

THE MANUFACTURING OF MILK FISH (*CHANOS-CHANOS*) WITHOUT FISH BONE

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Abstract

The aims of submission of Student Study Service of Public Productivity Learning are to give solution for partner group of micro entrepreneur of Milkfish without fish bone toward production and management aspect which become constraint in initiative of Milkfish without fish bone in Palopo city. The group partner's problem is complicated enough. The total number of businessmen is relatively limited, while the number of demand is high enough. It shows that there are some problems faced by the businessperson of Milkfish without fish bone to join this industry. The first problem is about mastery of technique in pulling out the fish bone which really needs special technique. The problem in marketing is about the supplies of fresh milkfish are seasonal, so it causes possibility of inability to fulfill the demand (*stock out*). The other problem is durability of Milkfish without fish bone which is limited because of the use of packaging technology which is still manual, it is without using vacuum machine. The Milkfish without fish bone is 100% without preservatives, so it endures only 2 days in cold state (not freezing), and 6 months in freezing state. The productivity of Student Study Service of Public Submission Learning which will be implemented is by using SLA (*The Sustainable Livelihood Approach*) Method which covers some steps, they are: preparation, implementation, and evaluation/monitoring. The product target which will be produced from this KKN-PPM is the availability of skillful person in manufacturing the Milkfish without fish bone. The partner's income significantly improves. The Milkfish without fish bone endures over 1 month which previously endures only 2 days and over 6 months in freezing state. The time period of completing the production process is more efficient.

Keywords : *Chanos-chanos, Milkfish, without fish bone, Manufactured Product of Milkfish.*

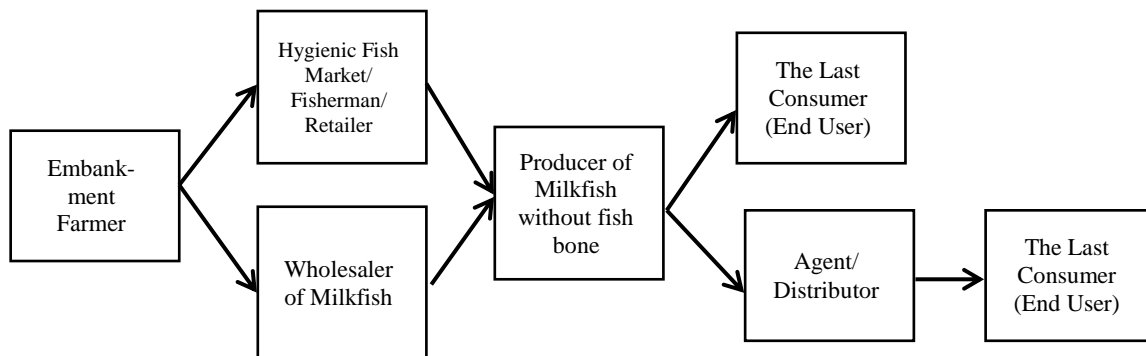
Introduction

The controlling of poverty is conducted through some efforts to guarantee the esteem, the protection, and the fulfilling of basic right of poor society, the realization of justice and the equality of gender, as well as the acceleration of development of countryside, city, coast, and left behind area. The problem of poverty is not only measured from income, but also the susceptibility and dangerousness of the people whether man or woman to be poor. The problem of poverty is also related to the basic rights of community which are not fulfilled to defend and develop prestigious life (Depsos RI, 2013).

Conceptually, the productivity of community is effort to improve quality and status in community level which is not able to escape from poverty trap and underdevelopment. In other word, empowering is give ability and autonomy to community, the productivity of community is related to two groups, they are the community who do not develop yet as a part that should be empowered, and those who are caring as a part empowering. The productivity of community means develop the situation, so the community have power and chance to develop their life.

The potency of fishery and maritime in Palopo city is supported by strategic location of Palopo city at coast line of South Sulawesi and it looks out on Bone Bay which impact directly to this region, namely it has a big economical potency at fishery sector. Palopohas potency of waterways with 295 kinds of coral fish and some other kinds of consumption fish which have high economic useful. The profile of business partner in proposal of submission of Student Study Service of Public Productivity Learning is micro business person group of Poklahsar TB'7, at Kelurahan To'bulung Kecamatan Bara Poklahsar TB'7 who have been active to produce milkfish without fish bone is as Partner I led by Mr. Rahman, and Lestari Nusantara Jaya (LNJ) group at Kelurahan Ponjalae Kecamatan Wara Timur Palopo City led by Mr. Muhammad Sandi.

The Milkfish (Latin: *Chanoschanos*) is a kind of fish which has a specific taste and it has been known at Indonesia even abroad. According to the research of expanding and research hall of fishery quality (1996), the content of omega-3 from the milkfish is 14.2% higher than the content of omega-3 from salmon fish (2.6%), tuna fish (0.2%) and mackerel (3.9%). The manufacturing of milkfish without fish bone is one of verified manufacturing of fishery product, especially the fishery product from raw material of milkfish. The production of fresh milkfish without fish bone produced every day by business partner is 10-20 kg. From the total of this production, 70-80% or approximately 7-16 kg is the product of fresh milkfish without fish bone which is frozen (*Fresh Frozen*) and the rest of it is the manufacturing of milkfish without thorns such as smoke milkfish without fish bone, fried milkfish. Milkfish without thorn has characteristic of production process which is relatively difficult for the beginner (although this process becomes simple after being capable) as well as it needs high persistence and accuracy, particularly when pulling out the thorn of milkfish. Someone who has been expert needs time 3-4 minutes to pull out the thorn of milkfish. But if he is not expert yet, it can take time 15-20 minutes for every a milkfish.



Picture 1. Marketing Line of Milkfish without Thorn

The business of milkfish without fish bone has a very good prospect and it can be developed continuously. It is supported by some aspects as follow: the potency of raw material of fresh milkfish is plentiful enough; generally the milkfish has been known and enjoyed by the community whether at city or at countryside; Technology and tools of the manufacturing of milkfish without fish bone are relatively moderate, so it does not need a big investment. It has enough big plus price if we compare with the selling price of fresh milkfish with thorn. Market opportunity for the product of milkfish without fish bone is very high because it is supported by the increasing of high demand for the product of milkfish. The community awareness of the importance to consume fish also improve the demand of fish. The potency of market which is relatively big becomes attraction to invite new producer in this industry of milkfish without fish bone. The problem faced by the

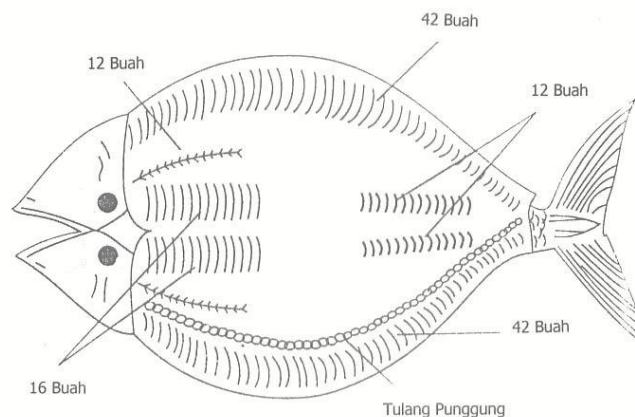
business partner and it has been agreed by the community submission team: (1) The inadequacy of knowledge and technique mastery of pulling out the fish bone, during this time only autodidactic way and they never join skill power training or they are never guided by the professional one; (2) The supplies of fresh milkfish are seasonal, so it causes possibility for not capable to fulfill the demand (*stock out*); (3) The durability of milkfish without fish bone is inadequate with package which is still manual. It only endures 2 days in cold state without frozen, and 6 months in frozen state, but by using vacuum package it endures 1 month in cold state without frozen; (4) The production tools are still traditional and there is inadequate of facility and infrastructure supporting the production; (5) They do not have skill of financial management, so there is no administration about cost and income from the business.

Method And Material

Technology/Method/Policy/Concept that will be used

The manufacturing of milkfish without fish bone is one of manufacturing process of verified fishery product, especially fishery product from raw material of milkfish. The ways of its manufacturing are quite simple.

If the milkfish has specific taste, it is more enjoyed by the community. But behind the prospect, the milkfish has weakness namely there are many fish bones at the whole of its meat. To anticipate the problem, the manufacturing process of milkfish without fish bone is the exact alternative. The following is the manufacturing way of milkfish without fish bone:



Picture. Fish Bone Structure of Milkfish

Management

- If this manufacturing of milkfish without fish bone is intended for continuous manufacturing necessity, so the fish scales are not thrown away.
- If it does not need fish scales in continuous manufacturing, so the fish scales are thrown away from its tail to head part by using knife or special tool to open the fish scales.

Fission (*Fillet*)

Fission technique is conducted by slicing the back part of fish using knife. It is sliced from the tail to head and then the content inside of its stomach and the gill are thrown away.

Cleaning

The fish which has been cut is washed cleanly by using clean water to lose the rest of blood, fat or other dirt of the fish.

Elimination of Fish Bone

- Throw the back bone by using knife starting from the tail to the head.

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- Pull out the fish bone from the stomach part, there are 16 pairs of big bone at the stomach part.
 - Make long slice at the back middle part of meat and stomach part by using the tip of knife. Make the slice carefully, so the fish bones are not broken. Then the fish bones are spilled out by put in the pincers at the slice, then it is spilled out one by one. There are 42 pairs of branched fish bones at the back part which is in meat near to outside shell. At the lateral line there are 12 pairs of branched fish bones, while 12 pairs of fish bones at the stomach part.
 - The results of the milkfish which is thrown its fish bones are 70-80%.

Packaging

To make it durable much longer, so the milkfish is soon kept in cold canister combined with ice. The milkfish is kept into plastic to separate it from ice.

Implementation Method

Based on the discussion result of program nominates with business partner of micro industry of production of milkfish without fish bone, so there are some approach methods offered as solution to overcome the business partner's problem. The implementation of submission program of KKN-PPM in manufacturing activity of milkfish without fish bone at Kel. PontapKec. WaraTimuris a training and adjoining to technical aspect and maketing management of manufacturing product result of milkfish without fish bone. The following stepsare:

Preparation and supplying involve Public Service and Research Centre STIE MuhammadiyahPalopoand all participants in KKN-PPM program before coming to location of KKN-PPM. Mechanism of this productivity of community to manufacturing of milkfish without fish bone is by giving supplying and skill material in conducting the manufacturing of milkfish without fish bone which is important for students.

Implementation

Based on the result of the field, so the planning of program implementation was conducted as the following steps: (a) Deliver the KKN-PPM students to local dignitary (Subdistrict Head of Wara Timur, and the staff, District Head and staff) as the official sign that KKN-PPM was begun. (b) The socializationwas conducted by the students with local subdistrict apparatus assisted by the youth element. (c) The planning of working program and students activity was divided based on the role of manufacturing of milkfish without fish bone. (d) The steps conducted in the program are managing program of manufacturing of milkfish without fish bone. (e) The methodused in conducting productivity of partner group of milkfish without fish bone was group learning technique followed by practice, technique of pulling out the fish bone of milkfish, sanitation and cleanliness, technique of good production and packaging, and pasca production management (marketing). Learning followed by practice was conducted by the students together with group of comunity as the businessperson of manufacturing of milkfish without fish bone.

Table 1. Scheme and Planning of Problem Solution

Problem	Root of Problem	Approach Method Offered as Solution of the Problem
Production Aspect		
The limited production capability	The skilled manpower who master the technique of ulling out the fish bone is limited	Training and workshop technique skill of pulling out the fish bone to create skilled new manpower
Variation of Product Price	The supplies of fresh milkfish are seasonal	Training about supplying management practice (inventory management based on ABC) overcome the supplies of raw material of seasonal fresh milkfish
The durability of milkfish without fish bone is limited	The packaging is still manual	Introduction of packaging technology with <i>vacuum sealer</i> machine
Wasting of time and power	Tools used are still traditional	Renovation of production tools for efficiency and effectiveness
Management Aspect		
Cash and fund are not obvious	It does not have skill at financial and business management	Training of financial and business administration

Approach Method

Based on the results of observation and agreement between business partner and nominates team, so the approach method of the program implementation can be conducted by these following steps: Preparing the tutor, instruments and place to make a training; Socializing the program to the business partner about the performance of activity; The performance of training used open learning system enabling the participants to explore and to improvise based on their own creativity and skill in manufacturing the available material; The training also contained material about business management and product marketing so the participants do not only have skill to produce milkfish without fish bone, but they also have soft skill about management and entrepreneurship.

Participation of Business Partner

The participation of business partner in implementation of KKN-PPM program which has been agreed with program nominates team was the partner was ready to join the program fully, starting from the beginning of the program to the end of the process of planning, performing, and monitoring as well as evaluation so it keeps continuing.

Findings And Discussion

The outcomes of this training activity are:

There is improvement of students skill as intermediate target to prepare skilled technical power at the business of pulling out the milkfish without fish bone. The involvement of students of KKN STIE Muhammadiyah Palopo 2016 in Workshop of Improvement of Milkfish Skill Pulling out fish bone in the effort of improvement of milkfish pulling out fish bone at Kelurahan Pontap Kecamatan Wara Timur through Workshop and production process adjoining.

1. Create work link in group of small business production of milkfish without fish bone and open marketing access through partnership with direct entrepreneur of milkfish without fish bone in implementing public service based on curriculum demand of a lecture of KKN-PPM with 4 sks.
2. The efficiency of completing time of production process per person is more efficient from 12 kg per day pulled out the fish bone with improvement and renewal tools to 18 kg fish per person in one day.
3. The implementation of instrument and material introduction in practice of milkfish without fish bone for businessperson by students of KKN-PPM so the entrepreneur can use the facility and product produced commercially.
4. The available of ready product outside of season can be kept because the production stock can cover the demand out of harvest season of fresh milkfish.
5. There is collaborated productivity between College and Fisherman as the businessperson of milkfish without fish bone at Palopocity through adjoining in transfer of skill, fund, and expanding marketing access.
6. Produce real learning experience in public productivity which is useful for students with their direct involvement in community to find, to formulate, and to solve a problem with pragmatic interdisciplinary.

1. Process of Performing the Activity

The socialization of KKN-PPM activity STIE Muhammadiyah Palopow was conducted on activity program seminar of KKN-PPM which was held at subdistrict office by inviting Muspidakecamatan Wara Timur and series of Muspida Kelurahan Pontap attended directly by subdistrict head of kelurahan Pontap, public figure, servant team student participants of KKN-PPM who came to deliver the topic KKN-PPM the manufacturing of milkfish without fish bone. In this socialization, it was explained about the planning of the working program of KKN-PPM with outcome target which would be achieved during learning and productivity of community.

2. Training of Students in Manufacturing Business of Milkfish without Fish Bone

The training which was the continuing activity from the planning in working program seminar involved all stakeholders in activity of KKN-PPM the manufacturing of milkfish (Chanos-chanos) without fish bone consist of 14 businesspersons of milkfish manufacturing, 22 students, 2 persons of service nominate team, The head of P3M and the Secretary, general community and it was directly attended by team from government of maritime and fishery Palopocity 8 people, and the expert of milkfish without fish bone. The material consists of the survey of problem, opportunity and challenge in business manufacturing of milkfish without fish bone product theoretically and practically, business analysis, and pasca production. The implementation of the training used open learning system enabling participants to explore and to improvise based on their own creativity and skill in manufacturing the available material.

The result of this activity, at students phase they can conduct business planning, business technique, business management and pasca production management needed in business of milkfish without fish bone to improve student entrepreneurship skill as supplies for young economic intellectual and as a preparation to join in community after finishing the study at Muhammadiyah Economic College of Palopo.

3. Process of Training and Practical Learning in Manufacturing Milkfish without Fish Bone

The solution of the problem in production aspect based on the limits of skilled powerman mastering the pulling out fish bone technique of milkfish was handled with

solution form of Training and Workshop of technical skill of pulling out the fish bone to guarantee the available of skilled powerman who are ready in milkfish without fish bone production.

Beside training of material for the businessperson, the students also joined training of practical learning form of pulling management of milkfish as the main product in manufacturing business of milkfish without fish bone. The training was also followed by material about business management and product marketing, so beside skill in producing milkfish without fish bone, the participants also had soft skill in management and entrepreneurship. The result achieved at the training and practical learning activity was the management of milkfish without fish bone and the students obtained new comprehension about manufacturing technique of milkfish without fish bone and they can do it by themselves so the problem about skilled powerman needed to support the manufacturing business of milkfish without fish bone can be improved by spreading the knowledge obtained by the students.

4. Evaluation and Monitoring

The activity of evaluation and monitoring was conducted comprehensively starting from outfitting of students to the end of the activity. Before conducting training and practice, the managing of manufacturing of Milkfish without fish bone is conducted investigation and information survey about need of KKN-PPM students related to the topic about manufacturing of Milkfish without fish bone, related to the improvement of knowledge and skill in manufacturing of Milkfish without fish bone.

Conclusion

The approach of productivity actually gives pressure to decision taking autonomy from a group of community based on personal resource, direct (through participation) democratic and social learning through direct experience. The productivity of community means improving the situation, so the community have resource and opportunity to develop their life. The community should be involved in the process, so they can give more attention to their life to obtain self confidence, to have self esteem and knowledge to improve new skill. The process is conducted cumulatively, so someone is able to have much more skill, a better ability to participate. The activity of this KKN-PPM has produced a guarantee of availability of ready product out of seasonal because stock of production at a season covers the demand out of harvest season of fresh milkfish; The product is more hygienic because the package is soundproof; the fresh Milkfish without fish bone endures 1 month which previously endures only 2 days in cold state and it endures 6 months in freezing state.

The government as “agent of change” can apply policy of public productivity with three purposes, they are: *enabling, empowering, and protecting*. Enabling means creating situation which enables potency of community to develop. The next purpose is empowering, it aims to strengthen the potency of community by applying the real steps, they are by accommodating some inputs and providing infrastructure and facility needed. The last is Protecting, it means protect and defend the necessity of weak community.

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