



Social Media Optimization and *Artificial Intelligence* in Increasing the Capacity of Digital Promotion of MSMEs In Petukangan, Pesanggrahan, South Jakarta

Lies Hendrawan Krisnawati^{1*}, Rosalia Andayani², Albiansyah³, Irma Maria Dulame⁴, Sri Rahayu⁵

¹⁻⁴Program Studi Manajemen, Sekolah Tinggi Ilmu Ekonomi Bhakti Pembangunan, Indonesia

⁵Program Studi Akuntansi, Sekolah Tinggi Ilmu Ekonomi Bhakti Pembangunan, Indonesia

*Penulis Korespondensi: lies.hendrawan@stiebp.ac.id¹

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Abstract. This Community Service (PKM) activity is motivated by the low capacity of MSME actors and start-up business people in utilizing social media and *Artificial Intelligence (AI)* technology as a means of digital promotion. These limitations include low digital literacy, limited capabilities for visual content production, weak marketing communication strategies, and inconsistent business social media management. This study aims to improve participants' understanding and skills in optimizing social media and utilizing AI to support business promotion. The approach used is a qualitative descriptive approach, with observation, interviews, documentation, direct practice, discussion, mentoring, and training evaluation. The activity was held in Petukangan, Pesanggrahan District, South Jakarta, with participants consisting of MSME actors, students, and the general public. The results showed that 85% of participants experienced an increase in understanding of digital marketing strategies. In comparison, 78% were able to create promotional content independently with the help of AI, especially through Bing Image Creator and ChatGPT. These findings show that integrating social media and AI can increase creativity, improve content production efficiency, and enhance the visual appeal of MSME promotion. The novelty of this activity lies in integrating AI-based visual design training with strengthening the digital entrepreneurship mindset. Thus, this training model can be an applicable, adaptive, and relevant MSME empowerment strategy for digital economy transformation.

1. INTRODUCTION

The development of digital technology has brought fundamental changes to marketing patterns, business communication, and consumer behavior in the Micro, Small, and Medium Enterprises (MSMEs) sector (Chaffey and Ellis-Chadwick, 2019; Putri and Khasanah, 2020). Digitalization not only changes how consumers obtain product information but also affects how businesses build brand image, communicate with customers, and expand market reach (Ardiansyah and Prasetyo, 2021; Maulana and Fitriani, 2023). Consumers not only consider the product's quality but also pay attention to visual appearance, brand identity, response speed, consistency of promotions, and the quality of digital interactions (Firmansyah and Dewi, 2022; Wijaya, 2023). MSME actors need adaptive skills to keep pace with technological developments to survive and compete in an increasingly competitive market (Zulkarnain and

Amelia, 2020; Kurniawan, 2024).

Social media is one of the main instruments in digital marketing strategies because it has a wide reach, is relatively cost-efficient, and enables direct interaction between businesses and consumers (Putri and Khasanah, 2020; Ardiansyah and Prasetyo, 2021). Platforms such as Instagram, TikTok, Facebook, and WhatsApp are widely used for promotion, customer communication, product information, and consumer loyalty (Setiawan and Nugroho, 2021; Pratiwi et al., 2022; Rahmawati and Sari, 2021). Setiawan and Nugroho (2021) explained that using Instagram can increase brand awareness and consumer interest in purchasing culinary MSME products. In line with this, Pratiwi et al. (2022) show that TikTok is an effective promotional medium because it can attract consumer attention through creative, communicative, and interactive short video content. In addition, the development of Artificial Intelligence (AI) offers new opportunities for MSME actors to enhance the effectiveness of digital promotion, particularly by creating visual designs, compiling promotional captions, generating content ideas, and producing marketing materials faster and more efficiently (Kaplan and Haenlein, 2020; Amalia and Lestari, 2023; Saputra et al., 2024).

This condition is also found among MSME actors and novice businesspeople in the Petukangan area, Pesanggrahan District, South Jakarta. This region has a diverse local economic potential, including culinary, fashion, cosmetics, services, and household products. However, some business actors still face obstacles in developing digital promotions, especially in digital literacy, visual content capability, social media optimization, and consistent content management (Zulkarnain and Amelia, 2020; Maulana and Fitriani, 2023). Based on initial observations, the problems include low digital literacy, limited visual design capabilities, suboptimal use of social media, and inconsistent management of promotional content. Some business actors still rely on conventional marketing, such as word-of-mouth promotion and local customer networks, so market reach has not developed optimally (Hidayat and Kusuma, 2022; Kurniawan, 2024).

Previous studies have shown that digital marketing can increase the promotion and sales of MSMEs (Chaffey and Ellis-Chadwick, 2019; Hidayat and Kusuma, 2022). Rahmawati and Sari (2021) stated that using Facebook Marketplace increased sales for local MSMEs by up to 35%. Wijaya (2023) explained that visually appealing design influences consumer purchasing decisions on social media. Hidayat and Kusuma (2022) emphasized that digital marketing training can enhance MSMEs' online promotional capabilities. However, some of these studies still tend to focus on basic social media use and have not integrated AI technology to a great extent to strengthen the digital entrepreneurship mindset (Kaplan and Haenlein, 2020; Saputra

et al., 2024). Kurniawan (2024) emphasized that the success of MSME digital transformation is not only determined by the availability of technology, but also by the adaptability and entrepreneurial mindset of business actors.

Based on these gaps, this Community Service activity focuses on optimizing social media and using Artificial Intelligence to enhance MSMEs' digital promotional capacity in Petukangan, Pesanggrahan, South Jakarta. The subject of service was chosen because it has significant business potential but still requires assistance with digital literacy, promotional strategies, visual content design, and AI use (Zulkarnain and Amelia, 2020; Maulana and Fitriani, 2023; Saputra et al., 2024). This activity aims to increase the capacity of MSME actors, students, and the general public to understand digital marketing strategies, manage social media effectively, create attractive promotional content, and use AI-based applications, such as Bing Image Creator and ChatGPT (Amalia and Lestari, 2023; Nugraha and Wijanarko, 2024; Lestari et al., 2025). The novelty of this activity lies in integrating and strengthening the digital entrepreneurship mindset, optimizing social media, and leveraging AI via prompt engineering to create promotional content (Kurniawan, 2024; Lestari et al., 2025; Rinaldi and Utami, 2025). This activity is expected to produce business actors who are more adaptive, creative, independent, and competitive in responding to the digital economy's transformation (Yusuf and Hartono, 2025; Zhou and Li, 2024).

2. METHODS

This Community Service Activity (PKM) uses a qualitative descriptive approach, grounded in a community action planning model. The service targets MSME actors, novice businesspeople, students, and the general public in the Petukangan area, Pesanggrahan District, South Jakarta. The selection of subjects is based on the diverse local economic potential. However, it faces obstacles in digital literacy, visual content production, marketing communication strategies, and consistency of business social media management.

Activity planning was carried out in a participatory manner through initial observation and informal interviews to identify participants' needs, barriers, and level of understanding of social media and Artificial Intelligence (AI) technology. Participant involvement can be seen in the process of submitting problems, discussing training needs, and actively participating in the creation of digital promotional content. The strategy for implementing activities includes observation, interviews, documentation, material delivery, direct practice, discussions, mentoring, and training evaluation. The material provided includes strengthening the digital entrepreneurship mindset, optimizing social media, designing promotional content, compiling

captions, and utilizing Bing Image Creator and ChatGPT. Direct practice is conducted to enable participants to produce promotional content independently, tailored to the business's character and target audience.

The stages of the activity include problem identification, program planning, training implementation, practice using AI, mentoring, discussion, and evaluation. The evaluation results showed that 85% of participants gained a deeper understanding of digital marketing strategies, and 78% were able to create promotional content independently with the help of AI. Participants' responses also showed positive perceptions, as evidenced by keywords such as 'very useful,' 'easy to understand,' 'interesting,' 'practical,' 'motivating,' and 'insightful.' Thus, this participatory training method has proven effective in improving participants' digital promotion skills. This model can be used as an applicable, adaptive, and sustainable MSME empowerment strategy to address digital economy transformation.



Figure 1. PKM Implementation Method Flow Diagram.

3. RESULTS

The Community Service Activity (PKM) with the theme "*Bhakti Service Campus: Scale Up MSMEs and Beginner Entrepreneurs*" was held in Petukangan, Pesanggrahan District, South Jakarta. This activity was attended by MSME actors, students, and the general public who have businesses or interests in digital entrepreneurship. The focus of the activity is directed at improving digital promotion capabilities through the optimization of social media and the use of *Artificial Intelligence* (AI) technology. The mentoring process is carried out through the delivery of materials, discussions, direct practice, technical assistance, and evaluation.

The material provided includes digital marketing strategies, social media selection based on product characteristics, promotional visual design, caption preparation, upload timing strategies, and the use of Bing Image Creator and ChatGPT. During the practical session, participants were instructed to create promotional content for their respective products or

business ideas. The activity results showed an increase in participants' understanding and skills in digital promotion. Based on the evaluation, 85% of participants understood the basic concepts of digital marketing, social media use strategies, and the importance of visual identity. In addition, 78% of participants were able to create digital promotional designs independently using Bing Image Creator and ChatGPT. Participants are also beginning to compile more targeted AI prompts, choose appropriate social media platforms, and build more professional digital communication.

In addition to improving technical skills, this activity encourages a shift in participants' mindset. Participants began to understand that the success of the business depends not only on product quality but also on branding, visual communication, digital interaction, and consistent promotion. During the activity, there were also mutual assistance initiatives among participants, especially from those who understood AI more quickly-growth of new awareness and potential of local leaders in the community. In general, this activity shows that integrating social media and AI can be a practical strategy for increasing MSMEs' promotional capacity. This program not only strengthens participants' digital skills but also builds community independence, creativity, and readiness to face the digital economy transformation. The training also results in increased participants' abilities to: determine which social media platforms align with the product's character; create a more visually appealing promotional design; structure AI prompts more specifically and target them; understand content upload timing strategies; and build more professional digital communication with consumers.



Figure 2. Design Results with Artificial Intelligence (AI).

Table 1. Prompt Components for Digital Promotional Design.

Components	Function in Design	Examples of Applications to MSMEs
Brand identity	Affirm the business name so that it is easily recognizable by consumers.	The name of the drink, food, boutique, or florist product is clearly displayed.
Character visual	Create a product impression through color, lighting, and composition.	The design of the drink uses a fresh impression, while the fashion product uses an elegant impression.
Promotional elements	Direct the consumer's attention to the sales message.	Discount text, promo price, call to buy, and order number.
Market segmentation	Tailor visual language to potential buyers.	Student products are made dynamic, while premium products are made clean and exclusive.

Source: Participant practice results in AI-based content design training, 2026.

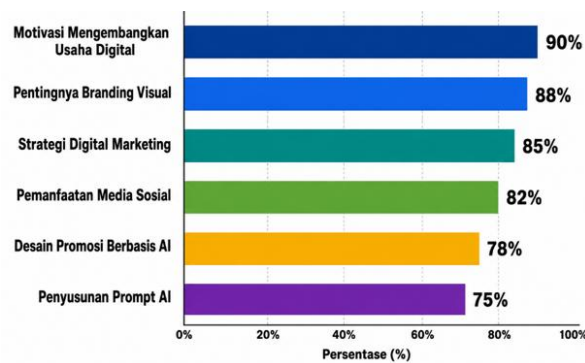


Figure 3. PKM Training Evaluation Results (2026).

Table 2. Percentage of PKM Training Results.

No	Yield Indicators	Percentage
1	Participants understand digital marketing strategies	85%
2	Participants can use social media as a means of promotion	82%
3	Participants can create AI-based promotional designs	78%
4	Participants understand the drafting of AI prompts	75%
5	Participants understand the importance of visual branding	88%
6	Participants are motivated to develop a digital business	90%

Source: Results of PKM training evaluation, 2026.

The evaluation of the 2026 PKM training shows that it has improved participants' understanding and skills in digital marketing. The highest achievement was a 90% increase in participants' motivation to develop a digital business, followed by an 88% increase in understanding the importance of visual branding and digital marketing strategies. In addition, participants' ability to use social media for promotion reached 82%, to create AI-based promotional designs reached 78%, and to prepare AI prompts reached 75%. Overall, this training is effective in encouraging participants to utilize digital media and AI to support business development.

4. DISCUSSION

The Community Service Activity (PKM) with the theme Bhakti Mengabdikan Kampus: Scale Up MSMEs and Beginner Entrepreneurs has been carried out in accordance with the planned stages, starting from identifying the needs of participants, preparing materials, implementing training, practicing the use of social media and AI, to evaluating the results of activities. This activity involved lecturers, students, MSME actors, novice business people, and the general public in the Petukangan area, Pesanggrahan District, South Jakarta. The implementation of activities, as shown in Figures 1 and 2, shows that the service process does not only focus on delivering materials but also on direct assistance so that participants can implement digital promotion strategies independently, including the practice of designing on mobile phones.



Figure 4. Group photo of Bhakti Mengabdikan Kampus Participants: *Scale Up* MSMEs and Beginner Businessmen (Social Media Optimization with Design and Content).



Figure 5. Practice of Making Design with Mobile Phone, Q&A.

In this activity, the implementation team provided materials for creating digital promotional designs, including specific prompts that can be adjusted to participants' business

needs. Participants practiced directly on their respective mobile phones, then were directed to upload their design results to social media platforms such as WhatsApp Stories, Instagram, TikTok, Facebook, and Meta. In addition, participants gained an understanding of social media algorithms and content upload timing strategies to achieve more optimal reach and engagement. This activity also encourages participants to adopt a mindset that the success of digital business is not determined solely by product quality, but also by visual communication, branding, and the consistency of digital interactions. These findings align with previous studies that emphasize the roles of visual content, digital branding, AI-based promotion, and an entrepreneurial mindset in strengthening MSME digital marketing (Firmansyah and Dewi, 2022; Wijaya, 2023; Kurniawan, 2024; Saputra et al., 2024).

5. CONCLUSION

Based on the results of Community Service (PKM) activities, social media optimization training, and the use of Artificial Intelligence (AI), these activities increased the digital promotion capacity of MSME actors and novice business people in Petukangan, Pesanggrahan District, South Jakarta. This can be seen in participants' increased understanding of digital marketing strategies, the use of social media, the visual design of promotions, and the preparation of AI prompts. The evaluation results showed that 85% of participants understood digital marketing strategies and 78% were able to create promotional designs independently with the help of AI.

Theoretically, this activity shows that the digital transformation of MSMEs is not solely determined by technology but also by the readiness of business actors to change their mindsets, increase creativity, and use digital media consistently. Therefore, social media and AI-based training can be an applicable, relevant, and sustainable model for empowering MSMEs. As a recommendation, similar activities should be continued through social media management support, content calendaring, improved promotional design quality, and evaluation of digital marketing effectiveness. Collaboration among universities, local governments, and the MSME community also needs to be strengthened to ensure the digital transformation of MSMEs runs optimally.

The recommendation for this activity is the need for continuous Artificial Intelligence-based digital marketing training, supported by intensive assistance to MSME actors. Universities, governments, and educational institutions need to strengthen collaboration in improving people's digital literacy. MSME actors also need to maintain consistency in social media management, digital content production, prompt engineering, and digital branding

strategy development.

The limitations of this study include the scope of activities, which is still limited to the Petukangan area, Pesanggrahan District, South Jakarta, and the small number of participants, which limits the generalizability of the results. In addition, the evaluation still uses a qualitative descriptive approach, and the mentoring time is relatively short, so the long-term economic impact cannot be fully measured. Further research is suggested using a quantitative approach to assess the influence of AI on MSME sales growth. The next study can also develop AI-based digital marketing models in specific business sectors, compare the effectiveness of various generative AIs, and analyze the relationships among digital literacy, content creativity, promotional consistency, and the success of MSME digital businesses.

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