



Training on the Production and Marketing of Dishwashing Liquid as an MSME Product for Local Residents

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Abstract

However, under current conditions, many people are uncertain about where and how to start their own businesses. Through community service activities, facilitators provide training for the community in dishwashing liquid production, which is expected to help reduce their economic burden. The continuous use of dishwashing soap has led to a significant household expense, especially among homemakers in Gampong Bira Cot, Montasik District, Aceh Besar Regency. The purpose of this community service program is to provide homemakers with knowledge and hands-on training on producing liquid dishwashing soap, enabling them to reduce household expenses on cleaning products while also creating new entrepreneurial opportunities. This activity includes explanations about raw materials, production procedures, and cost calculations for making dishwashing liquid. From the activities conducted, the participants successfully produced liquid dishwashing soap according to the methods taught during the training. The results showed that the participants were able to identify the necessary materials, produce dishwashing soap independently, and improve their skills in production, product marketing, and basic accounting. In addition, the training contributed to enhancing household financial literacy and income among the women of Gampong Bira Cot.

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1. Introduction

The need for household products such as dishwashing soap is an essential part of daily life. According to data from the Ministry of Industry (2022), public awareness of cleanliness and health has led to an annual increase of 8% in household cleaning product consumption. However, many products currently available on the market contain synthetic chemicals that pose risks to both skin health and the environment. Indonesia is rich in natural ingredients such as lime, lemongrass, pandan leaves, and aloe vera, which can serve as eco-friendly alternatives for cleaning products. This condition presents an

excellent opportunity to conduct training programs that enable communities to utilise these local materials. Such training not only offers practical household solutions but also has the potential to open new business opportunities as an additional source of income [1]–[3].

Many homemakers in Gampong Bira Cot, Montasik District, Aceh Besar Regency, face difficulties in developing small businesses due to a lack of skills and training. In fact, more than 75% of them have never participated in home-based business training programs. This has led them to become more consumptive and less productive. Considering the high household expenditure on dishwashing soap, there is a significant opportunity to train them in producing their own dishwashing liquid [4]–[6]. This training helps participants acquire new skills, reduce household expenses, and even generate additional income. It aligns with the concept of community empowerment, where residents are encouraged to actively create positive changes for a better quality of life [7]–[9]. In addition to the lack of training on eco-friendly dishwashing soap production, homemakers in Gampong Bira Cot, Montasik District, have also never received guidance on product marketing or simple financial recordkeeping. Educational background is a strong factor influencing their understanding of marketing and basic accounting practices [10]–[12]. This finding is consistent with the situation in Gampong Bira, where educational factors largely influence challenges faced by the participants.

Based on these conditions, it is necessary to implement community service activities that include training on the production and marketing of dishwashing liquid as an MSME product, along with guidance on simple accounting systems. The aim is to equip homemakers with practical skills to utilise locally available materials for producing household dishwashing soap, while also introducing them to basic entrepreneurial concepts. Thus, this program is expected to provide dual benefits: reducing dependence on commercial products and creating new business opportunities for the homemakers.

2. Implementation of Methodology

The Community Service Activity was carried out in Gampong Bira Cot, Montasik District, Aceh Besar Regency. The location of the activity is presented in **Figure 1**. Based on **Figure 1**, which illustrates the location of Gampong Bira Cot, the map shows the travel route from Abulyatama University, Lamohe Keude, to Gampong Bira Cot, Montasik District, Aceh Besar Regency. The total distance of approximately 12.6 km can be covered in about 18–19 minutes via Jl. Blang Bintang–Krueng Raya. This map indicates that Gampong Bira Cot is in a relatively strategic area that is easily accessible from the academic centre of Abulyatama University. Such accessibility plays an essential role in supporting the implementation of community service (PKM) activities, as it facilitates the mobility of the service team and the distribution of materials and equipment used during the dishwashing liquid production training.

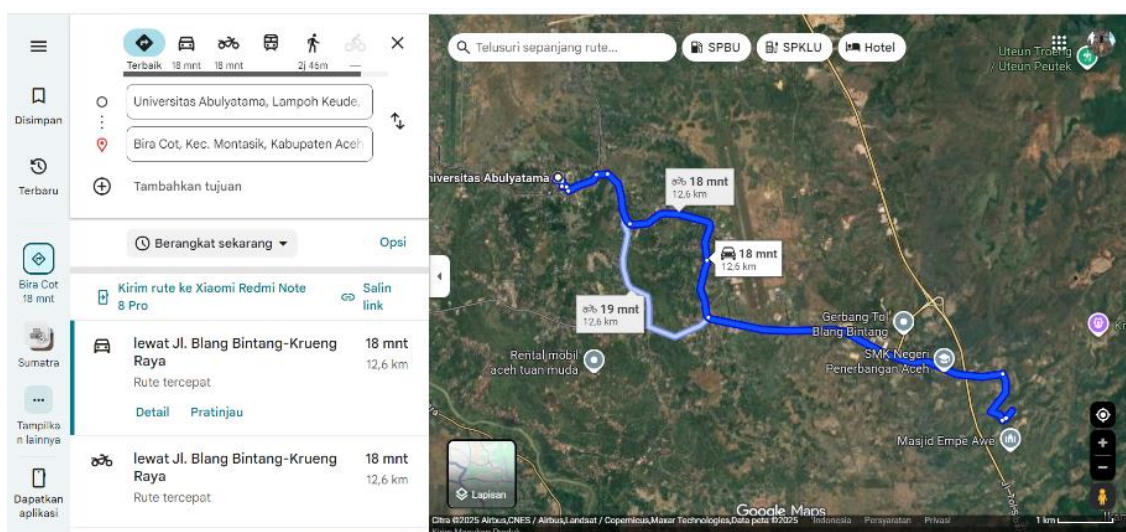


Figure 1: Location of Gampong Bira Cot

Moreover, the geographical position of Gampong Bira Cot, situated in a rural area yet close to an educational hub, presents great potential for community empowerment initiatives. The village is an ideal location for training programs because most of its residents, particularly homemakers, have both the time and interest to develop home-based businesses related to everyday needs. The dishwashing liquid production training conducted in this village aims not only to enhance participants' technical skills in producing eco-friendly soap but also to create new entrepreneurial opportunities and strengthen household financial literacy. Therefore, the location of Gampong Bira Cot serves as an ideal representation of the community empowerment concept promoted through Abulyatama University's community service program.

The community service activity conducted in Gampong Bira Cot, Montasik District, began with an initial coordination meeting with the Keuchik (village head) of Gampong Bira Cot to confirm the village's willingness and the residents' participation, as well as to formally welcome the Community Service Team (PKM) from Universitas Abulyatama. The next stage involved conducting a socialisation session to raise community awareness about using natural ingredients as raw materials for producing dishwashing liquid. This socialisation was followed by hands-on practice in dishwashing soap production. Furthermore, this activity is expected to serve as an additional source of income for the community, which has previously been less productive in economically beneficial pursuits. It is hoped that this program will foster entrepreneurial motivation, encouraging villagers to become more independent and innovative in utilising the available local resources.

3. Result & Discussion

The training was conducted on August 20, 2025, and was attended by 20 housewives from the community. The community service activity began with a presentation session, which included an introduction to the tools, materials, and procedures for producing liquid dishwashing soap. This was followed by hands-on practical training that actively involved the participants. The outcome of the training was the successful production of green-colored, pleasantly scented liquid dishwashing soap. The product can be used for daily household needs and holds potential for commercialisation as an additional source of income. Based on evaluation interviews with the participants, the activity conducted with the women of Gampong Bira Cot, Montasik District, was considered successful. As part of Universitas Abulyatama's annual community service agenda, this activity serves as a medium for transferring knowledge, skills, and technology to the public. Moreover, it facilitates the practical application of academic knowledge acquired by students during their studies at the university.



Figure 2. The instructor is demonstrating the process of making dishwashing soap

Figure 2 shows the instructor demonstrating the process of making dishwashing soap to the participants. This stage was part of the hands-on training session conducted in Gampong Bira Cot, where the community service team from Abulyatama University provided direct guidance to homemakers. During this demonstration, the instructor explained the types of materials used, their respective functions, and the correct measurement ratios required to produce high-quality dishwashing liquid. The participants were actively engaged, observing each step from mixing the raw materials to the stirring and thickening process. This ensured they understood the techniques necessary to achieve the right consistency and fragrance of the final product.

Furthermore, this practical session was designed not only to teach participants how to produce dishwashing soap but also to encourage confidence and independence in applying the skills learned. The instructor's demonstration provided a clear visual learning experience that helped participants grasp both the science and practical aspects of the production process. Through this interactive approach, the participants were able to directly apply what they learned, ask questions, and clarify the functions of natural ingredients such as pandan and suji leaves used in the soap-making process. This stage played a crucial role in transforming theoretical knowledge into tangible skills, aligning with the program's broader goal of community empowerment and entrepreneurial development among the women of Gampong Bira Cot.

The instructor delivered the training materials covering several key topics, including the ingredients used in making dishwashing soap, the step-by-step procedure for producing the soap, strategies for marketing the product, and methods for recording simple household accounting transactions. These materials were designed to enhance participants' practical skills in both production and basic entrepreneurship, enabling them to manage small-scale businesses more effectively. **Figure 3** shows the participants attentively listening to the instructor's explanation during the community service activity held in Gampong Bira Cot. This moment reflects the active engagement and enthusiasm of the local homemakers, who participated eagerly in the dishwashing liquid production training. The instructor provided detailed explanations regarding the functions of each ingredient, the proper mixing sequence, and safety precautions to ensure the quality and effectiveness of the final product. The interactive learning environment encouraged participants to ask questions and share their experiences, creating a collaborative atmosphere that supported both knowledge sharing and practical understanding.



Figure 3: Participants listening to the instructor's explanation

Moreover, this stage of the activity emphasised the importance of understanding not only the production process but also the broader concept of entrepreneurship and financial literacy. By paying close attention to the instructor's explanations, participants gained a better grasp of how dishwashing liquid

production could be transformed into a sustainable home-based business. The group setting also fostered peer learning, allowing participants to motivate each other while building a sense of community collaboration. Overall, Figure 3 captures the essence of community empowerment through education and hands-on practice, highlighting how the training successfully blended technical instruction with entrepreneurial motivation among the women of Gampong Bira Cot.

The organic dishwashing soap produced during the training has a consistency similar to commercial products. The main difference lies in its light green colour, as no artificial colouring agents were used; only natural extracts from suji leaves and pandan leaves were used. The soap produces enough foam without being excessive and emits a distinctive, fresh fragrance. Based on the test results, the soap proved to be effective in cleaning grease, oil, and food residues from plates, glasses, and other kitchen utensils. The organic soap also leaves a clean, smooth finish on glass and ceramic surfaces, demonstrating its strong cleaning power. Although the ingredients used are entirely organic and sourced locally from Gampong Bira Cot, the cleaning quality of the soap has been proven to be reliable. The overall quality of the liquid soap is highly influenced by the stages and accuracy of measurement during the production process [13]–[15].

Throughout the training and mentoring activities, all participants were active and enthusiastic. The results indicated that most participants were able to produce their own dishwashing soap independently. However, a few participants still found it challenging to prepare simple financial reports. Interestingly, some housewives had already begun using social media platforms as tools for product promotion and marketing. This community service program provided several benefits to the women of Gampong Bira Cot, including: (1) improved skills in producing dishwashing soap; (2) increased knowledge of product marketing; (3) enhanced ability to perform simple accounting calculations; and (4) improved household financial conditions.

The novelty of this community service and research article lies in its integrative approach, which combines production training, marketing strategies, and basic financial literacy education for homemakers in Gampong Bira Cot. While many previous community empowerment programs have focused solely on skill development in making household cleaning products, this program goes beyond simple product creation by incorporating entrepreneurial and accounting components. This approach ensures that participants are not only capable of producing dishwashing liquid independently but are also equipped to manage, market, and sustain their small-scale businesses. The inclusion of financial recordkeeping and digital marketing using social media platforms represents an innovative element that aligns with current economic digitalisation trends, enabling participants to adapt to modern business practices and reach broader markets.

Another distinctive aspect of this program is its emphasis on utilising locally available natural ingredients such as pandan and suji leaves to produce environmentally friendly dishwashing liquid. This eco-based production model introduces sustainable practices that reduce dependence on synthetic chemicals while promoting local resource optimisation. In addition, by targeting homemakers as primary beneficiaries, the program directly addresses household economic resilience and gender-based empowerment, creating a tangible impact at the grassroots level. This multidimensional integration of environmental sustainability, entrepreneurship, and financial literacy demonstrates the article's originality and contribution to the broader discourse on community empowerment. Therefore, this study not only strengthens local economic capacity but also serves as a replicable model for other regions aiming to enhance community welfare through sustainable micro-enterprise initiatives.

4. Conclusion

Based on the results and discussion presented in the article, the conclusions can be reformulated as follows:

- a) The community service program successfully enhanced the participants' practical skills, enabling them to independently produce eco-friendly dishwashing liquid using locally available natural ingredients such as pandan and suji leaves.

- b) The training effectively increased participants' entrepreneurial awareness, leading several homemakers to utilise social media platforms to promote and market their dishwashing liquid products to a broader audience.
- c) The introduction of simple household accounting practices during the training significantly improved participants' financial literacy, equipping them with the ability to record production costs, calculate profits, and manage small-scale business finances more effectively.

Overall, the community service activity in Gampong Bira Cot contributed to strengthening household economic resilience and fostering sustainable entrepreneurial initiatives among local women.

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The follow-up plan for this community service program is to maintain continuous coordination and communication with the partners to ensure that the program does not stop at this stage. Participants who have completed the training are expected to encourage and involve more homemakers from the surrounding area to take part in future training programs.

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