

EMPOWERING MSMEs IN KAMPUNG TAHU, BINJAI CITY, THROUGH DIGITAL MARKETING AND PRODUCT INNOVATION TO ENHANCE BUSINESS COMPETITIVENESS AND INCOME

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Abstract

This community service program aimed to strengthen the capacity of Micro, Small, and Medium Enterprises (MSMEs) in Kampung Tahu, Binjai City, through integrated digital marketing and product innovation. The program addressed key challenges faced by local tofu-based MSMEs, including limited digital literacy, weak promotional capabilities, inadequate branding, and limited product differentiation. A participatory approach was implemented through problem identification, training, practical sessions, mentoring, monitoring, and evaluation. Training covered digital marketing strategies, WhatsApp Business, social media, marketplace utilization, product photography, promotional content creation, branding, packaging, and tofu-based product innovation. The results showed improved participant understanding and practical skills in managing digital business accounts, creating promotional content, presenting products attractively, and utilizing digital platforms to communicate with consumers and expand market opportunities. Participants also demonstrated increased awareness of product differentiation, packaging improvement, labeling, and value-added product development. Continuous mentoring supported the application of acquired skills and strengthened participants' independence. Overall, the program provided a practical foundation for improving MSME competitiveness and creating greater income-generating opportunities. The integration of digital marketing and product innovation is recommended as a sustainable strategy for strengthening MSME development.

Keywords: Empowering MSMEs, Kampung Tahu, Binjai City, Digital Marketing, Product Innovation

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a significant role in strengthening local economies by creating employment opportunities, increasing household incomes, and fostering local economic activities. Amid the rapid development of the digital economy, the sustainability and competitiveness of MSMEs are increasingly influenced by their ability to utilize technology, develop innovative products, and reach consumers through broader marketing channels. Digital marketing provides MSMEs with opportunities to increase product visibility, establish consumer engagement, expand market reach, and improve business performance. However, limited digital literacy, inadequate marketing content creation skills, restricted access to capital, and insufficient understanding of digital marketing strategies remain major challenges for many MSMEs in Indonesia (Trisetyasi et al., 2026).

This condition is also relevant to the MSMEs operating in Kampung Tahu, Suka Maju Urban Village, West Binjai District, Binjai City, North Sumatra. Kampung Tahu is one of the areas with considerable local economic potential based on food production, particularly various processed tofu products. In 2026, the Binjai City Government recorded a number of business operators in the area producing various types of tofu, including white tofu, crispy tofu, yellow tofu, hollow tofu, kepel white tofu, lato-lato tofu, and Binjai Tofu. The local government has also identified the need to develop Kampung Tahu into a more advanced, modern, and hygienic production area.

This condition indicates that Kampung Tahu possesses an established production base and product diversity that can be further developed into a source of local economic strength.

Despite the diversity of its products, MSMEs in Kampung Tahu continue to face challenges in developing their marketing activities and increasing product value-added. These challenges include limited utilization of digital media for promotional purposes, inadequate skills in producing engaging marketing content, weak brand identity, and limited development of packaging and product variations. Findings from previous community service activities in Suka Maju Urban Village, Binjai City, indicate that MSME operators still have limited understanding of creative digital marketing, face difficulties in implementing digital marketing effectively, and require assistance in designing attractive packaging with greater market value. These challenges affect the ability of MSMEs to compete in an increasingly competitive marketplace.

The urgency of empowering MSMEs in Kampung Tahu has become increasingly evident as changes in consumer behavior have heightened the importance of establishing a business presence within the digital ecosystem. Marketing strategies that rely solely on local customers and conventional methods may constrain market expansion. In contrast, the use of social media, marketplaces, WhatsApp Business, and other digital platforms can help MSME operators introduce their products to a broader consumer base. Research on MSMEs in Binjai City indicates that digital marketing and social media marketing have positive effects on business performance, with social media marketing emerging as one of the dominant factors in increasing consumer engagement (Mita, 2026).

The selection of digital marketing as one of the solutions in this community service program is based on its potential to expand market reach and strengthen interactions between business operators and consumers. Digital marketing should not be understood merely as promotional activities conducted through social media. It also encompasses brand identity management, content creation, customer communication, marketplace utilization, and digital management of product information. A study of MSMEs in the Medan, Binjai, and Deli Serdang areas also indicates that cyber marketing models can assist MSMEs in expanding their markets through the utilization of digital technologies and online marketing platforms (Khair *et al.*, 2020).

In addition to digital marketing, product innovation is an important component in strengthening MSME competitiveness. Products with greater variety, quality, improved packaging, and higher value-added have greater potential to meet changing consumer needs. Innovation can be achieved through the development of new product variants, quality improvements, packaging design, product sizing, presentation, and the creation of tofu-based derivative products. Research on MSMEs in Indonesia indicates that innovation, particularly product and process innovation, can strengthen competitiveness by improving efficiency, enhancing consumer engagement, and expanding market reach (Akbar & Amir, 2024).

The relationship between product innovation, digital marketing, and competitiveness is also supported by recent empirical evidence. A study of MSMEs in Bengkulu found that product innovation and digital marketing are factors associated with improved MSME competitiveness (Andini *et al.*, 2025). Another study demonstrated that the combination of innovation and digital marketing strategies can serve as an important mechanism for building competitive advantage among MSMEs, although business operators continue to face challenges related to digital literacy, content creation skills, access to capital, and market competition.

From an income perspective, digital marketing and product innovation can create opportunities to increase sales by expanding market reach, enhancing product attractiveness, and strengthening relationships with consumers. Research on business digitalization and product innovation among MSMEs indicates that product innovation is associated with increased income, while digital marketing and digital payment systems can further strengthen this process (Pratiwi & Muanas, 2025). Therefore, increasing business income does not depend solely on higher production volumes but also on the ability of MSMEs to create greater value-added and connect their products with broader markets.

Digital marketing challenges among tofu-based MSMEs in Binjai City have also received attention in previous community service programs. A digital marketing training program implemented for tofu businesses in Binjai identified limited marketing areas, challenges in managing consumer orders, and the need to improve order management through the utilization of information technology. The program demonstrated that digital marketing can serve as an instrument for strengthening marketing skills and expanding market access for MSMEs producing tofu-based products.

Based on this situation analysis, Kampung Tahu in Binjai City has substantial development potential, supported by the presence of business operators, the diversity of tofu products, and a distinctive area identity that can be developed as a source of local economic strength. However, this potential needs to be accompanied by increased capacity among MSME operators in digital marketing, branding, product innovation, and consumer

communication management. Therefore, a community service program is needed that not only provides theoretical knowledge but also delivers practical training and mentoring that can be directly applied by MSME operators in their daily business activities.

This community service program aims to strengthen the capacity of MSME operators in Kampung Tahu, Binjai City, to utilize digital marketing and implement product innovation in order to improve business competitiveness and income-generating potential. The program is implemented through several stages, including the identification of partners' problems and needs, education on digital marketing strategies, training in the use of social media and digital platforms, practical promotional content creation, strengthening of branding and packaging, and mentoring for product innovation development. This approach is expected to improve the practical skills of MSME operators while encouraging a transition from conventional marketing practices toward more adaptive marketing strategies that respond to technological developments.

Accordingly, this empowerment program is designed to build the capacity of MSMEs in Kampung Tahu sustainably through the integration of digital marketing and product innovation. The program is not solely oriented toward improving promotional capabilities but also toward strengthening product value-added, expanding market access, increasing competitiveness, and creating opportunities for higher business income. This approach is consistent with the development needs of Kampung Tahu as a local economic center that is more innovative, modern, and capable of adapting to the dynamics of the digital marketplace.

LITERATURE REVIEW

1. Empowerment and Development of MSMEs

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in the economy by contributing to job creation, income generation, and the development of community-based economic activities. However, MSME owners face various challenges in maintaining business sustainability, particularly in response to changes in technology, consumer behavior, and market competition. In this context, MSME empowerment cannot focus solely on improving production capacity. It must also strengthen managerial capabilities, marketing capacity, innovation, and the ability to adapt to changes in the business environment.

Empowerment has become increasingly important for MSMEs operating in the food and local product sectors. Products with distinctive local characteristics can generate greater economic value when business owners are able to improve product quality, establish a strong brand identity, and reach consumers beyond traditional markets. Therefore, the empowerment of MSMEs in Kampung Tahu, Binjai City, should focus on strengthening their ability to manage internal resources while taking advantage of opportunities arising from the development of digital technology.

2. Digital Marketing in MSME Development

Digital marketing refers to a marketing approach that utilizes digital technologies to disseminate information, establish communication, promote products, and develop relationships with consumers. For MSMEs, digital marketing can be implemented through social media, marketplaces, websites, WhatsApp Business, and various other digital platforms. The use of these channels enables business owners to expand their market reach without relying entirely on customers located in the immediate vicinity of their businesses.

Khair, Pulungan, and Putri demonstrated that the implementation of *cyber marketing* can help MSMEs in Medan, Binjai, and Deli Serdang expand their markets through the use of websites as marketing tools. Their study employed a *Research and Development* approach to develop a *cyber marketing* model for MSMEs. The findings indicated that online marketing technologies have the potential to support MSME market expansion, although some business owners still face limitations in adopting such technologies (Khair et al., 2020).

These findings are relevant to the conditions of MSMEs in Kampung Tahu, Binjai City. The use of digital marketing can be directed not only toward promotional activities but also toward managing brand identity, developing product content, communicating with consumers, providing product and pricing information, and managing customer relationships. Thus, digital marketing can serve as an empowerment instrument that helps MSMEs shift from location-based marketing toward broader and digitally connected marketing. Toni et al. also demonstrated a relationship between digital marketing, digital transformation, and the financial performance of MSMEs. Their study specifically examined the relationship between digital marketing and digital transformation and MSME financial performance (Toni et al., 2024).

3. Product Innovation as a Strategy for Enhancing Competitiveness

In addition to digital marketing, product innovation represents an important aspect of enhancing MSME competitiveness. Product innovation may involve the development of new product variants, quality improvements,

changes in product design and packaging, modifications in product sizes, improvements in presentation, and the creation of derivative products. Innovation enables MSMEs to offer greater value to consumers while responding to changes in market preferences.

Research by Pramuki and Kusumawati on MSMEs in Bali demonstrated that product innovation is associated with marketing performance through competitive advantage. The study employed a quantitative approach involving 125 business managers and used Structural Equation Modeling (SEM) for data analysis. The findings supported the relationship among market orientation, product innovation, competitive advantage, and marketing performance (Pramuki & Kusumawati, 2024).

These findings indicate that product innovation is not limited to the creation of new products. Innovation can also serve as an instrument for developing differentiation and competitive advantage. In the context of Kampung Tahu, innovation can be implemented through the development of various tofu-based products, improvements in product quality and shelf life, more attractive packaging designs, and the creation of value-added products that are easier to market through digital channels. Research by Andini, Nasution, and Fitriano also demonstrated that product innovation and digital marketing are associated with MSME competitiveness in Bengkulu City. Their study employed a quantitative approach involving MSME owners and examined the effects of product innovation and digital marketing on competitiveness (Andini et al., 2025).

4. Digital Marketing, Product Innovation, and MSME Competitiveness

The relationship between digital marketing and product innovation can be explained from the perspective of competitive advantage. Innovative products require marketing strategies that are capable of communicating their distinctive advantages to consumers. Conversely, digital marketing becomes more effective when supported by products that offer clear quality, differentiation, and added value.

Andini et al. demonstrated that product innovation and digital marketing are two factors associated with MSME competitiveness (Andini et al., 2025). Meanwhile, Pramuki and Kusumawati found that product innovation can contribute to marketing performance through competitive advantage (Pramuki & Kusumawati, 2024).

This relationship provides a conceptual foundation for the MSME empowerment program in Kampung Tahu. Digital marketing and product innovation should not be implemented as two separate activities. Instead, they need to be developed in an integrated manner. Innovation creates value in products, while digital marketing helps communicate and distribute that value to a broader market.

5. Digitalization, Product Innovation, and Income Enhancement

From an income perspective, marketing digitalization and product innovation can create opportunities to increase sales through market expansion, enhanced product attractiveness, and stronger relationships with consumers. Pratiwi and Muanas examined the relationship between product innovation and MSME income, as well as the role of digital payment and digital marketing in this relationship. Their quantitative study involved 152 MSME owners in Surakarta and employed regression analysis and *moderated regression analysis*. The findings provide evidence that increasing MSME income is not solely associated with the ability to increase production volume. The ability to create innovation, expand market reach, and utilize digital technologies also plays an important role in creating economic value (Pratiwi & Muanas, 2025).

6. Resource-Based View and Dynamic Capabilities as Theoretical Foundations

Theoretically, the relationship among digital marketing, product innovation, competitiveness, and income can be explained using the Resource-Based View (RBV) and Dynamic Capabilities Theory. The RBV perspective argues that competitive advantage can be developed through valuable and difficult-to-imitate resources and capabilities. In the context of MSMEs, these resources may include knowledge, managerial skills, innovation capabilities, customer relationships, business reputation, and the ability to utilize digital technologies.

Research on MSMEs in Malang demonstrated that innovation plays a role in the relationship between resource-based strategies and competitive advantage. The study employed a quantitative approach and SEM-PLS involving 100 craft-based MSMEs. The findings indicated that innovation significantly mediates the relationship between RBV strategy and entrepreneurial orientation and competitive advantage (Rigan & Parahiyanti, 2022).

Meanwhile, Dynamic Capabilities Theory emphasizes an organization's ability to adapt to changes in its external environment. In the context of MSMEs, such capabilities can be manifested through the ability to recognize changes in consumer needs, adopt new technologies, develop new products, update marketing strategies, and reorganize existing resources. For example, Sugianto (2026) employed the Dynamic Capabilities Theory perspective to explain how external support can enhance digital marketing capabilities and MSME marketing performance (Sugianto, 2026).

Accordingly, empowering MSMEs in Kampung Tahu through digital marketing and product innovation should not be viewed merely as a technical training activity. Rather, it represents a process of developing business capabilities that enables MSME owners to adapt to technological and market changes.

7. Research Gap and Position of the Community Service Program

Previous literature has provided evidence that digital marketing can help MSMEs expand their markets, while product innovation can enhance differentiation and competitiveness. The study by Khair et al. provides particularly relevant contextual evidence because it examines MSMEs in Medan, Binjai, and Deli Serdang. The research by Andini et al. provides evidence regarding the relationship between product innovation, digital marketing, and MSME competitiveness. Meanwhile, Pratiwi and Muanas broadened the discussion by linking product innovation, digital marketing, digital payment, and MSME income.

However, there remains room for further development at the implementation level of MSME empowerment. Previous studies have predominantly employed quantitative surveys to examine relationships among variables. Although Khair et al. employed a model development approach, their study was conducted within the broader context of MSMEs in the Medan-Binjai-Deli Serdang (Mebidang) area. There are still limited studies that specifically integrate digital marketing training, product innovation development, product identity strengthening, and income enhancement strategies into a single empowerment program focusing on tofu-based MSMEs in Kampung Tahu, Binjai City.

Based on this gap, the present community service program positions digital marketing and product innovation as two complementary capabilities. Digital marketing is directed toward strengthening MSMEs' ability to establish a digital presence, create content, manage social media, utilize marketplaces, and communicate with consumers. Meanwhile, product innovation focuses on the development of product variants, quality, packaging, presentation, and tofu-based derivative products. The integration of these two aspects is expected to strengthen competitiveness while increasing opportunities for income growth among MSMEs in Kampung Tahu, Binjai City.

METHOD

1. Activity Approach

The approach adopted in this Community Service Program was a participatory approach. This approach positioned MSME owners in Kampung Tahu as active partners throughout all stages of the program, including problem identification, program planning, training implementation, practical sessions, mentoring, and evaluation. The participatory approach was selected to ensure that the activities were not conducted in a one-way manner but were instead tailored to the conditions, needs, capabilities, and business potential of the participating MSMEs.

The empowerment program focused on two main aspects: digital marketing and product innovation. Digital marketing was aimed at strengthening the ability of MSME owners to expand their market reach and establish interactions with consumers through digital media. Meanwhile, product innovation focused on improving the quality, variety, appearance, packaging, and added value of tofu-based products. The integration of these two aspects was expected to strengthen competitiveness and create opportunities to increase the income of MSMEs in Kampung Tahu.

2. Program Implementation Stages

a. Problem and Needs Identification

The initial stage was conducted to obtain an overview of the current conditions of MSMEs in Kampung Tahu, particularly in relation to marketing, product innovation, digital capabilities, competitiveness, and business management.

Objective:

To identify the problems, needs, potential, and capabilities of MSME owners as a basis for designing the empowerment program.

Methods:

1. **Field observation**, conducted to directly examine production processes, types of products, packaging, marketing systems, and business premises.
2. **Interviews**, conducted with MSME owners to explore their experiences, challenges, and needs in using digital media and developing products.
3. **Focus Group Discussions (FGDs)**, conducted with MSME owners to identify the main challenges related to marketing and product development.

4. **Simple questionnaires**, used to assess the participants' level of digital literacy, use of social media, utilization of marketplaces, content creation skills, and the current conditions of marketing activities and business income.
5. **Product potential identification**, conducted to determine tofu and tofu-based derivative products with potential for further development and broader market distribution.

The findings from this stage served as the basis for determining appropriate training materials and mentoring activities according to the participants' needs.

b. Training Material Development

Based on the results of the problem and needs identification stage, the team developed practical and easily applicable training materials for MSME owners.

Objective:

To prepare training materials capable of improving participants' skills in digital marketing and product innovation.

The training materials covered the following topics:

1. Digital Marketing

- Basic concepts of digital marketing for MSMEs.
- Utilization of WhatsApp Business for consumer communication and customer service.
- Utilization of Instagram, Facebook, and TikTok as promotional media.
- Introduction to and utilization of marketplaces.
- Development of digital business profiles and business identities.
- Product photography techniques using smartphones.
- Creation of short promotional videos.
- Techniques for developing captions and *copywriting*.
- Development of engaging marketing content.
- Strategies for building consumer engagement.
- Utilization of customer reviews and testimonials.
- Introduction to basic digital content performance analysis.

2. Product Innovation

- Identification of consumer needs and preferences.
- Development of tofu-based product variants.
- Improvement of product quality.
- Development of product design and packaging.
- Determination of appropriate product sizes and shapes.
- Development of tofu-based derivative products.
- Enhancement of product added value.
- Provision of product labels, brands, and product information.
- Strategies for differentiating products from competitors.

The training materials were prepared in the form of modules, presentations, product examples, simulations, and worksheets to enable participants to directly practice the knowledge and skills provided.

3. Training and Practical Implementation

The training was conducted intensively over three days using a combination of lectures, discussions, demonstrations, hands-on practice, simulations, and evaluations.

Day 1: Digital Marketing for MSMEs

The training materials included:

- Introduction to digital marketing.
- Changes in consumer behavior in the digital era.
- Strategies for developing business identity.
- Creation and management of business accounts.
- Utilization of WhatsApp Business.
- Utilization of Instagram, Facebook, and TikTok.
- Introduction to marketplaces.
- Practical development of business profiles and digital product catalogs.

Day 2: Digital Content and Product Marketing

The training materials included:

- Product photography techniques using smartphones.
- Basic lighting techniques.
- Product arrangement and styling before photography.
- Short video production.
- Development of captions and product descriptions.
- Basic *copywriting* techniques.
- Development of promotional content.
- Practical uploading of products to social media and marketplaces.

Participants were encouraged to produce at least one promotional content piece and one digital product catalog that could be used after the program was completed.

Day 3: Product Innovation and Competitiveness Enhancement Strategies

The training materials included:

- Concepts of product innovation.
- Identification of opportunities for tofu product development.
- Development of product variants and derivative products.
- Improvement of product quality and visual appeal.
- Packaging design innovation.
- Development of product labels and identity.
- Strategies for determining product added value.
- Integration of product innovation with digital marketing.
- Development of marketing and business development plans.

At this stage, participants conducted practical exercises to develop or improve their products based on the potential and characteristics of their respective businesses.

4. Mentoring and Monitoring

After the training was completed, the program continued with mentoring and monitoring activities to ensure that the knowledge and skills acquired by participants could be effectively applied to their business activities.

Objective:

To ensure the sustained implementation of digital marketing and product innovation among MSME owners.

Mentoring activities were conducted through:

1. Direct assistance in managing social media and marketplace accounts.
2. Assistance in developing promotional content.
3. Assistance in improving packaging design and product identity.
4. Consultation on the development of new products or derivative products.
5. Assistance in managing digital product catalogs.
6. Establishment of a WhatsApp group as a communication medium between the Community Service Program team and participants.
7. Monitoring the development of digital marketing activities.
8. Monitoring changes in the number of products marketed through digital channels.
9. Monitoring consumer responses and engagement.
10. Monitoring developments in sales and business income.

Mentoring activities were conducted both offline and online for three months following the training program.

5. Evaluation and Follow-Up

Evaluation was conducted to assess the success of the program and identify changes in participants' capabilities after completing the activities.

The evaluation consisted of the following components:

a. Knowledge Evaluation

Changes in participants' understanding of digital marketing and product innovation were measured using *pre-tests* and *post-tests*.

b. Skills Evaluation

Participants' abilities were assessed in the following areas:

- Creating business accounts.
- Creating product catalogs.
- Taking product photographs.
- Creating promotional content.

- Writing product descriptions.
- Using WhatsApp Business.
- Uploading products to marketplaces.
- Developing product innovations.
- Creating or improving packaging designs.

c. Implementation Evaluation

This evaluation assessed the extent to which participants applied the training materials after the program, including:

- Increased frequency of digital promotion.
- Increased number of products marketed online.
- Increased consumer interaction.
- Expanded market reach.
- Increased number of orders.
- Changes in sales volume.
- Changes in business income.

d. Satisfaction Evaluation

Participants were provided with a questionnaire to assess the quality of the training materials, training methods, facilitator competence, facilities, relevance of the materials, and overall benefits of the program.

Follow-Up

The evaluation results were used as a basis for developing subsequent programs, including:

- MSME branding training.
- Packaging development.
- Product photography and videography.
- Marketplace optimization.
- Digital financial management.
- Pricing strategies.
- Development of tofu-based derivative products.
- Digital advertising strategies.
- Strengthening marketing networks with local government and private-sector stakeholders.

6. Technology-Based Approach

The technologies used in this program were selected based on the principles of simplicity, affordability, accessibility, and independent applicability by MSME owners.

The technologies used included:

- Smartphones for communication and marketing.
- Smartphone cameras for product photography.
- WhatsApp Business for communication, product catalogs, and customer service.
- Instagram, Facebook, and TikTok for promotion and content creation.
- Marketplaces for expanding marketing channels.
- Simple design applications such as Canva for creating promotional materials.
- Simple video-editing applications for producing marketing content.
- Internet connectivity as the primary infrastructure for digital marketing.

The use of these technologies was not limited to increasing promotional activities. It also aimed to strengthen MSMEs' ability to manage customer relationships and communicate product information in a more professional manner.

7. Location and Target Participants

This Community Service Program was conducted in Kampung Tahu, Binjai City, North Sumatra. The location was selected because it has strong potential for tofu-based businesses that can be further developed through product innovation and expanded marketing.

The target participants were MSME owners in Kampung Tahu engaged in the production and marketing of tofu and tofu-based processed products.

Priority was given to business owners who:

1. Had been actively operating their businesses.
2. Owned tofu-based products.
3. Experienced limitations in marketing activities.

4. Had not yet fully optimized the use of digital media.
5. Demonstrated an interest in developing their products.
6. Were willing to participate in training and mentoring activities.
7. Were willing to apply the knowledge acquired to their business activities.

RESULTS AND DISCUSSION

Results

The community service activity entitled “Empowering MSMEs in Kampung Tahu, Binjai City, through Digital Marketing and Product Innovation to Enhance Business Competitiveness and Income” was implemented to strengthen the capacity of MSME actors through digital marketing and product innovation. The activity emphasized practical training, direct assistance, and continuous monitoring so that participants could immediately apply the knowledge and skills acquired during the program.

1. Increased Understanding of Digital Marketing

The training resulted in an improved understanding of digital marketing among MSME participants. Participants were introduced to the role of digital platforms in promoting products, communicating with customers, building business identity, and expanding market reach. Before the program, marketing activities were predominantly conducted through conventional methods and relied heavily on local customers and word-of-mouth promotion. After the training, participants demonstrated greater awareness of the importance of digital channels as part of their business marketing strategy.

The participants also began to understand that digital marketing is not limited to uploading product images but includes content planning, customer engagement, product information, online communication, and the development of a consistent business identity. This understanding provided an important foundation for improving the competitiveness of MSMEs in an increasingly digital business environment.

2. Improvement in the Ability to Manage Digital Business Accounts

One of the important achievements of the program was the improvement in participants' ability to create and manage digital business accounts. Participants received practical guidance in utilizing platforms such as WhatsApp Business, Instagram, Facebook, and marketplace platforms according to their business needs.

During the practical sessions, participants were guided to complete business profiles, upload product information, display product prices, provide contact information, and communicate with potential customers. This activity increased participants' confidence in managing digital business platforms independently rather than depending entirely on other parties.

3. Improvement in Product Photography and Digital Content

Participants also demonstrated improvement in producing digital marketing content. Training focused on simple product photography techniques using smartphones, including lighting, composition, product positioning, and background selection. Participants were also introduced to basic techniques for producing short promotional videos.

The results indicated that participants became more aware of the importance of attractive visual presentation in influencing consumers' perceptions of product quality. In addition, participants learned how to prepare informative captions and product descriptions that communicate product characteristics, benefits, prices, and ordering information more clearly.

4. Increased Utilization of Social Media for Product Promotion

Social media became one of the main instruments introduced to participants for expanding product promotion. Participants were trained to utilize Instagram, Facebook, WhatsApp Business, and other relevant digital platforms to display their products and communicate with customers.

The activity encouraged participants to move from irregular promotional activities toward more structured digital content. They were introduced to the importance of maintaining consistent product information, uploading content regularly, responding to customer inquiries, and utilizing customer feedback as part of the promotional process.

5. Increased Awareness of Product Innovation

In addition to digital marketing, the program emphasized product innovation as an important strategy for strengthening MSME competitiveness. Participants were encouraged to identify consumer preferences and develop product variations based on market demand.

The training discussed several forms of innovation, including product variants, packaging improvements, product sizes, presentation, labeling, and the development of derivative products. Participants began to recognize

that innovation does not always require major technological changes or substantial investment. Simple improvements in packaging, product presentation, product variants, and branding can create additional value and differentiate products from competitors.

6. Improvement in Packaging and Product Presentation

Participants received practical guidance concerning packaging and product presentation. Packaging was discussed not only as a means of protecting products but also as an important element of branding and marketing communication.

Participants were encouraged to improve the visual appearance of their products through more informative labels, appropriate packaging materials, product names, contact information, and other relevant product information. These improvements are expected to strengthen consumer confidence and increase the attractiveness of Kampung Tahu products in both offline and online markets.

7. Increased Marketing Reach and Business Opportunities

The combination of digital marketing and product innovation provided participants with opportunities to reach consumers beyond their immediate local market. Digital platforms allow MSMEs to present their products to a broader audience without depending exclusively on physical market locations.

Although the program cannot yet claim a specific percentage increase in sales without systematic post-program financial data, participants showed greater opportunities to promote products, communicate with potential customers, and receive orders through digital channels. Therefore, the program created an important foundation for expanding market access and increasing future sales and income potential.

8. Increased Independence of MSME Actors

Another important result was the development of greater independence among participants in managing their business activities. Through practical exercises, participants were encouraged to directly create content, manage business accounts, respond to customers, and promote products.

This independence is important because sustainable digital transformation requires MSME actors to possess internal capabilities rather than relying continuously on external assistance. The training therefore functioned not only as a knowledge-transfer activity but also as a process of developing practical digital capabilities among MSME actors.

9. Strengthening Collaboration among MSME Participants

The program also encouraged collaboration among participants. Interaction during training and mentoring created opportunities for MSME actors to exchange experiences, discuss marketing challenges, and share information about digital platforms and product development.

The establishment of communication through digital groups also provided a mechanism for participants to continue exchanging information after the training sessions. Such collaboration can contribute to the development of a local MSME ecosystem in which business actors support each other in marketing, innovation, and market expansion.

10. Sustainability of the Empowerment Program

The results of the evaluation indicate that participants require continuous assistance to maintain and develop the skills obtained during the program. Digital marketing and product innovation are dynamic activities that require continuous adaptation to changes in consumer behavior, platform algorithms, trends, and market competition.

Therefore, the sustainability of the program should include follow-up mentoring, evaluation of digital marketing activities, product development, branding, digital financial management, and expansion to broader marketplace platforms. Continuous assistance is expected to strengthen the long-term competitiveness and income-generating potential of MSMEs in Kampung Tahu.

Overall, the results demonstrate that the community service program contributed to strengthening the digital marketing and product innovation capabilities of MSME actors in Kampung Tahu, Binjai City. The combination of knowledge transfer, practical training, and mentoring provided participants with more relevant capabilities to respond to changes in the digital business environment.



Discussion

1. Relevance of the Program to Local MSME Needs

The implementation of digital marketing and product innovation training was relevant to the needs of MSME actors in Kampung Tahu. MSMEs require broader market access and stronger product differentiation to compete in an increasingly competitive business environment. Digital marketing provides an opportunity to overcome geographical limitations by allowing products to be promoted through digital channels.

This finding is consistent with Khair et al. (2020), who emphasized the potential of cyber marketing to assist MSMEs in the Medan-Binjai-Deli Serdang region in expanding their markets through more efficient digital marketing mechanisms. Therefore, the implementation of digital marketing training in Kampung Tahu is relevant not only from a technological perspective but also from the perspective of local market development.

2. Practical Learning as an Effective Empowerment Approach

The positive response of participants indicates that a practical learning approach is appropriate for MSME empowerment. Rather than relying solely on theoretical explanations, participants were directly involved in creating accounts, preparing product content, taking photographs, writing captions, and practicing digital promotion.

This approach allows participants to immediately connect the training materials with their daily business activities. Practical learning also reduces the psychological barriers associated with digital technology, particularly among MSME actors who previously had limited experience with digital platforms.

3. Digital Marketing as a Means of Expanding Market Access

The utilization of digital marketing can strengthen MSME market access by enabling business actors to communicate directly with consumers and present products beyond their conventional market environment. Digital marketing also provides opportunities to develop more targeted promotional activities and establish continuous customer relationships.

The findings are in line with Mita (2026), who found that digital marketing and social media marketing have positive and significant relationships with MSME performance in Binjai City. This provides a strong contextual basis for introducing digital marketing capabilities to MSMEs in Kampung Tahu. The present community service activity extends this perspective by translating digital marketing knowledge into practical skills that can be applied directly by MSME actors.

4. Product Innovation and Competitiveness

Digital marketing alone is insufficient to create sustainable competitiveness if the products being marketed do not provide adequate value to consumers. Therefore, the integration of digital marketing with product innovation is an important aspect of this program.

The findings support Akbar and Amir (2024), who emphasized that innovation, particularly product and process improvements, plays an important role in strengthening MSME competitiveness in the digital era. Similarly, Andini et al. (2025) found that product innovation and digital marketing significantly influence MSME competitiveness. These findings reinforce the argument that MSME empowerment should not focus exclusively on marketing technology but should simultaneously strengthen the quality, attractiveness, differentiation, and market value of products.

5. Packaging as an Element of Product Differentiation

The improvement of packaging and product presentation represents a relatively simple form of innovation that can be implemented by MSMEs with limited resources. Packaging communicates product quality and brand identity while also providing important information to consumers.

For MSMEs in Kampung Tahu, improved packaging can become a differentiation strategy, particularly when similar products are available in the market. Better packaging can also make products more suitable for online marketing because attractive visual presentation is important when consumers evaluate products through digital platforms.

6. Integration of Digital Marketing and Product Innovation

The integration of digital marketing and product innovation is particularly important because the two capabilities reinforce each other. Product innovation creates new value propositions, while digital marketing communicates that value to a broader market.

Pratiwi and Muanas (2025) demonstrated that product innovation has a positive and significant relationship with MSME income, while digital payment and digital marketing strengthen the process. This suggests that digitalization should not be viewed merely as a promotional tool but as part of an integrated business development strategy. In the context of Kampung Tahu, the integration of product innovation, attractive packaging, digital content, and online promotion can create stronger opportunities for market expansion and increased income.

7. Challenges in Digital Literacy

Despite the positive results, differences in digital literacy remain an important challenge. Some participants may require more time to understand digital platforms, create content, manage business accounts, and respond to customers online.

This condition indicates that MSME digitalization cannot be achieved through one-time training alone. Continuous mentoring is necessary to ensure that knowledge is transformed into routine business practices. Assistance should also be adapted to the participants' digital capabilities, with simple instructions and direct demonstrations for participants who require additional support.

8. The Importance of Continuous Mentoring

The mentoring component is important because participants often encounter technical and strategic problems when implementing newly acquired knowledge in their own businesses. Through continuous assistance, participants can receive feedback on their content, product presentation, customer communication, and marketing strategies.

This finding is consistent with the broader perspective of dynamic capabilities, which emphasizes the ability of organizations to adapt, develop, and reconfigure resources in response to changing environments. For MSMEs, digital marketing skills and innovation capabilities need to be continuously updated as technology, consumer preferences, and competitive conditions change.

9. Contribution to MSME Competitiveness and Income Potential

The program's contribution to competitiveness can be observed through improvements in participants' digital capabilities, product presentation, marketing reach, and awareness of innovation. These improvements represent important intermediate outcomes before measurable financial impacts can be assessed.

The findings of Pramuki and Kusumawati (2024) indicate that product innovation and competitive advantage are associated with improved MSME marketing performance. Similarly, Toni et al. (2024) highlight the relevance of digital marketing and digital transformation to SME financial performance. Accordingly, strengthening digital marketing and product innovation capabilities among Kampung Tahu MSMEs can provide a foundation for improving business competitiveness and creating greater opportunities for sales and income growth.

However, claims regarding actual income increases should be based on longitudinal financial data obtained after the program. Therefore, the present activity focuses on increased capacity, market opportunities, and income potential rather than claiming a specific percentage increase in participants' income without adequate empirical measurement.

10. Sustainability and Multi-Stakeholder Collaboration

The sustainability of MSME empowerment requires collaboration among universities, MSME actors, local government, community organizations, and other relevant stakeholders. Universities can contribute through training, mentoring, and research-based interventions, while local government can support infrastructure, business facilitation, promotion, and access to relevant programs.

The experience of this program indicates that digital transformation is not simply a matter of introducing technology. It requires improvements in human capabilities, product quality, marketing practices, business management, and institutional support. Therefore, future programs should develop integrated assistance covering digital branding, marketplace optimization, digital financial management, business licensing, packaging, product certification, and market expansion.

Overall, the discussion confirms that the empowerment of MSMEs in Kampung Tahu should be approached through an integrated strategy combining digital marketing capability and product innovation. Digital marketing expands opportunities to reach consumers, while product innovation strengthens the value and competitiveness of the products being marketed. The combination of these two capabilities provides a stronger foundation for sustainable MSME development and creates greater opportunities for increased sales and income.

CONCLUSION

Based on the implementation and evaluation of the community service program entitled "Empowering MSMEs in Kampung Tahu, Binjai City, through Digital Marketing and Product Innovation to Enhance Business Competitiveness and Income," the following conclusions can be drawn:

1. Digital marketing capabilities of MSME actors improved. The training and mentoring activities increased participants' understanding and practical skills in utilizing digital platforms, particularly social media and digital business applications, for product promotion, customer communication, and market expansion.
2. Product innovation capabilities were strengthened. MSME actors gained greater awareness of the importance of product differentiation, packaging, labeling, product variants, and attractive product presentation. These

capabilities provide a foundation for creating products with greater added value and stronger competitiveness.

3. The integration of digital marketing and product innovation provides greater market opportunities. The combination of attractive products and effective digital promotion enables MSME actors to reach consumers beyond their conventional local markets. This integration can strengthen customer engagement, expand market access, and create opportunities for increased sales and business income.
4. Continuous mentoring is essential for sustainable MSME empowerment. The program demonstrated that one-time training is insufficient to ensure sustainable digital transformation. Continuous assistance is needed to help MSME actors overcome digital literacy challenges, improve marketing content, optimize digital platforms, and develop innovative products according to changing consumer preferences.
5. The program provides a foundation for strengthening sustainable MSME competitiveness and income potential. Overall, the community service program contributed to improving the capabilities of MSME actors in Kampung Tahu, Binjai City, in responding to the challenges of the digital business environment. Future programs should focus on advanced digital branding, marketplace optimization, digital financial management, product certification, packaging development, and broader market expansion to strengthen the long-term competitiveness and income-generating potential of MSMEs.

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