

OPTIMIZATION OF PUBLIC COMMUNICATION STRATEGY AND SOCIAL MEDIA-BASED DIGITAL MARKETING ASSISTANCE FOR STRENGTHENING MSMEs AND SUSTAINABLE ENVIRONMENTAL MANAGEMENT IN BUKIT SANGKAL VILLAGE

Andika Nugraha *, Deby Chintia Hestiriniah, Indah Pusnita, Ardiansyah, Suhendra

STISIPOL Candradimuka

Jl. Swadaya Sekip Ujung Palembang, South Sumatra 30127, Indonesia

Email: andika.nugraha@stisipolcandradimuka.ac.id

Abstract

The implementation of the Thematic Community Service Program (KKN-T) in Bukit Sangkal Urban Village, Kalidoni District, Palembang City, was motivated by the limited use of digital media for promoting MSME products and managing public information, as well as the need to optimize local environmental potential and green open spaces. The program aims to enhance community understanding and skills regarding digital marketing, strengthen public communication, develop a QR Code-based digital flora information system, and encourage sustainable environmental management. A participatory approach was employed, involving observation, coordination, interactive outreach, training, mentoring, and direct collaboration between students and the community. Activities included training on digital marketing and MSME branding; seminars on entrepreneurship and product packaging; QR Code-based flora digitization at the ProKlim Park; optimization of the Organic Waste Bank through the processing of dry leaves into compost; and community-wide cleanup events and fitness exercises. Results indicated an 85% improvement in MSME players' understanding and skills in using digital media for promotion, the creation of digital product catalogs and QR Code-based flora information, and the successful conversion of dry leaf waste into useful compost. The initiative demonstrates that a participatory approach integrating public communication, MSME digitization, simple technology, and environmental management can deliver tangible benefits to the community while supporting the sustainability of economic and environmental assets in Bukit Sangkal Urban Village.

Keywords: Thematic Community Service Program (KKN-T), Public Communication, Digital Marketing, MSMEs, QR Code, ProKlim Park

INTRODUCTION

The increasingly rapid development of information and communication technology has brought changes in various aspects of people's lives, including economic activities, public communication, and environmental management. The use of digital technology not only makes it easier to obtain and convey information, but also opens up opportunities for

communities to develop local economic potential through digital media. In the context of communities at the village level, the use of information technology can be a means to expand the reach of public communication, introduce regional potential, and support the marketing of community business products. However, the use of digital technology at the community level is not yet fully optimal, so that mentoring and strengthening of digital literacy are still needed. This condition is one of the bases for the implementation of the Thematic Community Service Lecture (KKN-T) STISIPOL Candradimuka in 2026 in Bukit Sangkal Village, Kalidoni District, Palembang City.

Bukit Sangkal Village has various local potentials that can be developed to improve community welfare. These potentials include micro-enterprise groups that develop home-cooked culinary products and processed Family Medicinal Plants (TOGA), residential areas based on the Climate Village Program (ProKlim), Retention Parks, and various social groups. The presence of productive-age residents, Micro, Small, and Medium Enterprises (MSMEs), Women Farmers Groups (KWT), PKK cadres, and other community groups provides important social capital in supporting empowerment activities. In addition to its economic potential, the community also demonstrates a concern for the environment, reflected in mutual cooperation activities and ProKlim-based environmental management.

Despite its diverse potential, the target community still faces several challenges that require attention. Economically, some MSMEs still rely on conventional marketing methods, often face-to-face. The use of social media platforms like Instagram and TikTok, as well as *marketplaces*, to expand their marketing reach remains relatively low. Furthermore, products derived from traditional herbal medicine (TOGA) are not fully supported by product diversification, attractive packaging, and a well-planned *branding strategy*. This situation indicates that the community's economic potential is not fully supported by adequate digital marketing capabilities.

Digital marketing is a crucial aspect that can be developed to increase the reach of MSME products. Through the use of social media and *marketplaces*, businesses can introduce their products to a wider audience without relying solely on conventional marketing. However, utilizing digital media requires skills in content creation, product photography, promotional materials, and product identity building through attractive *branding* and packaging. Therefore, digital marketing assistance is needed so that MSMEs not only understand social media as a communication tool but also utilize it more effectively as a promotional and product marketing tool.

In addition to economic challenges, public communication is also an area that needs to be developed in Bukit Sangkal Village. Administrative governance at the neighborhood unit (RT/RW) and village levels has been running well, but the publication of activities and the dissemination of information about village programs through digital platforms still needs strengthening. Information about activities, development, and regional potential needs to be conveyed through media that is more easily accessible to the public. Strengthening public communication is expected to help create broader information dissemination and introduce the various potentials of Bukit Sangkal Village.

Public communication development can also be integrated with the use of simple technology in community open spaces. Bukit Sangkal Village has a ProKlim Park that functions as a green open space, a center for ornamental plant conservation, and a center for

cultivating Family Medicinal Plants (TOGA). However, the area still requires vegetation rejuvenation, visual arrangement, and modernization of plant information facilities. This situation opens up an opportunity to develop a QR Code-based flora information system so that the public and park visitors can obtain information about plants through smartphones. The use of QR Codes is one form of integration between communication technology and environmental education, providing more practical access to information.

In addition to the ProKlim Park, the Retention Park is also a public space that serves social and environmental functions for the community. This area can be used for social interaction and sports activities, but requires regular maintenance of cleanliness and tidiness. The arrangement of green open spaces is not only related to aesthetic aspects, but can also be developed as a means of education and community activities. Therefore, activities such as gardening, planting, environmental cleanup, and developing flora information are designed as part of efforts to create a more organized, educational, and sustainable environment.

Another environmental issue lies in the management of organic waste, particularly dry leaves from residential areas. The accumulation of dry leaves in yards and empty houses has not been fully utilized productively. However, this organic waste has the potential to be processed into compost that can be reused for community plants. This condition is the basis for the implementation of the Organic Waste Bank Optimization program through the collection and processing of dry leaves using a shredder into compost. The program is aimed at converting organic waste into useful materials while supporting community awareness of environmental sustainability. Community empowerment activities also need to be supported by active community involvement in every stage of the program. KKN-T Group 1 uses a participatory approach by placing students with the community as part of the process of identifying needs, planning, implementing, and evaluating activities. This approach was chosen so that the program is not only oriented towards completing activities during the KKN period, but also provides knowledge and skills that can be utilized by the community after the activities conclude. Thus, students act as facilitators who help the community identify potential and problems and implement solutions that can be continued independently.

Based on these conditions, the STISIPOL Candradimuka Community Service Program (KKN-T) Group 1 designed several programs that integrate communication, economics, technology, and environmental aspects. The main program includes digital marketing and *branding training* for MSMEs, QR Code-based flora digitalization, and entrepreneurship and product packaging seminars. Meanwhile, supporting programs include optimizing the Organic Waste Bank and *clean-up activities* and healthy exercise with the community. The series of activities were designed to address community needs while utilizing local potential available in Bukit Sangkal Village.

The digital marketing and *branding training* for MSMEs focused on mentoring the creation of business social media accounts, product photography, and the development of promotional materials. These activities are expected to help MSMEs and KWT (Women's Crops) improve their ability to promote local products through digital media. Meanwhile, the entrepreneurship seminar provided education on pricing strategies, attractive packaging design, and online marketing. Through these activities, it is hoped that the potential of TOGA culinary and processed products can be developed into products with wider market appeal and reach.

QR Code-based flora digitization is an innovation that connects technology with environmental education. Information about plants in the ProKlim Park is digitally connected through signage that can be scanned using a smartphone. The public and park visitors can access plant information more easily, enabling the park to serve not only as a green open space but also as a platform for environmental education. This program also demonstrates how simple technology can be used to increase public access to information about the environmental potential of their area.

Environmental programs also aim to foster community habits of maintaining cleanliness and productively utilizing organic waste. Processing dried leaves into compost through the Organic Waste Bank is one form of waste utilization that can provide value to the community. Furthermore, community service activities, gardening, and group exercise programs serve as a means to strengthen social interaction and community awareness of the environment. These activities demonstrate that community development is not solely focused on economic aspects but also encompasses social, health, and environmental sustainability.

The implementation of these various programs demonstrates that community empowerment can be achieved through the integration of local potential and the use of technology. Reported activity results indicate an 85% increase in the understanding and skills of MSMEs in utilizing digital media for promotion. Furthermore, the activities produced a digital product catalog and QR Code-based flora information and supported the functioning of a facility for processing dry leaf waste into compost productively. These results demonstrate that KKN-T activities not only produce outputs in the form of physical activities, but also provide increased knowledge, skills, and facilities that can be utilized by the community.

Based on the description, the implementation of KKN-T with the theme of *Food Planting Grows Businesses* has relevance in supporting the development of economic potential, public communication, technology, and the environment in Bukit Sangkal Village. A participatory approach involving students, village officials, and the community is the basis for the implementation of each program so that the benefits of the activities can continue to be developed after the KKN period ends. The sustainability of the program is expected to be realized through the involvement of Karang Taruna, Women Farmers Groups, RT/RW officials, and village officials in maintaining the ProKlim Park, utilizing the QR Code education system, managing the Organic Waste Bank, and developing processed TOGA products.

IMPLEMENTATION METHOD

This activity uses a participatory approach to implement the 2026 Thematic Community Service Program (KKN-T) of STISIPOL Candradimuka in Bukit Sangkal Village, Kalidoni District, Palembang City. This approach is used by involving students together with the community and local partners in the process of identifying needs, planning, implementing, and evaluating activities. The implementation of activities is focused on strengthening public communication, digitalization and marketing of MSMEs, utilization of QR Code-based technology, and sustainable environmental management. The targets of the activity include MSMEs and Women Farmers Groups (KWT), the general public, visitors to the ProKlim Park, residents and environmental managers, and the Bukit Sangkal Village community.

Needs identification was conducted through participatory observation and informal interviews to understand the community's communication, economic, and environmental conditions. The results of this identification served as the basis for formulating educational and mentoring programs tailored to the community's needs. Several issues were identified, including the limited use of digital media in marketing MSME products, suboptimal *branding* and product packaging strategies, the need to strengthen digital-based publications and information, and the suboptimal use of dry leaf litter and green open spaces as a means of public education.

Information gathering and activity implementation are carried out through observation, coordination with village officials and the community, interactive outreach, training, mentoring, and hands-on practical activities. The main program includes digital marketing and *branding training* for MSMEs, assistance in creating business social media accounts, product photography, preparation of promotional materials, QR Code-based flora digitalization, as well as entrepreneurship and product packaging seminars. Supporting programs include optimizing the Organic Waste Bank by processing dry leaves into compost, as well as *clean-up activities* and healthy exercise with the community.

The activities are implemented in stages, starting from field observation, coordination and permitting, designing and compiling work program materials, implementing the main and supporting programs, to evaluation and compiling reports. These stages are arranged sequentially so that each program has a clear preparation and implementation process. In the implementation, students act as facilitators and field implementers, while the community and local partners are involved as collaborators. Coordination between the Field Supervisor (DPL), students, and partners is carried out regularly through coordination meetings to ensure the alignment of activity implementation with the established targets.

Activity evaluations were conducted to determine program implementation and the level of community participation. The success indicators used were the implementation of all work program series with a minimum community participation rate of 80% of the target participants and the availability of communication media or practical guides that can be used by the community. In addition, activity results were seen in the increase in understanding and skills of MSME actors in utilizing digital media for promotion, the availability of digital product catalogs and QR Code-based flora information, and the implementation of dry leaf waste management into useful compost. Based on activity reports, the understanding and skills of MSME actors in utilizing digital media for promotion increased by 85%.

RESULTS

The 2026 Thematic Community Service Program (KKN-T) of STISIPOL Candradimuka in Bukit Sangkal Village, Kalidoni District, Palembang City was implemented through a series of programs focused on strengthening public communication, empowering MSMEs, utilizing digital technology, and environmental management. The program was implemented in stages starting from field observation, coordination and licensing, program preparation, implementation of main and supporting activities, to evaluation and report preparation. The approach used was participatory by involving students, the community, village officials, and local partners in various stages of the activity.

1. Digital Marketing and Branding Training for MSMEs

One of the main outcomes of the program was the implementation of digital marketing training and mentoring for MSMEs and Women Farmers Groups (KWT). The program focused on introducing and utilizing social media as a means of product promotion, assisting with creating business social media accounts, developing product photography, and developing promotional materials. This program was implemented in response to the situation where some MSMEs still rely on conventional marketing and have not yet optimally utilized Instagram, TikTok, or *marketplaces*.

85% increase in MSMEs' understanding and skills in utilizing digital media for promotional activities. Furthermore, the activity supported the creation of a digital product catalog that can be used to introduce local products to a wider audience.

2. Entrepreneurship and Product Packaging Seminar

The entrepreneurship seminar program aims to educate the public and MSMEs about business development. The workshops cover pricing strategies, attractive packaging design, and online marketing. The event also focuses on the development of products based on Family Medicinal Plants (TOGA), which have the potential to be developed into products with economic value.

The results of these activities indicate that the potential of traditional medicinal plants (TOGA) within the community is beginning to be utilized not only as plants for household use but also as materials that can be developed into economically valuable health products. This development is reinforced through seminars and mentoring on marketing and *branding* of MSME products.

3. QR Code-Based Flora Digitalization

Flora digitization activities are carried out through the installation of plant information boards linked to *online educational articles* using QR codes. This program is implemented at the ProKlim Park as a way of utilizing digital technology to provide information about plants to the public and park visitors.

The result of this activity is the availability of QR code-based flora information, allowing visitors to access information about plant types and benefits via smartphone. Thus, the ProKlim Park serves not only as a green open space but also as a technology-based environmental education facility.

4. Optimization of Organic Waste Bank

The environmental program is implemented through the optimization of the Organic Waste Bank, utilizing dried leaves found in the community. The organic waste is collected and processed using a shredder to be used as compost.

The results of this activity show that previously unused dry leaf waste can be processed into compost that has value for community plants. This program serves as a form of waste management at its source while also supporting efforts to create a cleaner and more sustainable environment.

5. Environmental Management and Community Social Activities

Environmental improvement activities include revitalizing the ProKlim Park and Retention Park, planting trees, watering the area, utilizing used bottles as planting media, and Clean Friday activities. In addition, community exercise sessions are held every Saturday. These activities are part of a supporting program aimed at increasing awareness of cleanliness, health, and social interaction.

The results of the activities showed physical changes in the ProKlim Park and Retention Park, making them more organized, neat, and beautiful. The healthy exercise activities also served as a means of interaction between students and the community and strengthened social ties between residents.

6. Strengthening Public Communication

The Community Service Program (KKN-T) also strengthened community communication and publication channels through information media, banners, digital catalogs, and activity publications on social media. These media developments were designed to facilitate the dissemination of information about Bukit Sangkal Village's activities and potential, making it accessible to a wider audience.

Overall, the results of the activities show that the KKN-T program has produced several outputs, namely a community service journal targeted for publication, activity documentation videos, promotional banners and sub-district information media, and a digital marketing training module.

DISCUSSION

The results of the activity indicate that digital marketing and MSME *branding training* had a positive impact on improving the understanding and skills of MSME actors in Bukit Sangkal Village. The 85% increase in skills indicates that mentoring through creating business social media accounts, product photography, compiling promotional materials, and developing *branding* can help the community utilize digital media to expand product marketing. This finding is in line with Febri et al. (2022) who showed that *digital marketing training* can help MSME actors improve their ability to utilize digitalization as a marketing strategy. These results are also in line with Usmayanti et al. (2025) who conducted MSME development activities through *digital marketing* in Karya Jaya II Village, Kertapati District, Palembang City, and found an increase in participants' understanding and skills after being provided with counseling, practical training, and direct mentoring.

This activity also aligns with the community business empowerment program through MSME digitalization training conducted by Panjaitan et al. (2025) through Community Service Program (KKN). The program provides training in *digital marketing*, social media and *e-commerce optimization*, and product photography techniques to improve the marketing capabilities of MSME actors. Thus, the results of the KKN-T in Bukit Sangkal Village reinforce the finding that direct, practical mentoring can be an effective strategy in increasing community capacity in utilizing digital technology for business development.

From an environmental perspective, the results of the activity indicate that optimizing the Organic Waste Bank by processing dried leaves into compost can be a form of community empowerment that integrates environmental and economic aspects. This finding aligns with Sardiana and Zyahwa (2026) who developed a waste bank-based MSME empowerment program and *digital marketing* through a participatory approach. The program demonstrated increased public understanding of *digital marketing*, a shift in perceptions of waste as an economic resource, and an increased collective awareness of the environment.

These results align with Rozalena (2020), who demonstrated that outreach and training activities can improve waste bank managers' knowledge and skills in marketing communications and strengthen public awareness of waste management. Furthermore, Faizah demonstrated that utilizing *e-commerce* through training and mentoring can improve waste bank managers' understanding of *digital marketing*, although further mentoring is still needed to optimally implement these skills.

Overall, the results of KKN-T Group 1 demonstrate alignment with various previous community service activities that place training, mentoring, MSME digitalization, and environmental management as part of the community empowerment strategy. The main difference in this activity lies in the integration of several aspects into one program in Bukit Sangkal Village, namely MSME digital marketing, product *branding*, QR Code-based flora digitalization, organic waste processing, green open space arrangement, and strengthening community social interaction. This integration is a strength of the activity because empowerment is not only directed at economic improvement, but also at the use of technology, environmental education, public communication, and program sustainability.

CONCLUSION

The 2026 STISIPOL Candradimuka Group 1 Community Service Program (KKN-T) in Bukit Sangkal Village, Kalidoni District, Palembang City concluded that the implementation of a community empowerment program through a participatory approach was able to provide benefits in economic, technological, environmental, public communication, and social aspects. Digital marketing and *branding training* for MSMEs increased the understanding and skills of MSME actors by 85% in utilizing digital media for promotion and producing digital product catalogs, while QR Code-based flora digitalization produced plant information media that could be used as a means of environmental education in the ProKlim Park. Optimizing the Organic Waste Bank through processing dry leaves into compost also provided an alternative for more productive use of organic waste, while environmental management activities, *clean-ups*, and healthy exercise with the community supported the creation of a cleaner, more organized environment and strengthened social interaction. Overall, the

integration of MSME empowerment, the use of digital technology, environmental education, and social activities showed that the KKN-T program could support the development of community potential in a sustainable manner. Therefore, the community, Karang Taruna, Women Farmers Group, RT/RW officials, and the sub-district are expected to continue and develop various programs that have been implemented so that the benefits remain sustainable after the KKN-T activities end.

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