

# Development Strategy of Tempe Chips MSMEs through Digital Marketing in Asemrowo District, Surabaya

<sup>1</sup>Imam Wahyudi, <sup>2</sup>Jessica Hilary Naomi, <sup>3</sup>Lautania Febrianti, <sup>4</sup>Intan Dwi Rahmawati, <sup>5</sup>Ken Maharani Putri Kinanti, <sup>6</sup>Krisdyanto, <sup>7</sup>Mochammad Munir Rachman

<sup>1-6</sup> Student, Faculty of Economics and Business, Universitas Terbuka, Surabaya, Indonesia

<sup>7</sup> Faculty of Economics and Business, Universitas PGRI Adi Buana, Surabaya, Indonesia

Corresponding author : hnn\_munir@yahoo.com



DOI:



## Sections Info

### Articles History:

Submitted: November 23, 2025

Final Revised: November 27, 2025

Accepted: November 30, 2025

Published: December 02, 2025

### Keywords:

MSMEs

Tempe chips

Digitalization

Community empowerment

## ABSTRACT

Tambak Sarioso Village, Asemrowo District, Surabaya, is a densely populated area whose local economy relies on micro-enterprises, particularly tempe chips production. However, the development of MSMEs in this area is constrained by conventional marketing practices, simple packaging, and low digital literacy. This community service program aimed to enhance MSMEs' capacity through digital platform utilization, visual branding improvement, and digital marketing strategy development. The program was implemented through an initial survey, production assistance, digitalization training, visual content creation, activation of Shopee and Instagram accounts, and promotional strategy development. The results indicate improved product professionalism through new packaging and logos, the availability of promotional visual documentation, and the readiness of MSMEs to operate in digital marketplaces. Furthermore, MSME actors demonstrated increased motivation, confidence, and understanding in managing online marketing activities. The digitalization of tempe chips MSMEs in Tambak Sarioso not only strengthens product identity but also serves as an effective community empowerment strategy to enhance competitiveness and business sustainability in the digital era.

## INTRODUCTION

Tambak Sarioso Subdistrict, Asemrowo District, Surabaya City is a densely populated residential area predominantly inhabited by low- to middle-income households. Consequently, the local economic dynamics are strongly influenced by the activities of micro and small enterprises (MSEs), which serve as the primary source of livelihood for the community (Irawan, 2020). The economic structure of the area is largely supported by home-based industries that have developed from inherited skills, with tempe chips production emerging as one of the most prominent and sustainable sectors. Beyond serving as a source of income, tempe chips have become an integral part of local culinary identity passed down across generations.

Despite their economic and cultural significance, most tempe chips producers in Tambak Sarioso continue to rely on traditional production and marketing methods. Simple processing techniques and distribution patterns that depend on limited customer networks constrain business growth, hinder production scalability, and reduce competitiveness against similar products that have adopted more modern approaches. According to small business

development theory, adaptability to technological change and market dynamics is a critical factor in enhancing the competitiveness of micro and small enterprises (Davis, 2017, Porter, 2018; Tambunan, 2019).

In fact, the home-based tempe chips industry in Tambak Sarioso possesses considerable economic potential. The product enjoys stable demand, high consumer acceptance, and easy access to raw materials. Moreover, tempe chips offer flexible product characteristics that allow diversification through variations in flavor, packaging, and size, creating broad opportunities for product differentiation. However, this potential remains underutilized due to limited access to business knowledge, processing innovation, and modern marketing technologies among local producers. Field observations indicate that most business actors still employ conventional marketing strategies, such as direct sales in traditional markets, product consignment in nearby shops, or distribution through regular customers within the neighborhood. These approaches restrict business expansion due to their limited market reach and inability to respond to changing consumer behavior. In the digital era, consumers increasingly rely on digital platforms for product searches, transactions, and reviews. Previous studies have demonstrated that digital marketing adoption—through social media and online marketplaces—can significantly enhance product visibility, expand market access, and improve the competitiveness of micro and small enterprises (Kurniawati et al., 2021; Susanti, 2022). Within this context of digital economic transformation, conventional marketing practices have become less competitive. Micro and small enterprises that fail to adapt to digitalization risk falling behind competitors who leverage digital platforms and modern branding strategies to enhance product value. Therefore, structured assistance and capacity-building initiatives are essential to support tempe chips MSMEs through the utilization of digitalization portals as a sustainable business development strategy.

Geographically, Tambak Sarioso Subdistrict occupies a strategic position in West Surabaya, located near major commercial centers, distribution networks, and the city's primary transportation corridors. This location theoretically provides significant opportunities for local communities, particularly micro and small enterprises (MSEs), to expand product marketing and establish broader trading networks. However, such geographical advantages cannot be fully utilized without adequate improvements in human resource capacity, especially in terms of digital literacy and adaptability to technological change.

A key challenge faced by local MSEs is the presence of a digital divide, defined as the gap between access to digital technology and the ability to use it productively. Although most business actors already own smartphones and have internet access, their usage is largely limited to daily communication, entertainment, and content consumption, rather than business development, marketing optimization, or the exploitation of digital-based economic opportunities. This condition risks widening the gap between conventional MSEs and those that have fully integrated into the digital ecosystem. Data from the Ministry of Cooperatives and SMEs of Indonesia (2023) indicate that digital adoption among Indonesian MSMEs has increased significantly over the past five years, particularly through the use of online marketplaces, digital payment systems, and social media marketing. Nevertheless, the level of adoption remains uneven. MSMEs located in peripheral areas continue to face challenges

related to digital literacy, packaging quality, business management, and branding capabilities. This situation closely reflects the condition of tempe chips MSMEs in Tambak Sarioso, where most producers are still unfamiliar with platforms such as Shopee, Tokopedia, and popular social media channels including Instagram, Facebook, and TikTok, despite their central role in contemporary culinary marketing.

Limited knowledge of product photography, digital content creation, online store management, and digital marketing strategies constrains the competitiveness of local producers compared to those who have already optimized technology to increase sales and market reach. As a result, the substantial potential of the home-based tempe chips industry has not yet translated into a more significant economic contribution to the Tambak Sarioso community. Rapid digital transformation requires MSMEs to adapt in order to remain relevant and competitive. Tambunan (2019) argues that digitalization is not merely the adoption of technological tools but a strategic approach to overcoming limitations related to space, cost, and marketing networks. This view is reinforced by the Google and Temasek (2023) report, which states that more than 80% of Indonesian consumers search for product information online prior to making a purchase. Consequently, products without a digital presence are increasingly disadvantaged in competitive markets.

From a community empowerment perspective, MSME digitalization represents a form of capacity building that enhances community autonomy. Ife and Tesoriero (2014) emphasize that empowerment involves transferring control and decision-making capabilities to communities, enabling them to manage economic activities more independently and effectively. Digitalization offers MSMEs new opportunities not only to serve local markets but also to access national and international markets, thereby improving household welfare and ensuring business sustainability. Beyond marketing aspects, product packaging also plays a critical role in enhancing the competitiveness of tempe chips MSMEs in Tambak Sarioso. Existing packaging practices remain relatively simple and lack strong brand identity. According to Kotler and Keller (2016), packaging functions not only as product protection but also as a key component of marketing communication. In digital markets, packaging serves as the primary visual element that captures consumer attention. Without attractive packaging and a clear brand identity, products face greater difficulty competing in digital marketplaces, even when product quality is high.

Based on initial observations, tempe chip MSMEs in RW 05, Tambak Sarioso Village, also lack adequate product documentation. Product photos are generally taken simply, with suboptimal lighting, and without visual composition that adequately represents product quality. Yet, in digital marketing, product photos and videos are crucial elements that significantly influence purchasing decisions. Consumers on marketplace platforms like Shopee tend to consider the visual quality of a product, the completeness of its description, and customer reviews before making a purchase. The lack of adequate visual documentation makes it difficult for local products to compete with similar products that are more digitally prepared. This problem is exacerbated by various other interrelated barriers that prevent tempe chip MSMEs from optimally entering the digital marketing ecosystem. The majority of entrepreneurs are housewives who still face limitations in digital technology literacy and skills, ranging from using marketplaces to understanding online business processes. ~~Furthermore, simple product packaging and the lack of a strong visual identity make~~

products less attractive when displayed on social media and e-commerce platforms. Limited marketing reach within the local market has led to stagnant business growth, while low digital marketing literacy prevents MSMEs from effectively utilizing promotional features, store optimization, and digital content strategies.

These limitations are further exacerbated by the limited group work system, the lack of ongoing mentoring, and the limited supporting resources such as digital devices and stable internet access. This creates a gap between the demands of digitalization and the ability of MSMEs to implement them practically. Based on these challenges, empowerment interventions are needed that are not only informative but also applicable and oriented to market needs. The community empowerment practical activity themed "Tempeh Chips MSME Development Strategy Through a Digitalization Portal in Neighborhood Association (RW) 05, Tambak Sarioso Village, Asemrowo District, Surabaya" was designed to bridge this gap and encourage the transformation of MSME businesses into a digital ecosystem.

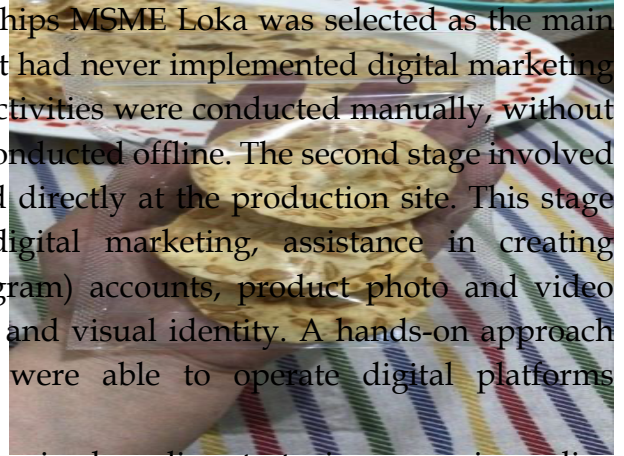
The main objective of this activity is to provide strategic solutions to increase the capacity of MSMEs to utilize digital platforms as a means of promotion and sales. Operationally, this program is aimed at improving the capabilities of MSMEs in managing marketplaces like Shopee and social media platforms like Instagram, developing product identities through more modern packaging and sticker designs, and providing visual product documentation in the form of photos and videos to support digital marketing. Furthermore, this program focuses on expanding market reach through product integration into marketplaces and active and sustainable social media account management. Through direct mentoring and structured practice, this program is expected to encourage MSMEs' independence in implementing digital marketing strategies, enabling them to continue developing their businesses sustainably even after the mentoring program ends. Overall, this program aims not only to increase the visibility and competitiveness of tempe chips but also to serve as a model for digital-based empowerment that can be replicated by other MSMEs in similar areas. Thus, the digitalization of tempe chips in Tambak Sarioso is expected to strengthen the community's economic independence, enhance the digital capacity of entrepreneurs, and support business sustainability amidst the ever-evolving dynamics of the digital economy.

## METHOD OF ACTIVITY IMPLEMENTATION

This community service program entitled "*Strategy for Developing Tempe Chips MSMEs through Digitalization Platforms*" was conducted in RW.05, Tambak Sarioso Village, Asemrowo District, Surabaya, with Tempe Chips MSME Loka as the main partner. The program applied a participatory approach through direct assistance and mentoring for business actors.

The implementation method consisted of two main stages: **(1) initial survey and coordination** and **(2) digitalization training and assistance**. The initial survey was carried out through field observations, interviews with MSME owners, and coordination with local authorities. This stage aimed to identify business conditions, marketing barriers, and development potential. The results showed that most MSMEs still relied on conventional marketing, lacked brand identity, used simple packaging, and had not utilized digital platforms.

Based on the initial assessment, Tempe Chips MSME Loka was selected as the main partner because it had stable market demand but had never implemented digital marketing strategies. Site visits indicated that production activities were conducted manually, without branded packaging or logos, and all sales were conducted offline. The second stage involved digitalization training and mentoring conducted directly at the production site. This stage included education on the importance of digital marketing, assistance in creating marketplace (Shopee) and social media (Instagram) accounts, product photo and video production, and the development of packaging and visual identity. A hands-on approach was applied to ensure that MSME owners were able to operate digital platforms independently.



In addition, mentoring focused on strengthening branding strategies, managing online stores, and optimizing digital promotional features. Through this approach, the community service program is expected to enhance the digital capacity of MSME actors, expand market reach, and promote sustainable business independence.

## RESULT AND DISCUSSION

### Results

After delivering the training materials, the student team continued the program by conducting direct observation and documentation of the tempeh chips production process at the partner's home industry. The students observed each production stage, including slicing, seasoning, frying, draining, and packaging, while recording the workflow and collecting visual documentation for digital marketing purposes.

The slicing process was performed manually with consistent thickness, while the seasoning process was conducted hygienically, although the detailed recipe was not fully disclosed. Frying was carried out under controlled temperature conditions to ensure crisp and evenly cooked products. The chips were then cooled before packaging to maintain optimal texture (Figure 1 and 2).



**Figure 1 and 2. Product Packaging Process**

At the final stage, students documented the packaging process, including weighing the products and attaching newly designed labels. This observation activity not only

produced high-quality visual documentation but also provided students with practical insights into the strengths and challenges faced by the UMKM Keripik Tempe Loka.

The next stage involved assisting in the creation of a Shopee account as a core component of digital marketing implementation. Students guided the business owner through account verification, shipping address setup, and activation of logistics services such as JNE, J&T, and SiCepat. After activation, students assisted in uploading product photos, writing informative descriptions, setting prices, managing product variations, and organizing initial stock.

The team also supported the creation of promotional vouchers and provided guidance on customer response management, secure packaging techniques, and strategies for improving store ratings. Within approximately 45 minutes, the online store was fully activated and ready to receive orders. The creation of the UMKM's Instagram account was conducted strategically to establish a digital brand identity. Students assisted in selecting an easily searchable username, setting the logo as the profile picture, and writing a concise bio highlighting the business location and product advantages (Figure 3 and 4).



**Figure 3 and 4. How to Attach a Logo Sticker**

Six initial posts were prepared, consisting of promotional, educational, trend-based, and integrated banner content. In addition, students provided guidance on posting schedules and storytelling-based caption writing to enhance audience engagement. Before concluding the activity, the team developed a short-term promotional strategy, including regular posting schedules, a seven-day store-opening promotion, and the collection of customer reviews. The program concluded at 4:00 PM with appreciation from the business owner, who expressed satisfaction with the assistance provided.

### **Discussion**

The results of the MK-PM activities indicate significant improvements in branding, marketing, and digital readiness for the Keripik Tempe Loka MSME. Prior to the program, the product was simply packaged without a brand identity, marketed conventionally, and lacked documentation and a digital platform. This limited the product's competitiveness amidst the increasing competition in the snack food industry. The main change was seen in the strengthening of the visual identity through logo design and packaging stickers. The new packaging conveys a more professional, informative, and visually appealing impression. This aligns with Kotler and Keller (2016), who stated that packaging functions as a brand



communication medium and influences perceptions of product quality. With a consistent visual identity, products become more easily recognized and have stronger differentiation.

Furthermore, improving the quality of product documentation through photos and videos significantly contributed to supporting digital marketing. Despite limited resources, the assistance resulted in more representative product visuals, thus increasing consumer trust and adding product value. These results are also consistent with research by Dwivedi et al. (2021) and Chatterjee et al. (2021), which found that digital transformation can improve small business performance by increasing marketing efficiency and market access. This can also be achieved through the use of social media platforms such as Shopee. Similarly, research by Setyawati and Abrilia (2020) shows that effective use of social media can increase purchasing interest and consumer loyalty among MSMEs. Furthermore, the Keripik Tempe Loka entrepreneur also intends to utilize Instagram and Shopee for this activity because it supports the market access theory. This also confirms that access to digital platforms can reduce geographic limitations and expand distribution networks (Barney, 2017; OECD, 2019). With marketplaces and social media, MSMEs are no longer dependent on local markets but can reach a wider consumer base. In the context of digital marketing, product visualization is a key factor influencing consumer purchasing intention (Kurniawati et al., 2021).

On social media, structured Instagram content planning helps build brand image and enhance consumer engagement. Content variations, including promotions, education, and storytelling, make accounts more dynamic and engaging. This approach supports Tuten and Solomon's (2018) findings that informative and emotionally valuable content can increase audience engagement.

Optimizing the Shopee marketplace through keyword-based titles, informative product descriptions, and storefront management increases visibility and consumer trust. This strategy makes it easier for potential buyers to obtain product information before making a transaction. According to Tambunan (2019), optimal marketplace utilization can significantly expand the market reach of MSMEs. Another important impact is increased digital literacy and self-confidence among MSMEs. After mentoring, business owners demonstrated greater readiness to manage digital platforms independently. This demonstrates the effectiveness of a participatory mentoring approach in increasing MSME capacity, as proposed by Ife and Tesoriero (2014) in the concept of community empowerment.

Overall, the MK-PM activities not only improve product visibility but also strengthen the foundation of MSMEs entering the digital ecosystem. The transformations that occurred encompassed branding, documentation, marketing, and entrepreneurial mindsets. These findings demonstrate that digitalization, coupled with intensive mentoring, can improve the competitiveness and sustainability of MSMEs. However, limitations remain in the areas of advanced design skills, equipment availability, and consistent content management. This aligns with the findings of Susanti et al. (2022) and Kotler et al. (2017), who stated that the sustainability of MSME digitalization is significantly influenced by human resource capacity and long-term mentoring support. Thus, this MK-PM activity not only has practical impacts but also strengthens theoretical findings regarding the role of digitalization in MSME development, particularly in increasing competitiveness, market access, and business professionalism.

## CONCLUSION

Tambak Sarioso Village, Asemrowo District, Surabaya, is a densely populated residential area whose economy relies on micro-enterprises, particularly the home-based tempeh chip industry. Despite its significant potential, the development of MSMEs in this area is still hampered by conventional marketing practices, simple packaging, and low digital literacy. The MK-PM activity "Tempeh Chips MSME Development Strategy Through a Digitalization Portal" successfully increased the capacity of MSMEs to utilize digital platforms, improve product visual identities, and develop marketplace- and social media-based marketing strategies. The results of the activity demonstrated increased product professionalism, digital account readiness, and growing MSME confidence in expanding market reach.

In addition to impacting MSME partners, this activity also served as a learning tool for students in implementing the concepts of community empowerment and business digitalization in practice. While still facing technical and coordination challenges, this activity demonstrated that digitalization can be an effective strategy for increasing the competitiveness and sustainability of community-based MSMEs.

## RECOMMENDATIONS

Based on the results of this community empowerment program, several recommendations can be proposed. First, tempeh chips MSME actors in Tambak Sarioso are encouraged to continuously optimize the use of digital platforms, particularly Shopee and Instagram, as their main marketing channels. Consistency in content creation, customer service responsiveness, and regular product updates should be maintained to ensure sustainable digital engagement. Second, continuous and long-term assistance from universities, communities, and related institutions is strongly recommended, particularly in strengthening branding strategies, digital financial management, and product innovation. Sustainable mentoring is expected to enhance MSMEs' adaptability to dynamic digital market conditions. Third, local governments and relevant agencies are advised to strengthen their support through digital literacy training, access to financing, and the improvement of technological infrastructure, especially stable internet connectivity. Integrated policy support will accelerate MSMEs' digital transformation more evenly. Fourth, continuous improvement in packaging quality and brand identity is essential to enhance product competitiveness in both local and national markets. Innovation in flavor variants, packaging sizes, and visual design can also attract broader market segments, and finally, future community service programs and research are encouraged to examine the long-term impact of digitalization on income growth, market expansion, and business sustainability. Continuous evaluation will provide more comprehensive insights into the effectiveness of digital-based empowerment initiatives.

## ACKNOWLEDGMENT

The author would like to thank Surabaya Open University and the supervisors from PGRI Adi Buana University Surabaya for their support. Appreciation is also extended to MSME entrepreneurs, particularly the Keripik Tempe Loka home industry, for their active

participation and cooperation throughout the community empowerment program in Asem Rowo sub-district, Surabaya.

## REFERENCES

- [1] Barney, J. (2017). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- [2] Chatterjee, S., Chaudhuri, R., Vrontis, D., & Basile, G. (2021). Digital transformation of small and medium enterprises: Evidence from developing countries. *Journal of Strategy and Management*, 14(4), 623–642. <https://doi.org/10.1108/JSMA-05-2020-0123>
- [3] Davis, F. D. (2017). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- [4] Dwivedi, Y. K., et al. (2021). Impact of digital transformation. *International Journal of Information Management*, 55, 102171
- [5] Google & Temasek. (2023). *e-Conomy SEA 2023: Unlocking digital opportunity*. Retrieved from <https://economysea.withgoogle.com>
- [6] Ife, J., & Tesoriero, F. (2014). *Community development: Community-based alternatives in an age of globalization* (3rd ed.). Pearson.
- [7] Irawan, S. A. R. (2020). Skenario Penyediaan Air Bersih di Kelurahan Tambak Sarioso Kota Surabaya Sebagai Penerapan dari Konsep Water Sensitive Cities (Doctoral dissertation, Institut Teknologi Sepuluh Nopember).
- [8] Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.
- [9] Kotler, P., Kartajaya, H., & Setiawan, I. (2017). *Marketing 4.0: Moving from Traditional to Digital*. Wiley.
- [11] Kurniawati, A., Putra, R. A., & Wibowo, A. (2021). **The role of social media marketing in enhancing MSME performance in Indonesia**. *Journal of Indonesian Marketing Studies*, 5(2), 110–124.
- [12] OECD. (2019). *Digital Opportunities for SMEs*. OECD Publishing.
- [13] Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia. (2023). *Digital adoption trends among MSMEs in Indonesia: 2018–2023 report*. Government of Indonesia
- [14] Porter, M. E. (2018). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1), 78–93.
- [15] Setyawati, I., & Abrilia, R. (2020). Social media marketing and MSME performance. *Jurnal Manajemen*, 24(2), 123–135
- [16] Susanti, D. (2022). **Digital literacy and economic empowerment of MSMEs in rural areas**. *Indonesian Journal of Community Empowerment*, 3(1), 55–68
- [17] Tambunan, T. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, 9(1), 1–15. <https://doi.org/10.1186/s40497-018-0140-5>
- [18] Tuten, T. L., & Solomon, M. R. (2018). *Social media marketing* (3rd ed.). SAGE Publications