Strengthening UMKM Padukuhan Salakan with the Production of Frozen Food Tilapia Fish from Local Community Fish Harvests

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Abstract. Durability and practicality become product attractiveness of frozen food. This product is processed food in raw or half-baked, packed and frozen condition. It is sold with direction how to heat it so it can be consumed. Frozen food is currently not only in the form of nuggets or meat, but also in the form of fishery products such as fish nuggets, fish brains, tempura, fish sausages and so on. This training aims to make the community gains knowledge and skills about exploiting the potential wealth of fisheries in their village by processing fish into processed frozen food products. Through processed frozen food, a bountiful fish harvest is not affected by decay. Frozen food product is used in a profitable way so that it is avoided from loss. This is a profitable opportunity for the people of Salakan Village in the midst of economic difficulties during Covid 19 pandemic. The method used in this training had several stages, starting from the preparation stage, to implementation and evaluation. The training results showed that 95% partners are already capable of making frozen food.

Keywords: frozen food, fish, fish harvests

1 Introduction

The general condition of Salakan can be known through field observations, which is the first step in obtaining information about the conditions of the area, environment and local community. Initial observations were carried out directly by visiting Salakan and asking for information if necessary. Information was obtained from the head of the village, head of Rukun Warga, head of Rukun Tetangga, and the youth of Hamlet Salakan to get an overview and information about the community. In this process, information is found regarding community needs which can later be implemented as programmed service. It was found that the fish harvest so far has only been used for sale and to meet daily living needs so they are still unable to improve the community’s economy, especially fish farmers. Moreover, the ongoing Covid 19 pandemic has had an impact on fish farmers’ harvests, many of which have not yet been sold. The large fisheries potential in Salakan is still not matched by the relatively limited fish processing industry.

With the enormous potential of fishery wealth, it can be put to good use to improve the welfare of the community, especially fish farmers and their families. Considering that many

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of the fish farmers’ fish harvests are sometimes abundant and not utilized and have not yet been sold, it is necessary to develop a processed product from fish so that it has a high selling value and can meet huge market opportunities. One of the processed products which is currently being developed and sold is frozen food. Frozen food can be processed by utilizing fishery resources, especially fish and seafood. The availability of raw fish which is large enough to be used as frozen food can be a business opportunity that can be utilized by the community to increase their income. So far, this fish has only been processed by salting it and making it into fish wood (keumamah).

Frozen food is semi-cooked food that is packaged and frozen which can then be reprocessed by simply heating it. Usually, beef and chicken are processed into frozen food, but now there are more and more variations of raw materials that can be used, such as fishery products (Alamsyah: 2016). Frozen food is widely chosen because it is practical, can be stored for a long time, can be cooked at any time, and can be created into various types of menus to suit consumer tastes. Currently, there are many kinds of frozen food business opportunities, from the frozen grilled food business, the frozen fried food business to the frozen boiled food business. This is what causes demand for frozen food products to increase (Majid: Online 2021).

The aim of this activity is for the community to gain knowledge and skills about utilizing the potential fishery wealth in their village by processing it into processed frozen food products. Salakan is one of the villages in Hamlet Trihanggo which is rich in water sources that its residents have many fishing areas. This is an opportunity for village communities to be able to utilize fishery products to make processed products.

So far, the captured fish have only been sold as raw materials with low economic value. Meanwhile, fish can be used to make processed products that have high economic value, such as frozen food products. Variants of fish-based frozen food include nuggets, frozen food, kekian, otak-otak, meatballs, dumplings, fish sticks, instant tekwan, tempura fish, dragon’s feet, etc. Apart from having high economic value, frozen food is also considered to have high economic value. It has practicality and is liked by many people. The frozen food business can be started from home. If managed seriously, it can give quite large profits (Merina: Online 2021).

Furthermore, the government really supports the birth of Micro, Small, and Medium Enterprise (MSME) in villages with various conveniences in licensing matters. MSME products with a value of under 25 million rupiah are not subject to tax. MSME products can also be used as a branding event. There are at least 4 major events every year which are organized by sub-districts which operate in the MSME sector. This regional product marketing pattern can also be carried out through a barter system with MSME products in other regions, so that there are many product variations that can be enjoyed by a wider community.

2 Methodology

A. Time and Place
February 15th, 2023 in Village Salakan, Trihanggo, Ngawen, Sleman.

B. Tool and Material
The tools needed to make frozen food from tilapia fish were blender, spices, plastic vacuum tools, cooling chiller, branding stickers, and scales.

C. Election Partners
The selected partners were the people of Salakan because the village is close to the center of Yogyakarta city. The result of this activity is expected to improve partners’ skills
in processing fish into frozen food. Therefore, the results of this business can have economic value and can help to improve the welfare of the partners’ family. This activity involved 30 people. The partners were given direct practice in the process of making frozen food, namely making frozen fish food with *balado* seasoning. Moreover, the organizers also explained how to make fish nuggets. Nugget making training was not held. Due to time constraints, the implementers only shared the recipe and fish nugget results with partners. This activity was carried out while still following the Covid-19 health protocol.

**D. Method Implementation**

Partners involved

*Barokah Makmur Women Farmer Group (KWT) and the Potential of Padukuhan Salakan*

The Women Farmer Group in Padukuhan Salakan named *Barokah Makmur KWT* was successfully formed in 2019, but was on hiatus for quite a long time due to the Covid–19 pandemic. During its formation, there were no products or activities produced by this KWT. The organizational structure of *Barokah Makmur KWT* has been well organized, which is chaired by Mrs. Nungqy Merixa Yunitasari.

The role of the researchers and the team are:
1. conducting market research around Hamlet Trihanggo
2. determining Cost of Good Sold (COGS) and Maximum Retail Price (MRP)
3. creating product branding
4. looking for partners to take on as product sales agents
5. bookkeeping simple balance sheet production and trading
6. conducting evaluation

**E. Results of the Implementation**

Process of making tilapia frozen food

In accordance with the potential that exists in Salakan, namely tilapia, the research team provided assistance in the form of making frozen tilapia food, which would be marketed at frozen food shops in Trihanggo, Gamping, Sleman. The manufacturing process was as follow:

a. Process of making
   - cleaned tilapia fish that had just been taken from a pond with clean water.
   - pureed the spices with blender until smooth.
   - rubbed the fish with the ground spices.
   - stucked the sticker on each plastic package
   - put 3 fish (500 grams) that had been seasoned into the packaging and sealed it neatly.
   - put each finished product into the freezer.
   - marketed the finished product

**Table 1. Details of capital price used to produce 1 pack of frozen tilapia**

<table>
<thead>
<tr>
<th>No</th>
<th>Material</th>
<th>Amount</th>
<th>Unit</th>
<th>Price Unit</th>
<th>Price Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tilapia</td>
<td>3</td>
<td>Fish</td>
<td>Rp 4667</td>
<td>Rp 14000</td>
</tr>
<tr>
<td>2</td>
<td>Seasoning spices</td>
<td>1</td>
<td>Packaging</td>
<td>Rp 1514</td>
<td>Rp 1514</td>
</tr>
<tr>
<td>3</td>
<td>Plastic Packaging</td>
<td>1</td>
<td>Sheet</td>
<td>Rp 500</td>
<td>Rp 500</td>
</tr>
<tr>
<td>4</td>
<td>Stickers</td>
<td>1</td>
<td>Packaging</td>
<td>Rp 273</td>
<td>Rp 273</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Rp 16287</strong></td>
</tr>
</tbody>
</table>

**F. Evaluation Stage**

The conventional sales process was running smoothly. Progress in mobilization
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efforts using social media plays a very important role in introducing product to a wider audience. Not only that, social media also can also be used as a marketing tool that can quickly reach the desired targets of MSME. The new MSME of frozen food in Salakan used all social media to introduce and market the product. Therefore, the researcher team decided that the first activity to be done was to create Instagram, WhatsApp Business, and Facebook accounts. Creating social media accounts is expected to provide benefits for the business partners. Initially, it was started by dividing groups for each social media. Then, these groups created their respective social media accounts and thought about the contents of these social media accounts.

An example of what has been done was creating an Instagram feed using the same theme and different things that made it interesting. On Instagram, it contains the name of the product being sold, the price of each product, etc. Meanwhile, another example is a Youtube account which contains the process of making products, etc. Creating these social media accounts can help to boost the sale of the product by using the reach of marketing on Instagram. This will greatly help the product expansion so that it is known outside the city and can push the sales during the pandemic.

![Image](example_product_branding_photo.png)

*Fig. 1. The example of product branding photo*

### 3 Result and Discussion

The frozen food making training held in Salakan Village received good appreciation from partners, where all participants took part in this activity.

**A. Circumstances Before Training**

When conducting the initial survey, the implementation team received information from the partners that the participants had never received training on the use of raw fish into processed products. Before the training was given, the implementation team conducted a pre-test to determine the extent of the participants’ knowledge about frozen food and its processing. The implementation team displayed processed products in the form of empek-empek with several variants such as lenjeran, lenggang, and submarines, and other frozen food products namely nuggets.

From the pre-test results, it showed that 90% of participants did not know, have never tried these foods, did not know how to make it. Meanwhile, 10% of participants have ever tried making processed fish in the form of dumplings instead of frozen food. Therefore, this training activity was very appropriate to be given so that Salakan people, specifically the partners, can use fish as a potential for their fisheries wealth into products which have trademarks that can be sold to help their family’s economy.

**B. Circumstances After Training**

After the participants practiced the process of making frozen food, the implementation team evaluated the results of the participants’ work to see their success in making frozen
food from fish. Their results must meet the predetermined criteria, namely:
1. The quality of the frozen food produced must be in accordance with given recipe.
2. The composition of the ingredients is appropriate and can stay consistently the same, where some random samples have already been tried.
3. Accurate weighing and hygienic packaging using vacuum techniques can be carried out according to procedure.
4. Able to do simple bookkeeping of sales and production cost.

After the training was given, the implementation team conducted a post-test to see the results of the participants’ works. The post-test results showed that 95% of participants understood the working steps to make frozen food and was able to put it into practice. Additionally, the taste of the products made was according to the recipe and the mix of flavors was just right. Independence is also expected in developing frozen food products that use simple bookkeeping.

4 Conclusion

From the results of this training, it can be concluded that the participants already understand the process of making frozen food, and can practice it well. This training gives benefit in the form of skills in processing fish into frozen food that has a selling value so it can help the family’s economy during Covid-19 pandemic. This training had a positive impact on participants where the participants requested for cooking training, specifically to make cake for weddings or birthdays, so that they have skills other than processing fish into frozen food products and can be used as a side business that can give additional income for them.

References
[5] Pearsions Education Inc.