



PKM Improving the Quality and Quantity of Environmentally Friendly Smoked Fish Processing in Air Dingin Village, Bukit Raya District, Pekanbaru City

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Abstrak. Through the Community Partnership Program (PKM), an activity can be carried out to improve the quality and quantity of smoked fish production in the MINA SALAI KUARAN business group in Air Dingin Village, Bukit Raya District, Pekanbaru, Riau to become an independent coaching group through two aspects: Increasing the level of empowerment of partners in the production aspect. Still lacking, because it uses traditional methods so that the target of this activity will result in a 50% increase in production quantity. And increasing the level of empowerment of partners in the social community aspect, this is done by using online marketing and SME information via Twitter and Facebook. Meanwhile, the lecture and discussion methods for participants are carried out directly in the field by presenting direct counseling materials that also involve students in the MBKM program. The PKM activity of the MINA SALAI KUARAN business group, Making Salai Fish in Air Dingin Village, Bukit Raya District, Pekanbaru, Riau, is an application of technology with the hope of providing solutions to the obstacles faced by this MITRA, including: (1) making improvements to the management of the application of technological innovations in processing aspects of production and (2) improvements in the social aspect of society through the application of an online marketing information system and promotional media through Twitter, Facebook and MITRA's business signs, which are shown by the support and willingness to work together as partners with the community service team from the Physics Department, FMIPA, University of Riau. Through this PKM activity, there will be an Impact of benefits and productivity after this community service activity is carried out, which can support aspects of time efficiency, productivity and marketing management. The outputs obtained from the implementation of this community service activity can increase IKU 5 and 7, while supporting the MBKM program



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Pendahuluan

The improvement process in terms of productivity and marketing management in Mina Salai Kuaran SMEs still needs to be improved, this is because business actors want their businesses to grow and be competitive, so that they can continue to guarantee the sustainability of their businesses in the future.

Sustainability in terms of production must of course be supported by the availability of more efficient technology, so that productivity can increase. What still needs to be improved is the innovation of smelting tool technology that can produce smoked products quickly and with quality.

Human resource development in terms of information technology is also no less important and must be implemented in target PARTNERS so that it will be able to improve the welfare of SMEs in terms of saving time and many have proven it.

The profile of UKM in this community service activity can be explained as follows: Group Name: Fish Processing and Marketing Group (Poklahsar) "Mina Salai Kuaran", Group Leader: JUNAIDI MY, Group Address: Jl. Kuaran Gg. Buntu, Air Dingin Village, Bukit Raya District, Pekanbaru, Riau Province. Activities of the Salai Fish Processing and Salai Fish Marketing Group. Group Achievements: Has opened up employment opportunities in the village, at least 10 heads of families have been helped. Nicknamed Kampung Ikan in the era of Dr. Firdaus as Mayor of Pekanbaru in 2020.

Number of Group members including the Chairperson, Secretary and Treasurer: 10 People MITRA's condition in terms of regional potential is that Jl. Kuaran Gg. Buntu has water resources whose availability continues to exist, so that the potential of this area can be utilized by the Business Group (MITRA) for cultivating Catfish which will later be used as raw materials for processing Salai Fish (Figure 1). Other interesting regional potentials is a shady environment with many trees making the MITRA area very suitable for a place to cultivate fisheries and process fisheries into smoked fish. While the condition of the partner in terms of community potential can be explained, that MITRA is located in the Bukit Raya District area with a population of 93,478 people, this is a good potential for marketing. The current marketing carried out by MITRA is still very simple, namely directly bringing its products to the nearest District from Bukit Raya District, such as Marpoyan Damai District and Siak Hulu District. The means of transportation for marketing is a motorbike equipped with a basket for placing smoked fish. The conditions around MITRA which are a supporting factor in MITRA's business are that many people around also cultivate catfish, this is due to the potential of the area which has many water resources which are also additional water resources obtained from groundwater, because the MITRA area is in the lowlands. Send feedback Side panels History Saved.

Metode

The method of implementing community service is directed to be able to solve the problems of MITRA in the field of Increasing the level of empowerment of partners in the production aspect, and Increasing the level of empowerment of partners in the social community aspect. The implementation of community service describes the 5 stages of community service implementation as follows:

- a. Method of Increasing the level of empowerment of partners in the production aspect:

Stage 1: Preparation of materials for fish burning technology tools

To carry out the preparation of fish burning technology tool materials, the following methods are carried out:

1. Socialization: The materials that will be used as fish burning technology tools are explained to MITRA so that MITRA can understand that the selection of materials greatly determines the quality of smoked fish products.
2. Training: The training here is intended so that MITRA is also able to assess the types of materials for making tools.
3. Socialization: The materials that will be used as fish burning technology tools are explained to MITRA so that MITRA can understand that the selection of materials greatly determines the quality of smoked fish products.

4. Training: Through this activity, students will get 4 credits of recognition in the KKN course
5. Training: The training here is intended so that MITRA is also able to assess the types of materials for making tools.
6. Training: The training here is intended so that MITRA is also able to assess the types of materials for making tools.
7. Socialization: The materials that will be used as fish burning technology tools are explained to MITRA so that MITRA can understand that the selection of materials greatly determines the quality of smoked fish products.
8. Training: Through this activity, students will get 4 credits of recognition in the KKN course
9. Training: The training here is intended so that MITRA is also able to assess the types of materials for making tools.
10. Socialization: The materials that will be used as fish burning technology tools are explained to MITRA so that MITRA can understand that the selection of materials greatly determines the quality of smoked fish products.
11. Socialization: Through this activity, students will get 4 credits of recognition in the KKN course
12. Training: The training here is intended so that MITRA is also able to assess the types of materials for 3. Application of technology: This means that PARTNERS must also be able to know the method/technology for selecting materials that greatly determine the quality of smoked fish products
13. Mentoring and evaluation: This is intended so that PARTNERS are able to evaluate the quality of materials for fish firing equipment
14. Sustainability of the program: This means how PARTNERS can continue to select materials for the quality of smoked fish products

Stage 2: Design of fish firing equipment

To carry out the design of fish firing equipment, the following are carried out:

15. Socialization: This means that the design model of this tool is also conveyed to PARTNERS so that they can understand why the design model was made like that. Through this activity, students will get 4 credits recognition in the KKN course
1. Training: This means that PARTNERS are also involved in how to design the too
2. Application of technology: This means that PARTNERS must also be able to know the application of this technology for fish lighting
3. Mentoring and evaluation: This means that PARTNERS are mentored to be able to understand the design of the technology and are explained to be able to evaluate the work of the technology tool
4. Sustainability of the program: This means how PARTNERS can continue to use the fish lighting tool and maintain the tool that has been made

Stage 3: Preparation of fish to be served

To carry out the Preparation of fish to be served, the things that are done are

1. Socialization: This means explaining to PARTNERS about the need to prepare raw fish properly.
2. Training: This means that PARTNERS are trained on how to prepare raw fish materials for firing
3. Application of technology: This means that PARTNERS are trained to be able to prepare raw

fish materials that can later be applied to firing technology tools

4. Mentoring and evaluation: This means that PARTNERS are mentored and evaluated in terms of preparing raw materials for smoked fish
5. Sustainability of the program: This means that PARTNERS are given knowledge on how to ensure the provision of raw materials continues to be available for the sustainability of the program. Partners also need to have a column for fish maintenance.

Stage 4: Placing fish in the firing room

To carry out the activity of placing fish in the firing room, the following are done:

1. Socialization: This means that PARTNERS are informed about the need for techniques for placing fish in the firing room
2. Training: This means that PARTNERS are trained to be proficient in placing fish in the firing room correctly.
3. Application of technology: This means that PARTNERS are able to apply technology in terms of placing raw fish in the firing room.
4. Mentoring and evaluation: The intention is for PARTNERS to always be accompanied so that they are able to conduct a good evaluation of the technique of placing fish in the ignition room
5. Sustainability of the program: The intention is for PARTNERS to be able to guarantee the sustainability of the program in terms of the system of placing fish in the ignition room must be correct so that this activity can continue.

Stage 5: Preparation of coconut shell waste as an energy source

To carry out the activity of Preparing coconut shell waste as an energy source, the following are the things that are done:

1. Socialization: The intention is for PARTNERS to also be informed about the types of coconut shell waste that can be utilized.
2. Training: The intention is for PARTNERS to be trained on how to prepare good coconut shell waste.
3. Application of technology: Partners must always be able to apply this technology which is supported by the availability of raw materials for coconut shell waste energy
4. Mentoring and evaluation: Partners continue to be accompanied so that they are able to conduct an evaluation of how to select good coconut shell waste
5. Sustainability of the program: Partners must be able to continue to guarantee the availability of coconut shell waste as a source

Result And Achievement

Empowerment of production aspect partners

Technology for lighting raw materials of Fish is an important innovation to improve the productivity and quality aspects of good smoked Fish. The final productivity of making Smoked Fish depends on the lighting technology used [1,2,3]. The process of making smoked fish making technology can be seen in the Figure 1.



Figure 1. Preparation process for making walls of innovative technology tools for processing smoked fish

Figure 1 shows the working part of the technological tool for preparing the seat frame in the tool for the seat of the fire retardant that comes loose on the raw fish material being served, so that the production quality remains guaranteed.



Figure 2. View of the fire retardant section to ensure production quality.

Figure 2 shows the stages of the innovation tool which is equipped with a fire retardant system, so that the raw material of smoked fish does not get burnt or cooked, but only reaches the dry stage and is ready to become smoked fish.

Furthermore, to increase the efficiency of the tool so that heat is not lost in the combustion furnace [4,5], the innovative tool still needs to be equipped with a sealing system in the biomass combustion chamber, at the same time so that there is no energy loss. The parts of the tool that were designed can be seen in Figure 3.



Figure 3 Tool parts for heat and time energy efficiency.

Bomassa waste as a source can be used for energy sources [5]. This technology will utilize the energy produced so that it can be used for the purposes of lighting fishery products [6]. The output of this community service activity that will be produced is in the form of lighting technology for making smoked fish, as shown in Figure 4.



Figure 4. Main output of community service activities for fish lighting technology using biomass sources

Figure 4 shows the main output of community service activities, namely in the form of a technological tool for making smoked fish based on biomass energy. As seen in Figure 4, UKM users can see the process or condition of the smoked fish through the monitoring window. This technological tool has good work efficiency, because it can increase the efficiency and productivity of smoked fish up to three times. The advantages of this community service activity lie in time efficiency and improved production management. In terms of time efficiency, the community only needs 1 day to produce smoked fish, and improved production management is marked by the community no longer needing to supervise, meaning that it is protected from disturbances from livestock, children and rain, of course this will increase production. The results of this community service activity show high enthusiasm from the community where production can be obtained in just 1 day.

Aspect of empowerment level of social community partner aspects

The empowerment aspect of social community partner aspects is carried out by creating marketing media devices for consumer services, namely in the form of information via Twitter, Facebook and online marketing systems [7,8,9], as shown in the pictures below:

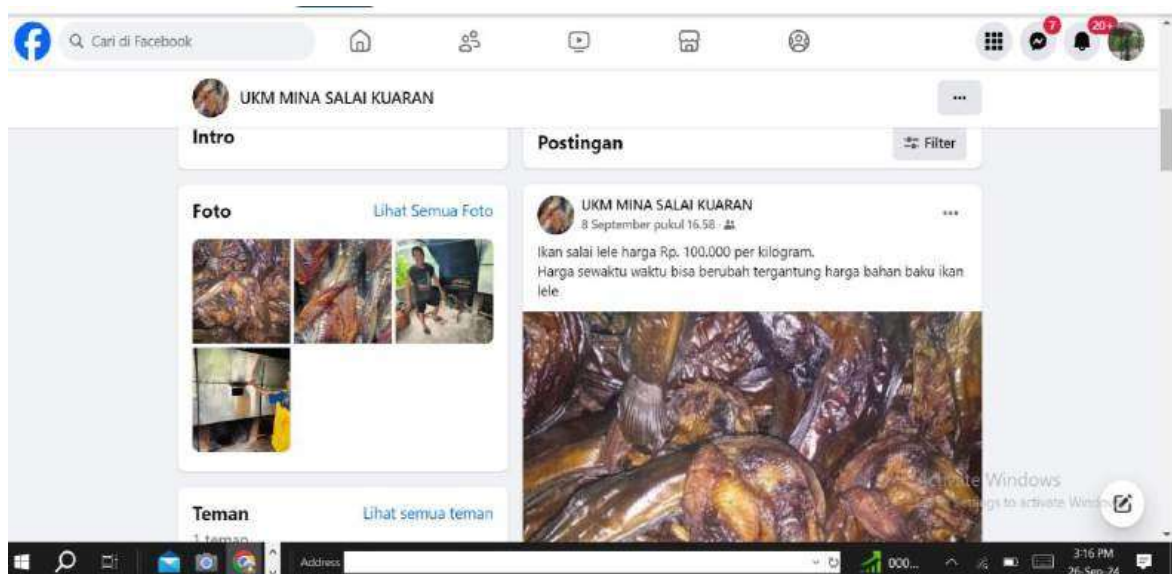


Figure 5. Facebook Mina Salai Kuaran

<https://www.facebook.com/share/p/RNRqiWn3XAFkT2zF/?mibextid=qi2Omg>

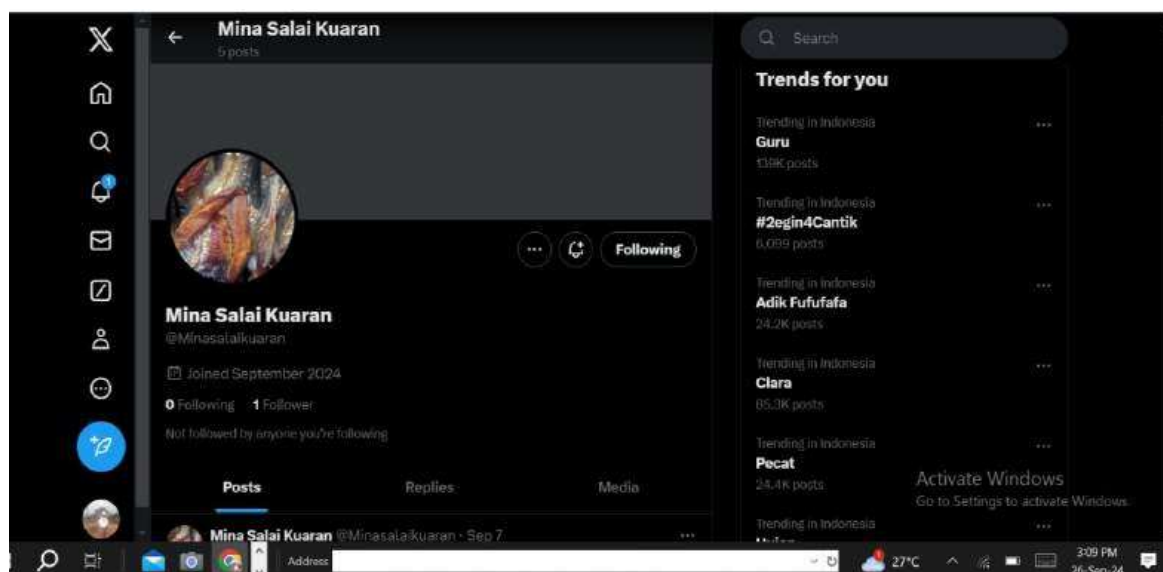


Figure 6. Mina Salai Kuaran Tweeter

<https://x.com/Minasalaikuaran?t=HJ89mQ04Qa9TsnkzHUeu-Q&s=09>

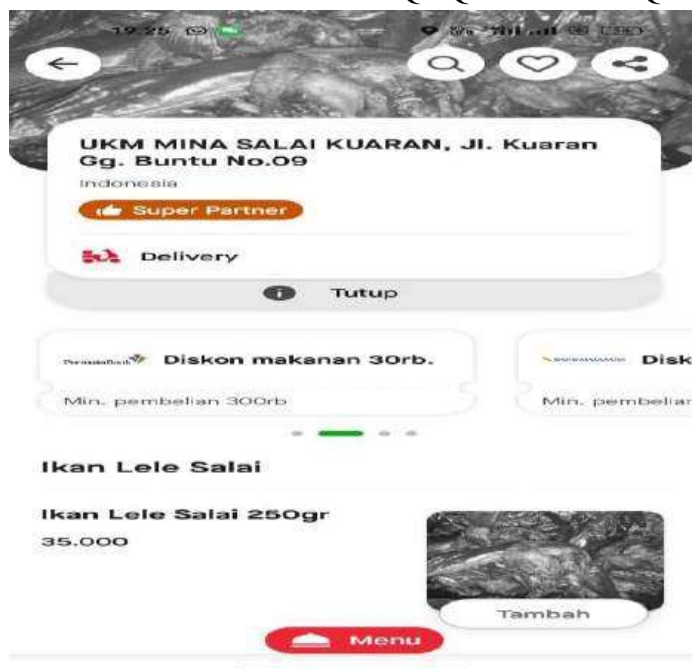


Figure 7. Online product marketing.

Increasing social interaction with visitors to MITRA locations, in this case MITRA is given a business nameplate, which is useful for social interaction with the community or consumers as shown in Figure 8.



Figure 8. Mina Salai Kuaran name sign

Next, training/socialization is conducted for understanding about: materials that will be used as fish salting technology tools are explained to PARTNERS, the intention is so that PARTNERS can understand that the selection of materials greatly determines the quality of smoked fish products.: Through this activity, students will get 10 credits of recognition in the KKN (4 credits), Environmental Physics (2 credits), Environmental Impact Analysis (2 credits), Mineral and Energy Resources (2 credits) courses as shown in the pictures below:



Figure 9. Prof. Dr. Saberina is providing training materials as well as MBKM

Figure 9 shows a community service team, namely Prof. Dr. Saberina Hasibuan, providing socialization training on how to understand the characteristics of good fish raw materials to be made into smoked fish. The material presented is also for the presentation of MBKM material which is claimed 2 credits in the Environmental Physics, Environmental Impact Analysis (2 credits), Mineral and Energy Resources (2 credits) courses in addition to knowledge in KKN knowledge with a value of 4 credits.

Furthermore, increasing the level of empowerment of social community partners through increasing marketing media is carried out through socialization: Increasing marketing media is carried out especially for PARTNERS. The training here is intended to increase marketing media for PARTNERS and at the same time MBKM knowledge of KKN program students is equivalent to 4 credits and Environmental Physics courses are equivalent to 2 credits, Environmental impact analysis (2 credits) and Mineral and Energy Resources (2 credits), so for implementation it is necessary to provide guidance through socialization training as shown in Figure 10.



Figure 10. Dr. Gimin is providing training materials on social aspects of society as well as MBKM.

Socialization training in terms of increasing knowledge about hygienic product and process information is carried out at MITRA and for MBKM so that there is an increase in knowledge about direct information about hygienic products and processes at MITRA and students in the MBKM program. Application of technology, then through this training and socialization, MITRA and students for MBKM are able to apply technology well by increasing direct information about hygienic products and processes, as shown in Figure 11.



Figure 11. Prof. Dr. Juandi M, Msi is providing socialization training on technological tools for the production of smoked fish as well as MBKM.

The involvement of UKM in community service activities is also proven by demonstrating the process of cleaning raw fish materials that will be made into smoked fish (Figure 12), this process needs to be knowledge for students in the MBKM program so that students gain broad knowledge about the process of preparing raw materials.



Figure 12. Process of preparing raw fish materials to be made into smoked fish.



Figure 13. SMEs are enthusiastic about Fish lighting technology.

Figure 13 shows the enthusiasm of SMEs in using biomass-based fish-salting technology, where the fish to be salted are placed on salting racks as seen in Figure 16. Figure 14. Fish placed on feeding racks



Figure 14. Fish placed on feeding racks

The success rate of the implementation of community service activities can be seen from the very good response from students who participated in the MBKM program (Figure 14). In addition, the community was also cooperative during the counseling. Not only the community who work as smoked fish SMEs are enthusiastic, the Rejosari Village community is also interested in this counseling, Figure 15 shows the socialization of activities at the village level.



Figure 15. Socialization of activities with community leaders.

Figure 15. Enthusiasm of community leaders in this community service activity. Figure 15 shows the socialization of the community service activity carried out, where the community leaders who were present also asked about the purpose of this activity, because not all residents were invited to this activity, only UKMs engaged in the manufacture of smoked fish were invited, namely from UKM. In the framework of the MBKM program, MITRA also helps provide explanations to students about matters related to the activities carried out by MITRA in its smoked fish processing business, as seen in Figure 19, students are enthusiastic about listening . to the explanation given by MITRA.



Figure 16. Partners provide explanations regarding the smoked fish processing business to students in the MBKM program

Conclusion

Based on the results of the implementation of community service that has been carried out and the analysis, it can be concluded that the innovation technology has been successfully applied to make biomass-based smoked fish on Jl. Kuaran Gg. Buntu, Air Dingin Village, Bukit Raya District, Pekanbaru Pro. Riau That the MINA SALAI KUARAN UKM is very enthusiastic about the activity, where smoked fish production can be obtained in just 1 day, which previously could take up to 3 days.

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