Assistance in Potato Donut Processing and Entrepreneurship in Podokoyo Village, Tosari District, Pasuruan

1Tri Mega Asri*, 1Amelia Ika Pratiwi, 1Hapsari Dian Sylvatri, 1Debri Haryndia Putri
1Universitas Brawijaya, Indonesia
*Corresponding author
E-mail: trimega@ub.ac.id

Abstract

Purpose: The primary objective of this community service program is to enhance the agricultural potential of Podokoyo tourist village by addressing the knowledge gap in potato processing. The program aims to equip the Family Welfare Development Women of Podokoyo Village with the skills and knowledge to transform potatoes, a local agricultural product, into high-value donut products.

Method: The program is implemented in three stages: preparation, implementation, and evaluation. The preparation stage involves arranging the necessary equipment and facilities, ensuring space availability, and securing partner involvement and community support. The implementation stage is where the actual training takes place, and the participants learn to process potatoes into donuts. The evaluation stage assesses the effectiveness of the training and the participants’ ability to apply their new skills.

Practical Applications: The practical outcome of this program is that the participants, the Family Welfare Development Women, are expected to be able to process potatoes into more valuable donut products. This not only adds value to the local agricultural produce but also contributes to the economic development of the Podokoyo village.

Conclusion: The program has successfully achieved its goals, as evidenced by the improved abilities of the participants in financial management and adding value to their products. The success of the program is attributed to the availability of necessary equipment and facilities, partner involvement, and community support. This initiative has the potential to significantly improve the welfare of the rural communities in Podokoyo village.

How to cite

Introduction

Mount Bromo, a globally renowned tourist destination, is a National Park nestled within four districts: Malang, Probolinggo, Pasuruan, and Lumajang. Accessible through the Tosari district in Pasuruan, this area boasts a wealth of potential. The current state of Podokoyo Village aligns with the superior fields identified by Brawijaya University’s 2021-2025 PKM, particularly the first of six superior fields and their subsectors. This includes Community Economic Empowerment, which encompasses strengthening community economic institutions, enhancing the productivity of Micro, Small, and Medium Enterprises (MSMEs), fostering the creative economy, and fortifying marketing strategies.

Figure 1. Existing condition of Pokdarwis Podokoyo Village and Bromo Fun Tracking


Given its current conditions, Podokoyo Village holds immense potential to evolve into a competitive tourist village. Nestled at the foot of a mountain, Podokoyo Village boasts fertile soil, making it an ideal location for farming. The majority of the villagers earn their livelihood through agriculture, with vegetables such as potatoes, cabbages, and leeks being the primary agricultural commodities. Among these, potatoes stand out as a high-quality product. The villagers engage in the cultivation and harvesting of potatoes almost every month, selling their produce directly to the public and vegetable distributors. This direct selling approach contributes to the local economy. However, there’s an opportunity to enhance the value of
these agricultural products. By processing them into new, value-added products, the villagers could potentially increase their earnings and boost the local economy further. This could also contribute to the village's appeal as a tourist destination, attracting visitors interested in agritourism and local food production.

*Figure 2. The Existing Condition of Podokoyo Tourism Village.*

Podokoyo Village, known for its superior agricultural potential, particularly in potato cultivation, faces a challenge in understanding how to transform potatoes into products with a higher market value. To address this issue, the Student Building Village program proposed a solution that involves activities and assistance in processing potatoes into potato donuts.

This mentoring activity also includes providing material on financial management in starting a potato donut business. The goal is to equip participants with the knowledge and motivation to become entrepreneurs, leveraging the village’s superior agricultural potential.
This assistance activity aims to stimulate and equalize economic growth in Podokoyo Village. Entrepreneurs in the field of agricultural products are developing these superior potatoes into high-quality food products, specifically potato donuts, using both simple and advanced entrepreneurial technical skills. Donuts, a type of bread cooked by frying and characterized by a distinctive ring or ball shape (Subagjo, 2007), are well-known snacks in Indonesia. Consumed by both children and adults, these round, wheat-based processed foods are familiar to the community.

The production capacity of each Micro, Small, and Medium Enterprise (MSME) varies, ranging from 70-90 donuts per day (Aristio et al., 2019). This variation can be attributed to differences in capital, equipment used, and labor. Different equipment can yield potato donuts of varying quality, which in turn affects their selling value. For instance, potato donuts produced by home industries (MSMEs) are sold at a relatively low price, around IDR 1,000 – IDR 2,000 per piece. However, potato donuts produced by larger industries can cost IDR 5,000 – IDR 9,000 per piece. This urgency underscores the rationale behind choosing the potato donut product idea. The purpose of community service in Podokoyo Village and Tosari Village is to foster entrepreneurial competencies in processing potential farm products, specifically processed potatoes into potato donuts. These products are easy to process, high in demand, and contribute to the development of entrepreneurs in processing superior farm products, namely potato donuts, along with simple and superior entrepreneurial techniques.

### Method

The methods for training in potato donut processing and entrepreneurship encompass several significant elements. The initial component is the training on product diversification and manufacturing, which considers a range of factors. External factors include consumer preferences and their willingness to purchase, while internal factors involve production capacity, product lifespan, and the attractiveness of packaging. Experts are brought in to deliver hands-on training in product manufacturing (Muhsinin et al., 2019). Another integral part of the training is the development of a recording system. This system, designed to record raw material purchases and sales on a daily, monthly, and annual basis, aids in monitoring business partners. It aims to track capital expenditure, turnover, and profits. Partners maintain manual records, with a primary focus on total sales information without detailed recording (Muhsinin et al., 2019). The training also emphasizes the dissemination of knowledge on product diversification. Knowledge is a crucial factor in product diversification. If a partner chooses an unsuitable product for development, it can lead to the wastage of resources, time,
and energy. Therefore, understanding product diversification and consumer behavior is essential (Muhsinin et al., 2019).

Practical training forms another key component of the program. During the mentoring period, partners receive assistance in identifying their business potential. Mentoring is crucial as partners may not be able to implement the provided business development strategies immediately after the mentoring ends. The practical method enables participants to apply the knowledge they’ve gained from presentations and Q&A sessions. Instructors also provide examples for better understanding. This practical method is supplemented by direct guidance, enabling participants to effectively demonstrate the process (Muhsinin et al., 2019). The success of this training program is evaluated against three criteria. The first is the successful implementation of activities, determined by the execution of actions according to the predetermined schedule and number of meetings. This requires good cooperation between the implementer and the participants. The success benchmark for participants is more than one group or four individuals (Muhsinin et al., 2019). The second criterion is participant success. Participants should be able to practice or implement individually and understand the methods used to make marketable potato donuts. The success benchmark is the production of some successful donuts from the practicum (Muhsinin et al., 2019). The third criterion is implementer success. The implementer should be able to provide explanations and assistance to participants who encounter difficulties in product making. Success can also be measured by effective communication during activity implementation and appropriate attendance by the implementing team. The success benchmark for the organizers is the result of the processed post-test questionnaire (Muhsinin et al., 2019).

Result

Community service is executed by partners of Family Welfare Development Women in Podokoyo Village, Tosari District, Pasuruan. Community service activities with partners are carried out in a room at the Podokoyo Hall Village as a production site in sufficient size room for direct practice.

Figure 4. Data of Participants’ Ages in Potato Donut Processing and Entrepreneurship Assistance in Podokoyo Village, Tosari District, Pasuruan Regency.


The team proposed an efficiency strategy and modification production process, where the team suggested that the partner make 4-5 groups of 20 participants from Family Welfare Development Women. In Figure 2, it can be seen that the participants of the Potato Donut Processing and Entrepreneurship Assistance in Podokoyo Village, Tosari District, Pasuruan
Regency consisted of 20 participants, with the overall gender being female, ranging in age from 35 to 50 years. The highest age majority is at the age of 36 and 43 years, totaling three people each. All participants were residents of Podokoyo Village and active in the village Family Welfare Women's organization. The team realized that the production method using manual hands could only produce a small quantity of potato donuts. Still, it was appropriate for mothers who had never had their own food product business. The process of making potato donuts by hand takes quite a long time, around 1 hour for the process of mixing 1 kilogram of potato donut dough. However, processing and molding using hands turns out to produce better donut shapes and not broken. Moreover, another strategy that is proper for beginners is to create other donut variants besides the original donuts with holes in the middle by adding donut variants filled with chocolate or something other than strawberry. These strategies and techniques are quite appropriate for Family Welfare Development Women in Podokoyo Village who do not have any small or medium businesses.

The team also diversified products for partners by adding a potato donut product line, namely potato donut products with larger sizes those regular potato donuts. After diversifying, partners' sales also increased quite significantly. These increasing sales are not only a new line of products but also a line of products that have been sold for a long time. This is because, basically, residents who are consumers of the partner become interested in partner merchandise due to the new product menu. Since partners have diversified, sales profit and partner monthly income have increased by 20%. After implementing a period of mentoring or community development for the Family Welfare Development Women's donut business in Podokoyo village, with the basic production cost of each donut being IDR 4.454, and the selling price with profit is IDR 5.577, they get a total profit of around IDR 5.763.133 each month.

In this implementation stage, a presentation with an explanation of the activity that will be done and the material used, followed by practicing as well as explaining the technique used in creating the object (Zainuddin et al., 2019). During this presentation, examples of similar products that will be made are also provided. This is intended so that participants can find out what products can be made by utilizing plastic bottle waste into decorative products. With this selection of materials, tools, and equipment, the aim is for participants to learn about plastic materials that can be used to make decorative products. This is done to increase the participants' knowledge and practical abilities regarding the basic ingredients of a product, especially products produced from used materials (Sholihah et al., 2019). At this Material Processing, material processing means participants can process the materials used so that they can be applied as decorative products. In the material processing stage, various methods are used so that when manufacturing and applying it to a product, it can produce good results that relate to what is desired (Arico & Jayanthi, 2017).

The first day of implementation began with the introduction to the implementing team, which consisted of students building a village and a team of lecturers. What was also prepared at this meeting was an explanation of the implementation method in the form of implementation rules explanation and used equipment provided by the implementation team to the participants and partners in coordination with village officials and Family Welfare Development Women. The first meeting was done in direct coordination with partners and participants. At the first meeting, an introduction to the equipment that will be used in performing community service activities was also provided, including an explanation regarding the used equipment. Moreover, at the first meeting, several examples of work that will be created on the mentoring day will also be given.

The activities carried out at the second meeting included the preparation of the ingredients to be used and the selection of potato ingredients used, along with other ingredients for processed potato donuts. This activity also proves that materials, tools, and equipment are easy to find in Podokoyo Village and makes it possible to realize it as a superior small business in this village. This second day of training had a direct positive impact, through
this preparation: participants were able to know the characteristics, requirements, and criteria materials that can be used to make products. Assistance activities for potato donut processing and entrepreneurship are carried out within one day with a time allocation of around 4-5 hours. The target of this mentoring activity is women from the Podokoyo Village Family Welfare Development Women group, which is around 18 people. Mentoring activities were executed by inviting two presenters. The first speaker is about how to process potatoes into potato donuts, and the second speaker is about how to manage finances in the potato donut business. The first speaker is Eka Ratri Noor, while the second speaker is Purweni Widhianingrum. The place where the potato donut mentoring and entrepreneurship activities were held was the Podokoyo Hall Village. The material used at this meeting is the same material that has been cleaned. Moreover, in carrying out this activity, the materials that have been selected and processed will become the basic ingredients for the products that will be made by each participant. Therefore, each participant has materials according to the criteria and design they want to make. Figure 4 shows the process of material processing.

Figure 5. Material Processing


Apart from the material processing done, this meeting was also interspersed with explanations regarding techniques for processing the shape of the material used. As well as an idea communication session is as an additional session. Because of its application, this session places more emphasis on communication between participants in explaining ideas and implementers to achieve the desired product form. Therefore, the selection of ideas through drawing is done by the implementation team in front of the participants to inform them about the advantages and disadvantages of the design that the participants want to produce.

At the second meeting, the implementation of the service program entered the material processing stage. Starting with processing the ingredients for potato donuts, which are adjusted to the best shape for the participants. The committee team used the mentoring technique for participants who were assisted by the implementing team; they were students team (students building a village of Brawijaya University) who were supported by village officials as well as Family Welfare Development Women from Podokoyo Village. In the second meeting, the implementation instructor participated in processing the materials. Implementers realized that knowledge in practice from participants still needs guidance. Therefore, the communication established at this meeting was very intense. With this communication, material processing errors and shape errors can be minimized so that it can reach the middle point in the form of the desired shape tolerance of the participants, which is linked to the
desired shape and product of potato donuts.

Figure 6. Result of material processing


Material processing is intended to provide participants with basic knowledge of processing the basic ingredients for potato donuts, potatoes produced by the Podokoyo village farm itself, and ingredients adapted to availability in the village. Besides, the manual processing is intended for the participants can find out the best techniques for making potato donuts that will not break and produce the best texture in processing potato donuts. Moreover, the most common form of potato donut, sprinkled with powdered sugar, the donuts are also decorated according to the participants' creations. Apart from that, the donut shape can be developed by the participants, for example, into a donut filler with jam or chocolate.

Figure 7. Finishing Product


After the mentoring activities, the implementing team provides a questionnaire for mentoring and evaluating activities. Then, the implementing team gave closing remarks and souvenirs. So the activity continued with a review of the results of the potato donut products that had been made by the participants and tried by the participants and partners. In its application, participants review the results of making the donuts by following all the directions from the trainer or presenter, resulting in donuts with a good texture and delicious taste.

Figure 8. The Work of Community Service Program Participants
Discussion

Community service program activities in the form of assistance in processing and entrepreneurship of potato donuts with activities in the form of training are relevant to the need for mastery of the use of an ingredient that already exists and has great potential in Podokoyo Village. In implementing this service program in the form of training, the aim is to increase the participant’s knowledge and skills regarding the processing and application of entrepreneurship to superior village products. This is supported by communication provided by partners to residents around the implementation location regarding the impact that will be received by participants. Therefore, the target participants who come from Family Welfare Development Women in Podokoyo Village with this community service program in the form of assistance in potato donut processing and entrepreneurship are considered to be able to help them to increase their knowledge and skills regarding the techniques and processing of using potatoes donuts for food can be used as superior business product.

Based on the results of unstructured interviews and evaluation monitoring between the implementing team and participants, this included direct observation during the activities, the implementation of community service program activities by the implementing team from the Student Program to Build 1000 Villages at University Brawijaya gave the following results: (1) from the implementation this community service program activity has increased and added knowledge and skills of Family Welfare Development Women to practice and work in producing products as well as training practical skills in potato donut processing and entrepreneurship. Increased knowledge can be seen from the result in the form of the potato donuts. The results of the monitoring evaluation were done by distributing questionnaires after mentoring activities for potato donut processing and entrepreneurship with the following results:

<table>
<thead>
<tr>
<th>No</th>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Is potato donuts interesting?</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Is the presented material</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
In table 01. That is a list of questionnaire questions for monitoring the evaluation of the results of the Potato Donut Processing and Entrepreneurship Assistance activities in Podokoyo Village, Tosari District, Pasuruan Regency which has five questions. The first question regarding the question of the material presented before the training, namely about potato donuts, is interesting or not, then the second question is regarding whether the material is easy to understand, then the third question regarding the suitability of the material to the expectations of the participants, then the fourth question regarding the suitability of the material to the needs of the participants, and the last question regarding whether there is a desire to open a potato donut business as a continuation of the objectives of this training activity.

Figure 9. Monitoring and Evaluation Result of Podokoyo Village Potato Donut Processing and Entrepreneurship Assistance Activities

In graph 09. above regarding the results of monitoring and evaluation of processing and entrepreneurial assistance activities for potato donuts in Podokoyo village shows that from the results of the pre-test to the post-test there were changes from all 20 participants and 18 people who filled out the questionnaire. Most participants showed the results of the material briefing on potato donut processing in accordance with the expectations and needs of the participants; besides that, the way of delivery was all participants answered easy to understand. All participants were interested in opening a potato donut business after understanding the training and mentoring from this activity.

Several factors support the implementation of this community service program. They
are (1) the assistance provided by partners in providing facilities in the form of materials and equipment as well as equipment for participants who are members of the Family Welfare Development Women category for directly involved in the implementation and success of the community service program in the form of this training. (2) There is interest and enthusiasm of participants during the activity. This can be seen from the number of participants who did not experience reduction and the participants’ response in carrying out the practice. Besides, the level of interest can also be seen through questions and answers aimed at obtaining information from the implementation team during practice. (3) There are no other activities that interfere with the ongoing community service program. This is because, in the process, this service program has asked for permission first from the community leadership elements at the RT and RW levels and the security forces where this community service program is taking place. Moreover, since the participants already know each other, there is no awkwardness between participants, so communication is not tongue-tied. (4) Residents are willing to consume during the implementation of community service programs.

In implementing this community service program, several inhibiting factors occur during the implementation of activities; they are: (1) since the training is carried out in the form of direct training, there needs to be an explanation in the form of practice to participants at each meeting. This is based on the knowledge of the participants who are new to ‘potato donut processing’ and processing methods. (2) There is an obstacle in the form of the teaching implementation method of this training, which focuses on practical methods. Sometimes, some students still need help in the form of guidance to tell them about the steps that must be done. (3) The time period is limited. Hence, there is a need for clear time division in implementing this community service program, and there is a lack of a trainer or presenter space who interacts directly with participants. This is still within reasonable limits because the facilities used are facilities owned by the local RT and RW areas and not as facilities for large public kitchen spaces.

Conclusion

This community service program aims to provide training and new skills and knowledge to participants who are Family Welfare Development Women from Podokoyo Village to make potato donut products. The target to be achieved in this program is that participants are able to know and process the main ingredients, namely potatoes into more useful donut products. The implementation of this program is divided into three stages: the preparation stage, the implementation stage, and the evaluation stage. Equipment and supporting facilities, space availability, partner involvement, and support from the community are the main factors in successfully achieving the goals of this program. The result achieved was in the form of the participant’s ability, namely Family Welfare Development Women is 20 participants; from the results of monitoring and evaluation, the training was as expected, easy to understand, and as needed in processing potato donuts, finances and providing added value and selling value which has a profit of 1100 rupiah per 1 donut. There needs to be comprehensive mentoring activities such as mentoring with more time and determining the potential of participants who will perform the business until it is realized. So additional implementation time is needed to provide sufficient knowledge. It is necessary to provide ongoing assistance and monitoring to partners so that this program can be continued periodically. It is better if the program can be followed up through collaboration with other partners or parties outside the institution so that we can know the wider response to the implementation of the community service program that has been carried out. Partners can provide useful information regarding aligned needs between abilities and knowledge that will be used to carry out similar community service programs.

Acknowledgments

Thank you to the Village Head and Podokoyo Village Community.

Reference