

PROCESSING SHREDDED CATFISH FOR COMMUNITY ECONOMIC EMPOWERMENT IN THE MERUYA AREA OF WEST JAKARTA

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Article Info:

Received: 2024-04-30

Volume: 3

Keywords:

Abon Lele, Economic Empowerment, Entrepreneurship, Community Service

Revised: 2024-05-31

Numbers: 2

Abstract:

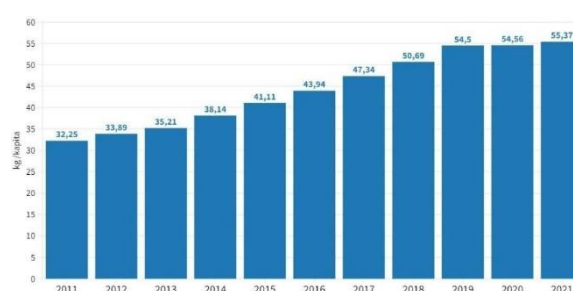
This community service program aims to empower the economy of Meruya Selatan Village, West Jakarta residents through training in processing catfish into shredded fish. This activity is designed to address the problem of low income and need for food processing skills among local PKK mothers. Through a series of training and mentoring, this program will equip participants with skills in producing quality shredded catfish, preservation techniques, packaging, and effective marketing strategies. Implementation methods include an initial survey, intensive training, hands-on practice, and ongoing monitoring. Other targets include improving participants' knowledge and skills, as well as expanding the marketing reach of shredded catfish products. By utilising local potential and appropriate technology, this programme is expected to increase family income, strengthen food security, and encourage local economic growth in Meruya Selatan Village. PKM activities will end with a discussion session, questions and answers and filling out questionnaires. The output of PKM activities will be published in the form of mass media, articles, and journal publications.

Accepted: 2024-06-15

Pages: 131 - 140

INTRODUCTION

Food as a primary human need often requires innovation in its processing to add variety to consumption and enrich nutritional and economic value. Diversification of food processing not only opens up opportunities to improve the quality of people's consumption but also to utilize existing natural resources more effectively. The use of land for various economic activities such as livestock and fisheries demands careful management to ensure social and ecological benefits are maintained. Fisheries, which are a vital aspect of the economy, particularly in protein production, can be expanded through innovative processing of fishery products. Based on data from the Ministry of Marine Affairs and Fisheries (MMAF), national fish consumption was recorded at 55.37kg per capita in 2021 (Figure 1). This shows that there is great potential to develop various processed fish products, one of which is shredded catfish, which not only increases the selling value but also enriches food choices in the community.



Source: Ministry of Marine Affairs and Fisheries, 2022



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Figure 1. Fish Consumption Rate 2011-2021

In the last decade, there has been a significant increase in national fish consumption, signalling the growing awareness of the importance of animal protein in their diet. In 2011, the national per capita fish consumption rate stood at 32.25kg, and jumped by 69.17% to 55.37kg per capita in 2021. The period with the highest increase was recorded in 2014, with an increase of 8.32% to 38.14 kg per capita, while the smallest increase occurred in 2020, which was only 0.11% to 54.56 kg per capita. In order to support and fulfill the increasing demand for fish consumption, there are great opportunities in the development of fish processing into value-added processed products, such as shredded catfish. The government, through the Ministry of Maritime Affairs and Fisheries (KKP), has targeted aquaculture production in 2024 at 9.4 million tonnes, with freshwater fish farming accounting for more than 60%. Aquaculture activities, which include the rearing, enlargement, and/or breeding of fish as well as the harvesting of their products in a controlled environment, have great potential to be developed not only on large tracts of land but also on narrow urban land, through efficient and environmentally friendly methods. This approach opens up opportunities for urban communities to actively participate in the production of shredded catfish in response to protein needs and new economic opportunities.

Declining incomes while needs continue to increase create major challenges in the fulfillment of basic needs, including food. In such a situation, processing catfish into shredded catfish emerges as an innovative solution to address economic and food security concerns. This initiative not only offers opportunities to increase family income through small businesses at home but also ensures the availability of quality food by utilizing easily cultivated catfish.

The university, with its resources and knowledge, plays a key role in providing practical solutions to the community, particularly in Meruya Selatan Urban Village, through an empowerment programme that includes training in catfish processing into shredded fish. The program was designed to equip the community with food processing skills that not only increase the economic value of catfish but also promote quality food consumption. In addition, the activities are enriched with training in business management and simple bookkeeping, with the ultimate goal of improving the family economy. Lecturers and students collaborate, providing training, mentoring, and guidance, while students get the opportunity to learn directly in the field and apply innovations developed by universities to support local communities in facing current economic challenges.

Within the framework of the existing collaboration between Meruya Selatan Urban Village and Universitas Mercu Buana, the main focus is on economic improvement through innovation in the field of fisheries, with one specific initiative being the processing of catfish into shredded catfish. This collaboration aims to empower PKK mothers in Meruya Selatan Urban Village, which has a population of 50,735 people and typical characteristics of urban communities with high mobility and limited free time, in an area of only 2.8 km², one of the smallest in Kembangan District. With a very limited area and recognised as a commercial area in the administrative centre of West Jakarta, there are unique challenges in maximising space for productive economic activities. Processing catfish into shredded catfish is expected to be an innovative solution to increase family income while providing an alternative source of highly nutritious food for the community. The average monthly income of residents working in the industrial and service sectors in this kelurahan is still below the 2022 DKI Jakarta UMP, which is Rp4,641,854.00, signalling the importance of creating new economic opportunities that can be run from home. With the application of proper processing techniques and



skills development through cooperation with educational institutions such as Mercu Buana University, it is hoped that not only will the income of residents increase, but there will also be an improvement in the quality of life through sustainable consumption of local products.

Meruya Selatan Village partners face challenges in increasing family income and economy. To overcome this problem, universities play an active role in creating opportunities through activity programs aimed at improving the economy and mastering modern food processing techniques. One of the innovative solutions proposed is the processing of catfish into shredded catfish, which not only provides added economic value but also enriches the diversification of local food products.

The purpose of this activity is to empower lecturers and students in carrying out the tridharma of higher education through off-campus service. This activity is designed to fulfil Key Indicators such as KPI 2, which focuses on student activities outside campus, and KPI 3, which focuses on lecturer involvement in external activities. In addition, the main focus of this community service is to fulfill the University's Additional Performance Indicators by improving partner competencies in economics and food security.

Priority Problems and Solutions Offered. The problem of underutilization in fish processing and the solution offered is to provide training and mentoring on processing, preservation, and packaging techniques for shredded catfish that combine industry best practices with local wisdom to improve product quality and skills. In Kelurahan Meruya Selatan, residents also face the challenge of low income. The average income of people in the industrial and service sectors is below the DKI Jakarta Provincial Minimum Wage in 2022, with Rp3,220,445 and Rp3,747,102 respectively, indicating an economic gap. To overcome this problem, one step that can be taken is to increase the knowledge and skills of the community in producing productive activities that can increase family income, such as processing catfish, into more valuable products such as shredded catfish.

METHODS

The five stages of training implementation in this catfish-to-shredded catfish empowerment program include various important steps to ensure the success and sustainability of the activities. These stages begin with careful planning and end with evaluation and dissemination of results. The following is an explanation of each stage:

Initial Stage. In the initial stage, the program implementation team was formed and strengthened. The team consists of experts with backgrounds in fisheries, food processing, and marketing. After the team formation is complete, the programme is socialised to the targeted communities, such as catfish fishermen and potential local entrepreneurs. The purpose of this socialisation was to introduce the programme, obtain feedback from the community, and refine the implementation plan based on the input obtained. Intensive dialogue with partners was also conducted at this stage to identify the most effective solutions to be implemented.

Implementation Stage. At this stage, various practical activities were implemented to support community empowerment. Firstly, a training on making shredded catfish was held, covering the entire production process, from the selection of raw materials to processing and food safety standards. After this training, participants were also provided with the necessary equipment according to the prepared budget. Furthermore, participants conducted hands-on practice under the guidance of instructors. In addition, packaging and marketing training is also provided so that participants understand how to create attractive packaging and implement effective marketing strategies. Monitoring and mentoring are conducted regularly to ensure production quality and help participants establish a good marketing network.



Evaluation Stage. The evaluation phase aims to measure the overall success of the program. The evaluation is conducted through collecting feedback from participants and partners on aspects of the programme deemed beneficial and areas for improvement. Continuous monitoring is also conducted to ensure that the best practices taught are still implemented. In addition, an economic impact analysis was conducted to evaluate how the program affected the income of participants and the local community.

Report and Outputs Preparation Stage. After all activities were completed, data and findings from each stage were collated and compiled into a comprehensive report. In addition, video documentation of the training activities, including participant testimonials, was made for publication purposes. Articles about the program were also published in mass media and social media to increase public awareness. Meanwhile, scientific articles were prepared for dissemination of results to the academic and practitioner communities. Video production and media publications were made to ensure the program was well-documented.

Knowledge Dissemination Stage. As an additional output, the programme also involves dissemination of knowledge to a wider public through various media. The training documentation and resulting scientific articles will be widely disseminated, both to practitioners and academics. This not only aims to raise awareness of the importance of innovation in catfish processing, but also to promote an empowerment model that can be replicated in other areas.

RESULTS AND DISCUSSION

Implementation of Production Activities. The experiment of shredded catfish production activities was conducted four times, on 10 July, 29 July, 16 August, and 22 August 2024. Each production stage aims to test various aspects of the process of making shredded catfish, ranging from recipes, raw materials, to product packaging. The results of each experiment were used as evaluation material and process improvements to be more efficient and produce quality products.

In the first production activity held on 10 July 2024, the team was still in the testing stage of the basic recipe for shredded catfish. At this stage, the main focus was to test the composition of spices and processing techniques that were most suitable for producing shredded catfish with the desired texture and flavor. The results of this first production were used as a consideration and basis for improvement in the next production.



Figure 2. Production Activities

In the second production conducted on 29 July 2024, the team succeeded in making two flavours of abon lele, namely with gulai and rendang spices. These two flavours were developed to

provide consumers with a wider range of options and demonstrate the potential of innovative products in terms of flavour variation. This production process was also an important milestone in ensuring that the recipe used could be implemented consistently.



Figure 2. Production Activities

In the third production, which was conducted on 16 August 2024, the team tested the use of catfish fillets instead of whole catfish. The aim was to improve efficiency in the production process, both in terms of time and cost. However, after evaluation, it was found that the use of whole catfish was more cost-effective, although the use of fillets was considered to speed up the process.



Figure 3. Production Activities



Figure 4. Production Activities

The fourth production activity, conducted on 22 August 2024, focused on packaging the final product. The shredded catfish that had been produced was packed in airtight pouches and sealed

using a sealer machine, resulting in a product that was ready for sale. This packaging is designed to maintain the quality and durability of the shredded catfish so that the product can be marketed well and has a longer shelf life. The results of this whole series of experiments showed significant improvements in production efficiency and product quality, as well as product readiness to enter the market.

Training Session 1. Training session 1 took place at Mahkota RPTRA, Meruya Selatan Village on 12 July 2024 at 08.00-11.45 WIB. The event was attended by Mr. Lurah M. Ghufri Fatchani, S.M., Chairman of LPPM UMB Mr. Dafit Febriyanto, M.Eng, Ph.D, Chief Executive Mrs. Dr. Nurul Hidayah, SE, Ak. M.Si, all Team members, external speakers and students. The opening of the activity and remarks from the Head of LPPM and the Village. Furthermore, the delivery of material by external speakers, namely Mr Ahmad Sugiarto and the second material is business diversification. The number of participants who attended from Partner representatives was 27 people.



Figure 5. Training Session 1

Training Session 2. Training session 2 took place at RPTRA Meruya Selatan on 2 August 2024 at 08.00-11.45 WIB. The event was attended by the Head of Village M. Ghufri Fatchani, S.M., Chief Executive Dr Nurul Hidayah, SE, Ak. M.Si, all team members and students. Opening of the activity and remarks from the Head of LPPM and Kelurahan. Furthermore, the delivery of material by Putri Andari Ferranti, SE., MSM. and Dr Nurul Hidayah, SE., Ak. M.Si, regarding the calculation of cost of goods produced. The number of participants who attended from Partner representatives was 33 people.



Figure 6. Material delivery

Training Session 3. Training session 3 took place at RPTRA Manuver Kelurahan Meruya Selatan on 16 August 2024 at 08.00-11.45 WIB. The event was attended by the Head of Village M.



Ghufri Fatchani, S.M., Chief Executive Dr Nurul Hidayah, SE, Ak. M.Si, all team members, external speakers and students. The opening of the activity and remarks from the Head of LPPM and the Village. Furthermore, the delivery of material by external speakers, by Mrs Puspitaningrum Pratiwi with material on processing various types of catfish and the second material on catfish farming by Yana Rahmatullah. The number of participants who attended from Partner representatives was 27 people.



Figure 7. Material Delivery

Training Session 4. Training session 4 took place at RPTRA Menara Kelurahan Meruya Selatan on 23 August 2024 at 13.00-11.45 WIB. The event was attended by Mr. Lurah M. Ghufri Fatchani, S.M., Chief Executive Dr Nurul Hidayah, SE, Ak. M.Si, all team members and students. Opening of the activity and remarks from the Head of LPPM and Kelurahan. Furthermore, the delivery of material by Dr Daru Asih, SE, M.Si regarding the exhibition of consumer products. The number of participants who attended from Partner representatives was 31 people.



Figure 8. Material Delivery

Evaluation Results of Targets and Outcomes. Based on the results of the PKM participant satisfaction survey involving 31 respondents, it can be concluded that the PKM program implemented by Universitas Mercu Buana received a very positive response and a high level of satisfaction from the participants. The majority of respondents chose "Strongly Agree" or "Agree" for all aspects surveyed, with the highest percentage on the usefulness of training in developing knowledge 90.3% strongly agree and the usefulness of the material as learning material 83.9% strongly agree. The program was successful in increasing knowledge, providing enthusiasm to



apply the knowledge gained, and was considered to have the potential to increase participants' income. Although the aspect of improving product results received a lower "Strongly Agree" response than other aspects, overall the collaboration with the PKM team was considered very useful and met the expected targets, indicating the success of the programme in having a positive impact on the community.

Table 1. PKM Participant Satisfaction Survey Results

| No. | Description | Strongly Agree | Agree | Disagree | Disagree |
|-----|--|----------------|-------|----------|----------|
| 1. | PKM UMB team's expertise can solve several community problems | 19 | 12 | | |
| 2. | The UMB PKM team utilised an easier and faster way ²⁸ | 21 | 10 | | |
| 3. | Training is very useful in developing people's knowledge | 28 | 3 | | |
| 4. | The material provided is very useful as learning material for the Community | 26 | 5 | | |
| 5. | The training provided may have the potential to increase the income of the Community | 20 | 11 | | |
| 6. | The training provided can increase community knowledge | 20 | 11 | | |
| 7. | The training provided can improve community products | 11 | 20 | | |
| 8. | The training provided gave the Community the enthusiasm to do so in the future | 23 | 8 | | |
| 9. | The training provided can improve the quality of the community | 18 | 13 | | |
| 10. | Cooperation carried out with the PKM UMB team is beneficial to the community | 21 | 10 | | |
| 11. | Cooperation carried out with the PKM UMB team meets the cooperation target | 17 | 14 | | |

CONCLUSION

The community service programme in Meruya Selatan focusing on the processing of shredded catfish has shown very positive results in improving the quality of life of the target community. Through this programme, the participants not only gained new knowledge on how to process catfish into shredded products, but also improved their technical skills in the production process. This knowledge and skills have proven to help them in producing quality shredded catfish, which in turn has a significant impact on increasing their income.

With the training and mentoring in catfish processing, the community now has a new alternative in their economic empowerment. The resulting shredded catfish products have broad market potential, both at the local and regional levels. This opens up better economic opportunities for the community, given that catfish is an abundant and relatively cheap raw material. The success of this programme shows that the development of processed catfish products not only improves individual welfare, but can also contribute to the economic growth of the community as a whole.



The program also reflects how a community-based approach to food processing can bring about positive change. Through the development of local skills and knowledge, communities are not only able to create new sources of income but also strengthen their economic independence. As a next step, it is important to continue and expand this programme with additional support in terms of marketing, distribution and product innovation. This will ensure that the shredded catfish products can reach a wider market and provide sustainable benefits to the community.

Overall, the development of processed catfish products offers a promising solution in economic empowerment and community welfare improvement, and provides a successful example of how community service programmes can bring significant positive impacts.

Advice. The collaboration between the Mercubuana University PKM Grant team and the Meruya Selatan community has proven effective in overcoming economic problems and improving community welfare. This program shows that innovation in food processing can be a very effective solution to overcome food security problems and increase community income. In general, this programme has shown the potential of the community and improved economic welfare, but in order for this programme to run sustainably, and can have a broad impact, support from various parties is also needed.

Acknowledgements. We as the PKM team would like to express our deep gratitude to all those who have contributed to the implementation, especially the Ministry of Education, Culture, Research and Technology both from the internal party of Universitas Mercu Buana through the PKM Dikti Grant programme in 2024, the Institute for Community Service of Universitas Mercu Buana and the Meruya Selatan Village partners who are willing to become partners in the implementation of the service. We hope that this program will continue to grow and provide greater benefits in the future.

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