

UTILIZATION OF DIGITAL MARKETING IN SUSTAINABLE TOURISM DEVELOPMENT IN PEMATANG JOHAR

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Abstract

This community service activity aims to improve the digital capabilities of MSMEs and rice field tourism managers in Pematang Johar Village, Deli Serdang Regency, through the implementation of digital marketing to support sustainable tourism development. This village has significant potential in the agrotourism and local product sectors, but has not been fully optimized through technology-based promotional strategies. The activity was implemented using a participatory and educational approach, including preparation, training, mentoring, and evaluation. A total of 30 participants consisting of MSMEs and village tourism managers participated in training on creating digital business accounts, designing promotional content, and implementing marketing strategies through social media and marketplaces. Evaluation was carried out through pre- and post-tests to measure participants' understanding, as well as field observations of the practical application of the training outcomes. The results showed significant improvement, with 87% of participants able to operate digital promotional media independently. The implementation of digital marketing strategies had a positive impact on increasing local product sales by 40% and tourist visits by 25%. This activity demonstrated that digitalization of tourism promotion and MSMEs can strengthen the synergy between sustainable tourism and community economic empowerment, as well as create a technology-based, inclusive and sustainable tourism village development model.

Keywords: *Community empowerment, Digital marketing, MSMEs, Sustainable tourism, tourist villages.*

INTRODUCTION

Pematang Johar is a village located in Pantai Labu District, Deli Serdang Regency, North Sumatra. This village boasts rich natural resources, particularly in the agricultural sector, with its vast expanses of rice paddies. This potential makes Pematang Johar an ideal location for developing nature tourism, particularly rice paddy tourism. In addition to its natural beauty, the village also boasts a variety of superior products from Micro, Small, and Medium Enterprises (MSMEs) that can be developed to support the tourism sector (Krishen, 2021). However, to achieve this full potential, digital marketing is needed to attract tourists and promote its potential. In today's digital era, digital marketing has become a key factor in introducing new tourist destinations and increasing their competitiveness (Ravi, 2023; Jadhav, 2023). While many regions have leveraged digital platforms to promote their tourism potential, Pematang Johar village has yet to fully utilize this technology (Ghorbani, 2022). The village's MSMEs, which primarily specialize in local products and culinary arts, have also not fully utilized digital marketing to introduce their products to a wider market. This has limited revenue from the tourism and MSME sectors in the village.

One of the main problems faced by the people of Pematang Johar village is a lack of knowledge and understanding of digital marketing. Many MSMEs still use conventional marketing methods that are limited to the local market. However, by utilizing digital marketing, MSME products can be more widely known, not only locally, but also nationally and internationally. Therefore, increasing knowledge of digital marketing among MSMEs in Pematang Johar village is crucial for increasing their income and supporting the development of a sustainable tourism sector. Furthermore, there are challenges in terms of suboptimal management of tourist destinations. Rice paddy tourism in Pematang Johar, despite its significant potential, has not been well managed in terms of promotion and development. One reason is the lack of adequate access to information regarding the advantages of this tourism. Many tourists are unaware of the beauty and potential of the village's rice paddy tourism. Therefore, an appropriate

marketing strategy is needed to introduce this tourism to the wider community. The use of digital technology is an appropriate solution to increase the visibility of Pematang Johar rice paddy tourism, both through social media, websites, and digital-based applications. Another issue is the limited digital skills of MSMEs in the village. Many MSMEs don't yet understand how to utilize digital platforms to market their products. This hinders their potential for growth, even though digital marketing can help them reach a wider market and increase the competitiveness of local products. Therefore, training and mentoring on digital marketing are crucial aspects of this initiative. Along with the rapid development of digital technology, the tourism industry is also experiencing significant changes in promotion and marketing methods. Digital marketing allows tourist destinations to more easily connect with tourists from all over the world (León-Castro, 2021; Oka, 2024). Despite its unique natural attractions, the rice paddy tourism in Pematang Johar is still not widely known to tourists, especially those from outside the region. Using digital platforms to promote the village's natural beauty and local culture will open up greater opportunities for Pematang Johar to develop as a leading tourist destination.

In this context, the main objective of this activity is to provide training to MSMEs in Pematang Johar village on digital marketing, so they can utilize online platforms to promote their products and tourist destinations. This activity also aims to improve the digital skills of the village community so they are better prepared to face the demands of an increasingly technology-based market. It is hoped that with a better understanding of digital marketing, MSMEs can develop their businesses and attract more tourists to Pematang Johar village, which in turn will increase community income and support village economic development. Furthermore, this activity will also include an introduction to sustainable tourism strategies in the context of rice field tourism management. Through an environmentally friendly approach, tourism in Pematang Johar can not only thrive but also provide long-term benefits for the local community. Therefore, this activity also includes efforts to educate the community about the importance of sustainability in tourism management. Through this activity, it is hoped that Pematang Johar village can harness the potential of digitalization to introduce its natural beauty to a wider audience. By promoting rice paddy tourism more widely through digital platforms, the village can attract both domestic and international tourists and open up new economic opportunities for the local community.

LITERATURE REVIEW

Sustainable tourism development in rural areas, such as that implemented in Pematang Johar village, relies heavily on an approach that integrates environmental sustainability, community empowerment, and economic growth. In this context, digital marketing is a highly effective tool for connecting local tourism potential with broader markets, both nationally and internationally, (Suprayitno, 2024). According to Ghorbani et al. (2022), digital marketing is one of the most effective methods for introducing and promoting products and services in today's globalized world, particularly in the tourism sector. The use of online platforms such as social media, websites, and digital-based applications can increase the visibility of previously unknown tourist destinations (Van Esch, 2021). This aligns with the findings of Hassan et al. (2018), which emphasize that digitalization allows for faster information accessibility, expands market reach, and increases brand awareness of tourist destinations.

In this regard, rice field tourism in Pematang Johar has untapped potential. As explained by Daryanto (2020), nature-based tourism, such as rural tourism and agrotourism, tends to be under-exploited due to limited marketing networks. Therefore, digital marketing can be an appropriate solution to introduce this nature tourism to a wider market. Sustainable tourism focuses not only on economic aspects but also on environmental sustainability and local community empowerment. Faruk (2021) argue that the concept of sustainable tourism must involve all stakeholders, including local communities, in the management of tourist destinations. One of the main goals of sustainable tourism is to improve the economic well-being of communities without damaging the natural environment. Therefore, an inclusive approach, where communities are involved in decision-making and the management of tourist destinations, is crucial.

In Pematang Johar village, environmentally sustainable rice field tourism management can provide long-term economic benefits for the community. Environmentally conscious tourism development not only protects the ecosystem but also increases its appeal to tourists increasingly concerned about environmental issues. Therefore, leveraging digitalization to enhance eco-friendly tourism will create new opportunities for rural communities to develop economically without sacrificing environmental sustainability. Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in supporting the local economy, including in the tourism sector. Deb (2024) stated that MSMEs can make a significant contribution to local economic empowerment, particularly in the management of local products that can be used as tourist attractions. In Pematang Johar, many MSMEs operate in the agricultural, culinary, and handicraft sectors, which can be part of the village's tourism experience.

However, one of the main challenges faced by MSMEs in the village is a lack of understanding of digital marketing. Wibawa (2022) emphasized that implementing digital marketing in MSMEs can improve market access, revenue, and competitiveness. Through digital marketing training, MSMEs in Pematang Johar can more easily introduce their products to the global market. This can also accelerate the village's economic development by attracting tourists interested in quality local products.

METHOD

This community service activity was carried out in Pematang Johar Village, Labuhan Deli District, Deli Serdang Regency, North Sumatra Province. This area was chosen because of its significant potential for developing rice field tourism managed by the local community and the presence of MSMEs supporting the village's economic activities. The activity was carried out for two months, from September to October 2025, with stages including preparation, training, digitalization assistance, and evaluation of the activity results. The partners for this activity are the Pematang Johar Village government and a community group of MSMEs directly involved in rice field tourism management. These partners were selected because of their crucial role in driving economic and tourism activity in the area. The village government serves as the activity facilitator, while the MSMEs are the primary training participants and direct beneficiaries. Furthermore, the partners assist in providing training venues and recruiting participants who meet the predetermined criteria. The event was attended by 30 participants, comprising MSMEs, rice field tourism managers, and community representatives active in village creative economy activities. The selection criteria for participants were: residency in Pematang Johar Village, active involvement in MSMEs or village tourism management, commitment to participating in all activities, willingness to apply training outcomes in business activities or tourism promotion, and representation of women and youth from the village to ensure diversity.

RESULTS AND DISCUSSION

This community service activity was carried out in Pematang Johar Village, Labuhan Deli District, Deli Serdang Regency, involving 30 participants consisting of MSMEs, rice field tourism managers, and local community representatives. The activity lasted for three months (September–October 2025), encompassing four main stages: preparation, training, mentoring, and evaluation. Overall, the activity went well and received full support from the village government and community groups enthusiastic about improving their digital skills in marketing local products and promoting rice field tourism. The training began with an introduction to the basic concepts of digital marketing. At the beginning of the training, most participants did not yet understand how to use digital media for promotional activities. Based on pre-test results, only about 23% of participants had business accounts on digital platforms such as Facebook Business or Instagram Business, while the rest still used personal accounts without a targeted marketing strategy. After participating in the training, participants began to understand the concepts of digital branding, promotional content creation, and social media utilization strategies. The community service team assisted participants in creating new business accounts, designing product photo content, and writing engaging product and rice field tour descriptions. Post-test results showed a significant increase in participant understanding; approximately 87% of participants were able to operate digital platforms and publish promotional content for products or tourist destinations independently.

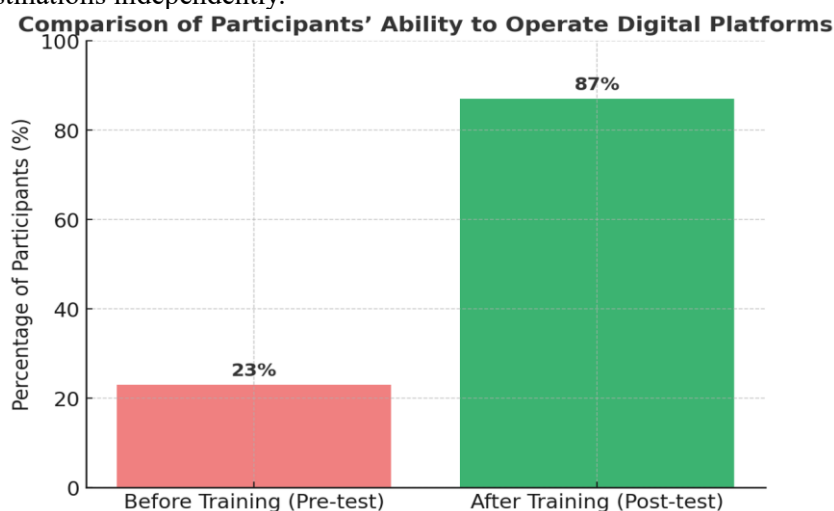


Figure 1. Shows the improvement of participants' ability to operate digital platforms

During the mentoring process, participants were encouraged to directly implement the digital marketing strategies they had learned. Most participants began promoting their products through social media and marketplaces, such as Instagram, Facebook, and Shopee. Observations showed that several MSMEs began experiencing an increase in orders, particularly for processed agricultural products and village culinary specialties. One participant, for example, reported a 40% increase in sales within two weeks after consistently implementing digital promotion strategies. Furthermore, the management of the Pematang Johar rice field tourism area began using social media to promote tourism activities such as "Explore the Rice Fields and Pick Your Own Rice." The content, consisting of photos and short videos showcasing the beautiful panoramic views of the rice fields, successfully captured the attention of internet users and even attracted tourists from outside Deli Serdang. This demonstrates the effectiveness of digital marketing in expanding the reach of rural tourism promotions.

Participants who were previously unfamiliar with the concept of interactive content are now able to create engaging photo- and video-based promotions. Furthermore, they understand the importance of interacting with customers online, maintaining a digital reputation, and providing responsive service through instant messaging features on social media. This increase in digital literacy is an indicator of the success of community service activities in shifting public mindsets toward digital-based economic transformation. The implementation of digital marketing has not only boosted the promotion of MSME products but also strengthened the branding of rice field tourism, which has become the identity of Pematang Johar village. Through visual content creation training, the community can showcase the unique features of rice field tourism, such as harvest scenes, agricultural activities, and captivating rural scenery. Within two months of the training, the community-managed rice field tourism social media account attracted more than 2,000 followers and saw an average 25% increase in visits compared to the previous period.



Figure 2. Documentation

This demonstrates that digital marketing strategies have a real impact on the sustainable development of local tourism. Furthermore, digital promotion also fosters synergy between MSMEs and tourism operators. Local products such as traditional foods and souvenirs are now marketed alongside tourism activities, creating a mutually supportive economic chain. This synergy exemplifies the application of the principles of community-based sustainable tourism. The results of the activity indicate that a participatory and educational approach is highly effective in improving the digital capabilities of rural communities. Through direct involvement in training and field practice, participants not

only gain knowledge but also develop practical skills. This aligns with Bramwell & Lane's (2011) view on the importance of local community empowerment as a foundation for sustainable tourism development. This program also supports the findings of Kotler et al. (2017) that digital marketing is an efficient strategy for expanding promotional reach and increasing local economic competitiveness. The positive impact of this activity is also evident in the increased collaboration between MSMEs and village tourism managers. This collaboration strengthens the local economic structure and creates an integrated promotional system for tourism products and destinations. Thus, this community service not only increases individual capacity but also strengthens the digital-based creative economy ecosystem at the village level.

CONCLUSION

This community service activity successfully achieved its primary objective, which was to improve the digital literacy skills of the community and MSMEs in Pematang Johar Village in utilizing digital marketing to support the development of sustainable rice field tourism. Through a series of training activities, mentoring, and hands-on practice, participants gained new understanding and skills in operating various digital platforms such as social media, marketplaces, and online promotional content. The results of the activity showed a significant increase in participant skills, with 87% of participants able to use digital platforms independently after the training. In addition, MSMEs began implementing online promotion strategies that positively impacted sales of local products. Furthermore, rice field tourism managers successfully expanded their promotional reach through social media, contributing to increased tourist visits and strengthening the village's image as a sustainable tourism destination. This activity also encouraged collaboration between the community, MSMEs, and the village government, which plays a crucial role in creating a community-based digital tourism ecosystem. Through a participatory approach, the community became not only the object of training but also an active participant in developing their village's potential. Overall, this service demonstrates that the use of digital technology can be a strategic tool in increasing local economic competitiveness, strengthening rural tourism branding, and realizing sustainable tourism development. In the future, it is hoped that this activity can be continued through the establishment of a "Village Digital House" as a center for continuous learning and promotion for the people of Pematang Johar and other tourist villages in Deli Serdang Regency.

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