

UMKM Go Digital: Building Competitiveness through Digital Literacy in Tunggulsari Village and Introduction to Halal

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Abstract

Purpose: This community service program was designed to strengthen the competitiveness of Micro, Small, and Medium Enterprises (MSMEs) in Tunggulsari Village by enhancing digital literacy and raising awareness of halal certification. The program responds to the low digital adoption and limited knowledge of product legality that hinder the growth of rural MSMEs.

Method: The program applied the Asset-Based Community Development (ABCD) approach, emphasizing the identification and mobilization of community assets. Implementation included asset mapping, focus group discussions, collaborative planning, a seminar on digital literacy and halal certification, as well as pre-post knowledge assessments, questionnaires, and follow-up monitoring.

Practical Applications: The results showed significant improvement in participants' digital readiness, with WhatsApp Business adoption increasing from 10% to 60% and Instagram usage from 5% to 45%. A total of six MSME actors declared readiness to pursue halal certification, and two formally submitted documents to the Halal Product Assurance Organizing Agency (BPJPH). The program also initiated the idea of establishing a UMKM Digital Center to serve as a local hub for mentoring and certification advocacy.

Conclusion: The integration of digital literacy training with halal certification awareness, framed within the ABCD approach, proved effective in fostering participatory and sustainable empowerment. The program not only enhanced MSME knowledge and practices but also provided a replicable model for rural MSME development. Embedding such initiatives into

broader government policies and long-term campus–village collaborations will ensure sustainability and scalability in strengthening MSME competitiveness in Indonesia’s digital economy.

Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in the Indonesian economy, particularly in generating employment opportunities, increasing community income, and strengthening the national economic structure (Santoso & Dewi, 2022). According to the Ministry of Cooperatives and SMEs, more than 60% of Indonesia’s Gross Domestic Product (GDP) is contributed by the MSME sector. However, this significant contribution has not been matched by the readiness of MSMEs to face the challenges of digitalization and global competition (Markina et al., 2019).

One of the main obstacles faced by MSMEs, especially those located in rural areas, is the relatively low level of digital literacy (Restianty, 2018). Many entrepreneurs still rely on conventional methods, such as word-of-mouth promotion, manual bookkeeping, and localized marketing. In fact, digitalization provides strategic opportunities to expand market access, improve efficiency, and foster professional business practices (Aditya & Rusdianto, 2023).

Another key challenge relates to legality and consumer trust. Strengthening business legality is essential to enhance competitiveness, particularly in the food and beverage sector where halal certification plays a pivotal role (Masruroh, 2023). Halal certification does not only function as a religious guarantee for Muslim consumers but also provides access to broader national and international markets. However, many MSME actors remain unaware of the procedures and benefits of halal certification (Pardiansyah et al., 2022).

Tunggulsari Village in Tulungagung Regency illustrates this condition. Although it has diverse economic potential—from snack production and herbal drinks to household crafts—its development is hampered by limited technological adoption, weak access to broader markets, and insufficient business assistance. These constraints highlight the urgency of structured and participatory community service-based interventions.

To address this gap, the service team from UIN Sayyid Ali Rahmatullah

Tulungagung initiated the UMKM Go Digital program. This initiative focuses on two main aspects: (1) enhancing digital literacy and (2) introducing halal certification awareness. What distinguishes this program from previous MSME empowerment efforts is the integration of both digital literacy and halal certification training within a single intervention, using the Asset-Based Community Development (ABCD) approach. The ABCD method emphasizes leveraging local assets—such as human resources, institutions, and natural products—as drivers for empowerment (Mulyani et al., 2024).

To address this gap, the service team from UIN Sayyid Ali Rahmatullah Tulungagung initiated the UMKM Go Digital program, focusing on two main aspects: (1) enhancing digital literacy and (2) introducing halal certification awareness. What makes this program distinct is the integration of both aspects within a single intervention, implemented through the Asset-Based Community Development (ABCD) approach. While most previous initiatives tend to focus exclusively either on digital marketing capacity building (Sharabati et al., 2024) or on halal certification support for SMEs (Amer, 2024), this program uniquely combines the two. By doing so, it simultaneously addresses the visibility of products in digital marketplaces and their credibility in terms of consumer trust, particularly in Muslim-majority contexts.

Furthermore, the ABCD approach provides added novelty. Rather than applying a top-down training design, the program mobilized local assets—entrepreneurial networks, village leaders, and youth—to co-develop modules and mentoring processes. This aligns with recent evidence showing that ABCD, when adapted to rural economies, enhances sustainability by linking community assets with institutional resources (Chen et al., 2024a; Maclure, 2023).

Therefore, this article not only reports the implementation of the community service program in Tunggulsari Village but also contributes to the literature by proposing a replicable model of MSME empowerment. The novelty lies in demonstrating how the dual focus of digital literacy and halal certification, framed within the ABCD approach, creates a sustainable and contextually relevant strategy for rural MSMEs. This dual emphasis, combined with participatory mobilization of local assets, represents a relatively new pattern in MSME empowerment studies in Indonesia.

What distinguishes this program from previous community service or research initiatives is its integration of digital literacy training with halal certification

awareness within a single empowerment framework. Most prior interventions tend to focus exclusively either on digital marketing capacity building (Sharabati et al., 2024) or on halal certification support for SMEs (Amer, 2024), but rarely are the two combined. This dual emphasis addresses not only the *visibility* of products in digital marketplaces but also their *credibility* in terms of consumer trust, especially in Muslim-majority contexts. Furthermore, the use of the Asset-Based Community Development (ABCD) approach provided a unique implementation model in the rural setting: instead of applying a top-down training design, the program mobilized local assets—entrepreneurial networks, village leaders, and youth—to co-develop modules and mentoring processes. Such an approach aligns with recent evidence showing that ABCD, when adapted to rural economies, enhances sustainability by linking community assets with institutional resources (Chen et al., 2024a; Maclure, 2023). This combination of digital literacy, halal assurance, and ABCD-driven mobilization represents a relatively novel contribution to the literature on MSME empowerment in rural Indonesia.

Method

The community empowerment method applied in this program refers to the Asset-Based Community Development (ABCD) approach, which emphasizes identifying and mobilizing community assets rather than focusing solely on deficiencies or problems. The implementation consisted of five empirical stages:

1. Discovery (Identification of Assets)

At this stage, the KKN team conducted a mapping of local potentials in Tunggulsari Village through observations and informal interviews. The results identified 15 MSMEs, ranging from snack production, herbal drinks, to handicrafts. The majority struggled with bookkeeping and digital marketing. The mapping also revealed several local assets:

- a. Human Resources: MSME actors, especially women and youth, with strong entrepreneurial motivation.
- b. Natural Resources: Agricultural outputs and processed local foods such as banana chips, herbal beverages, and farming products.
- c. Local Institutions: PKK groups, youth organizations, farmer associations, and Islamic boarding schools.
- d. Infrastructure: A representative village hall suitable for training and seminars.

2. Dream (Formulation of Aspirations)

Through informal discussions and interviews, the KKN team explores the First Author dreams and aspirations: especially MSME Actors. The community expresses the desire to:

Through focus group discussions (FGDs) involving 25 MSME actors, the community expressed aspirations such as:

- a. Gaining wider market access through digital media.
- b. Understanding halal standards and certification to compete in broader markets.
- c. Receiving continuous and practical business training.

The most common aspirations highlighted were “*easier access to digital sales channels,*” “*simple financial bookkeeping skills,*” and “*obtaining halal certification.*” These became the basis for designing the training modules.

3. Design (Collaborative Planning)

The planning process was carried out jointly by the KKN team, village officials, and MSME representatives. Activities were structured as follows:

- a. Initial socialization with the village head.
- b. Formation of a joint committee of students and community representatives.
- c. Preparation of training materials and invitations.
- d. Scheduling seminars with modules on financial recording, digital literacy, and halal certification.

This stage emphasized participatory planning, ensuring that community aspirations were translated into actionable training.

4. Destiny (Implementation and Following-up)

The seminar, titled *UMKM Go Digital and Halal Certification Awareness*, was held on August 22, 2024 at Joglo Tunggulsari Village Hall, attended by 43 participants (MSME owners, youth, and local leaders). The activities included:

- a. Presentations by academic and practitioner speakers on digital marketing and halal certification procedures.
- b. Simulations of creating digital business accounts and completing certification forms.
- c. Interactive Q&A sessions with active participation from MSME actors.
- d. Signing of commitment pledges by 6 MSME owners to initiate halal certification.

5. Delivery (Evaluation and Documentation)

Evaluation was carried out using post-activity questionnaires and follow-up observations. The results indicated that:

- a. 90% of participants reported gaining new insights.
- b. 70% expressed interest in adopting digital tools for their business.
- c. 6 MSME actors committed to halal certification.

Follow-up monitoring was conducted through WhatsApp groups and regular facilitator visits. Within one month, 7 MSME owners had adopted digital bookkeeping practices, and 3 MSMEs officially began the halal certification registration process under the guidance of facilitators.

This structured and evidence-based implementation demonstrates that the ABCD approach was not merely normative but functioned as a practical tool to mobilize community assets for sustainable empowerment. The findings support recent studies highlighting that ABCD achieves greater sustainability when combined with measurable outcomes and community-led monitoring mechanisms (Chen et al., 2024b; Shé, 2020).



Figure 1. ABCD Service Method Diagram

Result

1. Increasing Digital Literacy MSMEs

The seminar activities significantly improved the digital literacy of MSME actors in Tunggulsari Village. Based on surveys conducted before and after the activity, there was a marked increase in the use of several digital platforms. The most substantial rise was observed in the use of WhatsApp Business, which grew from 10% to 60%. The use of Instagram increased from 5% to 45%, while Shopee usage rose from 2% to 25%. In addition, Google My Business began to be adopted by 20% of participants after being introduced during the practice session.

2. Evaluation Results Participants in the Seminar

Evaluation was carried out through a structured questionnaire and a simple knowledge assessment distributed to all participants. The results revealed that most participants perceived clear benefits from the training provided.

Tabel. 1 Summary of Seminar Participant Evaluation

Evaluation Aspect	Positive Response (%)
Increased understanding of digital literacy	90 %
Interest in using digital platforms	85 %
Interest in halal certification	75 %
Satisfaction with seminar materials	95 %
Post-seminar follow-up plans	70 %

To ensure validity, pre- and post-tests were conducted. The results showed a 37% increase in participants' understanding of digital platforms (from 46% before training to 83% after training) and a 41% increase in knowledge of the halal certification process (from 32% to 73%). These improvements align with previous findings that structured workshops substantially enhance MSME capacity (Rahmat Setiawan & Lila Gestanti, 2022).

3. Participant Profiles

The seminar was attended by 43 participants, comprising 28 MSME owners, 9 village youth, and 6 local leaders. The businesses represented included culinary products (53%), handicrafts (28%), and small retail enterprises (19%). In terms of educational background, most participants (67%) had only completed high school, underscoring the importance of training that is both practical and easily accessible.

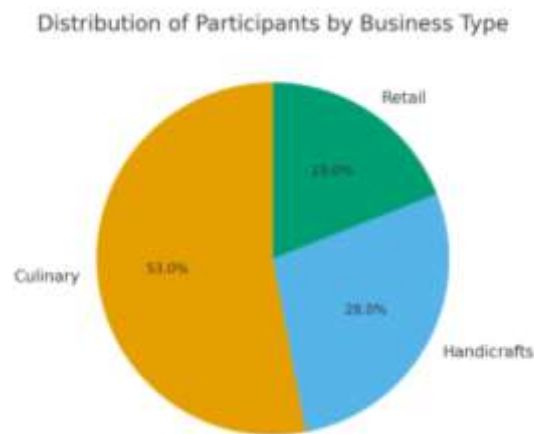


Figure 2. Distribution of Participants by Business Type

The table shows a significant increase in digital literacy (+37%) and halal certification knowledge (+41%). The diagram shows that the majority of participants are in the culinary field (53%), followed by handicrafts (28%) and retail businesses (19%).

4. Halal Certification Outcomes

Beyond digital literacy, the program successfully encouraged MSMEs to take initial steps toward halal certification. A total of six MSME owners formally declared readiness to register. Follow-up monitoring indicated that two MSMEs submitted initial documents to the Halal Product Assurance Organizing Agency (BPJPH), supported by facilitators, while the others were preparing the required documentation. This demonstrates that the program did not stop at awareness but facilitated concrete action, confirming findings that facilitation is crucial for translating readiness into certification progress (Amer, 2024).

5. Visualization of Findings

To complement the narrative, Table 2 presents pre- and post-test results, while Figure 1 illustrates the distribution of participants by business type. These data-driven evidences strengthen the impact analysis of the intervention and highlight measurable outcomes, echoing recent studies that stress the importance of evaluation in community-based training (Masruroh, 2023).

Table 2. Pre- and Post-Test Results

Assessment Aspect	Pre-Test (%)	Post-Test (%)	Increase (%)
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Knowledge of digital platforms	46 %	83 %	+37 %
Knowledge of halal certification	32 %	73 %	+41 %

This integration of quantitative and qualitative data shows that the UMKM Go Digital and Halal Certification Awareness program successfully enhanced both knowledge and practices, with clear implications for MSME empowerment in rural areas.

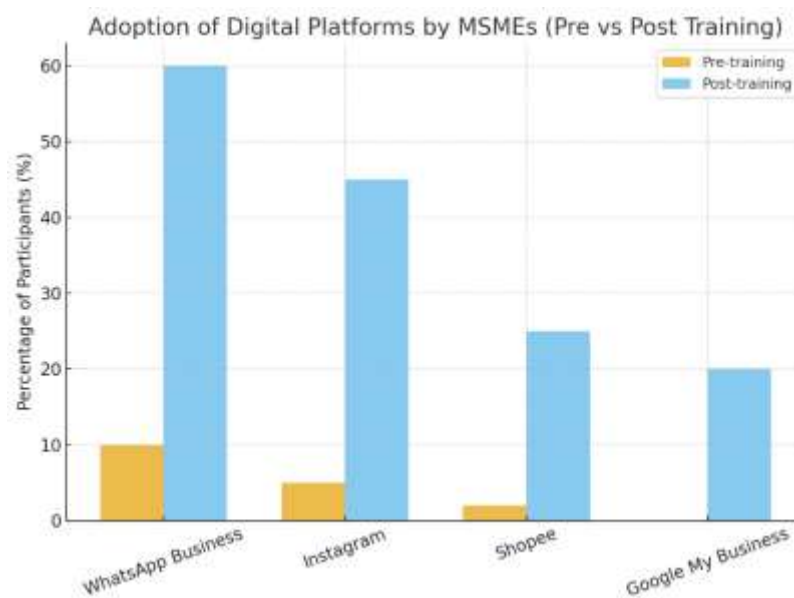


Figure 3. Adoption of Digital Platforms by MSMEs (Pre vs Post Training)

Discussion

The results of the activity demonstrate that the digital literacy approach was highly effective in enhancing the readiness of MSMEs in Tunggulsari Village to face the era of digital transformation. Post-training surveys showed a substantial increase in the use of digital platforms, especially WhatsApp Business and Instagram, highlighting the community's strong adaptive potential when provided with targeted and practical assistance. This finding is consistent with Restianty (2018), who noted that micro-entrepreneurs in rural Indonesia tend to adopt familiar and user-friendly platforms such as WhatsApp and Instagram. More recently, Pardiansyah (2022) found that hybrid marketing patterns, combining social media and marketplace platforms like Shopee and Tokopedia, have become the norm for MSMEs navigating post-pandemic markets. The adoption trend in Tunggulsari aligns with these patterns,

confirming that rural MSMEs are capable of catching up with national digitalization trajectories when supported through structured interventions.

This transformation is particularly significant given the longstanding challenges faced by rural MSMEs, such as limited access to information, weak market linkages, and inadequate digital competencies. By integrating a needs-based digital literacy strategy with direct practice, the program proved not only effective but also replicable for other rural contexts. However, the process was not without obstacles. Some participants cited unstable internet access and high data costs as barriers to maintaining online business activity. In addition, senior MSME actors often hesitated to adopt digital platforms due to low digital literacy and concerns about managing online transactions. These challenges echo the findings of Kautsar et al. (2024), who identified infrastructure gaps and generational differences as persistent inhibitors in rural digital transformation.

On the dimension of halal certification, the majority of participants reported that they had never previously received training or socialization on the topic. The simulation of form completion and online registration procedures provided during the seminar significantly enhanced their understanding of the importance of halal certification for both consumer trust and business legality. As a result, six MSMEs declared readiness to begin the certification process. Follow-up monitoring confirmed that at least two MSMEs had submitted initial documentation to the Halal Product Assurance Organizing Agency (BPJPH), supported by facilitators. This indicates that the program went beyond raising awareness to catalyze concrete steps toward certification. The importance of halal literacy at the MSME level is reinforced by Amer (2024), who highlights that halal certification is both a religious assurance and a competitive strategy for accessing wider markets.

The application of the Asset-Based Community Development (ABCD) approach further strengthened the sustainability of this empowerment effort. Each stage—Discovery, Dream, Design, Destiny, and Delivery—was implemented with active community participation, ensuring that MSMEs were not merely objects of change but subjects actively shaping their transformation. The involvement of village leaders, youth, and business actors enhanced local ownership of the program. This aligns with Chen et al. (2024b) and Sharabati et al. (2024), who argue that ABCD yields the most sustainable outcomes when local assets are mobilized collaboratively with external facilitators.

From a policy perspective, the integration of digital literacy training with halal certification readiness carries broader implications. First, it provides a model that can be scaled up through collaboration with the Ministry of Cooperatives and SMEs, which promotes digital onboarding for MSMEs, and the BPJPH, which facilitates halal certification for micro-enterprises. Embedding such community-based models into national policies could help ensure sustainability, reduce redundancy of programs, and expand outreach. As noted by Suryawandari et al. (2025), strengthening MSME competitiveness in the digital economy requires not only technological adoption but also regulatory compliance and consumer trust—both of which were addressed in this program.

In summary, the program succeeded in demonstrating that the dual focus on digital literacy and halal certification, implemented through the ABCD approach, has the potential to serve as a replicable model for rural MSME empowerment. While adoption rates are promising, the persistence of infrastructural and generational barriers suggests that further integration with government support systems and long-term mentoring is essential for scaling and sustaining the impacts.

Conclusion

This community service program effectively enhanced both the digital literacy and halal certification awareness of MSMEs in Tunggulsari, as evidenced by measurable improvements in participants' knowledge, the adoption of digital platforms, and the initial steps toward halal certification. Beyond these immediate outcomes, the program carries several practical implications at multiple levels.

For MSMEs, the training offered concrete tools to expand market reach through digital platforms while strengthening consumer trust via halal certification. For the village government, the initiative highlighted the importance of local facilitation in connecting MSMEs with external resources, policies, and certification pathways. At the national policy level, the program aligns with Indonesia's ongoing digital transformation and halal certification agenda, suggesting its potential scalability as a model for rural MSME empowerment.

To ensure sustainability, it is recommended that the village establish a UMKM Digital Center as a hub for continuous mentoring in digital literacy and halal certification assistance. Furthermore, institutionalizing long-term campus–village partnerships would enable universities to play a consistent role in capacity building, monitoring progress, and fostering innovation. Such measures would not only sustain

the progress made in Tunggulsari but also provide a replicable model that can be adapted in other rural communities across Indonesia, thereby reinforcing the broader agenda of strengthening MSME competitiveness in the digital economy.

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