

Business Opportunity of Porang Plants on the Welfare of Farmers in Ngrayun Ponorogo



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ABSTRACT: Porang nowadays has become a commodity that is claimed to have high export potential because it is the basic ingredient for making shirataki, a healthy food that is currently trending. In the market, Shirataki has a high price, so many people assume that the price of porang as a raw material is also high. But unfortunately this contrasts with the reality experienced by the farmers in Ngrayun Village, Ponorogo. Where the price of porang among farmers actually experienced a very drastic price drop. Therefore this study aims to identify the factors that cause this phenomenon to occur, that by helping Porang farmers in the village of Ngrayun Ponorogo the results are: 1.) Limited knowledge of farmers about supply chain management, 2.) Limited to human resources who lack knowledge planting Porang, and 3.) Dependence of farmers on collectors.

KEYWORDS: Porang, supply chain, business opportunity

I. INTRODUCTION

After the Covid-19 pandemic, people began to live healthy lives and pay attention to diet in droves. This is in line with the increasing consumption of foods made from low calories and carbohydrates. Shirataki are rice and noodles made from glucomannan, a type of fiber that comes from the root of the konjac plant or in Indonesia known as the Porang plant.

In recent years, many people have started to live a healthy life, namely by consuming low-calorie foods, to maintain their immune system from several diseases. Especially during the Covid 19 pandemic, the body's health is very easy to get sick. With an effort to live a healthy life, they consume a lot of low-carbohydrate foods, including for the upper middle class, they consume a lot of noodles and rice made from shirataki. Indeed, in recent years, rice and noodles made from flour have started to appear, which flour comes from root crops known in Southeast Asia as porang plants. Processed porang plants are indeed very rare to find along with a lack of knowledge about the use of porang plants.

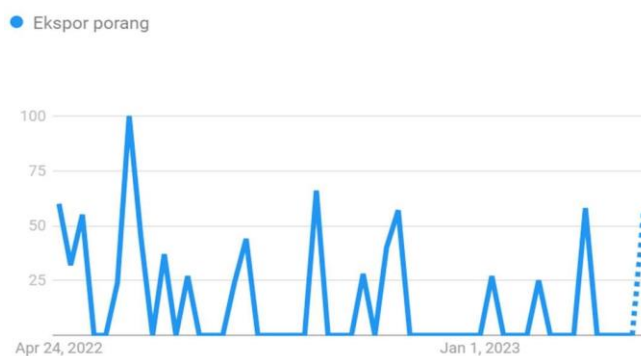
In August 2021 President Joko Widodo inspected and inaugurated the porang processing factory. According to PT Asia Prima Konjac in Kuwu Village, Balerejo District, Madiun Regency, the processing of porang at the factory has provided good added value, especially for farmers. Porang is predicted to be a healthy food in the future to replace rice because it is low in calories, low in carbohydrates and free of sugar. (East Java, 2021)

The Porang plant has a high selling value because it is an export commodity that is needed by companies in various countries (Gaddafi, 2021). The porang plant (*Amorphophallus oncophyllus*) is a plant belonging to the Araceae family which is generally known as the corpse flower because of its unpleasant flower odor. Porang plants are a new commodity that can provide added value to both farmers and companies that manage porang. Apart from that, it is popular because it is easy to cultivate, has high productivity, relatively few pests/diseases attack, good market demand and has high economic value (Santoso, 2014).

According to (Hamdhan, 2020) states that farming from porang commodities with a land area of one hectare costs Rp. 87,660,000, the average annual income earned by farmers is Rp. 260,340,000. Seeing the potential and magnitude of the benefits in porang cultivation for the welfare of the village community, it is necessary for the Government to intervene in selecting a new location for the cultivation of the porang commodity. As well as the need for increased investment in these commodities because considering that it is still very possible to increase.

The Porang commodity is the Government's leading export commodity, referring to the last few years, the need for Porang is very large, which is indicated by the number of Indonesian export requests for Porang. The porang plant has significant economic value as one of the mainstay export commodities, efficient management of the porang plant will generate revenues that are far above the costs invested (Maemunah Nurmaya Sari, 2022)

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Source: Ekspor porang - Pelajari - Google Trends

According to the website from Google Trend, it illustrates that there is the highest increase in August 2022 touching 100%, this illustrates that the prospects for exports of people are good for the coming years. In 2023, porang exports are still classified as having great potential, with a figure of more than 50%.

At the end of 2021, the development of Porang's exports will experience problems, it will be difficult for Porang to penetrate the main export markets, namely China, Japan and Europe. This is because Indonesian porang products are considered not good enough. Porang business people anticipate this by first exporting through Vietnam (Muhammd Gaddafi, 2021)

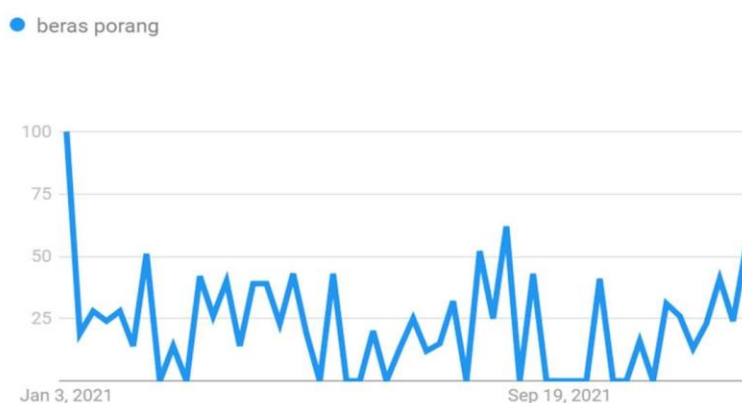
The results of research from Andi, et al said that strategies that can be used for the development of porang agribusiness in North Lombok Regency are: 1) Increasing business scale, 2) Improving the quality of human resources, 3) Partnership patterns, 4) Using quality packaging, 5) Setting planting time, 6) People's business credit, 7) Maximizing the use of existing infrastructure. According to previous research, the overall effort to increase the welfare of Porang farmers lies in increasing business scale with government support through small business loans for farmers and building partnerships with porang tuber processing industries. (Andi Iva Mundiayah, 2021)

The shape of the porang supply chain towards increasing the welfare of porang farmers

Porang today is not just a tuber plant. Porang plants have significant economic value. Quantitative research on porang farmers explained that the R/C Ratio analysis from a group of porang farmers in Selur Village, Ngrayun District, Ponorogo Regency, found that every 1 rupiah of investment in porang plants will generate income of approximately 3,000 rupiah (Elvira A., 2020). This will certainly have an impact on the welfare of porang farmers. The porang plant is currently one of the new mainstay export commodities according to the instructions conveyed by President Joko Widodo to the Minister of Agriculture Syahrul Yasin Limpo. The supply chain itself is a concept in which there is a regulatory system related to product flow, financial flow and information flow (Emhar Annona., 2014). Product flows, financial flows and information flows in the supply chain are used to find out how porang farmers get information about the set selling price of porang and to find out the yields received by farmers.

The importance of the supply chain for the Porang crop business illustrates the distribution of commodities from farmers to processing plants, so that the selling price in the market can be monitored and indirectly protects the welfare of the Porang farmers. This condition illustrates that it is necessary to represent the concept of supply chain management in meeting consumer demand for the supply of porang plants in an effective and efficient manner, both in terms of cost, time and process.

(Christoporos., 2021)



Source: beras porang - Pelajari - Google Trends

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According to the website on Google, trends show that porang rice production in the period 2021 to the end of 2021 is experiencing fluctuating conditions. Considering that the consumption of porang rice or similar preparations is widely used by the upper middle class. The price of porang rice which is not cheap also affects the demand for this porang rice. In Indonesia, porang rice is still not well known by the wider community. Processed porang plants are still limited to semi-finished goods. In Indonesia, there are currently several centers for processing porang flour, such as in the Pasuruan, Madiun, Wonogiri, Bandung and Maros areas.

(Administrators, 2021)

One of the reasons why the price of porang has decreased every year, even in 2022 the price of porang tubers has decreased from Rp. 14,000 - Rp. 15,000 to Rp. 5,000 per kilogram. The price slumped after China closed access to Indonesian exports. (Alwi, 2022). The government has attempted various ways with the central government regarding the issue of the price of the porang plant commodity, this is a bilateral matter between the Ministry of Agriculture and the export destination country, moreover approximately 6,250 hectares of land in the Madiun Residency have been planted with porang. several types of tubers in Indonesia can be processed easily, but this does not apply to Porang plants. Porang itself is one of the tubers that is not recommended to be processed by experts, this is because porang contains oxalate which causes an itchy effect. Prof. Dr. Edi Santoso, Professor of the Faculty of Agriculture of IPB said that there are types of porang that itch and don't itch, therefore you should not be careless in cultivating porang plants. (Kompas.com, 2021). In Indonesia, the government is promoting the processing of porang from tubers into semi-finished goods or in the form of flour to be reprocessed into several types of processed products such as rice and noodles, which are now known as Shirataki.

Before planting porang, the farmers in the village of Ngrayun Ponorogo planted a lot of corn, cassava and rice. These three commodities are the village's advantage, considering the structure of the land is in the mountains. After the socialization about porang plants, many of them turned into porang farmers, but these three commodities still exist. Because actually the porang plant is a plant which is easy to care for and the results are very promising. For the welfare of the village farmers it is good enough that the village people dub the porang plant as a gold plant.

II. RESEARCH METHODS

This research is a research with a qualitative approach conducted in the Village of Ngrayun Ponorogo in January-February 2022. The object of the research location in the village was chosen based on the researcher's considerations that Ngrayun Village has quite a large potential for producing Porang plants in the Madiun Residency. Researchers obtained direct data from the results of interviews, recording and observation. In addition, researchers also took supporting data, both primary data through the questions contained in the questionnaire submitted to farmers, as well as the results of direct observation/survey.

In addition, the sampling technique that will be used is purposive sampling method (intentional sampling according to its purpose) in Ngrayun Village, Ponorogo District. In determining the sample, the marketing agency is determined by using the snowball sampling technique, namely following the marketing flow by making the first sample the determinant of the next sample. By using qualitative descriptive data analysis through the process of data reduction, data presentation and drawing conclusions so that this research can explain the impact of porang commodity farming carried out by farmers and at the same time to answer the problems experienced by porang farmers in terms of marketing.

III. RESULTS & DISCUSSION

Porang Farming Enterprise, Ngrayun Village

The potential for the agricultural economy in Indonesia is enormous, being the main sector supporting the Indonesian economy because apart from being a maritime or archipelagic country, Indonesia is famous for its vast agricultural and plantation lands. Its market share and soil fertility make the country abundant in agricultural products.

There is an abundant workforce with the younger generation entering productive age, but this has its own obstacles and challenges, including the willingness of the younger generation to develop the agricultural sector, many young generations who look down on the farming profession, and limited funds so that the workforce is sluggish. new to the agricultural sector. Limitations in terms of scientific and technological capabilities in agriculture are also one significant reason.

The obstacle on the agricultural scale is that it still tends to be traditional, although on the traditional side it still has a positive side, namely, for example, there is still a high attitude of mutual cooperation among people, attitudes of local wisdom in the form of mutual assistance between neighbors. One effort or strategy to overcome obstacles is the introduction of modern technology in agriculture,

The younger generation continues to be developed in terms of entrepreneurship and agricultural economic development. The younger generation is expected to give social impact to other young generations. There must be collaboration between upstream farmers and downstream farmers, namely millennial farmers and colonial farmers.

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Porang farmers in Ngrayun Ponorogo explained that if the price of porang is low, they tend to hoard it in warehouses, for example, the price of porang is around Rp. 5,000.

Katak 1 kg	200-900 butir (campur)	2-3 tahun masa panen	Rp 136.000,-
Katak super A	20-60/kg	1-2 tahun masa panen	Rp 250.000 – Rp 275.000,-
Katak B	80 – 120 butir	1-2 tahun masa panen	Rp 180.000 – Rp 200.000,-

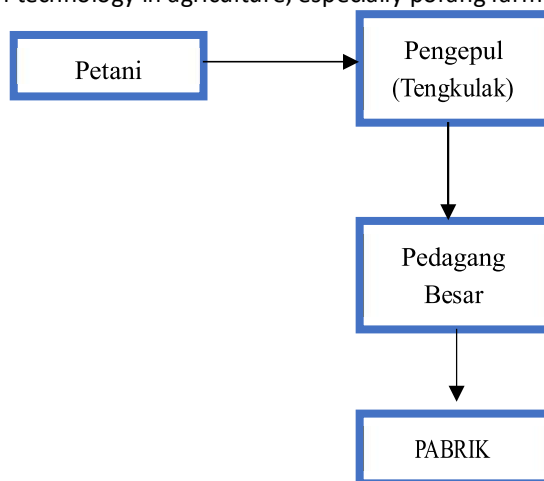
Source: primary source data

To calculate the income earned by porang farmers, it is estimated that 1 kg of frogs contains as many as 300 eggs, each tuber requires 1 rainy season (or 7 months). As told by Ngrayun farmers, when the porang planting season is in April - May, the tuber weight is approximately 2-3 ounces/grain in the soil. Approaching the rainy season grows by itself. And when the month of May started 2 kg (standard). $2\text{kg} \times 300 = 600\text{ kg}$, if the price is Rp. 5,000, - then $600 \times \text{Rp. } 5,000 = 3\text{ million}$ or the result of tubers. From these calculations it can be concluded that Porang Farmers have nothing to lose.

Porang Plant Supply Chain

The promising commodity of porang plants has caused many people to become interested and attracted to cultivating these plants. (Ramdan Hidayat, 2021). According to the farmers in the village of Ngrayun, Porang cultivation is a plant that is quite easy and not too intensive to maintain, a plant that has the potential to be developed, easy to grow in a variety of soil conditions, even on critical land. So it is very possible for further development in the East Java region. Moreover, porang plants will be a healthy food substitute for rice in the future.

The large potential of porang plants for farmers is indeed quite apprehensive, in Ngrayun the size of the land, the market share for selling porang tubers, soil fertility and the presence of workers/farmers who take part in planting are starting to be faced with challenges/obstacles that have recently emerged. , including the willingness of the younger generation for the world of agriculture looks a little small, many young people look at one eye about the limited funds, limited knowledge of the agricultural sector, in terms of scientific and technological capabilities. The obstacle on the agricultural scale is that it still tends to be traditional, although on the traditional side it still has a positive side, namely, for example, there is still a high attitude of mutual cooperation among people, attitudes of local wisdom in the form of mutual assistance between neighbors. One effort or strategy to overcome these obstacles is the introduction of modern technology in agriculture, especially porang farmers.



Source: Primary data processing from researchers (2022)

The marketing process for porang consists of several stages, starting with farmers, then collecting them to collectors, from farmer collectors (middlemen) collecting them to collectors. After that, collectors sell it to factories or deposit it in several cities, including Semarang, Surabaya, Bandung, and others. In addition, this porang commodity is also exported to foreign countries such as China, Japan and Korea in the form of chips (dry porang). The marketing network that occurs for porang commodities in Klamong Village runs vertically and horizontally. There are two different marketing channels that can affect farmers' acceptance. There are three kinds of commodities that are sold or traded, namely chips (dry porang), bulbils/frogs and logs (wet tubers). By measuring marketing margins on the two channels above, to find out which marketing channel is more profitable for farmers. Marketing channel 1 is from Farmers - Wholesalers - Factories. In this trade pattern, farmers do not sell directly to factories, but through middlemen traders. It can be seen in table 2 to find out the margins and profits obtained by collectors in Porang marketing

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Business Opportunities

Porang cultivation includes the cultivation of plants that are quite easy and not too intensive to maintain. The Porang plant is a plant that has the potential to be developed under state forest stands and community forests, because: 1. Porang only grows and develops well under shade with a light intensity of 60-70%. The selling price used to be expensive, but over the years until now the price has been dropping because there are a lot of people who have planted porang. The stock of porang is already abundant and the demand from porang processing factories in Java in particular is not too much, as a result the company determines the price. Another complaint experienced by farmers is that they once bought porang seeds, but because of the unpredictable weather, many seeds were decomposed, there was a difficult period of fertilizer during the porang planting period. Another challenge When they want to sell it, the price of porang goes down, so the farmers have to find the right time to sell it, which causes the weight of the tubers to decrease when they are stored in warehouses for too long.

With the existence of porang commodities, the people's economy can increase. It was proven during the harvest season between May and September or known as (harvest). The concept of harvesting is not harvesting together in one day, but depending on the needs of each farmer. So even though the harvest is great, it doesn't necessarily take place together with the whole village. When you need money, it means that farmers have to harvest first. There are at least 10-15 farmers a day. . The selling price of frog seeds per one kilogram is valued at Rp. 300,000. So when farmers want to harvest the tubers that are below, the farmers already have an advantage over the frogs/bulbils.

From porang farming in Ngrayun village, it can also open new jobs, because village farmers are very short of manpower to carry out planting, tending, harvesting and so on. High porang production can also provide high acceptance for farmers. The level of production is also influenced by the factors of production used, both in terms of quantity and quality. With large commodity production, it will determine the magnitude of the economic opportunities received by farmers. Therefore, the income received by porang farmers can be used to meet their daily needs, thereby increasing the welfare of the community, especially in the village of Ngrayun Ponorogo.

IV. CONCLUSIONS

By exploiting the potential of land in forests and yards that are still wide in the Ngrayun Ponorogo area and some of the advantages of porang, including being able to grow under stands, only need to plant once, do not need intensive maintenance and are resistant to pests and diseases, it is hoped that this will increase the amount of production so that it can improve the welfare of porang farmers in Ngrayun Village. Porang has many benefits followed by proper processing which will add to the selling value of porang and can be used as an alternative source of food amidst the onslaught of starting to consider a healthy life by paying attention to a lowcalorie and low-glucose diet, namely by consuming rice and noodles made from shirataki. Porang farmers can take advantage of this moment by continuing to cultivate porang plants which are starting to show increasing progress of business opportunities.

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