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Assistance in AI-Based Logo Design and Digital Marketing Strategy to Enhance Brand Identity and Marketing Capacity of MSMEs in Padang City

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Abstract

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in supporting the local economy of Padang City. However, many MSMEs still face challenges in developing a professional brand identity and implementing effective digital marketing strategies. This community service program aimed to improve the capacity of MSME actors through assistance in designing logos using Artificial Intelligence (AI) technology and implementing digital marketing strategies. The program was conducted using participatory methods consisting of needs assessment, training, hands-on practice, mentoring, and evaluation. AI-based design platforms were utilized to facilitate participants in creating attractive and representative business logos, while digital marketing training covered social media optimization, content creation, branding, and online promotional strategies. The results indicated that participants successfully developed more professional business logos, improved their understanding of branding concepts, and enhanced their ability to utilize digital marketing platforms for business promotion. Furthermore, participants demonstrated increased confidence and digital competence in promoting their products through various online media. This community service activity confirms that integrating AI technology with digital marketing assistance is an effective approach to strengthening the competitiveness and sustainability of MSMEs in the digital era specially in Padang City.

Keywords: Artificial Intelligence, Digital Marketing, Logo Design, MSMEs, Community Service.

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are one of the key pillars of Indonesia's economy, making significant contributions to national economic growth, job creation, and the improvement of community welfare. In Padang City, the development of MSMEs has continued to grow, supported by increasing initiatives from the local government through various business empowerment programs. Nevertheless, many MSME owners still encounter significant challenges in enhancing their competitiveness, particularly in terms of brand identity and digital marketing. Although many MSMEs offer high-quality products, they often lack professional logos, strong visual identities, and effective digital promotional strategies, making it difficult to attract consumers in an increasingly competitive marketplace.

The rapid advancement of digital transformation has fundamentally changed consumer behavior in searching for information, conducting transactions, and evaluating products and services. These changes require MSMEs not only to produce high-quality products but also to establish attractive and recognizable brand identities through the effective utilization of digital technologies. A logo is one of the most essential elements of brand identity because it represents the characteristics of a business, enhances customer trust, and strengthens a product's market position. At the same time, digital marketing strategies implemented through social media, online marketplaces, and other digital platforms have become effective tools for expanding market reach at relatively low costs. Therefore, the ability to integrate branding with digital marketing has become a critical requirement for ensuring the sustainability and competitiveness of MSMEs in the digital economy.

The rapid development of Artificial Intelligence (AI) has created new opportunities in graphic design and digital marketing. Various AI-powered platforms, such as Canva AI, Microsoft Designer, Adobe Express AI, Ideogram AI, and similar applications, enable users to create professional, attractive, and business-oriented logo designs quickly without requiring advanced graphic design skills. In addition, AI can assist in generating

marketing content ideas, writing promotional captions, selecting relevant keywords, and optimizing marketing strategies through consumer behavior analysis. The emergence of AI technology provides MSMEs with opportunities to improve efficiency, creativity, and the quality of digital promotion while reducing costs compared with conventional approaches.

Previous studies have demonstrated that digital marketing positively influences the marketing performance of MSMEs through the effective utilization of social media, content marketing, and e-commerce platforms. Other studies have revealed that strong branding enhances customer loyalty, strengthens brand image, and creates sustainable competitive advantages. Meanwhile, numerous community service programs have focused on digital marketing training, social media utilization, and MSME branding development. However, most of these initiatives have been conducted using conventional approaches and have not yet integrated Artificial Intelligence as a primary tool for developing visual identities and digital marketing strategies. In contrast, the rapid advancement of generative AI technologies now enables MSMEs to develop branding solutions that are faster, more creative, and more efficient.

The gap analysis underlying this community service program lies in the suboptimal utilization of AI technology to support the integrated development of MSME brand identity alongside digital marketing strategies. Most MSMEs in Padang City still rely on manually created, simple logos or even lack a consistent visual identity. Furthermore, digital media are generally used only for uploading product photos without incorporating comprehensive branding strategies, persuasive copywriting, professional visual design, or structured content optimization. As a result, digital promotional activities have not yet achieved their maximum potential in enhancing business competitiveness.

In response to these challenges, this community service program offers an innovative approach by providing assistance in AI-based logo design integrated with digital marketing strategy training. This approach focuses not only on improving participants' technical skills in creating professional logos using AI-powered applications but also on equipping them with competencies in developing brand identity, creating promotional content, optimizing social media, and utilizing digital technologies as sustainable marketing tools. The integration of these two aspects is expected to strengthen the digital capabilities of MSME owners while enhancing their business competitiveness in the era of digital transformation.

The objectives of this community service program are to: **(1)** enhance MSME owners' understanding of the importance of branding and brand identity; **(2)** improve participants' skills in designing business logos using Artificial Intelligence-based platforms; **(3)** strengthen the competencies of MSMEs in implementing digital marketing strategies across various digital platforms; and **(4)** promote the competitiveness and sustainability of MSMEs in Padang City through the innovative utilization of digital technologies. Accordingly, this program is expected to serve as a sustainable empowerment model that enables MSMEs to adapt to technological advancements while supporting the acceleration of digital transformation within Indonesia's micro, small, and medium enterprise sector.

2. METHODS

This community service program was implemented using the Participatory Action Learning (PAL) method, which emphasizes the active involvement of participants throughout every stage of the program, from needs identification to outcome evaluation. This approach was selected because it effectively enhances the knowledge, skills, and independence of Micro, Small, and Medium Enterprises (MSMEs) in utilizing digital technology to strengthen brand identity and promote their products. The program was conducted in May 2026 in Padang City, Indonesia, involving 30 MSME owners operating in the culinary, fashion, handicraft, and service sectors. Participants were selected purposively based on the following criteria: operating an active business, owning a smartphone or laptop, and demonstrating an interest in developing digital marketing capabilities.

The implementation of the program consisted of five main stages, namely needs assessment, training, mentoring, implementation, and evaluation.

1. Needs Assessment

During the needs assessment stage, the community service team conducted observations and interviews with participants to identify the initial conditions of the MSMEs regarding logo ownership, understanding of

branding concepts, use of social media, and implementation of digital marketing strategies. Participants were also asked to complete a pre-test questionnaire to assess their initial knowledge of brand identity, the application of Artificial Intelligence (AI), and digital marketing strategies.

2. Training

The training stage was delivered through interactive lectures, group discussions, and practical demonstrations. The first session covered the fundamental concepts of branding, the importance of visual identity, the characteristics of an effective logo, and the role of branding in enhancing the competitiveness of MSMEs. The second session focused on the application of Artificial Intelligence in graphic design using several AI-powered platforms, including Canva AI, Microsoft Designer, and Adobe Express AI, to create attractive, professional, and business-oriented logos. Participants also received training on digital marketing strategies, including social media optimization, content marketing, copywriting techniques, effective hashtag usage, visual content creation, and the utilization of WhatsApp Business and Google Business Profile as promotional tools.

3. Mentoring

The mentoring stage was conducted through hands-on practice in creating business logos using AI-based design platforms. Each participant received personalized guidance in developing a brand concept, selecting colors, typography, and icons, and refining the logo design until it was ready for practical use as the business identity. After completing the logo, participants were also assisted in applying their visual identity across various promotional media, including product packaging, business cards, digital banners, and social media accounts.

4. Implementation

During the implementation stage, participants practiced developing digital marketing strategies by creating business accounts, uploading promotional content, preparing simple content calendars, and utilizing digital platform features to expand their marketing reach. The community service team provided feedback on the quality of participants' logo designs, social media appearance, and promotional strategies developed throughout the program.

5. Evaluation

The final stage aimed to evaluate the effectiveness of the community service program using both quantitative and qualitative approaches. Quantitative evaluation was conducted by comparing participants' pre-test and post-test scores to measure improvements in their knowledge and skills related to branding, AI utilization, and digital marketing. Qualitative evaluation was carried out through observations during the training sessions, interviews, focus group discussions, and documentation of participants' work.

The indicators of program success included:

1. Improved participant understanding of branding and visual identity.
2. Participants' ability to produce AI-generated business logos suitable for commercial use.
3. Improved skills in developing digital marketing content.
4. Enhanced ability to optimize social media as a promotional platform.
5. Increased participant confidence in marketing their products through digital channels.

Data were analyzed using a descriptive quantitative approach by calculating the percentage increase between pre-test and post-test scores. Meanwhile, data collected through observations, interviews, and documentation were analyzed using descriptive qualitative analysis, consisting of data reduction, data presentation, and conclusion drawing. The findings were used to evaluate the overall effectiveness of the program and to formulate recommendations for future community service initiatives focusing on AI-based branding assistance and digital marketing development for MSMEs. The overall implementation process can be summarized as follows:

Needs Assessment → Pre-test → Branding Training → AI-Based Logo Design Training → Logo Development Mentoring → Digital Marketing Training → Digital Media Implementation → Post-test → Evaluation and Reflection

This method was designed to ensure that participants not only acquired conceptual knowledge but also gained practical, hands-on experience, enabling them to independently apply the knowledge and skills acquired during the program to support the sustainable development of their businesses.

3. RESULTS AND DISCUSSION

This community service program was implemented through a series of training sessions and mentoring activities aimed at enhancing the capacity of Micro, Small, and Medium Enterprises (MSMEs) in Padang City to develop strong brand identities through Artificial Intelligence (AI)-based logo design and to optimize their digital marketing strategies. A total of 30 MSME owners operating in the culinary, fashion, handicraft, and service sectors participated in the entire program, which included needs assessment, training, hands-on practice, mentoring, implementation, and evaluation.

3.1. Participant Profile

The participants represented diverse business sectors and entrepreneurial backgrounds. Based on the initial needs assessment, most participants were micro-enterprise owners who had been operating their businesses for 1–5 years. Although all participants had already marketed their products either directly or through social media platforms, the majority lacked a professional visual identity and had limited understanding of effective digital marketing strategies.

Table 1. Characteristics of Community Service Participants

Business Sector	Number of Participants	Percentage (%)
Culinary	12	40
Fashion	7	23.33
Handicrafts	6	20
Services	5	16.67
Total	30	100

The preliminary assessment revealed that only **30%** of the participants already had a business logo. However, most of these logos were relatively simple and did not adequately represent their brand identity. Furthermore, the majority of participants used social media merely to upload product photographs without applying branding principles or content marketing strategies.

3.2. Implementation of AI-Based Logo Design Mentoring

The first stage of the program focused on strengthening participants' understanding of branding and visual identity. Training materials covered the role of logos as representations of business identity, color psychology, typography selection, and the characteristics of effective logo design. Participants were subsequently introduced to several Artificial Intelligence-powered design platforms, including Canva AI and Adobe Express AI. Through demonstrations and practical exercises, participants learned how to develop effective prompts that enabled AI tools to generate multiple logo design alternatives tailored to the characteristics of their respective businesses.

The mentoring results showed that all participants successfully produced at least one logo suitable for use as their official business identity. Most of the resulting logos demonstrated significant improvements in aesthetic quality, color harmony, typography selection, and brand recognizability. Individual mentoring sessions also enabled participants to revise and refine their designs based on feedback from the community service team, resulting in logos that more accurately represented the characteristics and values of their products and services.

3.3. Implementation of Digital Marketing Strategies

Following the completion of logo development, participants received training on digital marketing strategies covering the following topics:

- Optimization of Instagram Business accounts
- Utilization of WhatsApp Business
- Creation of Google Business Profiles
- Development of content calendars
- Copywriting techniques
- AI-assisted caption generation
- Effective hashtag utilization
- Promotional content design using Canva AI

Participants then applied their newly created visual identities by developing promotional content across multiple digital platforms. The logos produced during the mentoring sessions were integrated into social media feeds, promotional banners, digital business cards, and product packaging to establish consistent brand identity. Throughout the practical sessions, participants demonstrated high levels of enthusiasm, as AI technology significantly accelerated the design process while providing diverse visual alternatives that they previously found difficult to create independently.

3.4. Evaluation of Program Outcomes

The effectiveness of the program was evaluated using pre-test and post-test assessments administered before and after the training sessions. The evaluation results indicated substantial improvements across all competency indicators.

Table 2. Comparison of Pre-test and Post-test Results

Indicator	Pre-test (%)	Post-test (%)	Improvement (%)
Understanding branding concepts	36.67	93.33	56.66
Possessing a professional business logo	30.00	100.00	70.00
Ability to use AI for logo design	16.67	96.67	80.00
Understanding digital marketing	33.33	90.00	56.67
Ability to create promotional content	26.67	90.00	63.33

As shown in Table 2, all performance indicators demonstrated significant improvement. The greatest increase was observed in participants' ability to use Artificial Intelligence for logo design, which improved by 80%. This finding suggests that AI-based design technology is relatively easy for MSME owners to learn, even among those with no prior experience using AI applications. In addition to improved competencies, participants also demonstrated noticeable behavioral changes in managing their social media presence. Most participants began implementing consistent visual branding, writing more persuasive promotional captions, and scheduling promotional content more systematically.

3.5. Discussion

The findings indicate that integrating Artificial Intelligence into the branding process has a positive impact on strengthening the digital capabilities of MSME owners. AI not only accelerates the logo creation process but also enables participants to produce professional-quality designs without requiring advanced graphic design skills. These findings are consistent with previous studies suggesting that generative AI enhances creativity, efficiency, and productivity in visual design processes.

Furthermore, the digital marketing mentoring program provided participants with a broader understanding of the importance of maintaining consistent brand identity across all promotional media. Prior to the program, most participants used social media solely as a platform for posting product images. Following the mentoring activities, participants recognized that effective digital marketing requires a comprehensive strategy encompassing branding, storytelling, copywriting, visual content creation, and active customer engagement.

The success of the program was also influenced by its participatory implementation approach. Hands-on practice combined with individualized mentoring enabled participants to gain practical experience in utilizing AI technology, making the knowledge transfer process considerably more effective than conventional lecture-based instruction. This outcome aligns with adult learning theory, which emphasizes the importance of experiential learning in developing practical competencies. From a community empowerment perspective, the program demonstrates that Artificial Intelligence can serve as an innovative solution for helping MSMEs address the challenges of digital transformation. Integrating AI with digital marketing strategies not only enhances the quality of business visual identity but also strengthens business competitiveness through improved digital promotion. Therefore, this mentoring model has strong potential to be replicated within other MSME communities as an effective strategy for accelerating digital transformation among micro, small, and medium enterprises.

Community Service Outcomes

The primary outcome of this community service program was the significant improvement in the knowledge and practical skills of MSME participants regarding the development of Artificial Intelligence (AI)-based business logos and the implementation of digital marketing strategies to strengthen brand identity and enhance marketing capacity. Participants acquired the competencies required to independently create professional visual identities, optimize digital marketing platforms, and apply AI-powered tools to support sustainable business growth and competitiveness in the digital economy.



Figure 1. Community Service Program for MSMEs in Padang City



Figure 2. Community Service Mentoring for MSMEs in Padang City

4. CONCLUSION

The community service program on Artificial Intelligence (AI)-based logo design mentoring and digital marketing strategies for MSMEs in Padang City successfully enhanced participants' competencies in developing brand identity and utilizing digital technology as a marketing tool. All participants were able to create more professional business logos using AI-powered design platforms and successfully implement them across various digital promotional media. Furthermore, participants demonstrated significant improvements in their understanding of branding, the application of Artificial Intelligence, promotional content creation, and digital marketing strategies, as evidenced by the increase in their evaluation scores before and after the training program.

The mentoring approach, which integrated hands-on practice with the use of AI technology, proved effective in accelerating the learning process while increasing the confidence of MSME owners in developing their businesses in the digital era. The program demonstrates that the adoption of Artificial Intelligence not only improves the efficiency of visual identity design but also strengthens the competitiveness of MSMEs through more strategic and professional digital marketing practices. Therefore, similar programs should be implemented on a broader and more sustainable scale by involving a greater number of MSMEs and expanding the mentoring materials to include digital analytics, marketplace optimization, and AI applications for business management. Such initiatives are expected to further accelerate the digital transformation of MSMEs and support their long-term sustainability and competitiveness.

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