

## **Empowerment of MSMEs Kube Lestari and Ngudi Mulyo through the Universitas Ahmad Dahlan PMM Program: Implementing Technopreneurship and Digital Marketing Strategies**

**Bambang Robi'in<sup>1</sup> Gibran Prathisara<sup>2</sup> Pius Rino Pungkiawan<sup>3</sup> Qori Alfiani Hakiki<sup>4</sup> Himatul Aliyah<sup>5</sup>**

Program Studi Informatika, Fakultas Teknologi Industri, Universitas Ahmad Dahlan, Indonesia<sup>1,4</sup>

Program Studi Ilmu Komunikasi, Fakultas Sastra Budaya dan Komunikasi, Universitas Ahmad Dahlan, Indonesia<sup>2</sup>

Prodi Film dan Televisi, Fakultas Seni Media Rekam, Institut Seni Indonesia Yogyakarta, Indonesia<sup>3</sup>

Program Teknologi Pangan, Fakultas Teknologi Industri, Universitas Ahmad Dahlan, Indonesia<sup>5</sup>

Email: [bambang.robiin@tif.uad.ac.id](mailto:bambang.robiin@tif.uad.ac.id)<sup>1</sup> [gibbran.prathisara@comm.uad.ac.id](mailto:gibbran.prathisara@comm.uad.ac.id)<sup>2</sup> [piusrinop@isi.ac.id](mailto:piusrinop@isi.ac.id)<sup>3</sup> [2200018408@webmail.uad.ac.id](mailto:2200018408@webmail.uad.ac.id)<sup>4</sup> [2200033044@webmail.uad.ac.id](mailto:2200033044@webmail.uad.ac.id)<sup>5</sup>

### **Abstract**

*The Community Empowerment Program by Students (PMM) of Universitas Ahmad Dahlan was conducted in Triwidadi Village, Pajangan Subdistrict, Bantul Regency, in collaboration with two local MSME partners, Kube Lestari and Ngudi Mulyo. The program aimed to enhance entrepreneurial capacity and strengthen the competitiveness of local products through a technopreneurship and digital marketing approach. Based on the situational analysis, both partner groups showed strong economic potential in the production of emping and palm sugar but faced challenges in production management, business governance, and digital promotion. The implementation consisted of five stages: socialization, training, technology application, mentoring, and evaluation for sustainability. The training covered topics on online advertising strategies, packaging design, product branding, and promotional photography, involving MSME members from two hamlets—Polaman and Butuh Kidul. The results indicated significant improvements in partners' abilities to design better packaging, utilize social media and online marketplaces, and create engaging digital promotional content. Furthermore, participants demonstrated increased motivation and confidence in managing their businesses and expanding their markets through technology-based solutions. Overall, the program successfully fostered independence and professionalism among local MSMEs, guiding them toward a sustainable model of digital entrepreneurship.*

**Keywords:** PMM, Technopreneurship, Digital Marketing, MSMEs, Community Empowerment



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

## **INTRODUCTION**

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in supporting the national economy and serve as key drivers of community-based development. In Indonesia, more than 97% of the workforce is employed in the MSME sector, making it the most resilient foundation of the people's economy amid various economic crises (KemenkopUKM, 2023). However, in the era of the digital economy, MSME actors face new challenges related to technology adaptation, product competitiveness, and digital marketing strategies (Febrina, 2022). Digital transformation has become an urgent necessity to ensure that MSMEs can survive and continue to grow amid increasingly intense market competition (Rahardjo & Utami, 2021). Triwidadi Village, located in Pajangan Subdistrict, Bantul Regency, is one of the villages with considerable economic potential. Most of its residents work as micro-entrepreneurs, particularly in the food processing sector, producing items such as *emping* (traditional chips)

and palm sugar. However, observations revealed that business management in the area remains largely traditional, relying on manual production methods, simple packaging, and limited local marketing. This condition restricts the added value of products and narrows market expansion opportunities (Blandina et al., 2025). Therefore, technology-based and innovative interventions are needed to help local MSMEs enhance their competitiveness through sustainable technopreneurship strategies (Sunardi et al., 2025; Nugroho & Pradana, 2022).

The advancement of information technology has created vast opportunities for MSME entrepreneurs to expand their market reach through digital marketing. Numerous studies have shown that the use of social media platforms such as Instagram, Facebook, and digital marketplaces can significantly increase sales while fostering closer relationships with consumers (Prathisara & Masduki, 2023; Wahyudi & Nurfadilah, 2024). In addition, strengthening aspects such as packaging design and brand identity plays a crucial role in enhancing perceived product quality and consumer appeal (Fathurrahman et al., 2024). Therefore, training programs focused on branding and digital marketing are essential to empower small business owners, enabling them to compete effectively in broader and more dynamic markets. Universities play a crucial role in bridging the gap between academic knowledge and community needs through community service and empowerment programs. The Community Empowerment Program by Students (PMM) represents a tangible implementation of the *Tri Dharma of Higher Education*, which integrates education, research, and community engagement to address real-world societal challenges (Robi'in & Rosyady, 2020). In this context, Universitas Ahmad Dahlan (UAD) has implemented the PMM initiative with a focus on strengthening MSME capacity through technopreneurship and digital literacy approaches. The program not only provides technical training but also fosters awareness of the importance of innovation and technology-driven business sustainability (Lestari & Putra, 2023). Through digital marketing training that encompasses online advertising strategies, packaging design, and product photography, MSME entrepreneurs in Triwidadi Village are expected to optimize their local potential and transform into independent digital entrepreneurs. This empowerment effort aligns with Sustainable Development Goal (SDG) 8, which emphasizes inclusive and sustainable economic growth through the creation of decent work opportunities and improved community productivity. Therefore, the PMM initiative serves as a best-practice model for collaboration between universities and local communities in fostering digital-based economic independence.

## **METHOD**

The PMM implementation method consists of five main stages, namely: (1) program socialization, (2) training, (3) technology implementation, (4) mentoring and evaluation, and (5) program sustainability. These stages are arranged systematically to be able to address the main problems of partners, ranging from increasing production capacity to digital-based marketing strategies. (Robi'in & Rosyady, 2020).

1. Socialization Stage. At this stage, the PMM team held initial meetings with community partners and village officials to explain the objectives, benefits, and planned activities of the program. The socialization process was conducted through participatory discussions, ensuring that the partners clearly understood their roles and responsibilities throughout the program. This stage also included the identification of specific needs and the adjustment of the training schedule to align with the partners' conditions and availability.
2. Training Stage. The training was conducted using a combination of lectures, demonstrations, and hands-on practice. The materials covered several key areas designed to enhance the entrepreneurial and digital skills of the participants, including:

- a. Digital marketing training, introducing the use of social media and online marketplaces as effective platforms for product promotion;
  - b. Packaging design and product branding training, aimed at improving product value and visual appeal; and
  - c. Product photography training, to support the creation of engaging and high-quality digital marketing content.
3. Technology Implementation Stage. After the training sessions, the team introduced several appropriate technologies aimed at improving business productivity and operational efficiency. These included an *emping* flattener machine, a palm sugar crystallizer, and the use of digital tools to support product marketing. In addition, the team assisted partners in creating online marketplace accounts and social media pages (such as Instagram and Facebook) to promote their products digitally and expand their market reach.
4. Mentoring and Evaluation Stage. The mentoring phase was conducted intensively by both students and lecturers over a one-month period following the training sessions. During this stage, students assisted the partners in operating the newly introduced production technologies and provided hands-on support in managing their digital marketing accounts. The evaluation process was carried out through observation, interviews, and documentation to assess improvements in the partners' production capabilities, business management, and marketing performance (Sunardi et al., 2025).
5. Program Sustainability Stage. After the core activities were completed, the partners continued to receive support in the form of equipment operation manuals, Standard Operating Procedures (SOPs) for production, and additional training through online consultation sessions. Moreover, the partners were encouraged to become incubator tenants under the Universitas Ahmad Dahlan Business Incubator (UAD BI) to ensure the sustainability of their business operations and product marketing.

### **The Role of Lecturers and Students**

In this program, the lecturers served as facilitators, mentors, and technical supervisors throughout the activities. Each lecturer contributed based on their specific area of expertise:

- Bambang Robi'in, S.T., M.T. – business management and digital marketing training;
- Gibbran Prathisara, S.Sn., M.Sn. – packaging design and visual communication;
- Pius Rino Pungkiawan, S.Sn., M.Sn. – product photography and promotional content creation.

Meanwhile, the students were responsible for assisting with the technical aspects of the activities, supporting the training sessions, managing documentation, and providing daily on-site mentoring to the MSME partners.

### **Evaluation Method**

The evaluation was carried out using a descriptive qualitative approach, employing participatory observation, interviews with partners, and documentation of program outcomes. The indicators of success were measured based on improvements in production skills, packaging quality, the ability to use digital platforms, and increased entrepreneurial motivation. In addition, the program's effectiveness was also assessed through the sustainability of online marketing activities after the mentoring phase was completed.

### **RESULT AND DISCUSSION**

The Community Empowerment Program by Students (PMM) of Universitas Ahmad Dahlan (UAD) was carried out in Triwidadi Village, Pajangan Subdistrict, Bantul Regency, over a two-month period from August 20 to September 25, 2025. The program focused on digital

marketing training for two partner MSME groups—Kube Lestari (emping producers) and Ngudi Mulyo (palm sugar producers). The main objective of this activity was to enhance the partners' ability to market their products digitally through training sessions on online marketing strategies, packaging design and branding, as well as product photography for promotional content creation.

### **Online Advertising Strategy and Digital Marketing Training**

The first activity was conducted on August 20, 2025, at the Polaman Hamlet Hall. The session was delivered by Bambang Robi'in, S.T., M.T., who presented the topic *Online Advertising Strategies and Digital Marketing*. A total of 40 participants from the two partner groups attended the training. During this session, participants were introduced to the fundamentals of digital marketing, including branding strategies, market segmentation, the use of social media platforms such as Instagram, Facebook, and WhatsApp Business, and content-based promotional techniques. The training employed a participatory and hands-on learning approach, allowing participants to directly practice by creating their own business accounts on social media. The atmosphere of this training session is illustrated in Figure 1.



**Figure 1. Online Advertising Strategy and Digital Marketing Training**

### **Branding and Product Packaging Design Training**

The second training session was held on September 11, 2025, facilitated by Gibbran Prathisara, S.Sn., M.Sn., with the topic *Product Branding and Packaging Design*. This session focused on enhancing the visual aesthetics of product packaging and developing brand identity to increase both attractiveness and market value. Participants were guided to redesign their product labels using a simple yet effective approach, paying attention to elements such as color harmony, typography, and visual composition that reflect the unique characteristics of local products. In addition, participants were presented with case studies of successful packaging design strategies from several local products in Yogyakarta (Prathisara & Masduki, 2023). As a result, each partner group successfully developed a new packaging design that was more attractive and aligned with market standards. The *emping* product was rebranded under the label "Emping Lestari", while the palm sugar product adopted the new label "Aren Mulyo." Both packaging designs now feature a logo, nutritional information, and social media contact

details—important elements that strengthen their digital promotion efforts. The atmosphere of this training session is illustrated in Figure 2 below.



**Figure 2. Branding and Product Packaging Design Training**

### **Branding and Product Packaging Design Training**

The final training session was held on September 25, 2025, led by Pius Rino Pungkiawan, S.Sn., M.Sn., with the theme *Product Photography and Digital Promotional Content Creation*. This session aimed to enhance participants' skills in photographing products using simple tools such as smartphone cameras, managing lighting, and applying visual composition techniques to produce engaging content. Participants were taught how to create flat lay photography, add promotional text overlays, and upload their results to social media platforms. This activity also served as the practical implementation stage of the previous two training sessions, where participants applied their newly designed packaging and developed visual content based on the branding strategies they had learned. The atmosphere of the product photography and promotional content training session is illustrated in Figure 3 below.



**Figure 3. Branding and Product Packaging Design Training**

After the training sessions, PMM students assisted participants in creating Instagram accounts and uploading product photos with promotional captions that were collaboratively

developed during the workshops. Several accounts, such as @emping\_lestari and @arenmulyo\_triwidadi, successfully gained initial engagement from potential customers and the local community. To measure the effectiveness of the digital marketing training, a pretest and posttest were conducted using questionnaires covering participants' knowledge, skills, and motivation in utilizing digital media. The evaluation assessed ten key indicators of digital marketing competence, with the results summarized in Table 1 below.

**Table 1. Results of the Pretest and Posttest on Participants' Digital Marketing Competence**

No	Indicator	Pretest (%)	Posttest (%)
1	Understanding of digital marketing concepts	60	90
2	Ability to create business accounts on social media	58	88
3	Knowledge of digital promotion strategies	62	91
4	Ability to create promotional content (photos & captions)	55	89
5	Understanding the importance of product branding	65	92
6	Ability to design simple product packaging	59	87
7	Skills in product photography with proper lighting	61	90
8	Ability to upload and schedule social media content	57	88
9	Understanding of audience analysis and digital interaction	54	86
10	Motivation to continue independent digital promotion	68	94
Average		59.9	89.5

The evaluation results showed a significant improvement of 29.6% in participants' average digital marketing competence, reaching a final score of 89.5%, which falls into the *excellent* category. The highest improvements were observed in the participants' ability to create promotional content and their motivation for independent digital promotion, indicating that they not only gained theoretical understanding but were also able to apply it in real-world practice. The outcomes of this program demonstrate that digital marketing training has a tangible impact on enhancing the capacity and self-reliance of local MSME entrepreneurs. Before the PMM program, most participants had never used social media to market their products. After the program's implementation, they successfully created business accounts, designed product packaging, photographed their products, and promoted them digitally. These findings are consistent with the studies of Blandina et al. (2025) and Prathisara & Masduki (2023), which highlight that the application of digital marketing strategies can significantly improve competitiveness and expand the market reach of local products.

The active involvement of students in every stage of the training significantly strengthened the knowledge transfer process and increased participants' confidence. Direct mentoring and project-based practice proved to be more effective than lecture-based approaches alone. Furthermore, the collaboration between academia and the community fostered a sustainable *learning ecosystem*, where digital innovation serves as a means of community-based economic empowerment (Sunardi et al., 2025). Overall, the program successfully enhanced the digital literacy, branding skills, and online marketing independence of MSMEs in Triwidadi Village, with posttest results averaging above 85%. This improvement provides a solid foundation for business sustainability and opens greater opportunities for the digital expansion of local products.

## CONCLUSION

The Community Empowerment Program by Students (PMM) of Universitas Ahmad Dahlan in Triwidadi Village successfully enhanced the digital marketing skills of MSME entrepreneurs through three main activities: training in online marketing strategies, product

branding and packaging design, and product photography for promotional content. The program led to a significant improvement in participants' knowledge, skills, and motivation, with an average posttest score of 89.5%, categorized as excellent. Practice-based training combined with direct mentoring proved highly effective in fostering independence and confidence among MSME participants as they adapt to the digital era. Beyond utilizing social media as a promotional tool, participants also began developing stronger brand identities and more appealing product packaging. Thus, this program successfully realized community empowerment through technopreneurship, making a tangible contribution to the strengthening of sustainable local economic development.

### **Acknowledgments**

The authors would like to express their sincere gratitude to the Directorate of Research and Community Service, Ministry of Higher Education, Science, and Technology, for providing funding support for this community engagement program.

### **BIBLIOGRAPHY**

- Blandina, H., Desi, S., Ari, S., Bahtiar, W., Ari, W., & Haikal, R. M., et al. (2025). *Peningkatan kapasitas dan kualitas produk serta implementasi digital marketing sebagai wujud inkubator bisnis Kampung Tudung Desa Grujungan Kebumen*. JURPIKAT, 6(1), 552–569.
- Fathurrahman, M., Nabila, R., & Sari, D. (2024). *Pengaruh desain kemasan terhadap minat beli konsumen pada produk UMKM lokal*. Jurnal Komunikasi dan Desain Visual, 9(2), 101–110.
- Febrina, R. (2022). *Persaingan usaha pada era digital menurut perspektif hukum persaingan usaha*. Jurnal Karya Ilmiah Multidisiplin (JURKIM), 2(1), 121–127.
- KemenkopUKM. (2023). *Laporan tahunan UMKM Indonesia 2023*. Kementerian Koperasi dan UKM Republik Indonesia.
- Lestari, D., & Putra, A. (2023). *Peran perguruan tinggi dalam pemberdayaan UMKM berbasis teknologi digital melalui kegiatan pengabdian masyarakat*. Jurnal Abdimas Kreatif, 5(1), 44–52.
- Nugroho, H., & Pradana, Y. (2022). *Technopreneurship sebagai strategi peningkatan daya saing UMKM di era ekonomi digital*. Jurnal Ekonomi dan Bisnis Indonesia, 37(4), 211–220.
- Prathisara, G., & Masduki, A. M. (2023). *Marketing strategy in "Bakpiapia Djogja" food product packaging design*. COMMICAST, 4(1), 48–63.
- Rahardjo, A., & Utami, S. (2021). *Digital transformation for small enterprises: Opportunities and challenges*. Journal of Entrepreneurship Studies, 8(2), 77–89.
- Robi'in, B., & Rosyady, P. A. (2020). *Pelatihan desain dan pemasaran online produk kerajinan kulit pada UKM "Agus Jaket Kulit"*. Seminar Nasional Hasil Pengabdian kepada Masyarakat, 71–78.
- Sunardi, S., Wolok, E., Salim, S., Latief, M., & Machmoed, B. R. (2025). *Development of employability skills and technopreneurship attitudes of vocational school students through industrial field work practices*. Atlantis Press, 239–248.
- Wahyudi, R., & Nurfadilah, A. (2024). *Optimalisasi media sosial dalam meningkatkan penjualan produk UMKM di masa pascapandemi*. Jurnal Bisnis Digital Indonesia, 2(1), 35–46.