

EMPOWERING LOCAL FARMERS THROUGH SUSTAINABLE CEMPEDAK PROCESSING AND MARKETING: A CASE STUDY OF KO YO AMPHOE SONGKLA, THAILAND

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Abstract

This research focuses on empowering local farmers through sustainable processing and marketing of cempedak in Amphoe Songkla, Thailand. The research shows that cempedak (*Artocarpus integer*) has significant potential to boost the local economy, given the high demand in the market. Mr. Lung V, the farm owner, implemented environmentally friendly farming practices and innovative marketing strategies, including online marketing and cempedak cake production. The research also emphasized the importance of preserving local plants and local wisdom, and how collaboration between students and local farmers can provide direct benefits to the community. Thus, this research not only contributes to local economic development but also strengthens cultural interaction between Indonesian and Thai students.

Keywords: *Cempedak, Empowerment, Local wisdom, Market.*

1. INTRODUCTION

Thailand's economy relies heavily on agriculture as the country exports a lot of food and agricultural goods, which provide income for working-class households and farming households (Saiyut et al., 2017). One important component in the growth of a region is the economic progress of the community. Processing cempedak fruit is one of the opportunities that can be used to achieve this goal. Cempedak fruit (*Artocarpus integer*) is one of the most common tropical fruits in Southeast Asia (Yudianto et al., 2024). Among the various agricultural commodities developed is cempedak, which is a type of tropical fruit similar to jackfruit. Cempedak has shown significant potential in boosting the local economy in Thailand, as the fruit has sweet and fragrant flesh that is rich in beta-carotene (Pui et al., 2020). However, to maximize this potential, empowering local farmers through sustainable management and marketing is very important. One way is by utilizing the marketplace platform.

Compared to traditional promotion, marketplace platforms enable low-cost global marketing and sales that can also be done worldwide without time restrictions. To the extent that not many entrepreneurs have done so yet, marketplace platforms can also provide new business opportunities. For example, these platforms allow businesses to sell goods globally without requiring them to have a product or store beforehand (Martiningtiyas et al., 2022).

Local farmer empowerment focuses on strengthening farmers' capacity and ability to manage their production and market it effectively. This involves various aspects, ranging from improved farming techniques, technology utilization, to smart and sustainable marketing strategies. Good management not only ensures that cempedak is produced with the best quality, but also helps reduce post-harvest losses and increase farmers' income (Gumbi et al., 2023).

In this context, effective marketing not only includes selling products, but also involves developing efficient distribution channels, attractive branding, and understanding global as well as local markets. By adopting a sustainable approach, farmers can ensure that their practices are not only economically profitable but also environmentally friendly (Fitriyani et al., 2024). The goal of this empowerment initiative is to create a model that allows local farmers to actively participate in the cempedak value chain. This involves training in environmentally friendly cultivation techniques. The use of modern technology to improve efficiency, as well as marketing

strategies that can reach a wider market and increase product competitiveness (Rachmawati, 2021). Thus, empowering local farmers will have a positive impact on the regional economy, improve farmers' welfare, and support environmental sustainability (Yang et al., 2024).

2. IMPLEMENTATION METHOD

Here, we visited Mr. Lung V's farm in Ampoe Village, Songkla Thailand. Mr. Lung V is a retired person who once served as an employee of the Kingdom of Thailand. He is a very active person in farmer empowerment, he said that even though he has enough money to make a business but he prefers to preserve local plants and local wisdom. Local wisdom is knowledge and values passed down from generation to generation within a community, formed from human interaction with nature and local culture. It includes practices, traditions and ways of life that help people adapt to their environment in a harmonious and sustainable manner (Mahrinasari et al., 2024). Local wisdom is also crucial to help farmers understand the weather patterns, soils, and cropping cycles that suit their ecosystems, resulting in sustainable agriculture (Ahsan et al., 2021).

Mr. Lung V's garden is an interesting example of local empowerment, such as traditional farming techniques that maintain the balance of the ecosystem, or the value of mutual cooperation that strengthens social solidarity. Rooted in collective experience, local wisdom often serves as a guide to preserving nature and social harmony. It also recognizes how traditional and modern agricultural practices can be combined to produce high-value commodities. Mr. Lung V's cempedak farm utilizes environmentally friendly and sustainable farming practices.

Some general steps in cempedak cultivation, applied at Mr. Lung V's farm in Ko Yo Amphoe, Songkla, Thailand.

a. Land Selection and Preparation

Soil Conditions: Cempedak grows optimally in fertile, loose, well-drained soil. Mr. Lung V's farm is likely to prefer land with a neutral to slightly acidic soil pH, and sufficient sunlight throughout the day.

Climate: Cempedak is suitable for growing in tropical areas with sufficient rainfall. Thailand, with its warm and humid tropical climate, is ideal for cempedak cultivation.

b. Seedling Planting

Selection of Superior Seedlings: Superior cempedak seedlings are usually selected from varieties that are resistant to diseases and pests. Mr. Lung V may use seedlings from high quality mother trees, which ensure optimal growth and good fruit set.

Planting Distance: Cempedak requires sufficient planting distance (about 8-10 meters between trees) to allow the trees to develop well and produce optimal fruit.

c. Maintenance and Care

Fertilization: Regular fertilization is very important in the early growth phase. Mr. Lung V may use a combination of organic and inorganic fertilizers to keep the soil and plants healthy.

Watering: Although cempedak is resistant to drought, adequate watering is still important, especially during the dry season. An efficient irrigation system may be implemented in his garden to keep the soil moist.

Pest and Disease Control: To maintain the quality of the crop, natural pest control practices or the use of environmentally friendly pesticides are likely to be part of Lung V's farm management.

d. Harvesting

Cempedak is usually harvested when the fruit is optimally ripe, characterized by its characteristic fragrant aroma and yellowing skin. At Mr. Lung V's farm, harvesting may be done manually by trained workers to ensure each fruit is picked at the right time.

e. Post-Harvest Processing

Once harvested, the cempedak fruit on Mr. Lung V's farm may go through a simple sorting and processing process before being sold to the market. Some derivative products, such as dried or candied cempedak fruit, may also be produced to add economic value.

f. Marketing and Distribution

With the increasing demand for cempedak in the international market, Lung V may have taken advantage of digital marketing opportunities to expand market reach. Marketing through local networks and working with large distributors in Thailand as well as exporting to neighboring countries may be part of the farm's

marketing strategy.

g. Sustainability and Innovation

Mr. Lung V's farm may also implement environmentally friendly and sustainable farming approaches, such as the use of natural compost or agroforestry practices that combine cempedak with other plants to maintain a balanced ecosystem.

3. RESULTS AND DISCUSSION

On May 24, 2024, the team visited a cempedak plantation located in Ko Yo Amphoe Songkla, Thailand. The farm is owned by Mr. Lung V, a retired Royal Thai employee who chooses to preserve local plants and local wisdom. Mr. Lung V said that it is very important to introduce and also convey to the younger generation both locally and internationally to maintain the sustainability of local plants and local wisdom. In this cempedak plantation research, the team gained knowledge about the high demand for cempedak in the local and international markets, in this marketing Mr. Lung V has implemented online and offline marketing, this is done in order to optimize the income from cempedak products, not only sold in the state of fresh fruit but Mr. Lung V also has the innovation of producing cempedak cak to attract local and international consumers.

This research highlights the importance of local plant preservation and how this can be a valuable resource for the community. The local wisdom applied by Mr. Lung V shows that sustainability can be achieved through an approach that respects local traditions and knowledge. The findings regarding the high demand for cempedak opens up business opportunities for students to understand market dynamics and the potential for entrepreneurship in agriculture. It also provides insight into how local products can be marketed effectively. This research not only teaches Indonesian and Thai students about agriculture, but also builds cultural connections. Through hands-on experience, students can learn about the way of life and agricultural practices in other countries, which can enrich their perspectives. The visit to the cempedak farm provided a valuable learning experience for the students, both in terms of practical knowledge about agriculture and understanding of local plants and local wisdom.



Figure 1. Introduction to Mr. Lung V's garden and cempedak fruit



Figure 2. Cempedak tree seedlings



Figure 3. Traditional protective form of cempedak fruit (gerok)



Figure 4. Cempedak tree before harvest



Figure 5. Cempedak cake

4. CONCLUSION

The visit to the cempedak plantation showed that the preservation of local plants, such as cempedak, is crucial to maintaining the sustainability of natural and cultural resources. The local wisdom practiced by the farm owner, Mr. Lung V, is a clear example of how tradition can contribute to environmental sustainability. The high demand for cempedak in the market creates significant business opportunities. Students can utilize this knowledge to develop entrepreneurial ideas focused on local products, which are not only economically beneficial but also support cultural preservation. This activity strengthens cultural interaction between Indonesian and Thai students, providing opportunities to learn from each other and understand agricultural practices and ways of life in other countries. This contributes to the development of students' global outlook.

It is recommended to develop entrepreneurship programs that focus on local products, including cempedak, to encourage students and local youth to create sustainable and innovative businesses. There is a need for more in-depth education programs on the importance of local plant preservation and local wisdom, both at the university level and in the general public, to increase awareness of sustainability. It is expected that students and universities can collaborate with local farmers to conduct research and development of local plant-based products, so that they can provide direct benefits to the community. It is recommended to continue cultural exchange activities that involve visits to local farms in various countries, to broaden students' horizons about agricultural practices and cultural preservation at the international level

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