

Entrepreneurship Training in Home-Scale Jamu Production to Support Land Intensification and Agroindustry Development

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Abstract

Entrepreneurship training in home-scale herbal drink (jamu) production is an effort to enhance students' competencies in business diversification and downstream processing of spice-based products. This activity was motivated by the low level of students' knowledge and skills in utilizing oil palm plantation land for additional commodities and their limited ability to process agricultural products into value-added goods. This community service activity aimed to improve students' knowledge, motivation, and entrepreneurial interest through jamu production training. The activity was conducted using an interactive lecture method by inviting a jamu MSME entrepreneur as the resource person and involved 50 students of the oil palm education program. The evaluation was carried out using pre- and post-training questionnaires and participant observation. The results showed an average increase of 44% in participants' understanding of spice crop potential, jamu production processes, business opportunities, and entrepreneurial interest. In addition, 84% of participants expressed interest in independently producing jamu and 78% were interested in developing a jamu business. The activity also increased participants' awareness of optimizing land use and developing agro-industry-based businesses. These findings indicate that practitioner-based training is effective in improving students' entrepreneurial capacity and has strong potential to support the development of new sustainable herbal-based enterprises.

Keywords: industry, MSME, palm oil, spices

1. INTRODUCTION

Oil palm plantations represent a strategic sector with a vital role in the national economy, covering an area of over 16.8 million hectares and engaging millions of workers both directly and indirectly. However, long-term monoculture oil palm cultivation systems pose potential ecological risks, including soil fertility degradation and limited diversification of income sources for stakeholders. One approach to enhancing land productivity and business sustainability is land intensification through intercropping with high-value spice crops, such as ginger (*Zingiber officinale*), turmeric (*Curcuma longa*), and Javanese ginger (*Curcuma xanthorrhiza*). These spice crops are known to have significant shade tolerance, allowing them to be cultivated under oil palm canopies while providing additional benefits by increasing land-use efficiency and farmer income ([Edvanido et al., 2023](#); [Ashraf et al., 2018](#)).

Spice crops also offer substantial opportunities for development through downstreaming into value-added products, specifically jamu (traditional herbal medicine). Jamu is a traditional Indonesian herbal beverage proven to provide various health benefits, such as boosting immunity and acting as an antioxidant and anti-inflammatory agent. Consequently, demand for jamu continues to rise alongside increasing public health awareness and a preference for natural-based products. Data indicates that the national jamu industry has experienced positive growth, with a significant contribution from small-scale and cottage industries, which account for over 60% of the total jamu business units in Indonesia ([Yaman et al., 2014](#); [Nurcholis & Arianti, 2024](#)). Furthermore, contemporary innovations in jamu products, combined with modern beverage concepts, have increased its appeal among the younger generation and opened new entrepreneurship-based business opportunities ([Puspa & Berutu, 2025](#)). The advancement of digital technology further facilitates ease of marketing through digital channels.

Developing entrepreneurship based on agricultural product processing is a crucial strategy for enhancing the competence and independence of students, particularly those in

plantation-based vocational education programs. As future professionals in the plantation sector, students are expected to possess not only technical cultivation competencies but also the ability to develop businesses based on local resource potential. Previous research indicates that students' entrepreneurial readiness remains relatively low, particularly regarding production skills, product processing, and business management ([Deepavani & Kumaravel, 2025](#); [Mei et al., 2020](#); [Nabi et al., 2017](#)). Therefore, capacity-building efforts are required through applicable entrepreneurship training based on real field potential. Oil palm plantation areas hold great potential for developing spice crops as intercrops and for establishing home-scale herbal processing businesses, which are relatively easy to implement using simple technology and low investment ([Judijanto, 2025](#)).

Previous community service initiatives have demonstrated that entrepreneurship training based on agricultural processing can enhance participants' technical skills, entrepreneurial interest, and economic independence. Training in processing herbal plants into beverages has been proven to increase production competence and participants' understanding of product value-added by more than 60% compared to pre-training levels ([Aryzki et al., 2025](#)). Additionally, agroindustry-based entrepreneurship programs have effectively boosted students' entrepreneurial intentions and their ability to develop business models based on local potential. Based on this context, the problems identified for this activity are: (1) low student skills in utilizing oil palm plantation land for spice crop cultivation as a secondary commodity; (2) limited student ability in processing spice yields into value-added products like jamu; and (3) low entrepreneurial competence in developing digital-based home-scale businesses. This activity is expected to contribute to the development of plantation human resources who are not only competent in cultivation but also capable of business diversification and product downstreaming, thereby increasing the value-added of plantation commodities and creating new sustainable business opportunities.

2. METHOD

This community service program was conducted using an interactive lecture method featuring a practitioner from the Micro, Small, and Medium Enterprises (MSMEs) sector specializing in herbal medicine production—the owner of the "Wedang Djuminten" brand from Boyolali. The interactive lecture approach was selected to systematically enhance students' knowledge, understanding, and entrepreneurial motivation through the direct transfer of field-based experience. This method is considered highly effective for building entrepreneurial insights based on real-world practice, particularly regarding home-scale jamu (herbal medicine) production and the development of value-added herbal product.

The program was executed in person, involving 50 students from the Agribusiness and Oil Palm Management Study Programs at Universitas Tunas Pembangunan (UTP) Surakarta. The activity took place at Campus I, UTP Surakarta, on 20 January 2026. The implementation stages consisted of preparation, implementation, and evaluation. Preparation, involved identifying participant needs, developing training modules, and coordinating with the guest speaker. Implementation, the core activity involved interactive lectures covering the potential of spice crops as secondary commodities in oil palm plantations, home-scale jamu production processes, modern herbal product innovations, and strategies for business initiation and development. This phase included Q&A and discussion sessions to allow participants to deepen their practical understanding. Evaluation, designed to measure the achievement of program objectives through structured questionnaires and direct observation. Success was quantified using pre- and post-test questionnaires utilizing a 5-point Likert scale. The measurement focused on five key indicators: (1) understanding of spice crops as raw materials for herbal medicine, (2) knowledge of home-scale jamu production processes, (3) interest in developing a jamu production business, (3) motivation to utilize oil palm plantation land for

spice cultivation, (4) motivation to develop digital businesses through jamu downstreaming, (5) qualitative and Socio-Economic Evaluatio.

Beyond quantitative metrics, a descriptive qualitative evaluation was conducted through direct observation and dialogue. This aimed to identify shifts in participants' perceptions and attitudes toward herbal entrepreneurship, including increased self-confidence and interest in diversification within the plantation sector. Attitudinal changes were evidenced by active participation in discussions and the ability to articulate business ideas. From a socio-economic perspective, the success was also measured by the increased awareness of business diversification and the emergence of potential interest in jamu production as a future revenue stream. The criteria for success were established as follows: (1) a significant increase in post-test scores compared to pre-test scores, (2) enhanced entrepreneurial interest as reflected in questionnaire responses, (3) high levels of participant enthusiasm and positive engagement throughout the program.

3. RESULT AND DISCUSSION

This community service project was conducted as an entrepreneurship workshop on home-scale jamu (herbal medicine) production, utilizing an interactive lecture method featuring an MSME practitioner. The program involved 50 students from the Agribusiness and Oil Palm Management study programs. The objective was to enhance students' entrepreneurial knowledge, attitudes, and motivation, specifically in utilizing spice crops as intercrops within oil palm plantations and processing them into value-added herbal beverages. The activity commenced with a presentation on the potential of spice crops as secondary commodities in oil palm plantations, followed by a detailed explanation of home-scale jamu production processes, modern product innovations, and marketing strategies. Participants engaged enthusiastically, as evidenced by their active participation in the Q&A and discussion sessions. The speaker shared real-world experiences regarding business initiation, challenges faced, and development strategies that allow a jamu business to remain resilient and grow. This implementation facilitated a direct knowledge transfer from practitioner to participant, providing students with practical insights that transcend theoretical classroom learning.



Figure 1. Entrepreneurial workshop for home-scale herbal medicine production

Evaluation was conducted using pre- and post-test questionnaires to measure changes in participants' knowledge levels and entrepreneurial interest. The measurement results, derived from the questionnaire data, are presented in Table 1.

Table 1. Changes in students' knowledge levels and entrepreneurial interest

No.	Indicator	Pre-Test (%)	Post-Test (%)	Increase (%)
1	Understanding of spice crops as raw materials for jamu	42	86	44
2	Knowledge of home-scale jamu production processes	38	88	50
3	Interest in developing a jamu production business	46	90	44
4	Motivation to utilize oil palm land for spice cultivation	40	82	42
5	Motivation to develop digital businesses through jamu downstreaming	44	84	40
Average		42	86	44

Based on Table 1, an average increase of 44% was observed across all measured indicators. The highest improvement occurred in the indicator for understanding the jamu production process, which increased by 50%. This demonstrates that lectures delivered by practitioners are significantly effective in enhancing participants' technical understanding. According to the post-activity survey, 84% of participants expressed interest in attempting independent jamu production, 78% intended to develop a jamu business in the future, and 88% stated that the program was highly beneficial.

This community service project also impacted participants' perspectives regarding the utilization of oil palm plantation land. Prior to the activity, most participants perceived oil palm land solely for the cultivation of the primary crop. However, following the intervention, participants understood that plantation land can be utilized for cultivating spice crops as secondary commodities to provide additional economic value. This shift indicates an increased awareness among participants regarding the importance of business diversification and the downstreaming of plantation products. In the short term, this activity resulted in enhanced knowledge and entrepreneurial motivation among students. In the long term, it has the potential to foster new entrepreneurs in the herbal processing sector and optimize the utilization of plantation land.

The primary strength of this program is the involvement of an active business practitioner as a speaker, ensuring that the material presented is applicable and aligned with real-world field conditions. Furthermore, jamu production is characterized by a relatively low level of difficulty, as it utilizes simple technology, readily available raw materials, and can be implemented as a cottage industry with minimal capital investment. These factors make jamu production a high-potential business opportunity for students. This activity contributes socially by improving farmers' knowledge, skills, and independence in optimizing land use. In the long term, it supports increased agricultural productivity, food security, and the economic sustainability of the community. However, this activity has limitations; it was restricted to the lecture method and did not include hands-on production practice. Consequently, participants did not gain direct technical experience in the production process. Overall, this community service initiative successfully achieved its established goals—enhancing the entrepreneurial knowledge, skills, and motivation of students in home-scale jamu production. The program provided significant added value in terms of intellectual capacity, attitudinal shifts, and the motivation to develop businesses based on spice crop utilization.



Figure 2. Presentation of materials and discussion session with the guest speaker

4. CONCLUSION

This community service initiative, conducted through entrepreneurship training in home-scale jamu (herbal medicine) production, has successfully enhanced the knowledge, understanding, and entrepreneurial motivation of students within the oil palm education program. Evaluation results indicated an average increase of 44% across indicators including the potential of spice crops, jamu production processes, business opportunities, entrepreneurial interest, and motivation for oil palm land utilization. Qualitatively, a significant attitudinal shift was observed, evidenced by the participants' increased interest in developing jamu businesses and their awareness of the importance of product downstreaming and land-use diversification in plantations. The primary strength of this program lies in the involvement of a practitioner as a speaker, who provided applicable and contextual material, offering participants a realistic perspective on production processes and business development. However, the program had limitations, specifically the absence of hands-on production sessions, which meant participants' technical skills were not optimally developed. Consequently, this initiative holds significant potential for further expansion through practical-based training, business mentoring, and the development of innovative spice-based products. Such advancements are expected to foster the emergence of new entrepreneurs in the herbal agroindustry and support the sustainable enhancement of value-added plantation commodities.

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