
SCIENCE AND TECHNOLOGY FOR SOCIETY (IBM) BAJABU TUNA

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Abstract

Science and technology for society (IBM) Bajabu Tuna fish implemented as a form of unrest academics that will use tuna fish as a food source with rich nutrients, and resistance for few weeks. Most people are familiar with the cuisine of tuna, but the nutrients will be less by the processing foods. In fact, tuna can be diversified into the varied preparations, such as bajabu, tuna jerky, smoked fish and tuna has a high taste and meets aesthetic value when it was served. Problems faced by the partners are: (1) do not have an adequate process technology; (1) do not have Brand and packaging design yet to make it familiar; (3) do not have a label design attractive; and (4) require business development assistance in the form of production management and marketing management. Based on the analysis of the problems above, the established strategy for problem solving is to: (1) improve the understanding of the management of business partners, especially with regard to the optimization of human resources management; (2) improve the understanding of the formulation of the partners and the benefits of business planning (business plan); (3) increase the brand through packaging and product design; (4) improve the understanding of partners on financial management, and (5) improve the understanding and skills of partners on the production process by using more sophisticated tools.

Keywords: *Bajabu, Fish and Tuna*

Background

Indonesia is a country that has great potential as a producer of world fishery commodity. That is why, being marine and fisheries sector as the mainstay is the rational and the right choice. Based on the data, about 12.5 million people make fishing as an activity in developing the existing economy. However, the natural resources and climate also supported in determining the selection of the sector that have potential to be developed. The main issue in developing marine and fisheries sector is the target of increasing fish production around 353% in 2014, that made Indonesia as the biggest fishery producing country in the world in 2015 that followed by concrete steps to build the active involvement of the entire community, including academicians and university society.

According to data from the Central Office of Statistics and Information, large pelagic fishery is one of the fishery commodity that has relatively high economic compared to other fish species. The development of large pelagic primary commodity production nationally indicate the type of tuna in the period 2007-2011 amounted to 4.77%, skipjack fish around 3.63% and cob fish is about -1.08%. The data show that as the main economically valuable commodity production rate over a period of five years is a key indicator of the utilization of the type of large pelagic fish (Tuna, Skipjack, Cob).

The rate of fisheries production activities was determined by the majority of which exposed the fishing effort in fishing area. Fishing effort is determined by the dimensions of fishing gear and boats, the number of days of operation and utilization of technology catching up. Thus, the fishing effort will determine the number of fish production on a regional fishery, fishing effort also affects the resources of fish.

Increased production of fish in the area potentially also does one program minapolitan by improving the quality and quantity of fish included the production of competitive commodities. To assess the potential for the application of food technology and industrial development and tourism needs to be done, given the changes in eating habits (food habits) which is in Indonesia is largely determined by the potential of the region. Creative effort is needed to carry out diversification processed fish products so that the rich selection of flavors and types of fish as a source of nutrition.

Variations processed fish products also affect the public interest in eating certain fish which have been less enthused. Variations processed fish products will shift the public interest in fish consumption that is expected to increase revenues and to accelerate the processing centers made from raw fish. It requires the diversification of fish processing activities. Diversified activities processed fishery products indispensable to increase public interest in consuming fish products. Thus, we managed not only to increase national fish consumption, but also improve the resistance of food, health and intelligence of the nation.

Luwu regency has a huge potential in the production of seawater fish such as tuna, malaja and tenggiring. Especially for tuna, fresh tuna marketing program is already known by the Luwu society. The topography of Luwu is potential in it, this is caused by a large majority Luwu district has coastal areas that allow a central production of marine fish species. And specifically for increasing the productivity of the type of pelagic fish, we will focus on one subject area that is located in the village of Murante District of Suli, where in the village murante is having an area small dock for fishing boats and TPI, and focus on fishing tuna. At this pier capable of loading 4 until 6 vessels and operate per day, and the ability of the fish catch per vessel approximately 2 until 3 ton once so it can catch the availability of raw materials. While the method of sale of the catch is still limited to the TPI near the pier. Therefore, remembering that where natural resources are able to support each other with human resources is so vital to conduct an innovation of tuna in order to have economic value, where the fish meat is perishable food makes an obstacle for storing with long time. At room temperature, the fish meat which is not processed more than one day will be susceptible to decay. Fish is consumed usually at a temperature below 4 ° C if you want to use more than one day. Through the process of processing, a variety of fish and meat enriched with a nutrient content of various types of processed products that can be competitive.

Based on the habitat, the fish is classified into two saltwater fish and freshwater fish. Habitat will determine the type of fish meal, which would then affect the nutrient content of fish. Freshwater fish particularly rich in carbohydrates and protein, while sea fish are rich in fat, vitamins and minerals. (Khomsan, 2004)

In general, tuna is one source of protein that damage the nutritional content of fish meat if it is not in good handling to so that it is referred to as perishable food product. The amount of bacterial contaminate the meat and breeding that determine the level of power savings. The number of bacteria will increase when the meat is stored at a temperature that corresponds to the temperature of the proliferation of bacteria, resulting in the destruction and loss of quality of products, such as fish meat. (Pelczar and Chan, 1988).

Based on the nutritional composition, tuna is rich in omega-3, proteins and minerals. The protein contents nearly twice than the protein in eggs, which is known as a main source of protein. Omega-3 can avoid blood cholesterol levels and inhibit the process of atherosclerosis (clogged arteries). Consuming fish of 30 grams a day can reduce the risk of death from heart disease by 50 percent. Omega-3 fatty acids also have an important role for the growth and development of nerve cells, including brain cells, improving intelligence, especially in children who are experiencing the growth process.

Another advantage of tuna are also rich in a variety of important minerals essential for the body. Iodine content in tuna reached 28 times the content of iodine in freshwater fish. Iodine is very important to prevent the mumps and prevent breast cancer. Judging from the ratio of potassium and sodium, tuna fish is good for heart patients.

Utilization of tuna meat is a source of nutritious food in Luwu limited consumption of fresh tuna with a price of only about 20,000, - up to 25.000, - per kg with endurance tuna meat fresh for consumption a few weeks. Most people in Luwu are also still not familiar with bajabu tuna, even assume that there is only a tuna fish can be consumed as usual fish dishes, so reluctant to make it as a nutrient-rich foods. In fact, tuna can be diversified into the varied preparations, such as smoked tuna, tuna jerky, and bajabu tuna that has a high taste and meets aesthetic value when it was served.

Based on this background, elected partner Productive Women Business Group (KUWP) Murante Village, Suli District, Luwu is as various products processing business of tuna. While the other partners is a cooperative Civitas Academic Muhammadiyah STIE Palopo and souvenir Centre Luwu as a distributor of processed tuna for Luwu Raya people who come to visit. The third reason for the selection of these partners because of the tenacity and the partner experience in making and marketing the product creative variety of processed tuna, so that still exist till today. Another reason is to increase the income of home industry as entrepreneurship tips to assist government programs to create jobs.

The result of Focus Group Discussion (FGD) with the partners concluded and identified several main issues, including technology still lacks support in the processing of the tuna into a variety of products. In addition to supporting technology, business management issues are more established and modern yet done, such as financial management is not accountable, there is no business planning, and other management issues. If we divide into two groups of problems, the problem of production technology and management issues include:

1. Problem Management

- a) Do not have an obvious business plan that targets and business objectives have not had a way to the development of more established businesses.
- b) Financial management, which does not meet the accounting standards, not least for SMEs standard. The report only in the form of cash reports only.
- c) There is still a lack of business motivation for business development. This resulted in a stagnant business operations running without any attempt to develop a larger-scale enterprises.
- d) The management - oriented production order is not in stock. This causes weakness of the marketing function. Business management does not have a marketing strategy, it can be caused yet solid business plan.

2. Production Problems

- a) Some business production skills have been mastered by a few personnel. However, various skills of processed tuna production equipment is still minimal. Besides, capital is not available, the production skills with more advanced tools not controlled.
- b) Unknown business brand and a special characteristic of various venture production of processed tuna so that the necessary brand of products.
- c) Since the production based on orders not supply, it cause overwhelmed moments efforts in serving the order.
- d) Lack of capital to revitalize the technology, so the quality and quantity of production can be improved.

Based on some of the problems mentioned above, the established strategy for resolving the issue is to improve the process of adequate technology, brand and product

packaging design that is so familiar, attractive label design and business development assistance in the form of production management and marketing management. Some of the problems mentioned above, the established strategy for the issue is to improve the process of adequate technology, brand and product packaging design, label design is attractive and business development assistance.

Based on the analysis of the problems above, the established strategy for problem solving is to: (1) improve the understanding of the management of business partners, especially with regard to the optimization of human resources management; (2) improve the understanding of the formulation of the partners and the benefits of business planning (business plan); (3) increase the brand through packaging and product design; (4) improve the understanding of partners on financial management, (5) improve the understanding and skills of partners on the production process by using more sophisticated tools; and (6) make a proposal to be submitted in obtaining funds from the government and private sector in the form of grants, such as the program Business Group Women Productive (KUWP) and Business Group (KUB) of the Social Service and the local government or form of financing in the form of loans from banks or from nonbank SOEs.

Method

Based on the experienced management problems and production by partners in the implementation of community service, the method of this research is to provide the spinner machines and vacuum sealer to resolve production problems. Meanwhile, to solve management problems, the method performed is seminars, business operators bajabu tuna are given materials related to entrepreneurship motivation, how to market a good product, and given assistance bajabu packing tuna with an interesting brand.

Results and Discussion

Science and technology for the public service activities (IbM) entitled IbM Bajabu Tuna is intended to facilitate the work opportunities that unemployment and crime can be overcome, and thus automatically improve household incomes in the group of partners will also appear. Surrounding communities that have motivation and interest in the entrepreneurial world will certainly be trying to get information about opportunities that can generate income. One of them is the development of processed products of Bajabu Tuna who can make a means for conducting a business or activity processing of raw materials or semi-finished goods into finished goods. Finished goods that with added value will give some benefits. With the advantage, then life can be changed. Achievement of product programs that have been realized in the science and technology activities for the Community (IbM) are:

- a) Increasing entrepreneurship motivation in partner. This activity aims to build on the entrepreneurial mindset for business partners in order to motivate entrepreneurship and business development partners. These activities are carried out in the form of interactive discussion to uncover the problems and the potential business that can be developed by the partner and other business groups. After getting a practical matter entrepreneurship and prospects. The village KUWP Murante as a key partner in this activity ever vacuum during the period July until December 2015 is now back in operation by empowering mothers households located in the hamlet Cerekan, Murante village, Luwu.
- b) Improving the technical knowledge of farmers on tuna fish processing technology into a variety of processed nutritious addition to Bajabu Tuna, for example Smoke Tuna Fish, and so forth. Innovation of the tuna fish processing is the main attraction for the members of the Village KUWP Murante to continuously improve product quality.

- c) Increasing knowledge about the target group management Home Industry. At first, the village KUWP Cerekan Murante in Hamlet, Village Murante, Suli District, Luwu sporadically produce tuna for consumption Murante and citizens around the District Suli. Through science and technology for the Community Program funded by the Higher Education DP2M.
- d) Improving the aesthetic value of the brand / packaging Bajabu Tuna. During the packaging of processed Bajabu Tuna is made very simple even traditional, because sometimes just a regular plastic bag. Science and technology program for the Community has been training people how to make the packaging or brand for processed products Bajabu Tuna them. With funding from IbM, industry groups are also given assistance in the form of simple equipment means of production and vacuum to durability of the product in the packaging. Packaging made now fulfill an important aspect in marketing that includes the name brand, taste, weight, taste, ordering address, and other aesthetic values that can attract consumers.
- e) Improving the skills of students as between strategic objectives in designing a community empowerment program through science and technology program for the Community (IbM). Their direct involvement of students Muhammadiyah STIE Palopo, it can be awakened networking in the form of a group of small business production and open up access to markets through partnerships with various groups of home industry to spur the entrepreneurial spirit of students.
- f) Beginning the collaborative exhibit a pattern of empowerment between Universities and the community, especially Home Industry Bajabu Tuna in the village Murante, District Suli, Luwu through the facilitation of the transfer of skills, capital and access to a broader marketing.
- g) generating a real learning experience in community empowerment by students with their direct involvement in the community.

Conclusion

IbM devotion Bajabu Tuna is conducted by Servant Team of Murante Village, Suli District, Luwu regency that has been implemented well and without any significant hindrance. In fact, these activities are welcomed by the community and village government Murante, Suli District. With good teamwork servant and active participation from the source, we expect and hope to provide benefits for partners of community dedication in the business continuity of production Bajabu Tuna.

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