

EMPOWERING FISHERWOMEN AND WOMEN OF GMIT SILOAM OEBELO KECIL COMMUNITY THROUGH FISH CRACKERS MAKING TRAINING

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Article history

Received : 20-09-2023

Revised : 13-06-2024

Accepted : 09-07-2024

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Abstract

The local potential of Tanah Merah Village is fish and lontar, which are still in the form of caught fish, dried fish, and lontar sugar. The fishermen and women of GMIT Siloam Oebele stated that fish, which is the village's potential, is often not sold out and dries up. Fish processing has not been done much by the existing community, and the sales are mostly done in traditional markets. Through the steering committee of Artha Wacana Christian University, community service activities with partners are intended to be members of local potential for learning and mentoring innovations for partners. The objectives of this program are: 1). Transfer of knowledge of fish cracker processing innovations from local ingredients, 2). Creativity to improve branding and marketing system to UKAW partners, 3). Adding soft skills and hard skills outside the classroom, 4). Increase cooperation between Artha Wacana Christian University partner's. The method applied to service activities is adult learning through counseling and empowerment and in producing fish crackers. The method applied in the service activity is adult learning through counselling, empowerment, and assistance in producing fish crackers. The activity stages began with the SC Service Team conducting a survey of potential resources at the location, designing utilisation activities, training and mentoring in product creation, packaging, and marketing in a simple manner for UKAW partner businesses. The result of this activity is that the fisherwomen and Women of the GMIT Siloam community have the ability to make fish cracker products and packaging that can be marketed online as a product that can improve the community's economy. Products were judged to have excellent taste, color, and shape, and participants were satisfied with the activities. Sustainability of activities with UKAW and partners can be done through other programmes such as preventing the disposal of damaged fish into the environment and training in simple bookkeeping.

Keywords: Empowering Women; Fish Cracker; Product; Training

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INTRODUCTION

In general, the people of Tanah Merah Village make a living as fishermen (catch fishermen) who sell fish, shrimp, and shellfish in a simple way and live from the existing palm products. The life of the village community is similar to other coastal communities, where the community's income is uncertain because local resources depend on good and bad weather and the ability to sell fish marketed on the roadside (Luciana et al., 2017; Pangerapan et al., 2018). Congregation of Oebelo Kecil is included in the administrative area of the village Tanah Merah, Central Kupang Sub-district, Kupang Regency; known has the potential for fish villages and Lontar plants which are processed as alcoholic beverages, and *gula lempeng* or brown sugar, as well as crabs and shrimps (interview with the Chairman of the Siloam GMIT Assembly, July 2023). Oebelo Kecil has one Church of the Evangelical Church in Timor (GMIT) called GMIT Oebelo Kecil. The church's congregation

is included in the administrative area of Oebelo Kecil Village, most of which have livelihoods as fishermen because of its location near the coast.

White snapper is known as reap in Tanah Merah Village which has an expensive price in Kupang, namely Rp. 70,000- Rp. 120,000 medium size (Media Indonesia online, June 23, 2023). Usually, the fish are simply sold and used for food. If the fish are not sold, the fishermen usually dry the fish or simply distribute it to their relatives without further processing. The lack of varied fish management has impacted the provision of added value, especially for fishers' income. It is further exacerbated by the rainy season while the fish harvest is plentiful. One process that can be done is processing into food variations, including fish crackers (Amraini et al., 2022). Kerupuk is a type of food made from a mixture of flour and snapper meat, as raw materials before steaming have nutritional values such as 0.55% protein, 0.27% fat, and 0.23% carbohydrates (Jacob

et al., 2013; Wael et al., 2023). It is usually consumed as a side dish for rice or as a snack for children.

The catches of fishermen around the GMIT Siloam Oebelo Kecil church are then only sold and utilised, generally consumed as food. Fish management is also still very simple, which is only dried in the sun for storage and not processed in various forms.

This community service activity is in line with the Learning and Community Assistance (KBPM) activities carried out by Artha Wacana Christian University (UKAW) in Tanah Merah Village at GMIT Siloam Oebelo Kecil. KBPM is a tangible form of UKAW's contribution to society through thematic KBPM programmes designed by Field Assistance Lecturers (DPL) with students in each location. It is also mandatory for Steering Committee (SC) Lecturers to play an active role in providing solutions in the field, which also involves KBPM students. One of the work programmes carried out was to conduct a census of the GMIT Siloam Oebelo Kecil congregation. While SC implements other programmes, along with the service team, namely lecturers, as well as students in service activities, to provide training to the community by empowering the resources owned by the village/church at the KBPM location, namely Fish Crackers Making Training as Strengthening for the Communities of Fisherwomen and Women of GMIT Siloam Oebelo Kecil.

The existence of an alternative processing variation using fish material designed by the SC service team, namely made into crackers, provides a choice other than consumption. It can increase food variation. Processed foods can be traded to a great extent and consequently add to increase their income. The processing of these fish crackers is expected to encourage management and increase the number of fisherwomen and women in the GMIT Siloam Oebelo Kecil community as an alternative to using local potential for economic improvement. It can also increase the handling of Health and Economic Security and Family Food. Economic empowerment efforts through women's involvement have now been widely used to advance family and regional income. The resulting products are very easy because they take advantage of the potential in the village, including fish. So, by training, the reefs of fish are expected to increase fishers' capacity and the community's living standards. The economic strengthening of the community is achieved through digging into the village's potential (Safiri & Wahid, 2022). The resulting target is a fish cracker. The objectives of PKM are: 1). Increase of knowledge on producing fish crackers, 2). Transfer of teaching science to partners of UKAW, 3). Adding student soft skills and hard skills outside the classroom, 4). Increased cooperation of UKAW and partners

METHOD

This activity was held at GMIT Siloam Oebelo Kecil, and this PKM activity involved fisherwomen and women of GMIT Siloam Oebelo Kecil. This activity occurred twice on 15-16 July 2023 and was attended by fishermen, housewives, and the management of GMIT Siloam Oebelo Kecil Women. This activity uses adult education models (androgogy) through extension work, empowerment, mentoring, and production management (Joyce et al., 2011; Mutmainnah et al., 2019). The Steering Committee (SC) group's service program to the community uses the method of surveying the potential of resources at the location, designing activities to utilise resources, training, and mentoring in product manufacturing, packaging, and simple marketing for business opportunities for UKAW partners (Pade et al., 2021).

The activity aims to provide alternative entrepreneurial activities that add insight and the household economy. In this service activity, the basic ingredients of the crackers used are snapper meat, tapioca flour, eggs, mushroom broth, baking soda, sugar, salt, and cooking oil (Deni et al., 2013). This PKM activity also provided material through lectures, hands-on practice, and mentoring (Safiri & Wahid, 2022), including: 1). providing counselling and awareness about the benefits of fish and the value of nutritional content in fish; 2). product management, 3). product design (packaging), marketing, and ongoing assistance. Counseling by giving direct demonstrations and packaging designs made directly by the women of GMIT Siloam Oebelo Kecil in the form of groups accompanied by the head and members of PKM activities and KBPM students.

Following the training and mentoring activities, an evaluation was carried out to measure the participant's satisfaction with the achievement of the implementation of the activities and the material provided qualitatively using a questionnaire. The final stage is preparing the final activity report (Rupidara & Nomleni, 2022).

RESULT AND DISCUSSION

Service activities of the Steering committee (SC) together with a team of service lecturers at GMIT Oebelo Kecil to provide strengthening to housewives who are wives of fishermen and Women of GMIT Siloam Oebelo Kecil through training in making fish crackers. The crackers known by the people of Tanah Merah Village and the GMIT Siloam Oebelo Kecil congregation are still limited to crackers available in the market or without the addition of fish. The training on fish crackers is intended to utilise fish that is not sold out so that it can be consumed with different preparations or used as other food products. Crackers with a mixture of flour and fish produce crackers with better quality, better taste, and attractive

appearance and have other variations than crackers without the addition of fish (testimony of training participants, 2023).

Training activities were held at the Siloam GMT Church hall on 15-16 July 2023. In this activity, the service team gave a lecture about using fish as a basic ingredient for making fish crackers. The resource persons are: material about fish and its importance was presented by Dr Anderias J. F. Lumba, M.Pd. The transfer of knowledge provided is that fish contains nutritional values such as protein, carbohydrates, fibre, phosphorus, iron, zinc, thiamine, riboflavin, niacin, magnesium, manganese, selenium, pantothenic acid, folic acid, vitamin E, vitamin K, monounsaturated fatty acids, plural unsaturated fatty acids, which are important for child growth and children's brains, pregnant and lactating mothers, can treat ulcers and bone growth.

Table 1. Knowledge transfer to fisherwomen and women of GMT Siloam Oebelo Kecil Community

Aspect of The Problems	Goal	Solution
No training has empowered a village potential in GMT Congregation Siloam Oebelo Kecil.	Training on village resource management as a means to support improvements in community knowledge	Providing training on using the local potential of snapper for fishermen, congregation, and Women of GMT Siloam Oebelo Kecil
No basic knowledge of fish processing variations	Increasing the management of fish in products with economic value	Training in making fish crackers as a product in economic improvement of the community
Not yet aware of the packaging process and digital marketing	Make products more attractive with good packaging Improve the economy through digital product sales	Training on attractive product packaging and simple digital marketing

While the second lecture, namely the economic value and potential of white snapper for the Tanah Merah Village community and the GMT Siloam Oebelo Kecil congregation, was discussed by Dra Anggreini D.N. Rupidara, M.Si., Ph.D. The high selling value of snapper reaching Rp. 70,000 per Kg can increase the economic value of the community. If the high selling value does not have a market, fishermen must have other potential selling values, including processed foods with different variations. In

addition, snapper is a protein-containing fish that is good for child growth and brain development because it contains omega and unsaturated fatty acids. If the selling value is high but does not have a good market, the community can process it into other food products so that it becomes one of the additional incomes for fisherwomen. The team's efforts in transferring knowledge are reflected in the resulting solutions to the problems found prior to the training (Table 1).

Training and Mentoring in Making Snapper Fish Crackers Products

Training and mentoring in making snapper fish crackers carried out at Siloam church involving fisherwomen and Women of the congregation in Tanah Merah village, as well as group 41 of students of the Community Assistance Learning Activities (KBPM), totaling 26 participants (Fig. 1).



Fig. 1. Transfer of knowledge in fish cracker processing from local ingredients

With the assistance of making crackers made from snapper fish, Fransina Th. Nomleni, S.Pd., M.Pd. taught the participants the composition of fish and other ingredients, the desired shape of the crackers, and the final process of frying the crackers. During the direct practice of the cracker-making process, the women participants were accompanied by the resource person (Mutmainnah et al., 2019). The mentoring process by resource persons as well as hands-on practice, provided tangible evidence that the participants could see for themselves the process of making crackers so that the transfer of knowledge would be more effective. The mentoring process for making fish crackers has been published on YouTube: <https://youtu.be/4BUP-UOGF9Y>. Two types of fish crackers are produced, namely, direct processing of fish ingredients into crackers and processing fish

ingredients through steaming before frying. The participants practiced the processing process who gave testimonials that the fish crackers were easy to follow and were satisfied with the results. Regarding the taste, shape, and colour of the crackers, all participants stated that they liked the fish crackers and were satisfied (100%)

Mentoring in Packaging and Marketing Process

A brand or logo is a form of product that is attractively packaged to represent the product identity with a distinctiveness that provides colour, aesthetic value, or art for consumers in increasing selling value and competitiveness against competitors (Valentino, 2018). Logos often characterise products so that they are easily recognisable and become the branding of the product itself, as well as the company that produces it. The more attractive the design, the more recognised it is by the market and consumers, both locally, nationally, and even internationally.

The logo of the snapper fish crackers produced by the Siloam Oebelo Kecil GMIT congregation is a pilot logo for a cracker product made from snapper fish, which is the main resource of Tanah Merah village (Fig. 2). The product is packaged in plastic with adhesive for the two types of crackers produced.



Fig. 2. Transfer knowledge of improving branding and marketing systems to UKAW partners

The current marketing system has changed from traditional markets to online markets, namely marketing using social media, which is growing rapidly in the 4.0 era (Harahap et al., 2019). In addition, the products produced must be able to have certain targets so that marketing can be done appropriately. Marketing assistance was carried out in the service of fish crackers using Facebook, Instagram, and TikTok media from members of the GMIT Siloam Women's Mothers (Kristia & Beli, 2021; Rahmawati et al., 2021).

For the sales process, it is necessary to calculate the total price of raw materials and products produced. The production of fish crackers

using the available raw materials obtained four packs. The selling price calculation to help groups per fish cracker product is done by calculating the total production costs, which include: 1) Raw material cost = IDR. 202,600; 2). Labour Cost per day = IDR. 50,000, resulting in a total production cost of IDR. 252,600. Cost of Goods Sold/production = Total Production Cost + (30% x Total Production Cost), which is (IDR. 252,600: 8) + = IDR 31,575 + (30% x IDR. 31,575) = IDR. 41,047.5 per package of crackers. The expected profit level is obtained from the cost of goods sold multiplied by the number of units of fish crackers produced once production is IDR. 41,047.5 x 8, then the expected profit is IDR. 328,380.

Evaluation

At the evaluation stage of the service activity, all training participants were given an evaluation through a Likert Scale evaluation sheet, namely: Strongly agree (4), Agree (3), Disagree (2), and Strongly disagree (1) with 12 questions to 26 participants. The questions ranged from the speaker and how the material was presented, the time of implementation, the training program, participant involvement, the ability to make the products trained, and participant satisfaction.

Based on the calculation of the benefits of activities for partners, participants gave a 100% response, with answers of 66.67% stating they were very satisfied and 33.33% stating they were satisfied. The response to the increase in knowledge through this activity was 75% very satisfied and 25% satisfied. Compared to the initial statement of the participants, they did not know how to make crackers from fish. So far, they have only processed fish through drying and smoking processes.

Participants' satisfaction responses and direct testimonials by participants on the taste of the fish crackers stated that the crackers tasted good with a pronounced fish flavour, attractive cracker shape, and crispy crackers. Participant satisfaction was obtained from 58.33% of those who were very satisfied and 41.67% who were satisfied. It is in accordance with the participants' responses, with a very high percentage of the questionnaires being returned to the team. Based on the Likert scale criteria, overall, the response to the SC team's service activities had a result of 91.67%, which was in the Strongly Agree category.

All participants managed to make fish crackers using the opportunity given to them. Even in the testimonials, everyone was happy with the flavour of the fish crackers they made. The sustainability of this activity is expected, and fisherwomen can make this business at least as an effort to reduce the value of fish damaged during waste fishing and form a joint business group to start their own business.

CONCLUSION

The implementation of the community service programme involving the community of Fisherwomen and Women of GMIT Siloam Oebelo Kecil of Tanah Merah Village successfully transferred knowledge, namely: the community has an awareness of the importance of product innovation from local ingredients, branding, and improving the marketing system. Quantitatively, partners' knowledge about the fish crackers produced increased with a percentage of 75% very satisfied, and the benefits of the activity were 66.67% very satisfied. The overall partner response based on the Likert scale to the SC team's service activities has a presentation result of 91.67%, which is in the Strongly Agree category. The sustainability of UKAW and partners' activities is through programmes to prevent the dumping of damaged fish into the environment, and training in simple bookkeeping.

ACKNOWLEDGEMENT

SC and the Community Service Team would like to thank the Artha Wacana Christian University Community Service Institute for financial support and facilities, as well as the participation of the Chairperson of the Congregation Assembly and GMIT Siloam Oebelo Women so that the service activities have been carried out well.

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