



## The Strategy to Increase Added Value of Bamboo Shoots Through Diversification of Processed Bamboo Stick Products (Bamboo Stick Toothpicks) and Bamboo Shoot Crackers

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### Abstract

*Bamboo shoots are one of the non-timber forest products that have very high economic potential. However, the use of bamboo shoots is currently still limited to direct consumption as vegetables. This study aims to explore strategies to increase the added value of bamboo shoots through diversification of processed products, especially in the form of cucuk gigi and bamboo crackers. The methods used in this study include descriptive-qualitative and quantitative approaches, with several stages such as literature studies, interviews, product analysis trials, SWOT, and organoleptic tests. The results of the study indicate that cucuk gigi made from bamboo shoots produces a strong, hygienic, and environmentally friendly product as an alternative to wood. On the other hand, bamboo shoot crackers offer a crunchy texture and distinctive taste that has the potential to be well received by the market. The SWOT analysis shows that product diversification can increase the competitiveness of bamboo shoots in the market, create new economic opportunities, and optimize the use of natural resources sustainably. Recommended strategies include improving production technology, digital promotion, and developing business partnerships to support industries based on natural resources.*

**Keywords:** Cucuk Gigi, Product Diversification, Bamboo Shoot Crackers, Added Value, Bamboo shoots

### INTRODUCTION

Bamboo shoots, young bamboo shoots that are abundant in Indonesia, are often only used as vegetables or pickles.<sup>1</sup> However, with its high fiber content, bamboo shoots have the potential to be processed into value-added products, such as cucuk gigi and bamboo shoot crackers, which can increase economic value and expand the market. Lack of innovation in processing and market access is a major challenge for local producer communities. Therefore, this community service program aims to empower communities through technology and innovation training, so that they can produce competitive goods and improve their economic welfare.

The program benefits both the community and the academics. Entrepreneurs gain new skills and economic opportunities, while academics can apply their research findings on a more tangible scale. The interventions include technical



training, product innovation, and digital marketing to support business independence.

The focus of this service is the development of local resource-based industries through product diversification and increasing competitiveness for small businesses. Based on various literature and research, intervention strategies are designed to ensure optimal impact and can be replicated in a wider context.

## **METHOD**

This activity uses a qualitative and quantitative descriptive approach. This community service is carried out in Posko Putra Social Work Lecture Group 23 Ma'arif University Lampung (UMALA) 2025, RK V, Panaragan Jaya Utama Village, Tulang Bawang Tengah District, Tulang Bawang Barat Regency. The subjects of this program are the local community of small business actors and mothers of the Family Welfare Development Program who focus on bamboo shoot processing.

Action planning was carried out with a participatory approach, involving the community in every stage of planning and organizing.<sup>2</sup> The initial steps taken were a literature study on the content and benefits of bamboo shoots, as well as interviews with business actors to explore market potential. Based on these findings, trials were conducted to produce cucuk gigi and bamboo shoot crackers to determine the most effective production method.

Next, SWOT analysis is applied to evaluate internal and external factors that influence product development.<sup>3</sup> Organoleptic tests are also conducted to assess product quality in terms of taste, texture, aroma, and visual appeal. The results of this analysis serve as the basis for formulating the right product diversification strategy.

The implementation of the program consists of several stages, namely (1) socialization and identification of community needs, (2) technical training and innovation of bamboo shoot-based products, (3) assistance in production, and (4) evaluation of the success of the program. With this method, it is hoped that the community can develop bamboo shoot-based businesses independently and sustainably.

## **RESULT**

This service program has produced significant achievements for the local small business community and mothers of the Family Welfare Program. Through the mentoring process, various technical activities were carried out, including training in making toothpicks and bamboo shoot crackers, as well as digital marketing strategies to expand the reach of products.

The dynamics in the mentoring process show an increase in community skills and awareness in managing bamboo shoot potential more innovatively. Mothers of

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the Family Welfare Program and small business actors are now actively involved in all stages of production, from selecting raw materials to packaging and marketing products.



**Figure 1. Manufacturing process  
Of toothpick and bamboo shoot crackers**



**Figure 2. Mother of Family Welfare Program  
& SME Actors**



**Figure 3. Socialization of the benefits of  
the process of making toothpicks and  
bamboo shoot crackers**



**Figure 4. Social Work Lecture Group 23  
with local Family Welfare Program  
mothers**

## DISCUSSION

The results of this community service program show that innovation in bamboo shoot processing can increase added value and provide positive social and economic impacts for the community. The participatory approach applied allows small business actors and mothers of the Family Welfare Program to actively

contribute at every stage, thus fostering a sense of ownership of the program.<sup>4</sup>

The technical training that has been implemented has succeeded in improving the community's skills in producing and marketing bamboo shoot-based products. The trials conducted showed that products such as cucuk gigi and bamboo shoot crackers have bright market potential, especially with the support of digital marketing strategies. In addition, the SWOT analysis has helped in identifying opportunities and challenges faced in developing bamboo shoot-based businesses.

The social impact of the program is seen in the changes in community behavior, which is now more aware of the economic potential offered by bamboo shoots and is more proactive in seeking business opportunities. The presence of local leaders from among the mothers of the Family Welfare Program who play a role in organizing production and marketing also reflects the increase in capacity within the community.

In addition to economic and social benefits, production sustainability is also a major focus of this program. The use of bamboo shoots as a basic material for product diversification has the advantage of abundant raw material availability and is more environmentally friendly compared to wood or plastic-based products.<sup>5</sup> With this innovation, it is hoped that the community can reduce dependence on more difficult-to-renew resources and increase awareness of sustainable business practices.

Digital marketing strategies are key to the success of this program. By utilizing social media and e-commerce platforms, bamboo shoot-based products can reach a wider market, not only locally but also nationally.<sup>6</sup> Several program participants managed to significantly increase their income by implementing more effective online marketing techniques, such as product photography, attractive descriptions, and promotional strategies based on customer testimonials.

From a technical perspective, processing bamboo shoots into cucuk gigi and crackers requires increased production efficiency in order to meet greater market demand. One of the challenges faced is standardizing product quality to maintain consistency. Therefore, this program also provides training related to quality control and efficiency in the production process to ensure that products can compete with similar products on the market.

The success of this program shows that innovative bamboo shoot processing can be an economic solution for local communities. With the right approach, this development model can be replicated in other areas to improve community welfare through sustainable use of local resources. In the long term, further support is needed from the government, academics, and the private sector to help expand the market and increase the production and distribution capacity of bamboo shoot-based products.

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## CONCLUSION

This community service program proves that bamboo shoot-based product diversification through a participatory approach can increase the added value and competitiveness of small businesses, while strengthening the local economy. Community empowerment through technical training and digital marketing strategies has proven effective in improving skills and market access for business actors.

From a theoretical perspective, the results of this community service confirm the importance of a community-based approach in local economic development. This shows the need for continued support from various parties, including academics, government, and the private sector, to accelerate the adoption of innovation and expand the market reach of local resource-based products.

However, there are several limitations in this program, such as the still limited production scale and challenges in building a wider distribution network. Therefore, further community service needs to be focused on increasing production capacity, optimizing the supply chain, and exploring strategic partnership opportunities with larger industries and markets. With a more targeted strategy, this program can have a more significant and sustainable impact on community welfare.

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