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## TRAINING IN MAKING CRACKERS FROM LEFTOVER RICE FOR INCREASING FAMILY INCOME IN GAMPONG ULEE JALAN BANDA SAKTI DISTRICT LHOKSEUMAWE CITY

Likdanawati<sup>1</sup>, Hamdiah<sup>2</sup>, Cut Putri Mellita Sari<sup>3</sup>, Rina Rahayu<sup>4</sup>, Mona Adilia<sup>5</sup> <sup>1,2,3,4,5</sup>Faculty of Economics and Business, Universitas Malikussaleh

Corresponding E-mail: cutputri.mellita@unimal.ac.id

## ABSTRACT

Gampong Ulee Jalan is in the Banda Sakti sub-district of Lhokseumawe City. This gampong is located in the Malacca Strait crossing area. Apart from that, the majority of people in Ulee Jalan gampong are Acehnese and there are some mixtures of other tribes. Gampong Ulee Jalan Banda Sakti District, Lhokseumawe City consists of 4 (four) hamlets named Mesjid Hamlet, Bahagia Hamlet, Sejahtera Hamlet, and Dayah Hamlet. The problems faced by the people of Ulee Jalan gampong are the problem of poverty and low education and lack of knowledge about technology for processing leftover rice which is always at home every day and leftover rice from celebrations, low knowledge in running a business and marketing and limited employment opportunities so that employment opportunities are needed. new to increase people's income, especially family income. To solve the problems faced by partners, training and assistance is provided in making leftover rice crackers so that they are worth selling, increasing entrepreneurial skills and creating new business opportunities in making leftover rice crackers, which in the end can increase people's income in general and family income in particular. The aim of community service activities (PKM) is expected to be able to make a contribution, especially to the women of Ulee Jalan village, to further increase their creativity to make optimal use of the potential that exists in the mothers through training in making crackers from leftover rice so that the mothers can create jobs. and increase knowledge and understand how to increase family income. The activity implementation method is carried out by (1) introducing products/crackers resulting from processing leftover rice into crispy and nutritious crackers whose processing does not require modern equipment, (2) training and assistance in making leftover rice crackers which are rich in nutrition. (3) product packaging. The result of this activity is increased knowledge and skills of partners in processing leftover rice.

## Keywords: Rice Crackers, Training, Entrepreneurship

### **1. INTRODUCTION**

Lhokseumawe City is a city in Aceh Province, Indonesia. This city is in the middle of the East Sumatra route between Banda Aceh and Medan, so this city is a vital distribution and trade route in Aceh. Lhokseumawe City has an area of 181.06 km2 and a total population of 191,396,00 people (BPS, 2022). The city of Lhokseumawe is on the sea coast which is separated by the Cunda river. Lhokseumawe City consists of 4 (four) sub-districts, namely Muara Dua District, Muara Satu District, Banda Sakti District and Blang Mangat District. Gampong Ulee Jalan was originally part of Gampong Uteun Bayi, based on the aspirations of the community members, proposing the expansion of Gampong Uteun Bayi, in 1970 So the expansion became Gampong Ulee Jalan, headed by Mr. Keuchik Paneuk who was the first person in Gampong Ulee Jalan to become Keuchik. Ulee Jalan comes from the Acehnese language which means: Ulee = Head, Jalan = Road, judging from the words and meanings in the Indonesian translation Ulee Jalan means: Head of a road located on the coastal plain, Ulee Jalan is a name taken from the location of a community residential area Lhokseumawe custom.

The location of Gampong Ulee Jalan is in the Banda Sakti District area of Lhokseumawe City, this Gampong is located in the Malacca Strait Cross area, apart from that, Gampong Ulee

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Jalan has a majority of Acehnese people and a mixture of other tribes. Gampong Ulee Jalan Banda Sakti District, Lhokseumawe City consists of 4 (four) hamlets named Mesjid Hamlet, Bahagia Hamlet, Prosperous Hamlet, and Dayah Hamlet

The problem faced by the people of Gampong Ulee Jalan is the problem of poverty and low levels of education. Poverty is a condition where people are unable to fulfill their basic rights to maintain and develop a dignified life. The cause of the poverty of the people of Gampong Ulee Jalan is due to limited employment opportunities and limited business capital as well as the low level of education. Therefore, carrying out community service activities is expected to be able to make a contribution, especially to the women of Ulee Jalan village, to further increase their creativity to make optimal use of the potential that exists in the mothers through Training in Making Crackers from Leftover Rice so that the mothers can create a field. work and increase knowledge and understand how to increase family income

The people of Gampong Ulee Jalan need real forms of activity that can improve their economy without losing their culture and characteristics. So a form of community-based activity is needed. One of the activities that can be carried out is empowering the women's community of Gampong Ulee Jalan through training in making crackers from leftover rice. Empowerment according to the linguistic meaning is a process, method, act of making people empowered, namely the ability to do something or the ability to act in the form of reason, endeavor or effort (Ministry of National Education, 2003). Society is a unity of human life that interacts according to a certain system of customs that is continuous, and is bound by a sense of shared identity (Koentjaraningrat, 2009). In several studies on community development, community empowerment is often interpreted as an effort to provide power so that their voices are heard in order to contribute to planning and decisions that affect their community (Foy, 1994). Empowerment is a transition process from a state of helplessness to a state of relative control over one's life, destiny, and environment (Sadan, 1997). Community empowerment can be done through training. Training is part of education to improve an individual's knowledge and skills, carried out in a relatively short time, systematically and organized by prioritizing practice over theory, so that the individual can be competent in work, life, and in increasingly tight global competition. (Khairina et al., 2022).

Crackers are a light food but are very important as a complement to meals, crackers are very popular on the tongue of the Indonesian population from the lower middle class to the upper middle class. Many people consume crackers as food companions and there are many people who cannot enjoy delicious food because they are not accompanied by crackers. Crackers are a type of snack that can be obtained anywhere, both in rural and urban areas. Apart from being a complementary ingredient to meals, quite a few people use it as a snack or snack to relax. As more and more people are interested in crackers, we hope that this can be used as a business for women in Gampong Ulee Jalan, thus increasing family income and this will cause the community's mindset to develop. Making people more innovative and creative to become entrepreneurs in the food sector, especially crackers. For the reasons above, the author organized a trainer to make leftover rice crackers. Apart from leftover rice, crackers made from leftover rice also use tapioca flour, eggs, sugar, salt and flavorings as ingredients, so they have high nutritional value.

Rice crackers are one of the crackers that are popular with people from children to adults. These rice crackers have a very crunchy texture and have a savory taste. It seems that the popularity of rice crackers has been known to many people since ancient times and until now rice crackers have become the crackers that many people look for as a side dish when they eat. If you look at the number of fans of this rice cracker dish, there is never a shortage of them. From the initial survey carried out, information was obtained that in 3 meals out of 7 days  $\frac{1}{2}$  - 8 tablespoons of rice was wasted, so in 7 days 10.5 - 168 tablespoons of leftover rice were wasted per person. If the population of Ulee Jalan is 191,396 people, then the remaining rice that is wasted is 2,009,658 – 32,154,528 tablespoons. If the remaining rice is wasted, waste will accumulate which will cause health problems. Garbage is one of the problems that is quite difficult to deal with in both large and

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small cities in Indonesia, (Nurmala et al., 2023). However, if leftover rice can be utilized optimally, it can increase income. Therefore, it is necessary to empower the community by creating a training program (life skills) that can provide skills or provisions in the community. Especially for women in Gampong Ulee Jalan. This can make people live more decently because the economy/income is better than before. One type of skills training that can be carried out to increase people's income is using leftover rice to make crackers. Based on observations in the Gampong Ulee Jalan neighborhood, many residents are confused by the remaining rice from the previous day which has not been finished, as well as the remaining rice left after a celebration or party, which is more often done by mothers is drying the leftover rice and frying it. as a snack and this has no selling value. The impact of this is that many residents end up throwing away their leftover rice. Therefore, skills training is provided on how to manage leftover rice and good product packaging. In order to further increase selling power, it is necessary to package the product in an attractive packaging. Packaging is an important element in a product, (Heriyana et al., 2022). This Community Service (PKM) activity was carried out in Jalan Ulee village because the majority of residents work as laborers or as housewives who do not have jobs. By taking part in skills training, housewives can help their family's income by skillfully utilizing the ingredients around them, especially leftover rice. The aim of this training activity is to provide skills so that they can help the family's income/economy and can form an entrepreneurial spirit.

## 2. METHOD OF IMPLEMENTATION

The method of implementing activities carried out to overcome partner problems, namely lack of information, skills and management in the field of training in making crackers from leftover rice in community empowerment, is as follows:

### 2.1 Identification Stage

At this stage, an initial coordination meeting was held with the Village Secretary and other related parties in Ulee Jalan Village. This meeting aims to introduce plans for community service activities and to gain initial insight from the Village Secretary regarding the conditions and needs of the community in the village.



Figure 1. (a) Coordination Meeting; (b) together with the Village Secretary

## **2.2 Partner Selection Stage**

At this stage, partners were selected, namely the women community (mothers) of Gampong Ulee Jalan, considering that these mothers had the potential to improve the economic condition/income of their families.

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Figure 2. The economic condition of the people of Gampong Ulee Jalan

## 2.3 Training Stage

At this stage training is carried out. Training is carried out using Live Demonstration and Project Based Learning methods. The direct demonstration method involves direct practical demonstrations from the facilitator, in this case the team implementing the service activities. Participants can see firsthand how the process of making crackers is done correctly, from preparation of ingredients to the final production stage. In the Project Based Learning method, participants are given the task of making crackers independently or in groups with guidance from a facilitator. Through this learning, participants can learn by directly applying the knowledge they have previously acquired.







(b) **Figure 3.** (a) Live demonstration; (b) Project-based learning

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### **3. RESULTS**

#### **3.1 Institutional Eligibility**

Malikussaleh University Research and Community Service Institute (LPPM) in accordance with its mission to develop technology, industry and environment-based research activities; and carry out community service evenly, to increase community knowledge and skills, towards a better standard of living. In implementing the PKM program there are several team members who will help to ensure the implementation of the PKM program according to the specified targets. The implementation team consists of a chairman and 2 members who will implement the PKM program full time and assisted by 2 assistants who will assist with technical needs in the field and 1 administrator who will help record the agenda of activities that have been carried out or will be implemented. The implementation of this team will be monitored by the Malikussaleh University Research and Community Service Institute (LPPM) as the institution responsible for reporting program progress to the rectorate.

As has been mentioned, the problems faced by the people of Gampong Ulee Jalan Banda Sakti District, Lhokseumawe City are the problem of poverty and low levels of education, and a lack of knowledge about technology for processing rice waste, low knowledge in running a business and marketing and few job opportunities so that employment opportunities are needed. new to increase people's income. Therefore, the Community Service (PKM) program is intended to help the participants in empowering the women's community of Gampong Ulee Jalan Banda Sakti District, Lhokseumawe City so that they can increase family income. Apart from that, this PKM is also intended to help participants develop their entrepreneurial spirit considering the potential for processed rice waste to have very profitable business opportunities. Thus, this program requires trainers who have expertise in fields related to processing rice waste.

### **3.2 Required Expertise**

The Community Service Implementers (PKM) consist of lecturers from the Faculty of Economics and Business, Malikussaleh University, each of whom has the following types of expertise:

- 1. Human Resource Management. This type of expertise is needed for solutions to problems faced by partners. Humans are seen as an asset for economic growth and knowledge (education) is the human capital needed to increase income. As a person's knowledge increases, a person's skills in managing a product will also increase.
- 2. Marketing Management. This type of expertise can be used to increase partners' knowledge in marketing processed leftover rice products (crackers) as attractively as possible so as to increase family income.
- 3. Natural Resource & Environmental Economics. This type of expertise is needed to reduce food waste, which in turn can have a positive impact on the environment. By utilizing leftover rice, this can reduce the amount of food waste thrown away, which can indirectly help in reducing negative impacts on the environment.

No	Name	Knowledge field	Courses Taught	Training Materials Provided
1	Likdanawati, SE, M.Si	Management	Human Resource Management Introduction to Business	Product technology for making crackers from leftover rice Motivation to start a new business

Table 1. Expertise in Implementing Community Service Activities

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2	Hamdiah, SE, M.Si	Secretariat	Marketing Management	Unique and attractive packaging Packaging advantages
3	Cut Putri Mellita Sari, SE, M.Sc	Economic development	Natural Resource and Environmental Economics	Cost-Benefit Analysis in Cracker Production Food Waste Management and Environmental Impact

## **3.3 Implementation of Activities and Results**

1. Implementation of Activities

This PKM activity was carried out on October 23 2023 at Balee Gampong Ulee Jalan Banda Sakti District, Lhokseumawe City. This activity was carried out by the PKM implementation team consisting of 3 lecturers and 2 students and the participants in this activity were mothers. The choice of partners was based on the large amount of free time that the women of Gampong Ulee Jalan had, which was generally only used for household activities without doing additional work for productive things. This activity emphasizes the direct demonstration model and project-based learning. The following is the process of implementing training activities for making crackers made from leftover rice.

a. Providing waste and environmental health materials as well as guidance regarding crackers made from leftover rice

Material regarding waste and environmental health as well as guidance regarding the direction of crackers made from leftover rice were carried out by the PKM implementation team.



## b. Direct Demonstration Method

The direct demonstration method is one effective approach in cracker making training. Training participants have the opportunity to see firsthand the correct practices in selecting ingredients, processing dough, and the process of drying crackers. In doing so, they can gain an indepth understanding of the specific steps required in the production of quality crackers. Through this demonstration, participants can carefully observe effective techniques, tools used, and how to overcome common problems that may occur during the cracker making process. Training using the



direct demonstration method also allows participants to interact directly with the instructor, in this case the team implementing service activities.

They can immediately ask questions, discuss differences in techniques, and get direct advice from experienced practitioners. This not only helps in growing participants' self-confidence, but also provides the inspiration and motivation needed to improve their skills in producing highquality crackers. Apart from that, the direct demonstration method also allows participants to understand the practical aspects of the cracker making process. They can directly observe the differences in texture, color and aroma produced during various stages of production. With this direct observation, participants can better understand the importance of specific stages in the production process that contribute to the final quality of the cracker product. Direct observation also allows participants to gain deeper insight into the hygiene and food safety standards that must be adhered to during the cracker production process.



c. Project Based Learning Method

The project-based learning method is an effective approach in cracker making training because it provides the opportunity for participants to learn through direct experience. In the context of cracker making training, participants can be given a project to make crackers from start to finish using the raw materials provided. In this way, they can learn about the entire production process, from material preparation to the drying process. Through this project, participants can develop their hands-on practical skills and understand the challenges associated with making crackers in a realistic way. In addition, project-based learning methods also allow participants to develop teamwork and problem-solving skills.

In the context of cracker making training, participants can be given a group project to make crackers with different recipes and flavor variants. This encourages them to work together to plan, organize and carry out tasks effectively. Apart from that, participants can also learn to solve problems that may arise during the production process collaboratively. Through this project, participants can develop communication and leadership skills in a simulative and supportive work environment. Lastly, the project-based learning method also provides opportunities for participants to develop creativity and innovation in making crackers. Participants can be given the freedom to create unique and attractive flavor variants and product appearances. Through this project, they can practice the knowledge they have gained from training and apply it in creating cracker products that are different from existing ones. Apart from that, participants can also learn to identify potential market opportunities through product innovation, so that it can help them to develop a cracker business that is more diverse and attractive to consumers.

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## d. Evaluation

In the evaluation activity, participants were divided into several groups to practice in groups making crackers made from leftover rice. This evaluation process also uses a project-based learning method approach.



e. Closing

The training activity for making rice-based crackers ended with a photo with the participants.



2. Activity Resultsv



Based on the cracker making training activities, there are several significant results that can be observed from the training participants. The following are the results obtained from PKM activities:

a. Increasing Participants' Skills and Knowledge

Training participants experienced a significant increase in skills and knowledge related to the cracker making process. They gain a deeper understanding of the techniques involved in making crackers, from selecting ingredients, processing, to effective drying techniques. This increase allows participants to produce higher quality and more varied crackers, thus opening up opportunities for the development of a more diverse and profitable cracker business.



### b. Increased Environmental Awareness

During the training, participants also gain a better understanding of the importance of environmentally friendly production practices. They learn how to minimize waste in the cracker making process, as well as utilize resources efficiently. Awareness of the importance of waste management and the use of environmentally friendly raw materials also helps encourage participants to adopt more sustainable practices in their businesses, which in turn can have a positive impact on the local environment. This can be measured through knowledge tests before and after training to assess the extent to which the participant's knowledge has increased

### c. Increasing Local Economic Potential

Cracker making training also has a positive impact on local economic potential. By increasing participants' skills in producing quality crackers, they can develop products that are more attractive to consumers. This has the potential to increase income and economic prosperity in the region. Apart from that, training can also stimulate the growth of the local cracker industry, which in turn can create new jobs and encourage the economic development of the community as a whole. Thus, these training activities not only provide individual benefits but also contribute to the economic development of the local community as a whole.

### 3.4 Influence and Impact of Activities

Influence and impact of activities on:

1. Partners: Increased Skills and Knowledge. Training on making rice-based crackers can improve partners' skills and knowledge regarding efficient cracker production techniques and good quality standards. This can help improve the quality of their products and reduce waste of raw materials. Apart from that, there is an increase in income. With improved quality and increased competitiveness, partners may be able to increase the prices of their products or

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attract more customers. This has the potential to increase their income and improve their standard of living.

- 2. Higher Education: (1). Improved Reputation and Social Engagement. Universities that are involved in cracker making training activities can improve their reputation in the eyes of the public. This is especially the case if the training is considered as part of the university's efforts to contribute to the development of local communities. Involvement in social activities can also increase the community's sense of ownership of higher education. (2). Collaboration and Partnerships: Through cracker training activities, universities can establish partnerships with related industries or organizations. This could open the door to broader collaboration in future research or development. Such partnerships can help universities expand their networks and increase the relevance of their education to the world of work.
- 3. Implementation Team: Community service itself is the process of implementing science, technology and arts and culture directly to the community using scientific methodology as the dissemination of Tri Dharma. Through community service, lecturers have the opportunity to apply their knowledge directly. Starting with providing direction, or outreach so that the public knows about the technology and knowledge presented by the lecturer. Then together with the community it began to be implemented.

### **3.5 Outcomes of Service**

The output of this service activity is to increase the knowledge of the women of Gampong Ulee Jalan in making crackers made from leftover rice. Apart from that, the output produced is in the form of publication of activities in OJS-based journals and online media.

### 3.6 Implementation of Follow-up Activities

The training activity for making crackers made from leftover rice has been completed on time as scheduled. The next activity that has not been implemented is scientific publication of the results of service activities and printing the final report. The strategy used to complete the remaining activities is to immediately hold a follow-up coordination meeting to discuss the preparation of a final report and scientific publication.

## 3.7 Follow-up on Outcome Achievement

In accordance with the guidelines for service activities, the output of community service consists of complete reports, publication of activities in the mass media, scientific publications on the results of service, and collaborative manuscripts. The cooperation text consists of two documents, namely a document at the memorandum of agreement (MoA) level and a document at the implementation arrangement (IA) level. There are also strategies carried out to achieve outcomes, namely:

Complete report	:	In order to produce a good report, it is necessary to quickly collect all the information that has been obtained from the training activities held. The progress report can be developed into a complete final report.
Mass media publications	:	Have targeted in advance which mass media to target. After completing training activities, immediately release news so that the news presented is truly up to date.
Scientific publications	:	Book slots for publication. Immediately create an article so that it can be published in accordance with applicable regulations.
Collaboration manuscript	:	Dcarried out when the survey was conducted. This manuscript contains collaboration between two parties, namely Malikussaleh University and partners.

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## 4. CLOSING

## 4.1 Conclusion

The conclusions from the training activity for making crackers made from leftover rice are as follows:

1. Utilization of Food Waste:

This training has proven that leftover rice can be used effectively to produce food products with economic value, such as crackers. By using leftover rice, you can reduce the amount of food waste and contribute to the increasing food waste problem.

- 2. Improved Skills and Knowledge: Training participants have improved their skills and knowledge in processing leftover rice into high quality crackers. They have learned about proper processing, critical techniques, and relevant food safety principles.
- 3. Economic and Business Potential: Training activities have opened up new economic potential for participants, because they now have the knowledge and skills to start or increase a cracker business made from leftover rice. This can provide a significant income alternative, especially for communities that rely on food processing as their primary livelihood.

### 4.2 Suggestions

- 1. It is best to increase the funds allocated for next year to support the implementation of community service. This will enable the implementation of community service to be more effective, especially in providing more substantial support to partners. Mitra always hopes that the community service implementation team can provide greater assistance in terms of equipment and supplies, but limited funds have become an obstacle in fulfilling these hopes.
- 2. It is recommended to partners to diversify raw materials and explore alternative raw materials that might provide a competitive advantage or create a more sustainable image of the product

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