



Digital Marketing Campaign Training Using Artificial Intelligence for MSMEs in the UMKM Naik Kelas Program of Karawang Regency

Adi Santoso^{1*}, Eman Sulaiman², Vigory Gloriman Manalu¹

¹Management Business of Telecommunication and Informatics, School of Economics and Business, Telkom University, Indonesia

²Leisure Management, School of Economics and Business, Telkom University, Indonesia

✉ adisantoso@telkomuniversity.ac.id

ARTICLE INFO	ABSTRACT
Article history Received : 25-7-2026 Revised : 29-7-2026 Accepted : 29-7-2026	<i>Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in Indonesia's economic development; however, many MSME actors still face challenges in implementing effective digital marketing strategies. The rapid advancement of Artificial Intelligence (AI) has created new opportunities for MSMEs to improve marketing efficiency, customer engagement, and content personalization. This community service activity aimed to enhance the knowledge and practical skills of MSME participants in utilizing AI technologies for digital marketing campaigns. The activity was conducted as part of a training and mentoring program within the "UMKM Naik Kelas Kabupaten Karawang" initiative on July 4, 2026, and involved MSME owners from various business sectors. The implementation methods included lectures, demonstrations, case studies, and hands-on practice using AI-based tools for content creation, campaign optimization, customer communication, and market analysis. The results demonstrated an improvement in participants' understanding of AI-based digital marketing strategies, as reflected in interactive discussions, practical exercises, and participant engagement during the training sessions. Participants showed increased awareness of AI applications for content creation, advertising optimization, and customer communication.</i>
Keywords Artificial Intelligence; Digital Marketing; Community Service; MSMEs; Digital Transformation	<i>Usaha Mikro, Kecil, dan Menengah (UMKM) memegang peran strategis dalam pembangunan ekonomi Indonesia; namun, banyak pelaku UMKM masih menghadapi tantangan dalam menerapkan strategi pemasaran digital yang efektif. Pesatnya kemajuan Kecerdasan Buatan (AI) telah menciptakan peluang baru bagi UMKM untuk meningkatkan efisiensi pemasaran, keterlibatan pelanggan, dan personalisasi konten. Kegiatan pengabdian masyarakat ini bertujuan untuk meningkatkan pengetahuan dan keterampilan praktis para peserta UMKM dalam memanfaatkan teknologi AI untuk kampanye pemasaran digital. Kegiatan ini dilaksanakan sebagai bagian dari program pelatihan dan pendampingan dalam inisiatif "UMKM Naik Kelas Kabupaten Karawang" pada tanggal 4 Juli 2026, serta melibatkan pemilik UMKM dari berbagai sektor usaha. Metode pelaksanaan kegiatan</i>



mencakup ceramah, demonstrasi, studi kasus, dan praktik langsung menggunakan perangkat berbasis AI untuk pembuatan konten, optimalisasi kampanye, komunikasi pelanggan, dan analisis pasar. Hasil kegiatan menunjukkan adanya peningkatan pemahaman peserta mengenai strategi pemasaran digital berbasis AI, sebagaimana tercermin dalam diskusi interaktif, latihan praktik, dan keterlibatan peserta selama sesi pelatihan. Para peserta menunjukkan peningkatan kesadaran mengenai penerapan AI untuk pembuatan konten, optimalisasi iklan, dan komunikasi pelanggan.

This is an open access article under the [CC-BY-SA](#) license.



A. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are recognized as one of the primary drivers of Indonesia's economy, contributing significantly to employment generation, economic resilience, and regional development. Despite their substantial economic contribution, many MSMEs continue to face challenges in digital transformation, particularly in marketing adaptation and technology utilization (Santoso et al., 2025). Previous studies have highlighted that limited digital literacy, inadequate technological capabilities, and insufficient marketing competencies remain major barriers to MSME competitiveness in the digital era (Anatan & Nur, 2023; Lailatizzahro et al., 2023).

The increasing adoption of digital technologies has transformed consumer behavior and marketing practices. Digital marketing is no longer limited to social media promotion but increasingly involves data analytics, automation, personalization, and artificial intelligence (AI) (Relifra et al., 2025). AI has emerged as a transformative technology capable of assisting businesses in content generation, customer segmentation, advertisement optimization, chatbot deployment, and predictive marketing analysis. Recent research indicates that AI adoption can improve marketing effectiveness, customer engagement, and data-driven decision-making among MSMEs (Laksmono et al., 2025).

Furthermore, the OECD reported that generative AI technologies are increasingly utilized by small and medium-sized enterprises to enhance productivity, close skill gaps, and improve business performance through automation and content creation capabilities (OECD, 2025). Although AI technologies are becoming more accessible, many MSME owners in Karawang Regency still have limited knowledge regarding practical AI applications for digital marketing campaigns. This gap creates a disconnect between technological opportunities and MSMEs' actual capacity to utilize AI effectively. To address this issue, a community engagement and mentoring program entitled "Digital Marketing Campaign Strategy Using Artificial Intelligence" was conducted as part of the UMKM Naik Kelas Kabupaten Karawang program. The activity aimed to provide MSME participants with practical knowledge, skills, and strategies for implementing AI-based digital marketing tools to improve promotional effectiveness and business competitiveness.



B. METHODS

Program Design

The community service activity employed a participatory training and mentoring approach designed to improve participants' understanding and practical competencies related to AI-based digital marketing.

Location and Time

The program was conducted on July 4, 2026, at the Auditorium, Rectorate Building, University of Buana Perjuangan (UBP) Karawang, West Java, Indonesia.

Participants

Participants consisted of MSME owners and entrepreneurs participating in the UMKM Naik Kelas Kabupaten Karawang program. The participants represented various business sectors, including food and beverage, fashion, retail, handicrafts, and service-based enterprises. The activity was designed to strengthen participants' digital marketing capabilities through the introduction and practical utilization of Artificial Intelligence tools.

Implementation Stages

The activity was conducted through four stages:

1. Need Assessment

Identification of participants' challenges in digital marketing practices, technological adoption, and promotional activities.

2. Training Session

Delivery of theoretical concepts regarding:

- Introduction to Artificial Intelligence;
- AI trends in digital marketing;
- Consumer behavior in the digital ecosystem;
- AI-driven content creation strategies;
- Data-based decision making.

3. Demonstration and Practice

- Participants practiced using AI tools for:
- Social media content generation;
- Marketing copywriting;
- Image and visual content creation;
- Advertising campaign optimization;
- Customer interaction automation through chatbots.

4. Discussion and Evaluation

Interactive discussion sessions were conducted to evaluate participant understanding and identify opportunities for AI implementation within their respective businesses.

C. RESULTS AND DISCUSSION

Implementation of Community Service Activities

The training activity was successfully implemented in the Auditorium of the University of Buana Perjuangan Karawang and was attended by MSME entrepreneurs from various business sectors. The program generated substantial participant engagement, particularly during the discussion and demonstration sessions related to AI-supported marketing content development. The presentation introduced participants to the role of AI as a strategic enabler in digital marketing transformation. Participants were first provided with an overview of digital marketing challenges and the opportunities offered by AI technologies. The training emphasized practical applications rather than theoretical discussions alone, enabling participants to immediately explore AI-assisted solutions relevant to their business contexts.

Documentation of Community Service Activities

The implementation of the training program was documented throughout the activity to ensure accountability and to provide evidence of participant engagement. The documentation showed that participants actively attended the presentation sessions, engaged in discussions regarding AI-based marketing practices, and participated in the closing session of the program. During the presentation session, participants received practical guidance on the utilization of Artificial Intelligence tools for digital marketing campaigns. The materials emphasized the application of AI for content creation, copywriting, customer communication, and campaign optimization.

The discussion session encouraged participants to share challenges encountered in managing digital marketing activities within their businesses. Several participants highlighted difficulties in creating consistent promotional content, identifying target markets, and maintaining customer engagement through digital platforms. AI tools were introduced as practical solutions to address these challenges.



Figure 1. Delivery of training material on AI-assisted copywriting strategies for MSME digital marketing campaigns.



Figure 2. Interactive presentation session discussing the benefits and implementation of Artificial Intelligence for MSME marketing activities.



Figure 3. Group documentation of MSME participants and program facilitators at the completion of the training activity.

Training Materials Delivered

The main topics delivered during the workshop included:

- AI Fundamentals for MSMEs.
- AI-Based Content Marketing.
- Social Media Campaign Optimization.
- AI-Assisted Advertisement Strategies.
- Customer Personalization and Automation.
- Case Studies of Successful AI Adoption in Small Businesses.

These materials aligned with current evidence suggesting that AI adoption enhances marketing effectiveness and strengthens competitive advantages among MSMEs through innovation and technology utilization (Laksmono et al., 2025; Putra et al., 2025).



Participant Outcomes

The activity produced several positive outcomes:

a. Increased Knowledge

Participants demonstrated a better understanding of AI concepts and their applicability to business marketing activities. This improvement was observed through active participation in discussions, responses during question-and-answer sessions, and participants' ability to identify potential AI utilization within their respective businesses.

b. Improved Technical Skills

Participants gained practical exposure to AI-powered tools that can support content generation, digital advertising, and customer engagement activities. The demonstration sessions enabled participants to explore how AI technologies can simplify promotional content development and enhance marketing efficiency.

c. Enhanced Marketing Efficiency

Participants recognized opportunities to reduce the time and resources required in developing promotional materials through AI-assisted applications.

d. Greater Awareness of Digital Transformation

The program encouraged MSME owners to view digital transformation as a strategic necessity rather than an optional business enhancement.

Table 1 summarizes the condition before and after training activities.

Table 1. Comparison of Participant Conditions Before and After Training

Aspect	Before Training	After Training
AI Knowledge	Limited understanding of AI applications	Understanding of practical AI applications in marketing
Content Creation	Manual and time-consuming	Faster AI-assisted content creation
Marketing Strategy	Conventional social media promotion	Targeted AI-driven campaign planning
Customer Interaction	Manual customer communication	Understanding chatbot and automation features
Data Analysis	Limited use of marketing analytics	Awareness of AI-supported decision-making

Source: Author's own elaboration

Impact on MSME Development

The training activity contributed positively to MSME digital readiness by introducing accessible and practical AI technologies. The participants demonstrated strong enthusiasm toward the utilization of AI technologies in their business operations. During the discussion sessions, many participants expressed interest in adopting AI-assisted content creation tools to improve the quality and consistency of their digital marketing activities. The training also increased awareness regarding the importance of integrating data-driven and technology-supported approaches into marketing decision-making processes. These findings are consistent with previous studies indicating that AI can improve operational efficiency, strengthen customer relationships, and support innovation among MSMEs through technology-enabled marketing transformation (Arfah Manajemen Bisnis Syariah et al., 2025; Sánchez et al., 2025). The program



also reinforced the strategic role of universities in facilitating knowledge transfer and promoting technological adoption among local business communities.

Despite the positive outcomes achieved during the training program, several challenges were identified. Some participants were unfamiliar with AI platforms and required additional guidance during the demonstration sessions. Furthermore, variations in digital literacy levels among participants influenced the speed of technology adoption. These findings indicate the importance of continuous mentoring programs to ensure sustainable implementation of AI-based marketing practices among MSMEs.

D. CONCLUSION

The community service activity entitled “Digital Marketing Campaign Strategy Using Artificial Intelligence” was successfully implemented within the UMKM Naik Kelas Kabupaten Karawang program. The training effectively enhanced participants’ knowledge and practical skills regarding AI utilization in digital marketing activities. The implementation demonstrated that AI-based tools can assist MSMEs in developing more effective promotional strategies, improving customer engagement, increasing operational efficiency, and supporting digital transformation efforts. The activity also strengthened collaboration between academia, government institutions, and MSME stakeholders in fostering sustainable entrepreneurial development. Future programs should include more intensive mentoring sessions and impact measurement mechanisms to evaluate long-term business performance improvements resulting from AI adoption.

E. ACKNOWLEDGEMENTS

The authors would like to express sincere gratitude to the Government of Karawang Regency, Disperindagkop UKM Karawang, the UMKM Naik Kelas Program Committee, University of Buana Perjuangan Karawang, MSME associations, and all participating entrepreneurs for their active involvement and support in the implementation of this community service activity.

F. References

- Anatan, L., & Nur. (2023). Micro, Small, and Medium Enterprises’ Readiness for Digital Transformation in Indonesia. *Economies*, 11(6), 156. <https://doi.org/10.3390/economies11060156>
- Arfah Manajemen Bisnis Syariah, L., Al-Kifayah Riau, S., Arfah, L., Studi Manajemen Bisnis syari, P., & Uka Iskandar Muda Kel Air Putih KecTuah Madani, J. (2025). Implementing ai-driven digital marketing strategies in fashion MSMEs: An analysis of adoption and entrepreneurial practices. In *IJAFIBS* (Vol. 13, Number 1). www.ijafibs.pelnus.ac.id
- Lailatizzahro, N., Kristiyana, N., & Santoso, A. (2023). A Conceptual Framework For Employee Performance In The Islamic Hospitality In Indonesia. *Jurnal Manajerial*, 10(02), 325. <https://doi.org/10.30587/jurnalmanajerial.v10i02.5306>
- Laksmono, R., Zulfikri, A., & Priyana, Y. (2025). The Use of Artificial Intelligence to Improve Digital Marketing Strategies for MSMEs in Indonesia. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(4), 371–378. <https://doi.org/10.31004/riggs.v4i4.3256>



- OECD. (2025). Generative AI and the SME Workforce: New Survey Evidence. *Generative AI and the SME Workforce*. <https://doi.org/10.1787/2D08B99D-EN>
- Putra, J. E., Wibowo, L. A., Sufa, S. A., Aristi, N., & Radjainin, I. P. (2025). Marketing Magic or Just Hype? The AI Factor in Indonesia's MSME Growth. *PENA JUSTISIA: MEDIA KOMUNIKASI DAN KAJIAN HUKUM*, 24(2), 6558–6577.
- Relifra, R., Mardiah, A., & Fikriando, E. (2025). AI Adoption and Functional Performance in MSMEs: Evidence Across Marketing, HR, Finance, and Operations. *Amkop Management Accounting Review (AMAR)*, 5(2), 1212–1233. <https://doi.org/10.37531/amar.v5i2.3299>
- Sánchez, E., Calderón, R., & Herrera, F. (2025). Artificial Intelligence Adoption in SMEs: Survey Based on TOE-DOI Framework, Primary Methodology and Challenges. *Applied Sciences*, 15(12), 6465. <https://doi.org/10.3390/app15126465>
- Santoso, A., Hidayah, R. T., & Sunarya, Y. (2025). Improving the Marketing Performance of Village-Owned Enterprises and Tourism Villages by Strengthening Social Media Marketing Skills and Service Quality. *Society: Jurnal Pengabdian Masyarakat*, 4(5), 799–805. <https://doi.org/10.55824/jpm.v4i5.696>