategies, particularly those relevant to small businesses. This increased digital literacy serves as a crucial foundation in supporting the marketing transformation from conventional approaches to digital-oriented marketing. More broadly, the interventions carried out through this program also succeeded in improving MSME business readiness in expanding market reach, both in the tourism sector and online markets, thereby opening up opportunities for more sustainable and adaptive business growth to market dynamics.

Although the activities were implemented within a relatively short period, the mentoring process increased entrepreneurial confidence and introduced new perspectives on business development. The integration of academic knowledge with local wisdom provides an effective model for strengthening MSME competitiveness while preserving cultural identity.

Future community engagement programs should involve longer mentoring periods and continuous monitoring to evaluate the long-term effectiveness of packaging innovation and digital marketing implementation. Collaboration among universities, local governments, and MSMEs is expected to support sustainable economic development while contributing to the achievement of the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production).

V. DOCUMENTATION OF ACTIVITIES



Figure 1. Opening ceremony of the sustainable International Community Services (SICS) 2026.



Figure 2. Kerupuk Klejat, the traditional seafood-based product observed during the community engagement program.

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REFERENCES

Adhitya, B., & Kencana, H. (2024). Empowering MSMEs through Digital Marketing and Packaging Innovation. WIKUACITYA: Jurnal Pengabdian Kepada Masyarakat, 3(1), 36–43.

Al Omoush, K., Lassala, C., & Ribeiro-Navarrete, S. (2025). The role of digital business transformation in SMEs' resilience in emerging markets. International Journal of Emerging Markets, 20(1), 366–386.

Bag, S., Rahman, M. S., Srivastava, G., Giannakis, M., & Foropon, C. (2023). Data-driven digital transformation and business sustainability. International Journal of Production Economics, 266, 109059.

Casmiwati, D., Lubis, L., Hartati, S., & Fatmawati, R. (2022). Increasing MSME income through packaging innovation and online marketing. Jurnal Pengabdian Masyarakat Pesisir, 1(1), 11–15.

Henderson, J. C. (2011). Culinary tourism and the development of local cuisine. Tourism Management Perspectives, 1, 19–23.

Magnier, L., Schoormans, J., & Mugge, R. (2016). Sustainable packaging and consumer perception. Food Quality and Preference, 53, 132–142.

Novitasari, N. L. G., & Munika, N. K. J. T. (2021). Pembangkitan perekonomian UMKM di Desa Serangan. Jurnal Abdi Dharma Masyarakat, 2(2), 135–141.

Omrani, N., Rejeb, N., Maalaoui, A., Dabić, M., & Kraus, S. (2022). Drivers of digital transformation in SMEs. IEEE Transactions on Engineering Management, 71, 5030–5043.

Prabawa, I. W. W., & Nurwarsih. (2023). Pemberdayaan ekonomi kerakyatan sektor industri kuliner dalam mendukung wisata bahari Serangan. Publikasi Riset Pariwisata.

Rupeika-Apoga, R., Bule, L., & Petrovska, K. (2022). Digital transformation of SMEs: Aspects of public support. Journal of Risk and Financial Management, 15(2), 45.

Sari, A. K., et al. (2022). Upaya pengembangan dan branding desa wisata berbasis UMKM lokal. Community Development Journal, 3(2), 1187–1194.

Seftiono, H., Wong, A., & Gunawan, I. I. (2022). Pendampingan regulasi kemasan pangan secara daring bagi UMKM di Bali. Transformatif: Jurnal Pengabdian Masyarakat, 3(1), 13–22.

Sharma, A., & Sharma, S. (2024). Adoption of digital marketing in tourism SMEs: A review and research agenda. Management Research Review, 47(7), 1077–1095.

Silajadja, M., Magdalena, P., & Nugrahanti, T. P. (2023). Pemanfaatan media sosial untuk pemasaran produk UMKM. Cakrawala: Jurnal Pengabdian Masyarakat Global, 2(2), 88–100.

Silayoi, P., & Speece, M. (2007). The importance of packaging attributes. European Journal of Marketing, 41(11–12), 1495–1517.

Taiminen, H. M., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs. Journal of Small Business and Enterprise Development, 22(4), 633–651.

Widianti, N., et al. (2026). Inovasi pemasaran digital dan kemasan produk UMKM makanan ringan. COMMUNITY: Jurnal Pengabdian Kepada Masyarakat, 6(2), 842–853.