

Coffee MSME Competitiveness in Halal Certified Product Diversification and Export Market Readiness

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Abstract

Coffee is one of Indonesia's leading commodities that plays an important role in supporting regional economic development. Karangpring Village, Jember Regency, has significant potential to develop high quality coffee products due to its favorable geographical conditions. However, this potential has not been fully optimized because coffee farmers and MSME actors still face challenges related to business legality, product diversification, branding capacity, and limited access to export markets. These conditions indicate a gap between the availability of local coffee resources and the capacity of rural MSMEs to meet quality standards and compete in broader markets. This community service program aimed to strengthen the competitiveness of coffee MSMEs through halal certification facilitation, coffee based product diversification, export literacy improvement, and institutional strengthening toward an export oriented village model. The novelty of this program lies in the integration of halal certification assistance, product innovation, export literacy, and BUMDes strengthening within a single community empowerment framework to improve rural coffee MSME competitiveness and export market readiness. The program employed the Asset Based Community Development (ABCD) method through four stages: socialization, education, hands on training, and evaluation, involving approximately 45 participants consisting of coffee farmers and members of the Family Welfare Empowerment Group. The results showed increased awareness of business legality, improved understanding of halal certification procedures, the development of coffee based product innovations such as coffee bakpia, and strengthened institutional coordination through BUMDes as a production and marketing coordinator. These findings demonstrate that an integrated empowerment approach can enhance MSME competitiveness, expand market opportunities, and support sustainable rural economic development. The program contributes to Sustainable Development Goal (SDG) 8 on Decent Work and Economic Growth and SDG 17 on Partnerships for the Goals through collaborative partnerships among universities, government institutions, BUMDes, and local MSME actors.

INTRODUCTION

Coffee is one of the mainstay products of Jember Regency. BPS data show that in 2023, coffee production in Jember Regency will be 12,361 tons, with a land area of around 18,000 hectares (Jember, 2023). One of the diversity of coffee products owned by coffee farmers in Jember comes from Karangpring village, Sukorambi District, Jember Regency, East Java. Karangpring Village is known for its ideal natural conditions for coffee cultivation: it is located at an altitude of 600–1,000 meters above sea level, has a mild climate, and has fertile volcanic soil. The most widely cultivated coffee varieties in the region are Arabica and Robusta, which have distinctive tastes and appeal to local and national markets. The coffee production in Karangpring village has advantages over coffee production in other villages because the area is ideal for coffee cultivation. Coffee production in Karangpring village ranges from 1 to 1.5 quintals of coffee per harvest season. Coffee beans are obtained from gardens planted by residents. The potential

of coffee in Karangpring Village has not been fully explored. This requires development to produce quality coffee production.

The reality on the ground shows that most coffee farmers in Karangpring still face various challenges. Data from the Ministry of Cooperatives and SMEs (2022) indicate that only 8.9% of MSMEs in Indonesia have obtained halal certification, reflecting a widespread gap in business legality compliance. Similarly, a survey by (LPEI, 2021) found that fewer than 12% of agricultural-based MSMEs in East Java possess adequate knowledge of export procedures, highlighting the structural barriers to international market access. In Karangpring specifically, alimited knowledge of sustainable cultivation, weak post-harvest management, limited access to halal certification for products, and limited ability to penetrate the export market remain persistent obstacles. In addition, farmer institutions and supporting infrastructure remain suboptimal, so the coffee value chain in this village has not been able to provide significant added value to the local community. According to Saefudin & Rasmikayati (2024), the increasingly massive growth of the coffee industry is characterized by the proliferation of coffee shops. Farmers need to pay attention to the quality of their processed coffee to supply coffee shops and end consumers in meeting the demand for downstream coffee. According UKM (2022), the low rate of halal certification among MSMEs reflects systemic gaps in awareness, technical capacity, and institutional support that must be addressed through targeted empowerment programs. Furthermore (LPEI, 2021) reported that most agricultural-based MSMEs in East Java lack both the knowledge and institutional linkages needed to access global export markets, underlining the urgency of export literacy initiatives such as the one implemented in this program. Badan Pusat Statistik Kabupaten Jember (2023) also recorded that Jember Regency's coffee production reached 12,361 tons in 2023, reflecting the immense economic potential of the sector that remains underutilized due to limited downstream development and market integration.

In the context of developing a foreign exchange village in Karangpring, farmers still face several challenges in realizing this goal by 2025. First, the diversification of processed coffee products in Karangpring Village has not been optimal: coffee farmers are still unable to process coffee into a variety of downstream products, limiting their revenue streams (Miskiah & Jahidin, 2024). Second, branding capacity remains weak strong branding can increase consumer interest in both domestic and international markets, directly affecting sales and the welfare of farmers Yasin et al., (2024); Yasin et al. (2024). Third, the literacy of coffee farmers regarding mechanisms for selling products abroad remains low; a study by (Hasanah et al., 2023a) found that limited export knowledge is one of the primary structural barriers preventing rural MSMEs from accessing global markets. Fourth, coffee farmers are also limited in their knowledge of financial record-keeping, which makes it difficult for them to access bank funding, a challenge documented broadly among Indonesian agricultural SMEs (Yasin et al., 2024).

In line with that, the government has, through various initiatives, encouraged the *Foreign Exchange Village* program. This village empowerment program produces export-oriented, high-quality commodities, with good governance and a community-based approach. This program not only aims to increase the income of rural communities, but also to strengthen national economic resilience through the growth of non-oil and gas exports from the village sector. In this context, Karangpring Village has an excellent opportunity to develop into one of the coffee-based Foreign Exchange Villages, provided that there is directed, collaborative, and sustainable assistance.

This community service activity aims to assist farmers and coffee business actors in Karangpring Village in meeting the criteria for Foreign Exchange Village status, which requires producing export-quality products with sustainable governance. The program involves training, certification facilitation, institutional mentoring, and expansion of international market access. Through this community service activity, we strive to present a comprehensive empowerment approach from upstream to downstream, starting from strengthening farmer capacity, improving production quality, establishing village economic institutions, and facilitating export market access. It is hoped that this assistance will be the first step towards transforming Karangpring into a Foreign Exchange Village, as well as a replication model for other villages with similar potential.

This study offers a novel contribution by integrating halal certification facilitation and export literacy within a community empowerment framework to enhance the competitiveness of coffee MSMEs in rural areas. Existing community service studies reveal that most empowerment

programs are still conducted in a fragmented manner, focusing on specific aspects without a comprehensive linkage to market expansion and export readiness.

For example Pratono et al. (2020) emphasized the role of digital marketing in improving MSME performance; however, their approach primarily focuses on market communication, without incorporating regulatory compliance, such as halal certification or export procedures. Similarly, Yasin et al. (2024b) highlighted the importance of value creation through innovation and branding. However, these efforts are often not supported by institutional mechanisms that ensure sustainability at the local level.

In the context of halal certification Bouzenita et al. (2019) demonstrated that certification enhances consumer trust and product credibility in Muslim-majority markets. Nevertheless, prior community service programs tend to position halal certification merely as an administrative requirement rather than as a strategic instrument to penetrate broader markets, including international ones. Meanwhile, Hasanah et al. (2023) identified structural barriers to MSMEs' access to export markets, particularly limited knowledge of export procedures and weak institutional support. These findings indicate that export literacy remains under-addressed in most MSME empowerment initiatives.

Furthermore, although community empowerment programs in Indonesian coffee-producing regions (e.g., Saefudin & Rasmikayati, 2024) have highlighted the importance of capacity building and farmer participation, a critical gap persists: no existing study has simultaneously integrated halal certification facilitation, export literacy training, and BUMDes institutional strengthening within a single, cohesive empowerment model specifically targeting coffee-based rural MSMEs aiming for foreign exchange village status. Prior programs either address certification or export access in isolation none have structured these elements into an integrated, replicable framework connected to a concrete commodity (coffee) and a specific market ambition (export-oriented foreign exchange village). This gap is particularly acute in East Java, where coffee production potential is high but value-chain development and market access remain severely underdeveloped.

Therefore, this study fills these gaps by proposing an integrated empowerment model that simultaneously combines halal certification facilitation through the SiHalal/OSS system, coffee product diversification training (e.g., coffee bakpia), export literacy delivered by resource persons from Bea Cukai and LPEI, and BUMDes institutional strengthening as an export aggregator all applied within a single community service program in Karangpring Village, Jember. The novelty of this approach lies in three dimensions: *first*, the simultaneous rather than sequential integration of these four pillars in a single field program; *second*, the explicit positioning of a village-level institution (BUMDes) as a coordinator connecting internal production capacity to external export markets; and *third*, the use of pre-test/post-test measurement to provide empirical evidence of capacity improvement a methodological rigor often absent in community service literature. Unlike prior studies that treat certification, innovation, or market access separately, this model provides a practical, replicable, export oriented framework that can be adapted to other agricultural commodity villages across Indonesia.

METHODS

This community service program employed the Asset-Based Community Development (ABCD) method as its primary approach. The ABCD method is particularly suited to rural economic empowerment contexts where local assets are underutilized and community ownership of the development process is essential for long-term sustainability (Lestari et al., 2025; Yasin et al., 2024) In this program, the ABCD approach was applied by identifying the key assets of Karangpring Village, including its coffee production potential, the presence of coffee-based MSMEs, and the role of local institutions such as the Village-Owned Enterprise (BUMDes). The foundational principles of ABCD were originally articulated by (Kretzmann & McKnight, 1993), who argued that sustainable community development must begin from a recognition of internal strengths and capacities rather than focusing solely on deficits and external dependency. This asset-based perspective is particularly relevant in the context of Karangpring Village, where existing natural resources, social capital, and local institutions such as BUMDes serve as the primary building blocks for a coffee based foreign exchange village.

The program was implemented in Karangpring Village, Jember Regency, Indonesia, an area known for its favorable coffee-cultivation conditions. The program involved multiple stakeholders, including coffee farmers, MSMEs engaged in coffee processing, the Karangpring Village government, and BUMDes as the coordinating institution. The university community service team acted as facilitators and mentors throughout the program. Such multi-stakeholder collaboration is crucial to community empowerment initiatives, as it enhances program effectiveness and sustainability by fostering shared responsibility and institutional support (Lestari et al., 2025b). The program was conducted over approximately 9 months from April 2025 until December 2025, involving around 30 coffee farmers and 40 women from the Family Empowerment Group in Karangpring village, who were selected based on their active involvement in coffee-related economic activities and their commitment to business development.

The program was implemented in four main stages: socialization, education, training, and evaluation. The socialization stage aimed to introduce the program objectives, expected outcomes, and implementation plans to the community and relevant stakeholders. This stage included coordination meetings with the village government and BUMDes, as well as discussions with MSME actors to identify their needs and potential contributions. Early engagement through socialization is essential to fostering community participation and aligning program objectives with local needs (Hasanah et al., 2023).

The education stage focused on enhancing participants' knowledge of key aspects of business development, including the importance of halal certification, legal compliance, product quality standards, and export opportunities. This stage was conducted through lectures and interactive discussions to encourage active participation and knowledge exchange. Providing foundational knowledge is a critical step in empowering MSMEs to improve their competitiveness and adapt to changing market demands (Yasin et al., 2024).

The training stage emphasized practical skill development through hands-on activities and mentoring. Participants were trained in halal certification procedures, product diversification of coffee-based derivatives, branding and packaging strategies, and digital marketing practices. In addition, export literacy training was provided to improve participants' understanding of export procedures and requirements. Practical training combined with mentoring is effective in enhancing MSME capabilities and fostering innovation (Yetti et al., 2025).

Finally, the evaluation stage was conducted to assess the program's effectiveness and impact. This stage involved comparing participants' knowledge and skills before and after the program, identifying changes in business practices, and collecting feedback from participants and stakeholders. The evaluation results indicated improvements in participants' awareness of business legality, the emergence of innovative coffee-based products, and strengthened coordination through BUMDes. Evaluation is an essential component of community service programs, as it provides insights into program outcomes and supports continuous improvement (Lestari et al., 2025).

The program's success was measured by several indicators, including increased knowledge of halal certification and export processes, the development of innovative coffee-based products, improved branding and packaging quality, strengthened institutional coordination through BUMDes, and the initiation of halal certification processes by MSME actors. These indicators reflect both capacity-building outcomes and the program's potential for sustainability.

This community service program involves active participation from the community, especially coffee farmer groups, MSME actors, BUMDes, and village officials. The combination of these approaches ensures that the program is not only top-down but also participatory, based on local potential, and provides direct learning experiences for all stakeholders involved. The following diagram presents the stages of the community service program implementation.

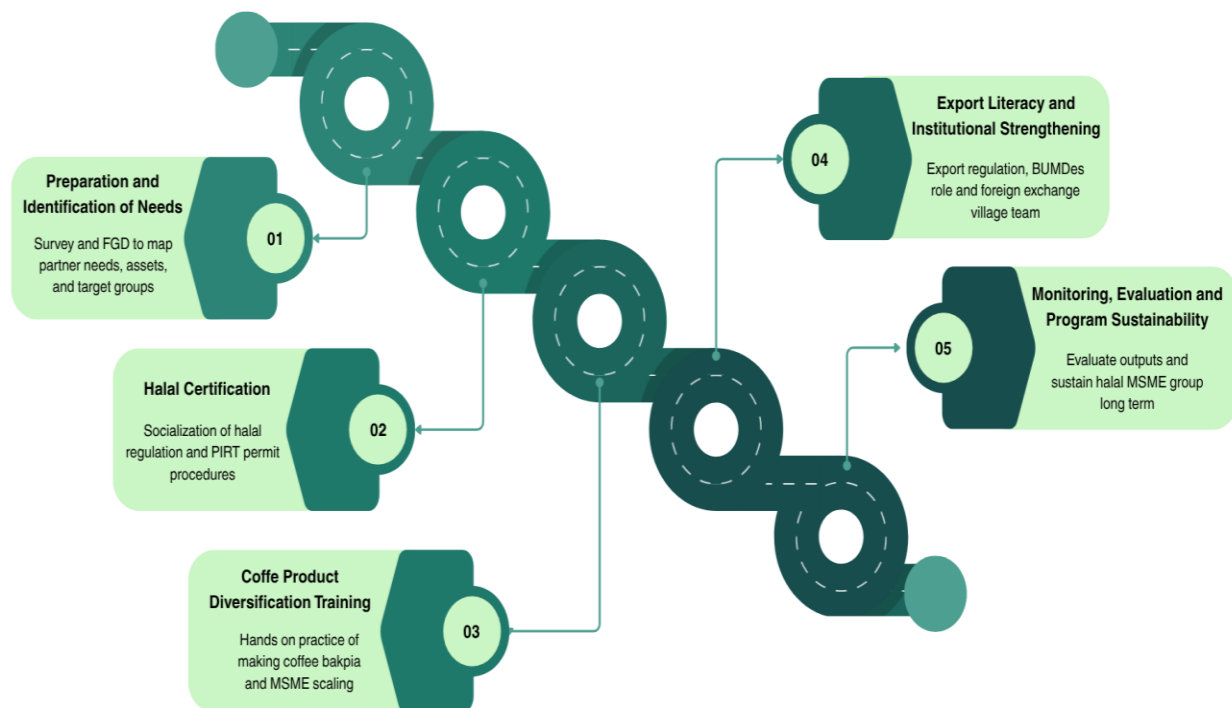


Figure 1. Stages of Community Service Program Implementation in Karangpring Village

The implementation of this community service program was carried out through five main stages, each addressing a distinct aspect of community empowerment. The first stage was the preparation and identification of needs. An initial survey and Focus Group Discussion (FGD) were conducted to identify the potential and obstacles to developing superior coffee products in Karangpring Village. Through this process, community needs related to business legality, product diversification, and market access were systematically mapped. Target partners were subsequently identified, including coffee farmers, village youth groups, MSMEs, and BUMDes, ensuring the program was grounded in the local community's actual conditions and aspirations.

The second stage was halal certification and PIRT training. University facilitators conducted this stage in collaboration with relevant government agencies. Activities included socialization of halal regulations under Law No. 33/2014 concerning Halal Product Guarantee, technical assistance in submitting halal certification for coffee products through the OSS and SiHalal systems, and training on the procedures for managing PIRT (Household Industrial Food) permits. Participants were also provided with Business Identification Numbers (NIB) prior to the certification process. The expected output of this stage was that Karangpring coffee products would obtain the necessary legality and certification to enhance their market competitiveness and consumer trust.

The third stage was training on diversifying coffee products. This stage introduced participants to new product innovations with greater added value beyond raw coffee beans. Activities included an introduction to coffee product diversification techniques, direct hands-on practice of making coffee-based bakpia under hygienic production standards, and small-scale production management training aimed at supporting MSME scaling up. Through this stage, village MSMEs were equipped to produce innovative products ready for market, thereby expanding their revenue streams and strengthening their economic resilience.

The fourth stage was export literacy and institutional strengthening. Training was delivered by resource persons from Customs (Bea Cukai) and LPEI, covering export regulations, methods for identifying international buyers, and negotiation simulations. Alongside this, institutional strengthening was carried out by assisting BUMDes in preparing foreign exchange village business plans and forming a dedicated foreign exchange village team to coordinate production, marketing, and legal documentation. This stage was considered essential to ensure that the

program's outcomes would extend beyond halal certification into broader market access and long-term business sustainability.

The fifth and final stage was monitoring, evaluation, and program sustainability. Observations were conducted on training results, including the production of coffee bakpia products, draft PIRT documents, progress on halal certification, and outcomes of export literacy simulations. Continuous evaluation was conducted through output indicators, including the number of licensed products, registered trademarks, and established buyer access. This stage also focused on ensuring long-term sustainability by strengthening BUMDes as a coordinator and encouraging MSMEs to maintain consistent product quality and business practices beyond the program period.

RESULTS

The community service activity carried out in Karangpring Village, Sukorambi District, Jember Regency, focuses on empowering coffee farmers and local MSME actors to realize a coffee-based foreign-exchange village. The approach is comprehensive, encompassing production quality, business legality, halal certification, product diversification, and export literacy. This section presents the results of a series of service activities, along with their discussion, grounded in theories and relevant research findings. The implementation of the community service program in Karangpring Village involved coffee farmers (around 15 people) and 30 women who are active in the family welfare empowerment group. The following is the profile of a participant in the Karangpring village.

Table 1. Profile of Karangpring Farmers and Family Welfare Empowerment Group (n=45)

Description	Category	Frequency	%
Gender	Male	15	33%
	Female	30	67%
Age	20-30	10	22%
	31-40	15	33%
	41-50	20	45%
Education Level	Elementary School	10	22%
	High School	35	78%
Type of Group	Coffee Farmers	15	33%
	Family Welfare Empowerment	30	67%

The majority of participants are female (67%) and active in the Family Welfare Empowerment Group; 45% are aged 41-50 with a high school education. The coffee farmers are involved in halal certification and export literacy. The women who join the family welfare empowerment group in Karangpring Village learn how to diversify coffee products by making bakpia coffee.

The implementation of the community service program in Karangpring Village was structured around three main activities, namely halal certification socialization, coffee product diversification training, and export literacy enhancement. These activities were designed to address the key challenges faced by local coffee MSMEs, particularly in terms of business legality, product innovation, and limited access to broader markets. Previous studies have shown that MSMEs in developing countries often face structural constraints related to regulatory compliance, innovation capacity, and market access, which hinder their competitiveness (OECD, 2018; Tambunan, 2019). Therefore, an integrated approach that simultaneously addresses these aspects is essential to strengthen both internal capacity and external competitiveness. Tambunan (2019) further emphasized that structural barriers in regulatory compliance and market access significantly impede the growth of MSMEs in developing economies, necessitating multi-faceted empowerment interventions. Similarly, OECD (2018) highlighted the importance of integrated

policy approaches that address competitiveness gaps at the firm level, including access to technology, finance, and export markets.

The first activity focused on the socialization of halal certification, which plays a crucial role in improving product credibility and consumer trust. Halal certification has been widely recognized as a key determinant of consumer confidence, particularly in Muslim-majority markets, and serves as a signal of product quality and safety (Thani, 2025). During this stage, participants were introduced to the certification process, required documentation, and the strategic benefits of halal compliance. The results indicated increased awareness among participants of the importance of business legality, consistent with previous findings that regulatory compliance enhances MSME legitimacy and market acceptance (Statistik, 2020).

The second activity involved training on diversifying coffee products, particularly through the development of coffee-based bakpia as an innovative derivative product. Product diversification is considered a critical strategy for increasing value-added and enhancing competitiveness in small-scale enterprises (Hendrix, 2021). Through this training, participants were guided in transforming raw coffee into processed food products with higher economic value. The emergence of coffee bakpia as a new product innovation demonstrates the effectiveness of hands-on training and mentoring in fostering creativity and entrepreneurship among rural MSMEs. This finding aligns with previous studies indicating that innovation and product development significantly contribute to MSME performance and sustainability (Khurana et al., 2022).

The third activity focused on improving participants' export literacy. Limited knowledge of export procedures and international market requirements is a major barrier preventing MSMEs from accessing global markets (OECD, 2018; Tambunan, 2019). In this program, participants received basic knowledge of export documentation, quality standards, and distribution channels. The results showed an increased understanding of export processes, indicating that export literacy programs can effectively reduce informational barriers and enhance market readiness. This is consistent with prior research suggesting that knowledge and capability development are essential for MSMEs to participate in international trade (Zulelli et al., n.d.).

Overall, integrating halal certification, product diversification, and export literacy demonstrates a comprehensive approach to community empowerment. Unlike previous community service programs that tend to focus on isolated aspects, this integrated model addresses both internal and external challenges faced by MSMEs. The findings suggest that combining regulatory compliance, innovation, and market expansion strategies can significantly enhance the competitiveness and sustainability of rural enterprises. This result aligns with the concept of integrated MSME development, which emphasizes combining multiple strategic dimensions to achieve long-term economic growth (OECD, 2018).

Table 2. Description of Activities

Documentation Photo	Description
	Socialization of Halal Certification, PIRT, and Digital Marketing for Coffee MSMEs in Karangpring Village
	Training on Halal Certification and PIRT Permit Application for Coffee MSMEs in Karangpring Village
	Hands-on Training on Coffee Product Diversification into Coffee Bakpia in Karangpring Village
	Export Literacy Training with Resource Persons from Customs (Bea Cukai) and LPEI

The second step was training and mentoring, aimed at providing deeper insight into halal certification procedures, coffee product diversification, and export literacy. This activity involved coffee farmers, MSME actors, and members of the Family Welfare Empowerment Group in Karangpring Village. It was facilitated by lecturers from Universitas Jember, along with resource persons from Bea Cukai and LPEI. Participants received materials on the stages of applying for halal certification through the OSS and SiHalal systems, as well as training on PIRT permit procedures. They were also provided with Business Identification Numbers (NIBs) prior to the certification process, prepared by the community service team.

In addition to certification training, participants were introduced to coffee product diversification through hands-on practice of making coffee bakpia. This session was guided by culinary practitioners and lecturers, enabling participants to transform raw coffee into higher-value processed food products. Participants were enthusiastic and actively engaged throughout the process, with most expressing their intention to apply the new skills in their daily production activities.

The export literacy session was conducted with resource persons from Bea Cukai and LPEI, providing participants with an understanding of export regulations, methods for identifying international buyers, and negotiation simulations. Through this session, participants gained

awareness that the export market requires higher standards for product quality, legality, and production continuity. BUMDes Karangpring also began positioning itself as a potential export aggregator, connecting local farmers with broader markets.

In the institutional strengthening stage, BUMDes was assisted in preparing a foreign exchange village business plan, and a dedicated foreign exchange village team was formed to coordinate production, marketing, and legal documentation. This stage was essential to ensure that the program's outcomes would be sustained beyond the period of direct assistance. Overall, participants responded positively to all activities, showing increased awareness of business legality, stronger motivation to pursue halal certification, and greater readiness to develop their products for wider markets.

Table 3. Descriptive Statistics

Indicators	N	Minimum	Maximum	Mean	Std. Deviation
Quality of materials delivered	45	1.00	5.00	3.85	0.78
Presenters delivery ability	45	1.00	5.00	3.92	0.71
Adequacy of facilities provided	45	1.00	5.00	3.76	0.83
Relevance of the program to participants needs	45	1.00	5.00	4.10	0.68
Overall participant satisfaction	45	1.00	5.00	4.02	0.72
Overall	45	1.00	5.00	3.93	0.74

The descriptive statistics presented in Table 3 reflect participants' overall assessment of the program implementation quality. The relevance of the program to participants' needs recorded the highest mean score of 4.10 with a standard deviation of 0.68, indicating that participants strongly felt the program addressed their actual challenges in halal certification, product diversification, and export literacy. Overall, participant satisfaction also had a high mean score of 4.02 and a standard deviation of 0.72, suggesting that the program was well received and considered beneficial by the majority of participants. Presenters' delivery ability was rated with a mean score of 3.92 and a standard deviation of 0.71, indicating that the facilitators from Universitas Jember, Bea Cukai, and LPEI were able to convey materials clearly and interactively. The quality of the materials delivered was rated 3.85 (SD = 0.78), indicating that the training content was considered informative and practical. The adequacy of facilities provided recorded the lowest mean score of 3.76, with a standard deviation of 0.83, suggesting that while facilities were sufficient to support program activities, there remains room for improvement in equipment and venue capacity for future programs. Overall, the program recorded a mean score of 3.93 with a standard deviation of 0.74, confirming a consistently positive reception across all 45 participants.

Table 4. Pre-test and Post-test Results

Program Achievement Indicators	Pre-test (%)	Post-test (%)	Improvement (%)
Understanding of halal certification procedure through halal/OSS	20%	85%	65%
Knowledge of hygienic and attractive packaging standards	25%	90%	65%
Ability to process coffee into diversified products (coffee bakpia)	15%	80%	65%
Understanding of export procedures and international trade literacy	10%	78%	68%
Understanding of BUMDes' role as production and marketing coordinator	18%	88%	70%

The pre-test and post-test results presented in Table 4 indicate a significant improvement across all program achievement indicators following the implementation of the community service program. Before the program, participants' understanding of the halal certification procedure through SiHalal/OSS was only 20%, which increased substantially to 85% after the program, reflecting a 65% improvement. Similarly, knowledge of hygienic and attractive packaging standards improved from 25% to 90%, resulting in a 65% increase. In the area of coffee product diversification, participants' ability to process coffee into innovative products such as coffee bakpia increased from 15% to 80%, an improvement of 65%, demonstrating the effectiveness of the hands-on training sessions conducted by culinary practitioners and university lecturers. Understanding of export procedures and international trade literacy improved by 68%, rising from 10% to 78%, reflecting the significant impact of the export literacy training facilitated by resource persons from Bea Cukai and LPEI. Finally, participants' understanding of the role of BUMDes as a coordinator of production, marketing, and legal documentation recorded the highest post-test score at 88%, with an improvement of 70% from the initial pre-test score of 18%.

Although there were minor notes, such as limited time for hands-on practice and the need for more advanced follow-up training on digital marketing, overall the program implementation went according to the planned schedule and objectives. This evaluation confirms that the community service program in Karangpring Village has successfully enhanced the knowledge, skills, and readiness of coffee MSMEs to compete in both domestic and export markets. In addition, the program has demonstrated a behavioral shift among participants toward more hygienic production practices, stronger awareness of business legality, and greater openness to digital-based marketing strategies.

A follow-up evaluation was also conducted after production resumed for a period of time. This evaluation aimed to assess the effectiveness of the training provided and to measure the extent to which participants were able to conduct further legalization processes independently, continue diversifying coffee products, and apply export literacy in practice. It also sought to identify whether participants faced challenges in production or marketing, enabling the community service team to provide necessary feedback and further assistance.

The final stage of this program is sustainability. The community service team will continue to assist BUMDes Karangpring and the participating coffee MSMEs until the program becomes self-sustaining. One of the main focuses of sustainability is ensuring that participants consistently apply halal certification standards, maintain product quality, and keep up with market developments and consumer needs. The community service team will also ensure that Karangpring MSMEs are involved in product exhibition opportunities organized by the local government or the private sector, to promote their coffee products to wider markets. Another important outcome is the strengthening of BUMDes Karangpring as a platform for coordination, experience sharing, and the maintenance of common quality standards, positioning it as a sustainable coordinator for the foreign exchange village program.

DISCUSSION

One of the program's significant achievements is increasing farmers' and MSME actors' awareness of the importance of business legality, especially halal certification. Before the program was implemented, coffee farmers in Karangpring only sold raw coffee beans without regard for legality or halal requirements. Namal et al. (2024) stated that the level of understanding among business actors regarding halal certification remains relatively low, largely due to limited information and a lack of knowledge about the procedures and the certification's importance. The implementation of halal certification provides various benefits, both for business actors and consumers (Lestari et al., 2025).

After socialization and training, participants began to understand that halal certification is not only of religious value but also a strategic tool to enhance competitiveness in domestic and global markets. Agreeing with Fuadi et al., (2022), for industry players, halal certification plays a vital role in increasing competitiveness in the worldwide market. Products that have obtained these certifications offer significant added value, making them a strategy to win against competitors. In addition, halal certification strengthens consumer trust because it indicates that the product meets safety, quality, and compliance standards set by Sharia regulations. The

increase in understanding of the Karangpring community is reflected in their readiness to prepare halal certification submission documents, including lists of raw materials, production processes, and business records that have not been previously carried out.

These results align with Yasin et al., (2024), who found that halal certification adds significant value to MSME products by boosting their credibility and creating greater opportunities to penetrate modern markets. In terms of implementation, the mentoring approach that integrated technical education with administrative guidance through the OSS and SiHalal systems demonstrated positive outcomes. However, some MSMEs needed more time to complete the process due to difficulties fulfilling documentation requirements and meeting facility standards. These findings suggest that legal and formal assistance should not stop at the certification stage. However, they must be followed by continuous post-certification monitoring to ensure that MSMEs consistently comply with operational standards, including appropriate halal labeling and accurate recording of production processes.

Product Diversification and Innovation of Processed Kopi

The birth of coffee bakpia as a new product represents a concrete outcome of the diversification training. This product diversification is a form of downstreaming agricultural products through food innovation that can increase the economic value of commodities while expanding market segments. Bakpia coffee products from Karangpring have the potential to be marketed not only around Jember, but also in the East Java souvenir market. A similar downstream approach was adopted by Miskiah & Jahidin, (2024) to empower coffee farmers, emphasizing the importance of developing product value chains to penetrate the modern market. This diversification directly addresses SDG 1 (No Poverty) by creating additional income streams for farming households, and SDG 8 (Decent Work and Economic Growth) by fostering entrepreneurship and productive employment among rural women who represent 67% of program participants.

The results of the mentoring show that several MSMEs have succeeded in diversifying their product lines with more modern, market-standard products. The implementation of this diversification is expected to improve product image while expanding the marketing reach. Branding is a determining factor in increasing the competitiveness of MSME products in the digital era. With a clear product identity, Karangpring coffee can be more easily recognized by consumers both in the domestic and export markets.

Improving International Trade Literacy

Another aspect of the activity's achievement was increasing public literacy about international trade. Before the assistance, most farmers did not know the export procedures or institutions involved in global trade. Through training, which featured resource persons from Customs (Bea Cukai) and LPEI, participants gained insight into export regulations, methods for finding international buyers, and negotiation simulations. With this understanding, BUMDes Karangpring began to position itself as an export aggregator. This outcome aligns with SDG 17 (Partnerships for the Goals), as the collaboration between the university, BUMDes, Bea Cukai, and LPEI exemplifies the kind of multi-stakeholder partnerships that mobilize knowledge and resources in support of sustainable development. Simultaneously, improved export literacy supports SDG 8 by creating pathways for rural enterprises to access global markets and generate higher economic returns. Cahyani et al. (2022) showed that Indonesian coffee has significant export potential, yet access to international markets remains constrained by informational gaps, non-tariff barriers, and limited institutional support for smallholder producers. Strengthening export literacy among MSME actors is therefore a prerequisite for realizing this potential and integrating rural coffee producers into global value chains.

Institutional Strengthening of BUMDes and Foreign Exchange Village Team

The sustainability of the foreign exchange village program cannot be separated from the institutional role of BUMDes. BUMDes are assisted in developing a business plan that focuses on the management of coffee products from production to marketing, and a foreign exchange village team was formed to coordinate certification and legal documents. The results of the

mentoring show that BUMDes have begun actively preparing business plan documents and coordinating with farmers. This institutional development reflects SDG 17 (Partnerships for the Goals) in its emphasis on building effective, accountable institutions at the local level that can coordinate between community actors and external markets. Additionally, a well-functioning BUMDes enables long-term income stabilization among farmers, directly linked to SDG 1 (No Poverty) targets for sustainable rural livelihoods. Wibowo et al., (2023) emphasized that BUMDes play a critical role as engines of rural economic development when properly managed and supported by clear governance frameworks. Their study found that BUMDes with structured business plans and active multi-stakeholder coordination are significantly more effective in facilitating local economic participation and community welfare improvement. The digital marketing component is also crucial: Setiawan et al.(2023) demonstrated that adoption of digital marketing tools among East Java rural MSMEs significantly improved sales performance and market reach, providing evidence that continued digital marketing support for Karangpring coffee MSMEs is essential for long-term sustainability.

Monitoring and Evaluation Activities

The monitoring carried out shows an increase in the community's technical ability to manage coffee products. Success indicators can be seen from several achievements, including: (1) the birth of coffee bakpia products as a result of diversification, (2) the submission of halal certification documents by several MSMEs, (3) more professional product packaging, and (4) increasing export literacy.

The evaluation also identified challenges, including limited capital to expand production capacity and the need for additional assistance with digital marketing. However, overall, the community responded positively to this service activity.

Social and Economic Impact

In addition to its economic impact, this program also has a significant social impact. There has been an increase in collaboration between residents, especially between farmers, village youth, and village officials. The sense of ownership of the program increases as the community is directly involved in identifying needs and implementing solutions. This participatory approach strengthens social solidarity and encourages the growth of a collective spirit to build foreign exchange villages. Economically, product diversification and branding strategies offer MSMEs new opportunities, contributing to SDG 8 through income growth and SDG 1 through poverty reduction in the rural sector. If this program is consistently implemented, Karangpring coffee has the potential to become one of the leading export commodities from Jember Regency.

Challenges and Recommendations

Although the results achieved are quite significant, several challenges remain. First, limited production capital remains an obstacle to MSMEs expanding their business scale. Second, access to digital marketing remains limited, so products are not optimally marketed online. Third, the halal certification process requires consistency in implementing the Halal Product Assurance System (SJPH), which requires continuous support.

Recommendations include closer collaboration with local governments, financial institutions, and private partners. In addition, digital marketing support and advanced business management training need to continue to be provided so that MSMEs can adapt to market dynamics.

Implications for the Development of Foreign Exchange Villages

Overall, the service results indicate that Karangpring Village has an excellent opportunity to become a coffee-based foreign-exchange village. Halal certification, product diversification, branding, export literacy, and institutional strengthening are the main foundations that have been built. The integrated empowerment model applied in this program grounded in the ABCD method and aligned with SDG 8 and SDG 17 provides a practical, replicable framework for sustainable, export-oriented rural economic development. If sustainability factors can be maintained,

Karangpring has the potential to become a model coffee foreign exchange village that not only contributes to the local economy but also strengthens Indonesia's export competitiveness.

CONCLUSIONS

The community service activities in Karangpring Village, Sukorambi District, Jember Regency, demonstrated positive outcomes in strengthening the competitiveness of local coffee MSMEs toward an export oriented coffee village model. The program achieved its objective through the Asset Based Community Development (ABCD) approach by integrating halal certification assistance, coffee product diversification, branding improvement, export literacy training, and BUMDes institutional strengthening. The findings showed increased awareness of business legality, improved understanding of halal certification procedures, the development of coffee based product innovations such as coffee bakpia, enhanced branding and packaging strategies, and improved knowledge of export procedures with BUMDes serving as a production and marketing coordinator. The novelty of this program lies in the integration of regulatory compliance, product innovation, market access preparation, and village institutional strengthening within a community empowerment framework to enhance rural coffee MSME competitiveness. The program contributed to SDG 8 on Decent Work and Economic Growth and SDG 17 on Partnerships for the Goals through collaboration among universities, government institutions, BUMDes, and MSME actors. However, the program was limited by challenges related to production capital, digital marketing access, and the need for continuous assistance in maintaining halal certification standards. Future programs should focus on strengthening financing access, expanding digital marketing support, and providing continuous mentoring to ensure the sustainability and wider adoption of the coffee based export village model.

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ETHICAL CONSIDERATIONS

We ensure that all community service activities are carried out in accordance with ethical principles, involve voluntary participation based on comprehensive information, and are supported by clear transparency. Furthermore, we fully respect partners' rights and safeguard the confidentiality of sensitive data, in compliance with privacy standards, to maintain integrity and trust.

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest regarding the publication of these community service activities.

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AUTHOR CONTRIBUTIONS

Novi Wulandari Widiyanti conceptualized the study, developed the research design, and supervised the overall implementation of the community service program. Agung Budi Sulistiyo coordinated the program activities and contributed to the interpretation of findings. Imamatin

Listya Putri conducted the socialization activities and assisted in data collection. Muhammad Miqdad contributed to the analysis of program outcomes and drafted the discussion section. Muhammad Dhito Fakhurrozi assisted in data collection and supported the documentation of program activities. All authors contributed to revising and approving the final manuscript.

DECLARATION OF AI USE

AI was used only for language refinement, translation, and proofreading. The authors independently developed and verified all scientific content.

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