

Digital Transformation of Tanjungsari MSMEs through Business Identification Number (NIB), Business Branding, and Google Maps

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ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in national economic development. Tanjungsari Hamlet, located in Ngadirojo Village, Magelang Regency, has considerable MSME potential that remains underutilized, particularly in terms of business legality and digitalization. To address this issue, a community service program (KKN) was implemented to assist MSME actors in obtaining a Business Identification Number (NIB), developing business branding, and integrating business locations into Google Maps. The program was implemented using a door-to-door approach, involving seven MSME participants, with activities including observation, interviews, and technical mentoring. As a result, five new NIBs were successfully registered, while two MSMEs already had prior business licenses (one of which was halal-certified). In terms of digital integration, all seven businesses were assisted with Google Maps registration, but only one MSME successfully passed the verification process. Branding improvements included the creation of Google Maps business profiles, training in social media utilization (WhatsApp, Facebook, TikTok), and culinary rebranding efforts to enhance customer recognition. Despite facing challenges such as limited understanding of OSS and NIB registration procedures, digital branding knowledge gaps, and administrative hurdles, these were overcome through direct technical assistance and practical digital marketing education. Evaluation results indicated positive responses and satisfaction from participants, with MSME actors expressing increased awareness, understanding, and readiness to operate legally and digitally. In conclusion, this program demonstrates that targeted mentoring can strengthen MSME legality, enhance digital visibility, and improve competitiveness. It provides a replicable model of MSME digital transformation that supports local economic empowerment in the digital economy era.

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INTRODUCTION

In recent years, Indonesia has experienced significant economic growth, largely driven by Micro, Small, and Medium Enterprises (MSMEs). According to the Coordinating Ministry for Economic Affairs (2024), MSMEs account for approximately 99% of all business units, contribute 60.51% to the Gross Domestic Product (GDP), and absorb nearly 97% of the domestic workforce. This indicates that MSMEs are not only the backbone of the national economy but also play a crucial role in poverty alleviation and inclusive development, especially in rural areas (Lamidi et al., 2024; Nugroho et al., 2023; Prasetyo & Sutopo, 2022).

The empowerment of MSMEs has therefore become a strategic agenda that requires multi-stakeholder collaboration, including higher education institutions. Universities contribute through community service programs such as Kuliah Kerja Nyata (KKN), which serve as a platform for students to apply academic knowledge while addressing local socio-economic issues (P, 2024; Hariyanto et al., 2022). In 2025, Universitas Tidar implemented KKN activities or Community Service Program in Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency, focusing on housing assessments and MSME empowerment.

Despite having significant human resources and micro-enterprise potential, many MSME actors in Tanjungsari lack legal business recognition, such as a Business Identification Number (Nomor Induk Berusaha/NIB), and have not fully adopted digital technology. The absence of legality and limited knowledge of digital marketing remain key barriers to business development (Dewi et al., 2023; Wicaksono & Andriani, 2021). Possession of an NIB is vital as it provides access to government programs (financing, mentoring, halal certification) and is the foundation for other permits such as the Trading Business License (SIUP), Social Security (BPJS), and tax-related eligibility. Although the government has simplified the registration process through the Online Single Submission (OSS) system since 2018, many MSMEs remain unable to utilize it effectively (DJPPI, 2024; Pratama & Arifin, 2023; Setyawan et al., 2022).

In addition, MSMEs face challenges in branding and promotion. Branding helps establish product identity, credibility, and consumer trust (Susanti et al., 2023; Fitriani et al., 2022). Meanwhile, digital promotion through social media (WhatsApp, Facebook, TikTok) and mapping services (Google Maps) has been proven effective in increasing business visibility (Sintakarini et al., 2023; Mulyono et al., 2024; Sari & Wijayanti, 2022). However, such practices have not been widely adopted by MSME actors in Tanjungsari Hamlet.

To address these challenges, this community service program focused on assisting seven MSME actors in obtaining NIBs, providing training in digital branding, and integrating their businesses into Google Maps. A door-to-door approach was applied to ensure practical and personalized assistance, complemented by support in identifying business potential and preparing promotional content.

This study aims to (1) strengthen the legal capacity of MSMEs by facilitating NIB registration, (2) enhance digital branding skills among MSME actors, and (3) improve business visibility through Google Maps integration. Ultimately, this program seeks to build MSME resilience in Tanjungsari Hamlet, enabling them to compete in a digital-based market and contribute to the Sustainable Development Goals (SDGs), particularly in the areas of decent work, economic growth, and community empowerment.

Furthermore, recent studies emphasize that the sustainability of MSME empowerment programs depends on continuous mentoring, technological adaptation, and alignment with local socio-cultural

contexts (Handayani et al., 2023; Kusuma & Yuniarti, 2022). Integrating digital platforms with capacity-building programs ensures that MSMEs not only gain short-term benefits but also achieve long-term competitiveness in the era of digital transformation.

METHODS

This community service program was conducted in Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency, on Saturday, July 19, 2025. The activity was designed to provide targeted assistance to MSME actors through structured stages, namely: participant selection, observation, interviews and technical assistance, and evaluation and documentation.

Participant Selection and Demographics

The primary participants in this program were selected based on the following criteria: (1) residents of Tanjungsari Hamlet, (2) owners of active MSMEs operating in culinary, craft, or service sectors, (3) not yet possessing a Business Identification Number (NIB), and (4) willing to participate in training and digitalization activities. From these criteria, seven MSME actors were selected, consisting of five culinary businesses, one traditional snack producer, and one household service provider. Demographically, the majority of participants were women aged between 30–50 years, with a high school education background.

Ethical Considerations

Ethical aspects were prioritized in the implementation of this program. Before participation, all MSME actors were informed about the objectives, stages, and expected outcomes of the activities. Verbal informed consent was obtained from each participant, emphasizing that involvement was voluntary and that participants had the right to withdraw at any time. Personal data, such as identity numbers and contact information used for the NIB registration process, was kept confidential and only used for the intended administrative purposes. The program was conducted with respect to local cultural norms and community values to ensure mutual trust and collaboration.

Program Implementation

The first stage was observation, conducted through field surveys and preliminary interviews to obtain an overview of the participants' businesses and constraints. This stage identified key issues such as a lack of business legality, limited digital marketing skills, and low visibility on online platforms.

The second stage was interviews and technical assistance, carried out at the homes or business premises of the MSME actors. The primary focus was business legalization via the Online Single Submission (OSS) system for NIB issuance. The assistance team also provided training on digital branding using social media platforms such as WhatsApp, Facebook, and TikTok, and registered each MSME location on Google Maps to improve digital visibility.

The final stage was evaluation and documentation, in which participants shared their experiences and feedback. This stage also included symbolic handover of the NIB documents and group photo documentation.

Evaluation Instrument and Success Metrics

Program effectiveness was assessed using two main instruments:

- Structured Questionnaire – distributed to participants to measure satisfaction, perceived usefulness of the assistance, and self-reported improvements in knowledge and skills.
- Observation Checklist – used by the facilitation team to record the completion of NIB registration, successful creation of digital branding accounts, and inclusion of business locations in Google Maps.

The success of the program was measured against three indicators:

- Business Legality: at least 80% of participating MSMEs successfully obtained an NIB.
- Digital Visibility: 100% of participants successfully had their business location registered on Google Maps.
- Capacity Building: minimum 75% of participants reported increased understanding of digital marketing strategies, as measured through questionnaire responses.

Documentation

All activities were documented through photographs and video recordings to serve as evidence of program implementation, as well as to support reflection and reporting.

RESULT AND DISCUSSION

The program began with field observation, carried out through surveys and direct community visits. The initial assessment revealed that 5 out of 7 participating MSMEs (71%) did not yet have a Business Identification Number (NIB), and none had registered their businesses on digital platforms such as Google Maps. Local MSMEs were dominated by culinary products, including rengginan (crispy rice crackers), traditional moist snacks, mini fried chicken (“kentucky mini”), salted eggs, cheese sticks, and mushroom chips. Common problems identified included limited access to digital technology, insufficient branding knowledge, and administrative difficulties in obtaining an NIB through the Online Single Submission (OSS) system.

Based on this identification, the KKN team decided to focus the assistance program on the culinary sector, which was considered to have high market potential and promising development prospects. A total of seven culinary MSMEs were selected as program participants, representing a diverse range of local snack businesses. The complete list of MSMEs assisted is presented in Table 1.

The assistance process was conducted using a door-to-door approach, beginning with NIB registration, digital branding training, and the registration of business locations on Google Maps. In the NIB registration stage, the KKN team provided technical assistance to ensure correct data entry and to help business owners understand the administrative process so they could complete it independently in the future (see Figure 1).

Once the legalization process was completed, the activities continued with training on the use of social media and Google Maps as branding and digital promotion tools. MSME actors were guided in creating and displaying their business profiles on Google Maps to improve discoverability for potential customers (see Figure 2).

TABLE 1. List of MSMEs in Tanjungsari Hamlet Receiving Mentoring Program

No	MSME Name	Type of MSME	Address	Description
1	Rengginang Bu Zulaikah	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Rengginang Business
2	Snack Basah Bu Lely	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Mobile traditional moist snack business
3	Kentucky Mini Pak Sholeh	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Mobile mini fried chicken business
4	Telur Asin Bu Zaidah	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Salted egg business
5	Cheese Stick Bu Heny	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Cheese stick business
6	Rengginan Bu Muntamah	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Rengginang Business
7	Kripik Jamur Pak Joko	Culinary Business	Tanjungsari Hamlet, Ngadirojo Village, Secang District, Magelang Regency	Mushroom chips business

Source: Data processed based on observation.



FIGURE 1. Assistance in the Preparation of Business Identification Numbers (NIB)



FIGURE 2. Registration of MSME Locations

Program Achievements Based on Key Indicators

Out of seven participants, five MSMEs (71%) successfully obtained an NIB by the end of the program. Two MSMEs already had business licenses before the intervention, with one of them also holding a halal certification. This means that the overall target of at least 80% legal business ownership was not fully met, although significant progress was achieved compared to the baseline.

All seven participants (100%) successfully registered their business locations on Google Maps and created digital business profiles. This ensured improved accessibility for customers and enhanced digital presence in the local market.

A post-program questionnaire indicated that 6 out of 7 participants (86%) reported increased understanding of digital marketing strategies and the practical use of digital platforms. This exceeded the target of 75% for knowledge improvement. Participants highlighted that the hands-on training method, combined with real-time practice, made it easier for them to adopt digital branding strategies.

Participant Feedback and Impact

Participants expressed positive feedback regarding the technical support provided, particularly in

understanding the OSS system and digital branding strategies. Several MSMEs reported that after being listed on Google Maps, they began receiving inquiries from new customers outside their immediate area. The symbolic handover of NIB documents further reinforced participants' sense of achievement and legitimacy as business owners.

Challenges Encountered

Despite these positive outcomes, several challenges emerged during the implementation of the program. One major obstacle was technical barriers, as some participants struggled with the Online Single Submission (OSS) system due to unstable internet connectivity and limited digital literacy. In addition, time constraints posed another difficulty since the relatively short program duration restricted the depth of digital marketing training that could be delivered, leaving some participants with only a basic understanding of the concepts introduced. Furthermore, sustainability concerns remain a critical issue because, without continuous mentoring and follow-up support, there is a significant risk that participants may not consistently apply the skills and knowledge gained during the program, thereby reducing the long-term impact of the intervention.

Broader Implications

Overall, this assistance program contributed to improving the business legality, digital visibility, and entrepreneurial capacity of local MSMEs. Beyond these immediate results, the program also stimulated job creation, strengthened local business networks, and encouraged innovation in rural entrepreneurship. However, to sustain these impacts, long-term collaboration between universities, local governments, and MSME associations is necessary.

From an educational perspective, the program also provided a valuable learning platform for the KKN students. They gained practical experience in community engagement, problem-solving, and knowledge transfer, thereby bridging academic theories with socio-economic realities.

CONCLUSION

The MSME assistance program in Tanjungsari Hamlet, carried out by Universitas Tidar KKN students, demonstrated measurable positive impacts on strengthening business legality and digitalization. Out of the seven MSMEs participating, six (86%) successfully obtained a Business Identification Number (NIB), while all participants (100%) had their business locations registered on Google Maps, improving their digital visibility. In addition, five participants (71%) reported improved understanding of digital marketing strategies, as assessed through structured questionnaires. These results confirm that the door-to-door mentoring approach, combining observation, education, and technical assistance, was effective in providing targeted support based on each participant's specific needs and conditions.

Nevertheless, several limitations emerged during implementation. Technical barriers related to internet instability and limited digital literacy hindered some participants' ability to fully engage with the OSS system. Time constraints due to the short program period restricted the depth of digital marketing training, while sustainability remains a concern since continuous mentoring and follow-up are required to ensure consistent application of acquired skills.

For future programs, several specific recommendations can be made. First, follow-up training should emphasize advanced, data-driven digital marketing techniques, including social media analytics, search

engine optimization (SEO), and e-commerce integration. Second, financial management capacity should be strengthened through the introduction of simple accounting applications to improve transparency and efficiency. Third, a mentorship network involving local government, business associations, and universities should be established to provide ongoing assistance, ensuring that the empowerment of MSMEs is embedded within a sustainable local economic ecosystem. By addressing these areas, MSMEs in Tanjungsari and beyond can become more resilient, competitive, and adaptive to the evolving digital economy.

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