



OPTIMIZING THE PRODUCTIVITY AND QUALITY OF BANANA RAMBAK BASED ON AUTOMATIC OIL DRAINING MACHINE (SPINNER) TECHNOLOGY AT MSME KARTIKA KENCANA WONOSARI DISTRICT

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ABSTRACT

This community service activity program aims to apply appropriate technology in the form of an automatic banana slicing machine (Spinner) to increase the business productivity of banana rambak business actors in Wonoagung Village, Kasembon District, Malang Regency. The automatic oil draining machine (Spinner) for banana rambak was designed because business actors encountered a problem in the production process, especially in the draining process, business actors still used traditional techniques, namely placing it in a container and covering it with paper and then letting it air. Thus, business actors have to take a long time to drain the oil from banana rambak. This can hinder productivity for banana rambak businesses so that banana rambak products are of low quality. The application of the spinner machine aims to make it easier and faster for business actors belonging to UMKM Kartika Kencana to produce banana rambak. In this way, business actors have quality productivity and can increase productivity, especially processing banana rambak.

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INTRODUCTION

The agricultural sector is currently one of the areas where continuous efforts are being made to develop agribusiness in order to support the rate of national economic growth (Puspitasari, 2020). Industrial development in development is seen as an effort to improve the quality of human resources, which means increasing productivity and the ability to make optimal use of natural resources (Riadhussyah, 2020). One of the food crop commodities that is widely used optimally to build several industries is bananas, bananas are widely used as raw materials for industries such as micro, small and medium enterprises

in several regions in Indonesia (Dewi et al., 2017; Maesya & Rusdiana, 2018; Manuhutu & Madjid, 2023). Micro, Small and Medium Enterprises as a form of modern business that is able to improve the economy through own production and distribution covering the surrounding area to a wide area (Yudha & Purbadharmaja, 2019).

One of the micro, small and medium enterprises that produces products made from banana food is MSME Kartika Kencana. MSME Kartika Kencana which is located in Kebobang Village, Wonosari District, Malang Regency has been around for a long time. MSME Kartika Kencana was founded by Mr.

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Muhammad Sodik as a processing facility for one of the food potentials of banana fruit which is processed into a superior product in the form of banana rambak. The process of making banana rambak products begins by adding bananas and then cutting them into small pieces. The next production stage, in the form of frying, slicing and packaging (Aini et al., 2023; Johadi et al., 2023; Susanti et al., 2023).

Based on the results of observations made on these business actors, it was found that the problem faced by Kartika Kencana micro, small and medium business actors was production time, where at the frying stage it was accompanied by a manual draining process, namely placing it in a container and covering it with paper and then letting it air (Budiana et al., 2020). This is the cause of the inefficiency of the banana rambak production process (Sujito et al., 2023).

The manual draining process has an impact on the high oil content in banana rambak, because high oil content can have an impact in the form of shortening the shelf life of banana rambak, so the product quality will be low (Faiz et al., 2023; Floratiara et al., 2019; Mulyo et al., 2020; Prasetya et al., 2023). The aim of carrying out this service activity is to help MSME Kartika Kencana in increasing productivity in its banana rambak business by implementing an automatic slicing machine (Spinner) to facilitate and speed up the production of its banana rambak in Wonoagung Village, Kasembon District, Malang Regency.

IMPLEMENTATION METHOD

In the application method section, the methods used to achieve the goals set out in the service activities are explained clearly and concisely. Service results must be measurable and the author is asked to explain the measuring instruments used, both descriptively and qualitatively. Explain how to measure the level of success of service activities. The level of achievement can be seen from changes in attitudes, socio-culture and economy of the target community.

Time, Location, and Activity Participation

Community Service Activities were carried out in June in Kebobang Village,

Wonosari District, Malang Regency. This service takes place directly at the MSME Kartika Kencana production house which produces products in the form of banana rambak which are already running. Community service activities are a form of assistance to increase the production of banana rambak belonging to MSME Kartika Kencana.

Tools and Materials

The tools and materials used in service activities are tools to support the activities, namely a spinner. Where, this tool will be used as a form of innovation that can help increase production time and ease the production process.

Methods of Implementing Activities

The implementation method used in service activities for MSME is by handing over equipment and providing outreach. The socialization activity discussed how to use a spinner and how to care for the tool. With the aim that MSME Kartika Kencana can use tools properly and be able to carry out equipment maintenance if damage occurs or maintenance after using the equipment after the production process.

The method for socialization activities is explanation and question and answer. Explain what is done by providing material in the form of using maintenance funds that can be carried out by MSME themselves. Meanwhile, the question and answer process is a form of lack of understanding of the material provided by giving time to ask questions.

Socialization Techniques

Socialization was carried out for one day. The socialization aims to increase the knowledge of MSME Kartka Kencana regarding the use of spinners. Give examples of how to use an automatic drainer (spinner), maintain the tool, and repair the tool if damage occurs. This outreach to MSME also involves local communities who have micro businesses, community leaders, and also in this outreach activity there are questions and answers with partners and the community to provide new knowledge about automatic drainers (spinners).

RESULT AND DISCUSSION

General Description

The partner for community service activities is Kartika Kencana Micro, Small and Medium Enterprises which is located in Kebobang Village, Wonosari District, Malang Regency, which is around 29.6 km from Malang State University. To arrive at the partner location, it takes approximately 1 hour to travel by motor vehicle. The population of Kebobang village is mostly farmers, so there is a lot of food in the form of agricultural products in this area. With the abundance of agricultural products, many people in Kebobang village have opened small businesses, it is hoped that this will be able to help their economy apart from agricultural products that only produce for a season.

One of them is by producing processed bananas, but from the results of the observations that have been made there are still problems. the problem of long production times due to a lack of tools or knowledge of solutions that can help. MSME Kartika Kencana still uses traditional methods in the production process, one of the problems that occurs is the length of the draining process because the production of banana rambak uses a frying pan so that the oil after the frying process is drained for a long time until the oil is reduced.

Socialization

The outreach activities were carried out at the Kartika Kencana Micro, Small and Medium Enterprises production house located in Kebobang village, Wonosari District, Malang Regency. The material presented during the socialization was the handing over of tools in the form of a spinner and the use of the tools and maintenance of the tools. With this spinner, it is hoped that the MSME Kartika Kencana can help improve the production process which was previously hampered during production, namely the process of slicing the results of frying banana rambak which is still traditional, which can now be helped with this tool.

Community Service Activities

The first activity is delivery of tools and socialization (see **Figure 1**).



Figure 1. Delivery of Tools and Socialization

Based on **Figure 1** above is the process of handing over the spinner which has been prepared to help improve the production process by MSME Kartika Kencana.



Figure 2. Banana Rambak Processed Products

Based on **Figure 2** above, it is a processed product that is ready to be distributed to consumers, and the product can last a long time because the oil content in the product has been drained using a drainer.

Table 1. Comparison of Pre and Post PKM

No	Before PKM	After PKM
1.	Using traditional methods for draining oil from products is considered unproductive	It makes it easier and faster to process products using a spinner to drain the oil from the product.
2.	The time required is more than 1 hour.	The time required to drain the product oil is only 10-15 minutes.

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CONCLUSION

Community service activities taking place at the MSME Kartika Kencana production house ran smoothly. Socialization activities in the form of tool use and tool maintenance can be understood by partners. It is hoped that with assistance in the form of a spinner, production quality can be improved and products can last longer and promote MSME Kartika Kencana products in the market.

Author's declaration

Authors' contributions and responsibilities

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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Availability of data and materials

All data are available from the authors.

Competing interests

The authors declare no competing interest.

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