



Strategy for Creating New Entrepreneurs: Training on Making Purple Sweet Potato Sticks as a Solution for Improving Community Economy

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Abstrak

This community service activity aims to improve the knowledge and skills of mothers in the Keputih area, Surabaya, in processing purple sweet potatoes into economically valuable stick products, as well as fostering entrepreneurial motivation as an effort to increase family income. The activity was held on June 12, 2026, at Pos PAUD Terpadu Tunas Mulia, Keputih, Surabaya, involving 15 mothers as participants. The implementation method used a participatory and educational approach through three main sessions, namely the presentation of material on the economic potential and nutritional content of purple sweet potatoes, hands-on practice of making purple sweet potato sticks covering all production stages from material preparation to packaging, as well as discussion and evaluation sessions. This activity involved IKBIS undergraduate nutrition students as assistant facilitators and presented Dr. apt. Teguh Setiawan Wibowo, MM., MBA., M.Si., M.Farm., AIFO and Ir. Rr. Nurul Hidayati, M.Si., AMd. Akup as resource persons. The results showed that there was an increase in participants' understanding of the economic potential of purple sweet potatoes, hygienic processing techniques, calculation of capital and business profits, and product marketing strategies, as evidenced by the results of the pre-test and post-test evaluations. All participants expressed enthusiasm and interest in starting an independent business based on processing purple sweet potato sticks at home. This activity makes a real contribution to improving the family economy amid the burden of economic pressure, while building community economic independence and resilience through optimal utilization of local potential. Sustainable mentoring programs are recommended to ensure the sustainability of participants' businesses.

1. INTRODUCTION

Family economic resilience is one of the fundamental pillars in sustainable community development. Amid global economic challenges and fluctuations in the prices of basic necessities, efforts to empower communities through the development of entrepreneurial skills have become an increasingly relevant strategy. One approach that has proven effective is the utilization of local food potential into value-added products. This community service activity focuses on empowering mothers in the Keputih area, Surabaya, through training on making purple sweet potato sticks as an effort to create new entrepreneurs and improve family economies.

Purple sweet potato (*Ipomoea batatas* var Ayamurasaki) is one of the agricultural commodities that has great potential but has not been optimally utilized in Indonesia. This plant has advantages due to its anthocyanin content which gives a deep purple color to the tuber flesh, and is rich in antioxidants, fiber, and vitamins that are beneficial for health. Research shows that purple sweet potato contains 110-210 mg of anthocyanins per 100 grams of flour, with a beta-carotene composition 15 times higher than carrots, and has better anthocyanin stability compared to anthocyanins from other fruits and vegetables (Universitas Sebelas Maret, 2022). This antioxidant content plays a role in preventing various degenerative diseases because it can stabilize free radicals in the body.

Processing purple sweet potatoes into sticks or chips is one form of food diversification that has been proven to increase the economic value of the commodity. Various community service programs show that training on processing



purple sweet potatoes into snack products has a positive impact on community skills and income. An empowerment program in Kroya Village, Cilacap Regency, succeeded in optimizing the added value of purple sweet potato stick products through improving packaging quality, training on Cost of Goods Sold (COGS) calculations, and Nutritional Adequacy Rate information on products, which led to increased product competitiveness in the market (Permatasari et al., 2025). A similar program was also conducted in Padang Bujur Village, South Tapanuli, which focused on expanding the marketing of purple sweet potato stick products through social media to reach a wider market (Neliti, 2022).

This phenomenon shows that economic empowerment through local food processing has a significant multiplier effect. Training activities not only transfer technical skills but also build entrepreneurial motivation and economic independence. Food production training has been proven to foster interest in entrepreneurship in the culinary field and support women's empowerment activities. Women, especially housewives, have a strategic role in disseminating appropriate information and increasing entrepreneurial motivation starting from the household scale (Ngete et al., 2025). Empowerment programs that involve women as the main subjects of skills training have been proven to increase individual capacity and encourage the creation of joint businesses managed collectively (Ngete et al., 2025).

This community service activity was carried out at Pos PAUD Terpadu Tunas Mulia, Keputih, Surabaya, targeting 15 mothers from the area. The selection of a location at an early childhood education institution has strategic meaning, because early childhood education not only functions as a place for early childhood education but can also become a center for family economic empowerment. Research shows that the existence of early childhood education can increase mothers' work participation, especially among mothers with low education levels, because early childhood education creates new time space for mothers to work and develop skills. Thus, early childhood education can be a starting point for economic empowerment programs integrated with children's education services.

The activity participants were mothers in the Keputih area of Surabaya, who are a potential group to be developed into new entrepreneurs. This program was designed with a participatory approach, where participants not only received theoretical material but were also directly involved in the practice of making purple sweet potato sticks from the preparation stage, processing, to product packaging. Direct training methods like this have proven more effective in building participants' skills and self-confidence (Wibowo & Negara, 2024a). In its implementation, this activity involved IKBIS undergraduate nutrition students semester 6 as assistant facilitators, providing direct learning experience for students in applying nutrition science and food technology in the community. Student involvement in service programs is a form of implementation of the tri dharma of higher education and builds synergy between the academic world and the community (Wibowo et al., 2024).

The resource persons for the activity were Dr. apt. Teguh Setiawan Wibowo, MM., MBA., [M.Si.](#), M.Farm., AIFO and Ir. Rr. Nurul Hidayati, [M.Si.](#), A.Md.Akup as the Head of the IKBIS Undergraduate Nutrition Study Program. The presence of resource persons with diverse scientific backgrounds—pharmacy, management, and nutrition—provides a multidisciplinary perspective in program implementation. Dr. apt. Teguh Setiawan Wibowo has a track record in various community service publications, including training on tablet manufacturing and quality control (Wibowo et al., 2024), training and mentoring for collagen drink entrepreneurship (Wibowo & Negara, 2024a), as well as training on determining Beyond Use Date (BUD) in pharmaceutical practice (Wibowo & Negara, 2024b). This experience and expertise provide



direction not only from the technical side of food processing but also from the aspects of food safety and business development.

The objectives of this community service activity are: (1) to improve the knowledge and skills of mothers in the Keputih area of Surabaya in processing purple sweet potatoes into economically valuable stick products; (2) to foster entrepreneurial motivation among participants to start independent businesses; and (3) to make a real contribution to increasing the economic income of participants' families. By achieving these objectives, it is expected that this activity can become a sustainable model of community empowerment based on local food that can be replicated in other regions.

This activity was held on June 12, 2026, with a series of events including the delivery of material on the potential of purple sweet potatoes, health benefits, hygienic processing techniques, product marketing strategies, as well as hands-on practice of making purple sweet potato sticks. The implementation of this program is expected to have a long-term impact, not only on improving participants' skills but also on the formation of new business groups that are independent and competitive.

Through this paper, the authors comprehensively describe the implementation of the community service activity entitled "Strategy for Creating New Entrepreneurs: Training on Making Purple Sweet Potato Sticks as a Solution for Improving Community Economy" at Pos PAUD Terpadu Tunas Mulia, Keputih, Surabaya. This introduction describes the background, the potential of purple sweet potatoes as a business raw material, examples of the success of similar programs, as well as the theoretical basis that supports the importance of this activity. Further elaboration will include implementation methods, results and achievements of the activity, as well as recommendations for program sustainability.

2. IMPLEMENTATION METHOD

This community service activity was carried out using a participatory and educational approach that emphasizes the active involvement of participants in every stage of the activity. The method used was designed to transfer knowledge and skills comprehensively, starting from the preparation, implementation, to evaluation stages of the activity. The entire series of activities took place on June 12, 2026, at Pos PAUD Terpadu Tunas Mulia, Keputih, Surabaya, involving 15 mothers as the main participants.

The preparation stage of the activity began with coordination between the implementation team from the IKBIS Undergraduate Nutrition Study Program and the management of Pos PAUD Terpadu Tunas Mulia. This coordination aimed to agree on the implementation schedule, prepare the necessary space and facilities, and identify the specific needs of participants. The implementation team also conducted an initial survey to ensure the availability of purple sweet potato raw materials in the local market and prepared all the equipment needed in the stick-making process, such as slicers, frying pans, stoves, and product packaging. In addition, the team prepared a training module containing written guidelines on making purple sweet potato sticks, from recipes, hygienic processing techniques, to packaging and product marketing strategies. IKBIS undergraduate nutrition students semester 6 who were involved as assistant facilitators were also given prior briefing on the material and activity implementation procedures so that they could assist participants optimally.

The implementation of the activity was divided into three main sessions, namely the material presentation session, the hands-on practice session, and the discussion and evaluation session. The material presentation session was held from 08.00 to 10.00 WIB, which began with an opening by representatives of the implementation team and the management of



Pos PAUD Terpadu Tunas Mulia. The first resource person, Dr. apt. Teguh Setiawan Wibowo, MM., MBA., [M.Si.](#), M.Farm., AIFO, delivered material on the economic potential of purple sweet potatoes as a raw material for high-value food products, as well as strategies for developing small businesses based on local food. This presentation included market opportunity analysis, calculation of capital and business profits, and the importance of food safety in food production. The second resource person, Ir. Rr. Nurul Hidayati, [M.Si.](#), A.Md.Akup as the Head of the IKBIS Undergraduate Nutrition Study Program, delivered material on the nutritional content and health benefits of purple sweet potatoes, including anthocyanin content, fiber, and vitamins that are beneficial for the body. This presentation also discussed appropriate processing techniques to maintain the nutritional content of purple sweet potatoes and hygiene standards in the food production process. Each presentation session was interspersed with a question and answer session to ensure participants' understanding of the material presented. In this session, participants showed high enthusiasm by asking various questions related to business opportunities, initial capital, and practical processing techniques to be applied at home.

The hands-on practice session was held from 10.00 to 13.00 WIB, where participants were divided into three small groups, each assisted by IKBIS undergraduate nutrition students. Each group received fresh purple sweet potato raw materials that had been prepared, along with supporting ingredients such as rice flour, tapioca flour, garlic, salt, and cooking oil. The practice began with the washing and peeling of purple sweet potatoes, then continued with slicing using a manual slicer to obtain uniform thickness. After that, participants soaked the purple sweet potato slices in a garlic and salt solution to give a savory taste, then coated them with flour batter before frying. The frying process was carried out using the deep frying technique until the purple sweet potato sticks turned golden yellow and crispy. After cooling, the purple sweet potato stick products were packaged using clip plastic packaging equipped with product information labels made simply. This entire practice process was supervised and guided by resource persons and assistant students to ensure that each participant could follow the steps correctly and obtain quality products. Participants were also taught how to calculate production costs and determine competitive selling prices.

The discussion and evaluation session was held from 13.00 to 15.00 WIB, after the practice and lunch break. In this session, participants were invited to reflect on their experiences during the activity, identify obstacles encountered, and share ideas about developing purple sweet potato stick products in the future. Resource persons provided input on product innovation, such as developing flavor variants (spicy, cheese, or barbecue) and marketing strategies through social media or subscription systems in the surrounding environment. Participants were also given the opportunity to taste products produced by other groups and provide feedback on product quality. In addition, the implementation team distributed training modules and recipes for making purple sweet potato sticks as a guide for participants to produce independently at home after the activity ended. At the end of the session, a group photo session and the awarding of participation certificates to all participants were held as a form of appreciation for their presence and active involvement.

The evaluation stage of the activity was carried out using two approaches, namely process evaluation and outcome evaluation. Process evaluation was carried out through direct observation during the activity to assess the level of participation, enthusiasm, and understanding of participants towards the material and practice provided. The implementation team also used observation sheets to record technical obstacles that arose during practice, such as difficulties in slicing, oil temperature regulation, and the packaging process. Outcome evaluation was carried out by giving simple questionnaires to participants before and after the activity, which aimed to measure the increase in participants' knowledge



and skills related to purple sweet potato processing and entrepreneurship. The questionnaire included aspects of knowledge about the nutritional content of purple sweet potatoes, stick-making techniques, business capital calculations, and product marketing strategies. The collected data were analyzed descriptively to see the effectiveness of the activity in achieving the set goals.

After the activity ended, the implementation team followed up by forming a communication group through a instant messaging application to facilitate ongoing discussion and consultation between participants and the implementation team. Through this group, participants could share experiences after practicing making purple sweet potato sticks at home, ask about obstacles that arose, and obtain information about marketing opportunities and product development. The implementation team also plans to conduct monitoring visits within one month after the activity to see the progress of participants' businesses and provide further assistance if needed. This approach is expected to ensure program sustainability and long-term impact on improving participants' family economies.

3. RESULTS AND DISCUSSION

The community service activity held on June 12, 2026, at Pos PAUD Terpadu Tunas Mulia, Keputih, Surabaya, was attended by 15 mothers with high enthusiasm. The entire series of activities ran smoothly according to the plan that had been prepared, from the material presentation session, hands-on practice of making purple sweet potato sticks, to the discussion and evaluation session.

Based on observations during the activity, participants showed active participation in every session. In the material presentation session, all participants followed attentively and asked various relevant questions, especially related to business opportunities, initial capital, practical processing techniques, and product marketing strategies. The resource persons, Dr. apt. Teguh Setiawan Wibowo, MM., MBA., [M.Si.](#), M.Farm., AIFO and Ir. Rr. Nurul Hidayati, [M.Si.](#), A.Md.Akup, provided comprehensive responses to every participant's question, so that participants' understanding of the material increased significantly.

In the hands-on practice session, all participants were actively involved in every stage of making purple sweet potato sticks. Participants were divided into three small groups, each assisted by IKBIS undergraduate nutrition students semester 6. The practice process began with washing and peeling purple sweet potatoes, slicing to uniform thickness, soaking in a seasoning solution, coating with flour batter, to frying using the deep frying technique. The purple sweet potato stick products produced by each group showed good quality, with a crispy texture, golden yellow color, and distinctive savory taste. The product packaging process was also successfully carried out using clip plastic packaging equipped with simple product information labels.

Evaluation of the activity results was carried out by giving pre-test and post-test questionnaires to all participants. The evaluation results showed an increase in participants' knowledge in several aspects. Before the activity (pre-test), the average understanding of participants about the economic potential of purple sweet potatoes was still low. After participating in the activity (post-test), there was an increase in participants' understanding of the nutritional content and health benefits of purple sweet potatoes, hygienic stick-making techniques, calculation of capital and business profits, and product marketing strategies. This increase in knowledge is in line with the findings of similar training programs showing that participants experienced a significant increase in entrepreneurial knowledge after participating in hands-on practice-



based training (Permatasari et al., 2025). All participants also stated that this activity was very beneficial and provided new skills that could be applied to start an independent business.

This community service activity shows that training on making purple sweet potato sticks is effective in increasing the knowledge and entrepreneurial skills of mothers in the Keputih area, Surabaya. This is reflected in the increased understanding of participants on various aspects of production and product marketing, as well as participants' enthusiasm for practicing the skills acquired independently at home.

Processing purple sweet potatoes into sticks has been proven to provide significant economic added value compared to selling fresh sweet potatoes which generally have low selling prices (Permatasari et al., 2025). Purple sweet potato as a local commodity has high anthocyanin content, fiber, and vitamins that are beneficial for health, so its processed products have their own appeal in the market (Palupi et al., 2025). With this processing innovation, the community not only gains knowledge about food processing techniques and hygiene standards but also effective marketing strategies to improve product competitiveness (Permatasari et al., 2025).

One important finding in this activity is the entrepreneurial motivation that grew among participants. This is in line with the results of similar empowerment programs showing that training based on local products is effective in building the mental readiness and entrepreneurial skills of housewives (Ngete et al., 2025). As many as 90% of participants in similar training programs reported increased self-confidence and motivation to start a business after participating in the training (Wibowo & Negara, 2024a). In this activity, almost all participants expressed interest in producing purple sweet potato sticks independently and selling them in the surrounding environment, both to meet family needs and as an additional source of income.

The success of this program is also inseparable from the role of IKBIS undergraduate nutrition students involved as assistant facilitators. Student involvement in service programs is a form of implementation of the tri dharma of higher education and builds synergy between the academic world and the community (Wibowo et al., 2024). Students not only helped facilitate the practice but also gained direct learning experience in applying nutrition science and food technology in the community. This experience becomes valuable capital for students to develop professional competencies in the field of nutrition and food.

From the perspective of improving the family economy, this activity has high relevance amid the burden of economic pressure felt by many families. Processing purple sweet potatoes into sticks offers business opportunities with relatively small capital but promising profit potential. Purple sweet potato stick products have a broad market prospect, both as household snacks and as regional souvenir products (Hidayat, 2026). In addition, this business can be managed from home so that it does not interfere with the main activities of participants as housewives. Thus, this activity makes a real contribution to efforts to increase income and family economic resilience, especially for women who have had limited access to economic opportunities (Ngete et al., 2025).

However, there are several challenges that need to be anticipated to ensure the sustainability of participants' businesses. The main challenges include limited capital, continuity of raw material supply, product quality consistency, and mastery of information technology for digital marketing (Wibowo & Negara, 2024b). To overcome these challenges, the implementation team has formed a communication group through a instant messaging application as a forum for



consultation and ongoing assistance. In addition, a monitoring visit plan within one month after the activity is expected to help participants overcome obstacles that arise and develop their businesses more professionally.

Overall, this community service activity successfully achieved the set goals, namely improving the knowledge and skills of mothers in the Keputih area of Surabaya in processing purple sweet potatoes into economically valuable stick products, fostering entrepreneurial motivation among participants, and contributing to improving the family economy. This success shows that participatory training approaches based on hands-on practice are effective methods in community empowerment, especially in developing small businesses based on local potential. Similar programs need to be continuously developed and replicated in other regions to encourage the creation of independent, productive, and prosperous communities.

4. CONCLUSION

The community service activity through training on making purple sweet potato sticks at Pos PAUD Terpadu Tunas Mulia, Keputih, Surabaya, has succeeded in improving the knowledge and skills of 15 mothers in processing purple sweet potatoes into economically valuable products. Participants showed a significant increase in understanding of the economic potential of purple sweet potatoes, hygienic processing techniques, and product marketing strategies, as evidenced by the results of the pre-test and post-test evaluations. This activity also succeeded in fostering entrepreneurial motivation among participants and encouraging the growth of home-based businesses based on local food.

Thus, this training makes a real contribution to efforts to improve the family economy amid the burden of economic pressure, while building community economic independence and resilience through optimal utilization of local potential. Program sustainability through periodic mentoring and the formation of business networks is very necessary to ensure long-term impact and expansion of the benefits of this activity for the wider community.



Figure 1. Material presentation by the resource person.



Figure 2. The process of making purple sweet potato sticks.

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