

Increasing Capacity in Processing Superior Local Products in Maron River Ekokarst

Pipit Wijayanti^{1*}, Dwi Ardiana Setyawardhani², Anung Rachman³

¹Study Program of Geography Education, Faculty of Teacher Training and Education, Universitas Sebelas Maret, Surakarta, Indonesia

²Study Program of Chemical Engineering, Faculty of Engineering, Universitas Sebelas Maret, Surakarta, Indonesia

³Study Program of Visual Communication Design, Faculty of Fine Art and Design, Intitut Seni Indonesia Surakarta, Surakarta, Indonesia

Submitted: November 13th 2023; Revised: April 16th 2024; Accepted: April 17th 2024

Keywords:

Coconut
Local product
MSMEs
Potential
Tourism

Abstract According to information obtained from this community service activity, 80% people of Dersono Village work as farmers. The location of Dersono Village is within Gunungsewu Karst, which is known as a barren area. Therefore, it has been difficult for the villagers to get maximum harvests, which has impacted their economic standard of living. Being in the middle of the Karst area, Dersono Village has a potential that is the Maron River as it can be developed into a tourist attraction and become a source of the community's economy. In addition, Dersono Village has the potential with regard to their local commodities, namely coconuts, that can become superior products. The potential of this local coconut commodity can be developed as a superior processed product that can become a unique, distinctive souvenir and has more economic value rather than only selling the raw coconuts to collectors (intermediaries) or along the Maron River. To manage these existing potentials, adequate human resource skills are needed, one of which is through training in processing local products with economic value and activity in marketing processed local products. The training began with material delivery and continued with practices with the targeted community (PKK) to assess training achievement. A pre-test and post-test were administered on managing MSMEs, making and packaging coconut oil, and product marketing of *blondo*. The results were categorized on a scale of very low, low, medium, high, and very high understanding. The pre-test results showed 12.9% low, 48.4% medium, 35.5% high, and 3.2% very high. The post-test results showed significant differences, showing no low category, a decline in the moderate category to 16.1%, 61.3% for the high category, and 22.6% for the very high category. These results strongly suggest that there has been a significant improvement of the target community's capacity after the training.

1. INTRODUCTION

Dersono Village, Pringkuku District, Pacitan Regency, East Java. Dersono Village is located between 8°10'30"-8°13'30" South Latitude and 110°56'30"-110°59'30" East Latitude and is ± 107 kilometers from Surakarta City. The socioeconomic condition of the inhabitants of Dersono Village is predominantly reliant on the villagers' livelihoods, with a substantial majority of its populace engaged in agricultural pursuits. Specifically, 1713 individuals, constituting 80% of the population, are actively involved in farming activities. This livelihood does not

significantly impact the community's economic conditions due to the difficulty of cultivating agricultural land on thin soil solum and water shortages. This condition is related to the geological structure of Dersono Village, which is included in the Wonosari formation karst area. Karst is defined as a landscape with a unique hydrological system due to easily soluble rocks with well-developed secondary porosity (Veress, 2020).

One of the hamlets in Dersono Village, namely Maron Hamlet, is a hamlet that can contribute quite good value to

ISSN 2460-9447 (print), ISSN 2541-5883 (online)

*Corresponding author: Pipit Wijayanti

Geography Education Study Program, Faculty of Teacher Training and Education, Universitas Sebelas Maret, Jl. Ir. Sutami No. 36, Kentingan, Surakarta, 57126, Indonesia

Email: pipitwijayanti@staff.uns.ac.id

family welfare. Maron Hamlet is famous for its tourism potential, which can offer unique tourism, which offers natural river views with cliffs and trees on the right and left sides. One example of the possibility of the Maron River in Dersono Village is its superior products that can grow well in the area (Wijayanti & Zamani, 2022). The unique product is the coconut tree. This is included in one of the essential aspects of tourism carrying capacity, namely amenities. Cooper suggest that there are four components that a tourist attraction must have, namely: attraction, accessibility, amenities, and ancillary (Cooper, 1993). Amenities are all kinds of facilities and infrastructure tourists need in a tourist destination area. So, in utilizing the superior potential of the Maron River tourist destination, a product or result is required that can be used as a characteristic of the tourist area in question.

Maron River tourism still needs to have superior products that tourists can enjoy. There is only processed coconut sugar, but the marketing needs to target tourists with simple packaging. So, a strategy is required to develop the potential of local commodities, which can be produced as superior processed products that can become unique souvenirs and have high selling power in Maron River Tourism.

Coconut commodities can be used as ingredients for making coconut oil and *blondo*. Coconut oil is a processed product from heating and settling liquid coconut milk from squeezed coconuts (Karouw et al., 2019). At the same time, *blondo* is the result of precipitation from processed coconut milk, which can be used as an additional ingredient in cooking. Indonesia was the world's second-largest producer of coconut oil in 2018, with a production of 1,005,000 tons, with a contribution of Indonesian coconut oil production to the world of 27% (Karouw et al., 2019; Widiarto et al., 2022). The sales potential for *blondo* is also promising. Sales data in several marketplaces shows that various stores have completed more than 1000 sales.

So, it can be concluded that the form of community participation in this program is that the PKK group is involved as a party from the community who can process and market superior products in Maron River tourism to improve family welfare and be able to compete with other excellent local products so that they can be sold well. Greater reach.

Economic problems are so significant that they require an increase in the economy and the level of economic welfare. Economic growth has an important role, so there needs to be careful planning to improve performance and development orientation (Pantow et al., 2015). Welfare and financial problems relates to low-income levels and minimal employment opportunities (Bahri et al., 2023; Kariasa et al., 2023). So, it is necessary to optimize regional potential, both natural and human resources. One of the strategies is to make optimal use of superior products or commodities. The coconut potential in Maron Hamlet, Dersono Village, has not been optimally optimized by the community, and the products available at Maron River Tourism still need to have the area's characteristics, so they

require appropriate processing and marketing strategies.

2. METHOD

This community service activity was conducted in Dersono Village, Pringkuku District, Pacitan Regency, East Java. Dersono Village is located between 8°10'30"-8°13'30" South Latitude and 110°56'30"-110°59'30" East Latitude. Maron Hamlet is the primary location for this community service that focused in training and increasing the villagers' capacity in managing and marketing superior local products from the Maron River. After knowing the condition of the community's initial capacity through a pre-test and observation, the planned training session that combined discussions and practices was deemed suitable and necessary. The data were collected from members of the hamlet' PKK (a hamlet-level organization aiming at empowering and increasing families' welfare). The pre-test contained questions relating to managing and marketing superior local products. The success of the training was seen from the post-test results and observations during implementation. The pre-test and post-test were assessed using scoring for each answer on a Likert scale with five categories: 5 (very high), 4 (high), 3 (fair), 2 (low), and 1 (very low). Subsequently, the vulnerable class is determined using the following formula.

$$nmax - \frac{nmin}{category}$$

To determine the participants' knowledge and capacity based on the pre-test and post-test results and calculations, these two aspects were categorized as: a very high score between 85-100, high between 69-84, moderate between 53-68, low 37-52, and very low 20- 36.

3. RESULT AND DISCUSSION

This community service program was held on August 10, 2023, at Maron Hamlet, Dersono Village, Pringkuku District, Pacitan Regency. This community service also emphasizes increasing capabilities in managing and marketing superior local products in Maron Hamlet, namely Coconut Fruit. The data for this community were obtained from a pre-test questionnaire filled out by members of Maron Hamlet's PKK. This PKK group covers Maron Hamlet and its surroundings. All PKK members are indigenous people who live in Maron Hamlet. The PKK members as the respondents this time had a diverse age range, where the youngest member is 18 years old, and the oldest is 66 years old. Respondents filled out this questionnaire before the start of training session.

The concept of empowerment aimed at changing the name of the PKK organization as it is considered a spirit of revitalization of development in Indonesia to emphasize gender equality, especially the role of women to make them more productive, including productivity in activities carried out in the household which can increase household income to make them more prosperous. Therefore, the empowerment of the PKK group aimed to improve the community's productivity to process and market products

that have potential and could be profitable value in Maron Hamlet as a location for this research and community service. The implementation of the PKK empowerment in Maron Hamlet included training in making coconut oil, *blondo*, and how to package coconut sugar products. These three products have something in common in that they are made from coconut, a superior product that can thrive in Maron Hamlet. The coconut tree is also called the tree of heaven or the tree of life because all parts of the coconut tree can be used for various purposes, such as coconut oil, drinks, food, medicine, and handicraft materials (Chan & Elevitch, 2022; Victor, 2013). This is by the total area of coconut plantations in Pacitan Regency reaching 24,700 ha, with total production reaching 20,885,320 coconuts/year (BPS, 2018). Therefore, coconut commodities must be managed well with the hope of improving and utilizing superior products in Pacitan Regency, especially in Maron Hamlet.

By selecting of the Maron Hamlet's PKK group, the community service team hoped that this organization could become a forum that can be used as a Small and Medium Enterprise or Home Industry that the village can manage. MSMEs are small-scale independent community economic activities whose management is carried out by community groups, families, or individuals (Purba, 2019). With the success of this program, it is hoped that the PKK group can become a forum for these MSME activities. This PKK Group empowerment program also taught its members how to package products that attract consumers' interest. Here, the products marketed are processed from plants with superior potential, such as *blondo*, coconut oil, and coconut sugar (Rahmawati et al., 2023). This training also taught the PKK members the effective technique in packaging and marketing excellent local products, which were expected to be able to compete and have high selling value. Therefore, there was an introduction to how to package and market products online. This online platforms and marketplaces, which are more effective, efficient, and more accessible to improve networking, are what businesspeople use to support their business.

On the other hand, the product branding must also be adjusted to the applicable design provisions. Packaging is an essential aspect of marketing because it is a powerful way to enhance product attributes and the impression of a particular brand through its graphic, textual, and structural design elements (Celhay & Trinquecoste, 2015; Cornil et al., 2017; Fenko et al., 2016; Magnier & Schoormans, 2017). Shopping using internet technology is called online shopping or online shopping. Online marketing is very appropriate for online development by linking it to the activity of buying and selling a product. The importance of online marketing, primarily through social media, can be seen in selling products from a region, especially superior ones from a region. So, MSMEs and community groups need to sell their superior local products through online media as a sales tool that makes it easier for consumers to access the products they want and quickly get a response from the seller without meeting them in person.

3.1 Respondent characteristics

From the data that has been taken by filling in the pre-test questionnaire in the PKK group empowerment activities in Maron Hamlet, it can be seen in Figure 1, with the results that 25.8% of people aged 35-39 years are included in the productive age group. Productive age is the working age of a person to be able to produce goods or services. Meanwhile, the members of the PKK group consist of 35.5% farmers and 29.0% housewives. These two job types are the answers that have the most significant percentage in the pre-test, so they are perfectly suitable with the goals and benefits of community service activities that can empower and train the people of Maron Hamlet to improve their skills and economic life. These diverse jobs are based on the respondents' abilities and desires for everyday life.

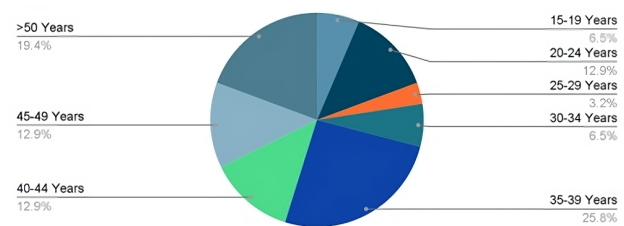


Figure 1 . Respondents' ages

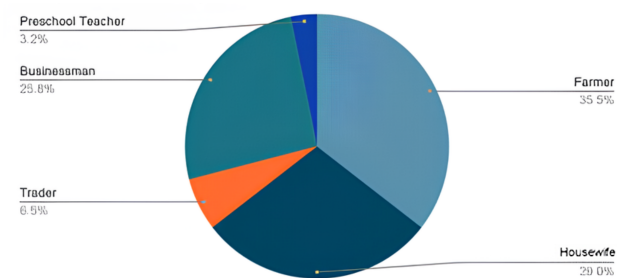


Figure 2 . Respondents' occupations

The coconut potential in Maron Hamlet is capable of becoming a resource in utilizing the village's superior local products. This hamlet is home to many coconut trees; more can be planted and grown. Therefore, there is a need for the right strategy to utilize superior local products, which can become the permanent potential of the Maron area. Coconut is a plant that can be processed into various products, such as coconut oil, coconut sugar, and *blondo*. Coconut oil has a high content of saturated fatty acids (Norulaini et al., 2009); these fatty acids have been proven to have antiviral, antibacterial, and antiprotozoal properties (Verallo-Rowell, 2017). As a result, coconut oil has lower cholesterol levels than palm oil. The pre-test results in Figure 2 state that 64.5% of the people of Maron Hamlet know that coconut oil has lower cholesterol levels than palm oil and that the remaining oil production process can be used as processed food. Apart from that, coconuts can be processed into coconut sugar, made from coconut tree flower sap with insulin levels that can absorb glucose, so it is safe for consumption by people with diabetes. However,

the respondents still needed help to utilize the potential of coconut optimally, so they needed a strategy to utilize the potential of this superior local product.

3.2 Community understanding before training

Businesses need a platform that can market the products produced from this superior local potential. The initial goal is to be able to market and manage products. This forum is commonly known as Micro, Small, and Medium Enterprises, or MSMEs. Micro, Small, and Medium Enterprises (MSMEs) are a people’s economy with a small scope that stands alone and is managed by individuals or groups. So, it is very suitable for the PKK group in Maron Hamlet to serve as a forum for developing MSMEs. The pre-test results in Figure 3 showed that 29% of the people of Maron Hamlet only knew about MSMEs, their role in the economy, and the impacts that would occur if a village had its MSMEs. The impact that will be felt is more optimal labor absorption and reduction in the number of unemployed, as well as improving the quality of the local economy by not abandoning existing online media. However, the PKK Dusun Maron group was only formed as an association organization that empowers and improves families’ welfare without producing and marketing its products.

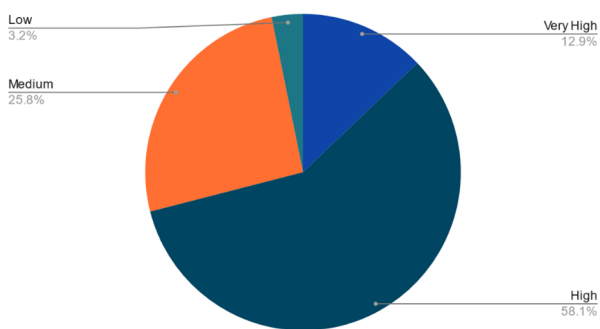


Figure 3 . Pre-test on the understanding of the coconut potential

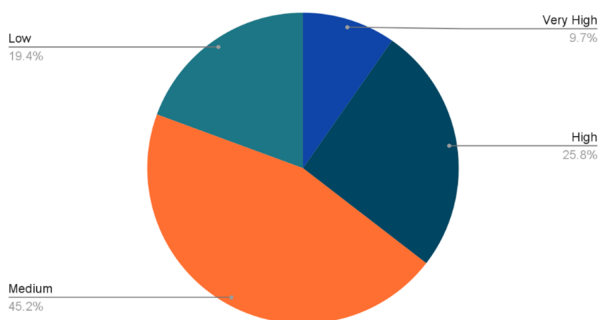


Figure 4 . Pre-test understanding of packaging

The product is ready to be marketed with an attractive and complete packaging strategy once the container has been formed. At this time, product marketing can be quickly done without having to meet directly between producers and consumers. This marketing uses social media

or platforms to promote superior local products. The pre-test answers in Figure 4 showed that 64.6% of the people of Maron Hamlet felt they needed to learn more about the online marketing system and its importance if it was adapted to existing technological developments.

3.3 Community understanding after training

After carrying out the community service process of empowering PKK capacity in managing and marketing superior local products in Maron Hamlet, the data were taken through a post-test to discover the increase in skills and knowledge among the PKK members. Based on the pre-test results in Figure 5, data concerning community capacity (PKK) in understanding the potential of coconut revealed that 80.6% participants exhibited a high level of understanding, while 12.9% demonstrated a moderately knowledgeable stance regarding the subject. Following the intervention, as indicated by the post-test outcomes, there was a notable enhancement in public comprehension. Specifically, there was an increase of approximately 6.5% in the proportion of individuals categorized as having a very high understanding, rising from the initial 12.9% to 19.4%. Additionally, there was a 3.1% rise from the original 58.1% in the high understanding category. Overall, there has been an increase in people’s understanding; previously, they already knew a lot about the potential of coconuts that could be developed. The increase occurred from a concentration dominated by understanding at a moderate and high level, to a transition to high and very high.

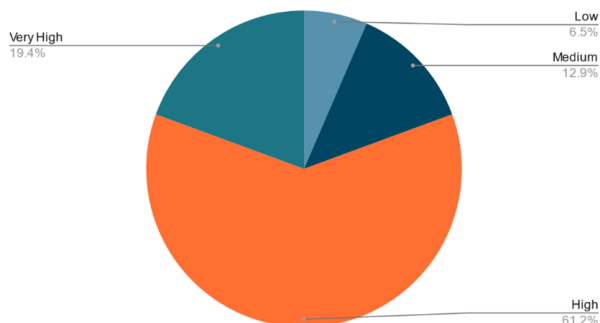


Figure 5 . Post-test on the understanding of the coconut potential

The ability to package products for sale makes a good impression in the eyes of buyers (Apriyanti, 2018). Through packaging, consumers receive messages from the contents of the product inside, either through written information on the packaging or from the appearance, which gives a distinct impression to consumers so that it becomes a consideration in making decisions about whether or not to buy a product. Community capacity (PKK) before training based on the pre-test depicted in Figure 4 tends to be sufficient at 45.2% and high at 25.8% coupled with 19.4% community understanding, which is still low, indicating that the percentage of community understanding is still not yet in-depth related to understanding packaging. Figure 6 shows the changes after product packaging training was carried out, which shows a shift in increasing public

understanding to high at 54.2% and very high at 36.2%. These results must be distinct from the presentation of material from resource persons and direct practice to the public, which provides more understanding regarding packaging science.

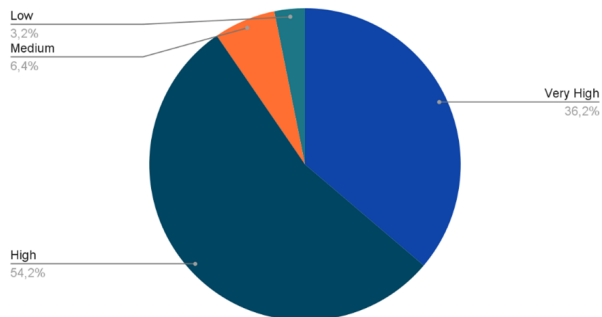


Figure 6 . Post-test understanding of packaging

4. CONCLUSION

We confidently conclude that this community service activity - empowering the Dersono Village PKK group members in making coconut oil, *blondo*, and good packaging - has been successful. The training session included a providing education about coconut product processing and packaging. Based on the data that have been collected, the target community's knowledge and skills were still inadequate before receiving training. After being given the training, there was quite a significant improvement as evidenced by the notable increases in the participants' scores obtained with the post-test.

ACKNOWLEDGMENT

We would like to express our gratitude to the Ministry of Education and Culture for providing funding for this activity, as well as Sebelas Maret University, Surakarta, which facilitated and provided assistance in implementing this community service through the Institute for Research and Community Service (LPPM) unit. We also thank the Dersono Village Government, Maron River Pokdarwis, Maron Hamlet Family Welfare Empowerment Group (PKK) and Maron Hamlet Karangtaruna who are willing to become partners. Hopefully everything that has been implemented will bring sustainable benefits.

The journal written is a mandatory output of the Community Partnership Program (PKM) funding from the Ministry of Education and Culture for the 2023 fiscal year with derivative contract number 1280.2/UN27.22/PM.01.01/2023. Hopefully, this is useful for readers, and please provide suggestions and input for future improvements.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest.

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