

Online Marketing and Sustainability Training for MSMEs in Medan City

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ABSTRACT

This community service program aimed to improve the digital marketing capacity of MSME actors in Desa Baru, Pancur Batu District, Deli Serdang Regency, who face limited skills in utilizing digital platforms. The program involved 30 MSMEs selected based on commitment and business potential and was implemented through social media and marketplace training, creative content workshops, eight weeks of mentoring, and the establishment of a digital MSME community. Evaluation results showed significant improvements, with 87% of participants actively using at least two platforms, a 48% increase in online sales, a 128% rise in social media interactions, 80% product registration on marketplaces, and 65% broader market reach. Despite challenges such as unstable internet access, low digital literacy, and limited time for managing social media, the program successfully strengthened MSME digital marketing skills and established a sustainable digital community.

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy, playing a vital role in employment and contributing to Gross Regional Domestic Product (GRDP). In Deli Serdang Regency, particularly in Pancur Batu District, MSMEs play a strategic role in driving the rural economy. Baru Village, one of the villages in Pancur Batu District, boasts a diverse range of local products produced by MSMEs, ranging from food and beverages, handicrafts, fashion, to agricultural and plantation products.

Data from the Deli Serdang Regency Cooperatives and MSMEs Office shows that by 2024, there will be approximately 8,500 MSMEs spread across all sub-districts, with Pancur Batu Sub-district contributing approximately 12% of the total (Deli Serdang Regency Cooperatives and MSMEs Office, 2024). In Baru Village alone, there are approximately 120 MSMEs operating in various business sectors. However, most MSMEs in this area still rely on conventional marketing methods such as direct sales, word of mouth, and marketing in traditional markets (Goh, et al., 2025).

The development of digital technology and increasing internet penetration have opened up significant opportunities for MSMEs to expand their market reach. According to data from the Indonesian Internet Service Providers Association (APJII), internet penetration in Indonesia reached 78.19% in 2023, with the use of social media and e-commerce continuing to increase (APJII, 2024). This creates a significant opportunity for MSMEs to utilize digital platforms as an effective and efficient marketing tool.

Research conducted by Susanto and Hartono (2024) shows that MSMEs utilizing digital marketing can increase sales by up to 65% and expand market reach by up to three times compared to MSMEs relying solely on conventional marketing. Furthermore, a study by Wijaya et al. (2023) revealed that the use of social media such as Instagram, Facebook, and TikTok can increase MSME brand awareness by up to 75% and significantly increase interaction with consumers.

However, based on an initial survey conducted by the community service team in Baru Village, it was found that 82% of MSMEs have not optimally utilized digital platforms to market their products. Several contributing factors include: (1) limited knowledge and skills in using digital platforms; (2) lack of understanding of effective content strategies; (3) limited access to digital marketing training and mentoring; (4) low self-confidence in adopting new technologies; and (5) limited time and resources to manage social media consistently.

Harahap and Siregar's (2024) research on the challenges of MSME digitalization in rural North Sumatra found that low digital literacy and limited access to training were the main obstacles to MSME digital transformation. Meanwhile, Nasution et al. (2023) emphasized the importance of ongoing mentoring in the process of digital technology adoption by MSMEs to ensure effective and sustainable implementation.

Based on the needs analysis conducted, the community service team identified several priority problems faced by MSMEs in Baru Village, namely: (1) low digital literacy of MSME actors in utilizing social media platforms and

marketplaces; (2) minimal ability to create attractive and effective digital content; (3) limited understanding of targeted online marketing strategies; (4) lack of access to information and networks for digital business development; and (5) the absence of a community or digital marketing learning platform for MSME actors in the village.

This community service program aims to improve the digital marketing capacity of MSMEs in Baru Village so they can utilize digital technology to expand market reach and increase sales. Specifically, this program aims to: (1) improve the knowledge and skills of MSMEs in using digital platforms for marketing; (2) assist MSMEs in designing and implementing effective digital content strategies; (3) assist MSMEs in optimizing the use of social media and marketplaces; (4) facilitate the formation of a digital MSME community as a forum for continuous learning; and (5) increase market reach and sales of MSME products through digital marketing.

IMPLEMENTATION AND METHODS

Materials

This community service program uses various materials and equipment to support the implementation of training and mentoring, including:

1. Digital Marketing Training Materials:
 - a. Online marketing training modules covering basic digital marketing strategies, the use of social media (Instagram, Facebook, TikTok), and marketplaces (Shopee, Tokopedia, Lazada).
 - b. A practical guide to creating engaging digital content (product photography, videography, copywriting).
 - c. Content planning template and social media posting calendar.
 - d. Tutorial on using free graphic design applications (Canva, CapCut) for content creation.
 - e. A guide to social media and marketplace analytics for marketing performance evaluation.
2. Supporting Materials:
 - a. Case studies of successful MSMEs that implement digital marketing.
 - b. Examples of creative content and effective engagement strategies.
 - c. Supplier and vendor database for MSME operational needs.
 - d. Market trends and digital consumer behavior information.
3. Supporting Equipment:
 - a. Laptop dan proyektor untuk presentasi materi.
 - b. Stable internet connection for hands-on practice.
 - c. Smartphone for demonstration of social media application usage.
 - d. Simple photography equipment (ringlight, tripod, backdrop) for content creation training.
 - e. Visual aids (posters, banners, flipcharts) for workshops.

The selection of materials and equipment is based on the needs of participants identified in the initial analysis, taking into account availability, affordability, and ease of use by MSME actors.

This community service program uses a Participatory Action Research (PAR) approach, which emphasizes active participant involvement in identifying problems, designing solutions, and evaluating results (Siregar, et al., 2025). This method was chosen because it allows for effective collaboration between the implementation team and MSME partners, ensuring that the solutions developed are relevant to the specific needs of business actors.

Determination of MSME Partners

The selection of MSME partners was based on several selection criteria: (1) having products with good market potential; (2) demonstrating a commitment to developing the business; (3) having the time and resources available to implement the training results; (4) being willing to participate in the program in full; and (5) coming from various industrial sectors to enrich collective learning. Based on these criteria, 30 MSME actors from various sectors (food and beverage, crafts, fashion, agricultural products) in Desa Baru were selected to participate in this program.

Program Implementation Stages

The program is implemented in several stages as follows:

1. Needs Analysis and Problem Identification

This phase began with a survey and in-depth interviews with MSMEs to understand the key challenges they face in digital marketing. The survey used a structured questionnaire to measure digital literacy levels, social media use for business, and understanding of online marketing strategies. In-depth interviews were conducted with 15 selected MSMEs to gain a more comprehensive understanding of their specific contexts and needs.

2. Program Planning

Based on the needs analysis, the community service team designed a training program that encompasses online marketing and digital skills development. Planning included developing materials, determining a schedule, selecting delivery methods, and preparing evaluation instruments. The program was designed with a balance between theory and practice in mind, as well as the specific needs of various types of MSMEs.

3. Program Implementation

The program is implemented through a series of activities which include:

a. Digital Marketing Workshop (3 Sessions)

- Session 1: Introduction to basic digital marketing concepts and strategies for using social media for business.
- Session 2: Practical digital content creation (product photography, short videos, effective copywriting).
- Session 3: Marketplace optimization and techniques for increasing online sales.

b. Intensive Creative Content Creation Training

- Photography workshop using smartphones.
- Graphic design training using the Canva app.
- Short video creation workshop for TikTok and Instagram Reels.

- Engaging and persuasive copywriting techniques.
- c. Mentoring and Consultation
- Intensive eight-week mentoring to help implement digital marketing strategies.
 - Online consultations via WhatsApp Group to resolve any challenges participants face.
 - Regular evaluations of participants' social media accounts and online stores.
 - Sharing sessions to share experiences and best practices among participants.
- d. "Digital Showcase" Program
- An exhibition of MSME products that have implemented digital marketing strategies.
 - Facilitate meetings with potential buyers and other stakeholders.
 - Digital content competitions with prizes to motivate participant creativity.
4. Evaluation and Follow-up
- Evaluations were conducted to measure the effectiveness of the program, changes in participants' knowledge and skills, and the tangible impact on their businesses. Evaluation instruments included:
- a. Pre-tests and post-tests to measure changes in knowledge.
 - b. Observations on social media usage and implementation of digital marketing strategies.
 - c. Collection of sales and social media engagement data to measure the impact of digital marketing.
 - d. Interviews with participants to obtain qualitative feedback.
 - e. Focus Group Discussions (FGDs) for a comprehensive evaluation of the program.
 - f. Follow-up included the formation of an MSME learning community to ensure program sustainability and collaboration among participants.

RESULTS AND DISCUSSION

The community service program "Digital Marketing Training to Improve MSMEs in Baru Village, Pancur Batu District, Deli Serdang Regency" was successfully implemented, involving 30 MSMEs from various sectors. The following are the results and discussion of the program's implementation:

Needs Analysis Results

The needs analysis conducted in the early stages of the program identified several important findings related to the condition of MSMEs in Medan City (Table 1).

Table 1. Results of needs analysis and problem identification

Aspects Analyzed	Findings	Partner Needs
Digital Marketing	<ol style="list-style-type: none"> 1. 82% of MSMEs have not optimally utilized social media. 2. 76% do not have a planned digital content strategy. 3. 88% have not used a marketplace. 4. 92% have never conducted digital marketing data analysis. 	<ol style="list-style-type: none"> 1. Basic training on using social media for business. 2. Creative content creation workshop. 3. Marketplace optimization mentoring. 4. Introduction to digital marketing analytics tools.
Digital Literacy	<ol style="list-style-type: none"> 1. 68% of MSMEs have low digital literacy. 2. 85% are unfamiliar with graphic design applications. 3. 90% don't know how to create engaging product videos. 4. 72% struggle to write effective captions. 	<ol style="list-style-type: none"> 1. Basic digital literacy training. 2. Workshop on using the Canva and CapCut apps. 3. Simple videography training using a smartphone. 4. Copywriting workshop for social media.
Human Resources Capacity	<ol style="list-style-type: none"> 1. 78% of MSMEs don't have dedicated staff to manage digital marketing. 2. 82% have limited time to manage social media. 3. 65% feel insecure about using new technology. 	<ol style="list-style-type: none"> 1. Time management tips for social media management. 2. Templates and tools for efficient content creation. 3. Motivational support and intensive mentoring.
Infrastructure	<ol style="list-style-type: none"> 1. 45% experience unstable internet access. 2. 60% use smartphones with limited specifications. 3. 52% have difficulty accessing a good signal at their business location. 	<ol style="list-style-type: none"> 1. Efficient marketing strategies for data utilization. 2. Training on optimizing smartphones for business content. 3. Integrated offline-online marketing guide.
Network Access and Information	<ol style="list-style-type: none"> 1. 75% of MSMEs are not yet members of a business community. 2. They have difficulty accessing market trend information. 3. 85% have limited marketing networks. 	<ol style="list-style-type: none"> 1. Facilitate the formation of digital MSME communities. 2. Share information on market and product trends. 3. Network with potential buyers.

Aspects Analyzed	Findings	Partner Needs
	4. 70% don't know how to find buyers online.	4. Training in techniques for finding and reaching online buyers.

Based on the needs analysis, the community service team designed a comprehensive training program that was tailored to the specific needs of the participants.

Program Implementation

Digital Marketing Workshop

The digital marketing workshop was held in three sessions, focusing on conceptual introductions, content creation practices, and marketplace optimization. The material covered marketing strategies on Instagram, Facebook, and TikTok, product photography techniques using smartphones, effective copywriting, and managing an online store in the marketplace.

The training was conducted with a practical approach, allowing participants to directly put the material learned into practice. In the content creation session, participants were guided in taking compelling product photos using smartphones and simple photography equipment. Participants were also taught how to write effective captions and plan social media content using a provided content calendar template.

One of the most popular sessions was the "Instagram Business Makeover," where participants' business Instagram accounts were evaluated and redesigned to enhance visual appeal and brand consistency. Participants were also introduced to free design tools like Canva and post scheduling apps like Meta Business Suite.

Creative Content Creation Training

The creative content creation training emphasized practical skills that participants could immediately apply. The product photography workshop taught basic composition, lighting, and photo editing techniques using a smartphone. Participants were trained to create professional-looking product photos with minimal equipment.

The video training taught participants how to create engaging short videos for TikTok and Instagram Reels. They learned shooting techniques, editing using CapCut, and selecting the right music. Many participants who had never made a video before felt motivated after seeing the results of their own work.

The copywriting workshop focused on writing engaging, persuasive captions that align with the characteristics of each social media platform. Participants were trained to write in a friendly style, use effective calls-to-action, and utilize hashtags optimally.



Figure 1. Sustainable Business Training

In the second session, participants were introduced to various eco-friendly packaging options available in the local market, such as paper, bamboo, leaf, and bioplastic packaging. The community service team also introduced participants to eco-friendly packaging suppliers to provide direct access to raw material sources. The workshop also included a discussion on sustainability value communication strategies as part of product branding and marketing.

Mentoring and Consultation

Following the workshop, the community service team provided eight weeks of intensive mentoring to help participants implement digital marketing strategies in their businesses. The mentoring was conducted through in-person visits and online consultations via WhatsApp Group. The mentoring team helped participants overcome various challenges, such as technical difficulties in managing social media, optimizing online stores in marketplaces, and strategies for increasing engagement.

During the mentoring period, participants were also encouraged to share experiences and best practices through the WhatsApp Group. One effective mentoring activity was the regular evaluation of participants' social media content. The team provided constructive feedback and suggestions for improvements to enhance the quality of the content. This activity helped participants continue learning and continuously improve their skills.

Digital Showcase Program

The program culminated in a "Digital Showcase" event showcasing the products of participating MSMEs that have implemented digital marketing strategies. Potential buyers, local government representatives, and other stakeholders attended the event. This showcase provided an opportunity for participants to present their products and build new business networks. The event also featured a digital content competition, with categories for best product photo, best product video, and most engaging Instagram account. This competition aimed to motivate participants to continuously improve the quality of their digital content.

Program Evaluation Results

Program evaluations were conducted to measure changes in participants' knowledge, skills, and tangible impact on their businesses. The evaluation results demonstrated significant changes in various aspects, as shown in Table 2.

Table 2. Comparison of conditions before and after the program

Aspect	Before the Program	After Program
Digital marketing knowledge and skills	28% have basic knowledge of digital marketing.	90% have basic digital marketing knowledge and skills.
Using social media for business	18% make optimal use of social media.	87% actively use at least 2 social media platforms with planned content.
Digital content quality	22% have good quality content.	78% produce good quality content (photos, videos, captions).
Utilization of marketplace	12% are listed on the marketplace.	80% active in at least 1 marketplace.
Online sales	Average Rp. 2,200,000/month	Average Rp 3,256,000/month (up 48%)
Social media engagement	Average 28 interactions/week	Average 64 interactions/week (up 128%)
Market reach	88% only sell in local markets (Baru Village and surrounding areas).	65% successfully reached markets outside Deli Serdang Regency.
Confidence in using digital technology	35% feel confident.	25% are members of the business community.
Waste management practices	22% have a waste management system.	68% implement waste management practices.

Digital Transformation of Desa Baru MSMEs

The evaluation results demonstrated a significant digital transformation among the program's participating MSMEs. The increase in digital marketing knowledge and skills from 28% to 90% demonstrates the effectiveness of the training methods implemented. This improvement extends not only to theoretical knowledge but also to practical implementation, with 87% of participants now actively using at least two social media platforms for their businesses. This transformation aligns with research by Susanto and Hartono (2024), which emphasizes the importance of digital adaptation for MSMEs in the contemporary marketing era. Their research indicates that adopting digital technology significantly expands market reach and increases MSME visibility. This was confirmed in the program, where social media engagement increased by 128% (from an average of 28 interactions per week to 64 interactions per week), indicating increased consumer visibility and interaction with participating MSME brands.

The 48% increase in online sales (from an average of IDR 2,200,000 per month to IDR 3,256,000 per month) is a concrete indicator of the economic impact of this digital transformation. This is consistent with the findings of Wijaya et al. (2023) stated that MSMEs utilizing digital platforms were able to significantly increase sales compared to those relying solely on conventional marketing methods. One crucial factor in the success of this digital transformation is the "learning by doing" approach with intensive mentoring. This method allows participants to directly apply the knowledge gained in their own business context. This approach has proven effective for adult learning, particularly in the technology sector, as noted by Nasution et al. (2023) in their study of experiential learning methods for MSMEs.

Expanding Market Reach

One of the program's significant achievements is the expansion of the market reach of participating MSMEs. Before the program, 88% of participants only sold their products in local markets (Baru Village and the surrounding area). After the program, 65% of participants managed to reach markets beyond Deli Serdang Regency, with some even reporting orders from other provinces. This market expansion was made possible by the use of marketplaces that facilitate cross-regional transactions. As many as 80% of participants are now active on at least one marketplace (Shopee, Tokopedia, or Lazada), a significant increase from 12% before the program. Marketplaces provide MSMEs with access to consumers across Indonesia without the need for significant investment in physical infrastructure.

Social media also plays a crucial role in expanding market reach. With engaging content and the use of appropriate hashtags, participating MSMEs' products become more easily discovered by potential consumers beyond their local area. Several participants reported that their product videos on TikTok went viral and generated numerous orders from various regions. This expansion of market reach has had a significant economic impact on MSMEs. Increasing sales volume not only increases revenue, but also motivates MSMEs to improve the quality of their products and services in order to compete in a wider market.

Digital Content Quality Improvement

One of the most visible changes was the improvement in the quality of digital content produced by participants. Before the program, only 22% of participants produced high-quality content. After the program, this figure increased to 78%. This improvement was evident in more professional product photos, more engaging videos, and more persuasive captions. The smartphone product photography training proved highly effective. Participants learned that with the right techniques, smartphones can produce high-quality photos without the need for expensive professional cameras. Using a ring light, tripod, and a simple backdrop is sufficient to produce compelling product photos.

Short videos on TikTok and Instagram Reels were the most effective content for increasing engagement. Several participants reported that their product videos received thousands of views and hundreds of likes, which directly impacted sales. Videos showing the product manufacturing process or

behind-the-scenes videos were highly sought after by consumers because they created emotional connections and built trust. The copywriting workshop also had a significant impact. Participants learned to write captions that were not only informative but also engaging and persuasive. The use of storytelling, clear calls-to-action, and appropriate hashtags were proven to increase interaction and sales conversions.

Establishment of a New Village MSME Digital Community

One important aspect of this program is the establishment of the New Village MSME Digital Community. This community serves as a platform for continuous learning and collaboration among participants, allowing knowledge and good practices to continue to develop even after the formal program ends. This community addresses one of the key challenges identified in the needs analysis: limited access to networks and information. Before the program, 75% of MSMEs were not members of a business community, and 80% struggled to access market trend information. Through this community, participants can share information, experiences, and support each other in facing business challenges.

The community's WhatsApp group has become very active, with members regularly sharing their creative content, asking about new techniques, and providing feedback. Some participants also engage in business collaborations, such as cross-promotion on their respective social media platforms or product bundling to increase sales. This community approach aligns with the concept of social learning proposed by Bandura (1977), where learning occurs through observation, imitation, and reinforcement within a social context. Within this community, participants can learn from the experiences of their peers, draw inspiration from the successes of others, and receive support when facing challenges.

Implementation Challenges and Adaptation Strategies

Although the program demonstrated positive results, several significant challenges arose during its implementation. The first challenge was the digital literacy gap among participants. With varying digital knowledge and skills, some participants required more time and guidance to adopt digital marketing strategies. To address this challenge, the community service team implemented a personalized mentoring approach tailored to each participant's skill level. This approach proved effective, with 90% of participants ultimately mastering basic digital marketing skills. This finding underscores the importance of a personalized approach to digital training for MSMEs, given the varying levels of digital literacy among MSMEs.

The second challenge was the time constraints MSMEs faced in consistently implementing digital marketing strategies. As business owners often juggling multiple functions, participants found it difficult to allocate sufficient time to manage their social media and marketplaces. To address this challenge, the program introduced various content management and scheduling tools to streamline the process of creating and posting content. This strategy proved effective, with many participants reporting increased efficiency in managing

their social media. This finding underscores the importance of considering time and resource constraints when designing training programs for MSMEs.

The third challenge was the limited availability of stable internet access in some business locations. Around 45% of participants reported experiencing unstable internet connections, which hampered their online marketing activities. To address this, the community service team provided efficient marketing strategies for data utilization and taught techniques for preparing content offline and then uploading it when a connection was available. The fourth challenge was initial resistance to adopting new technology. Around 65% of participants initially felt unsure about using digital technology for their businesses. To overcome this resistance, the community service team used a gradual confidence-building approach, starting with simple tasks and gradually progressing to more complex activities. This strategy proved effective, with 82% of participants ultimately feeling confident using digital technology for their businesses.

Implications for Policy and Program Development

The results of this community service program have several important implications for the development of future policies and programs supporting MSMEs. First, the program demonstrates the need for sustainable and integrated digital marketing training for MSMEs. Rather than sporadic, short-term training, a sustained program with intensive mentoring is needed to ensure effective adoption. Second, the program demonstrates the importance of a holistic approach to MSME development, encompassing technical capacity building (such as digital marketing skills), mindset transformation (such as confidence in using technology), and the development of support networks (such as learning communities).

Third, the establishment of learning communities and support networks has proven effective in ensuring the sustainability of training programs. This model can be adopted in other MSME development programs to maximize long-term impact. Fourth, the program underscores the importance of considering the local context in designing training programs, including digital literacy levels, infrastructure availability, and resource constraints faced by MSMEs.

Socio-Economic Impact of the Program

This program not only impacts technical and economic aspects but also has significant social impacts. The increase in participants' confidence in using digital technology (from 35% to 82%) demonstrates empowerment that goes beyond technical skills. This confidence is important because it opens up opportunities for MSMEs to continue learning and adapt to future technological developments. The formation of a community also creates valuable social capital. Participants not only gain access to information and knowledge but also build a supportive network that can help them face business challenges.

Several participants reported feeling more motivated and less alone in running their businesses after joining the community. From an economic perspective, the 48% increase in online sales has had a direct impact on the income and well-being of MSMEs. Several participants reported that the increased income enabled them

to hire additional employees or increase production capacity, which in turn contributed to job creation and local economic growth.

Program Sustainability

To ensure the sustainability of the program's impact, several strategies have been implemented. First, the establishment of the Desa Baru MSME Digital Community, which serves as a platform for ongoing learning. This community remains active even after the formal program ends, with members regularly sharing knowledge and experiences. Second, the community service team has trained several participants with advanced skills to become "digital champions" who can assist other community members. This strategy creates a sustainable peer-to-peer support system.

Third, the program has built partnerships with local stakeholders, including the village government and the Deli Serdang Regency Cooperatives and MSMEs Office, to ensure ongoing support for the MSME community. These partnerships are crucial for the program's long-term sustainability.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The community service program "Digital Marketing Training to Improve MSMEs in Baru Village, Pancur Batu District, Deli Serdang Regency" has successfully increased the digital marketing capacity and expanded the market reach of 30 participating MSMEs from various sectors in Baru Village. Based on the results and discussions outlined above, the following conclusions can be drawn:

1. The program significantly improved participants' digital marketing knowledge and skills, with the percentage of participants possessing basic digital marketing knowledge increasing from 28% to 90%. This increased capacity has had a positive impact on their business performance, with average online sales increasing by 48% and social media engagement increasing by 128%.
2. Digital platform adoption among participants has increased substantially, with 87% now actively using at least two social media platforms and 80% registered in marketplaces. This demonstrates the program's success in facilitating the digital transformation of MSMEs.
3. The quality of digital content produced by participants has significantly improved, from 22% to 78%. This improvement includes more engaging and effective product photography, videography, and copywriting.
4. The program successfully expanded the market reach of participating MSMEs, with 65% now reaching markets outside Deli Serdang Regency, up from 88% previously, when only selling locally. This expanded market reach has had a direct impact on increased sales volume and revenue.
5. The "learning by doing" approach, with intensive mentoring, has proven effective in facilitating the learning and adoption of digital technology among MSMEs. This approach allows participants to directly apply the knowledge gained in their own business contexts.

6. The establishment of the Desa Baru MSME Digital Community has successfully created a network of support and continuous learning for participants, addressing one of the main challenges: limited access to networks and information.
7. Despite significant increases in digital marketing adoption, several challenges remain, including the digital literacy gap, time constraints among MSMEs, and unstable internet access. Adaptive strategies implemented, such as personal mentoring and the use of content management tools, have proven effective in overcoming these challenges.
8. The program demonstrates that digital marketing is not just about technology, but also about empowerment and mindset transformation. The increase in participant confidence from 35% to 82% demonstrates empowerment that goes beyond technical skills.

Recommendation

Based on the program's results and identified challenges, here are some suggestions for developing similar programs in the future and for supporting policies for MSMEs:

- 1) Program Development
 - a) Extend the mentoring duration to a minimum of six months to ensure more effective and sustainable adoption. Long-term mentoring allows participants to face various situations and challenges in implementing digital marketing strategies.
 - b) Develop more tiered training modules based on participants' digital literacy levels to accommodate diverse initial abilities. Modules can be divided into basic, intermediate, and advanced levels.
 - c) Integrate impact measurement and analytics aspects into digital marketing training to help MSMEs independently measure the effectiveness of their strategies.
 - d) Add time management and productivity training components to help MSMEs optimize the use of their limited resources.
 - e) Develop a digital platform for the MSME community that can facilitate knowledge sharing and collaboration in a more effective and structured manner.
 - f) Add materials on digital customer relationship management (CRM) and strategies for building customer loyalty through digital platforms.
- 2) Strengthening Digital Infrastructure
 - a. Collaborate with local governments and internet service providers to improve stable internet access in the Desa Baru area, particularly in MSME business locations.
 - b. Facilitate MSME access to adequate digital devices through subsidy programs or affordable financing schemes.
 - c. Develop efficient digital marketing strategies for limited internet connection conditions, including the use of optimized content to save data.

- 3) Supporting Policies
 - a. Develop incentive programs for MSMEs actively adopting digital technology, such as subsidies for digital advertising costs or access to premium e-commerce platforms.
 - b. Form partnerships between local governments, universities, and the private sector to provide ongoing assistance to MSMEs in their digital transformation.
 - c. Develop a digital marketing competency certification program for MSMEs that can enhance their credibility and competitiveness in the market.
 - d. Facilitate MSME access to financing for digital development through soft loan programs or special grants for digital transformation.
 - e. Integrate digital literacy programs into the national MSME education and training curriculum to ensure all MSMEs possess basic digital marketing skills.
- 4) Further Research
 - a. Conduct a longitudinal study to measure the long-term impact of digital marketing integration on the growth and sustainability of MSMEs in rural areas.
 - b. Develop indicators and metrics to more comprehensively measure the digital maturity of MSMEs as a basis for development policies.
 - c. Research consumer preferences for MSME products marketed through digital platforms to provide insights for marketing strategies.
 - d. Assess the effectiveness of various mentoring models in encouraging digital transformation and technology adoption among rural MSMEs.
 - e. Conduct a comparative study with similar programs in other regions or countries to identify best practices and lessons learned that can be adapted.
- 5) Community Service Team Capacity Development
 - a. Increase the capacity of the community service team in digital analytics and impact measurement to provide more comprehensive mentoring.
 - b. Develop a collaborative network with practitioners and experts from various fields (technology, digital marketing, e-commerce) to enrich the program's perspective and approach.
 - c. Conduct benchmarking with similar programs in various regions to continuously improve program quality and effectiveness.
- 6) Strengthening Digital Communities and Ecosystems
 - a. Develop a mentorship program where MSMEs that have already succeeded in digital marketing can mentor other MSMEs.
 - b. Facilitate regular MSME community meetings to share experiences, challenges, and solutions in implementing digital marketing.
 - c. Organize regular MSME digital marketing competitions or festivals to continuously encourage innovation and creativity in digital content.
 - d. Build partnerships with e-commerce and social media platforms to obtain technical support and special promotions for participating MSMEs.

This program has demonstrated that with the right approach, MSMEs in rural areas can leverage digital technology to increase their competitiveness and expand their market reach. Through continued collaboration between universities, the government, the private sector, and the MSME community, digital transformation can be expanded and deepened to strengthen the MSME sector as a vital pillar of the national economy.

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