



Community Empowerment Based on Local Potential Through Chayote Cracker Production in Pagar Dewa Village

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Received [20-05-2026]

Revised [27-06-2026]

Accepted [30-06-2026]

Abstract. Community empowerment based on local potential is an important strategy in increasing economic independence and the welfare of rural communities. This study aims to examine the process of community empowerment through the use of chayote (*Sechium edule*) as an alternative raw material in cracker production. The method used is a qualitative approach with observation, interviews, and documentation techniques with community groups involved in the local food processing program. The results show that the use of chayote as a cracker ingredient can increase the added value of local commodities, open new business opportunities, and improve community entrepreneurial skills. In addition, this program also encourages the creation of innovative healthy and sustainable food products. In conclusion, chayote cracker production is an effective form of community empowerment based on local potential that is oriented towards the village creative economy.

Keywords: Community Empowerment, Local Potential, Chayote, Crackers, Creative Economy.

INTRODUCTION

Community empowerment is a crucial strategy in sustainable development, focusing on increasing capacity, independence, and active participation in managing their resources. In modern development approaches, communities are no longer positioned as objects, but as primary subjects with a role in determining the direction of social and economic change in their region. One widely used approach to empowerment is based on local potential, which involves optimizing available resources in the surrounding environment to create value-added products (Kamarudin *et al.*, 2024). The local potential of various regions in Indonesia is generally very diverse, particularly in the horticultural agricultural sector. One commodity that is quite abundant is chayote (*Sechium edule*), which thrives in tropical climates. Chayote is easy to cultivate, has high productivity, and can be harvested year-round. However, the use of chayote in the community is generally limited to daily vegetables with low sales value. This condition results in the commodity's economic value being less than optimal in improving community welfare (Hadriyani *et al.*, 2024).

Various studies have shown that processing local food ingredients into innovative products can significantly increase economic added value. One potential product diversification is the processing of chayote into crackers. Crackers are a popular snack with high consumption in Indonesia and a large market. Innovation in processing chayote into crackers can not only increase the economic value of raw materials but also extend their shelf life and create new business opportunities for UMKM (Cantika *et al.*, 2025).

Community empowerment programs based on local product processing also have significant social impacts. Through training, mentoring, and production practices, communities can improve their technical skills, creativity, and entrepreneurial spirit. This aligns with the

concept of the creative economy, which emphasizes innovation and the utilization of local resources as a driving force for the community's economy. Furthermore, developing MSMEs based on local potential can also support increased family incomes and reduce unemployment in rural areas (Furqon *et al.*, 2025).

However, in practice, several challenges remain, such as limited knowledge of agricultural processing, limited product innovation, and inadequate packaging and marketing skills. Furthermore, communities often face challenges in accessing broader markets, preventing local products from competing optimally. Therefore, a structured and sustainable community service program is needed to optimize local potential, particularly chayote, through innovative cracker products. The goal of this activity is to increase economic added value, strengthen community entrepreneurial capacity, and create economic independence based on local resources.

RESEARCH METHODS

Preparation Stage

Preparatory activities are carried out for two weeks prior to program implementation, including:

1. Site survey and field observation.
2. Coordination with the Pagar Dewa Village government.
3. Preparation of tools and materials for chayote cracker production.

Socialization Stage

The socialization aims to provide the community with an understanding of:

1. The importance of empowerment based on local potential.
2. The nutritional content and benefits of chayote.
3. Business opportunities for local processed food products.
4. Strategies for developing agricultural-based UMKM.
5. The methods used include interactive lectures, group discussions, and question-and-answer sessions.

Chayote Cracker Production

Training is conducted through demonstrations and hands-on practice.

1. Tools Used
Digital scale, knife, basin, blender, stove, steamer, cutting tool, frying pan
2. Materials Used
Chayote, tapioca flour, garlic, shallots, salt, flavoring, water, cooking oil.

Procedure for Making Chayote Crackers

1. Wash and peel the chayote.
2. Grate the chayote and then puree it using a blender.
3. Mix the chayote puree with tapioca flour, wheat flour, finely chopped garlic, salt, and other spices.
4. Knead the dough until smooth.
5. Form the dough into a cylinder and steam for approximately 60 minutes.
6. Cool the cooked dough for 12–24 hours.
7. Slice the dough thinly using a cutter.
8. Dry the cracker slices in the sun for 2–3 days until the moisture content is low.
9. Fry the dried crackers at approximately 170°C until fully puffed.
10. Package the product in labeled plastic jars.

Product Evaluation

Product quality assessment is conducted through a simple organoleptic test on 25–30 panelists using a hedonic scale of 1–5, covering:

1. Color
2. Aroma
3. Taste
4. Texture

RESULTS AND DISCUSSION

Community Service Activity Results

A community empowerment program based on local potential through the production of chayote crackers in Pagar Dewa Village was implemented involving productive-age residents. The activity began with outreach on the importance of utilizing local resources to increase the added value of agricultural commodities and strengthen the village economy.

Based on initial observations, it was discovered that chayote is a relatively readily available commodity in Pagar Dewa Village. However, its use is still limited as a household vegetable, resulting in relatively low economic value. Therefore, the community was provided with training on processing chayote into crackers as a form of diversification of local food products (Abas *et al.*, 2023). The training included lectures, demonstrations, and hands-on practice. Participants were provided with knowledge on raw material selection, dough formulation, processing, drying, frying, and product packaging techniques. Throughout the training, participants demonstrated high enthusiasm and actively participated in each stage of the activity.

Community Capacity in Chayote Cracker Production

After participating in the training, most participants were able to independently produce chayote crackers. The community was able to follow all stages of production, from raw material processing to product packaging. The participants' success in practicing the production process demonstrated that the technology for chayote crackers is relatively simple and easily implemented on a household scale. This presents an opportunity for the community to develop micro-enterprises based on local food products. Furthermore, the use of locally available raw materials lowers production costs, thus offering good economic prospects for the business.

Chayote Cracker Production

Utilizing chayote as a raw material for crackers is one way to optimize the local potential available in Pagar Dewa Village. Until now, chayote has only been used as a vegetable, thus having relatively low economic value. Through product innovation, this commodity can be processed into food products with higher sales value. Developing products based on local potential is an effective strategy for improving community welfare because it utilizes readily available and sustainably available resources. Innovation in processing agricultural products into processed products can also extend the shelf life of food and reduce post-harvest losses.

The resulting product is crackers with the distinctive greenish-white color of chayote, a pleasant aroma, a crunchy texture, and a savory taste. The results demonstrate that chayote can be used as an alternative raw material in cracker production without compromising the product's characteristics that consumers prefer. The resulting crackers are then packaged in simple, labeled plastic jars to enhance product appeal. Good packaging not only protects the product but also serves as a promotional tool that can increase sales value.



Figure 1. Chayote Crackers

Organoleptic Test Results

To determine the level of public acceptance of chayote crackers, an organoleptic test was conducted using a hedonic scale of 1–5, involving 25 untrained panelists. The results of the organoleptic test are shown in Table 1 below:

Table 1. Organoleptic Test Results Of Chayote Crackers

Parameters	Average Value	Information
Color	4.10	Like
Aroma	4.03	Like
Taste	4.37	Like
Texture	4.47	Like
Overall favorite	4.24	Like

Description: 1 = really dislike, 2 = dislike, 3 = neutral, 4 = like, 5 = really like

Based on the organoleptic test results, the texture parameter received the highest score of 4.47, indicating that the panelists preferred the crispiness of the crackers. Meanwhile, the overall preference score of 4.24 indicates that the chayote crackers were well-received by the public. The high level of panelist acceptance indicates that the use of chayote as a raw material for crackers has the potential to be developed into a competitive commercial product.

CONCLUSION

The Community Empowerment Program Based on Local Potential through the Production of Chayote Crackers in Pagar Dewa Village has successfully increased the community's knowledge and skills in processing chayote into value-added products. The resulting chayote crackers have a high acceptance rate, thus offering the potential for development as a village MSME. This activity demonstrates that leveraging local potential can support increased income and community economic independence.

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