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Business Model Innovation of Beneng Taro Flour in Pandeglang Regency, Banten Province

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Abstract

This research aims to identify the business models that have been implemented by taro beneng flour business actors in Pandeglang Regency, explore the insights of beneng taro flour customers, and design innovative taro beneng flour business models in Pandeglang Regency using the Business Model Canvas, empathy map, and blue ocean strategy. The research results show that there are three micro-scale small and medium enterprises (MSMEs) producing beneng taro flour with a similar business model tendency. Based on the empathy map, the main product strengths are business opportunities through the creation of food and the main shortcomings, namely the quality and marketing aspects of the product. The business model innovation design results in aspects that must be reduced, namely the use of dry chips of different grades and eliminating the process of soaking the chips in plain water. Aspects that need to be improved are quality consistency, chips soaking with the brine, packaging costs, and sales volume. The next step is creating a brand, product information on packaging, including legal and halal aspects, implementing hygiene and sanitation in the production process, online marketing through social media activation and e-commerce, adding human resources in the field of marketing and their salary also creating collaboration with government institution.

Keywords: Business Model, Business Model Canvas, Customer Insights

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INTRODUCTION

Flour-based processed food products are often found in Indonesia. In general, the flour used is made from raw materials such as rice, cassava and wheat. The dependence of the Indonesian people on flour-based food products is in line with the relatively high amount of Indonesian wheat imports. According to the Central Statistics Agency (2021), in 2019, Indonesia's imports of wheat and meslin reached 10,664.2 tonnes. Then, in 2020 it reached 10,287.1 tons and in 2021 there was an increase in import volume to 11,172.0 tons. This dependency can be overcome by looking for alternative solutions for flour raw materials based on local food sources.

Taro beneng as a local commodity typical of Pandeglang which has been designated as a national superior local variety based on the Decree of the Ministry of Agriculture No.981/HK.540/C/10/2020 dated 13 October 2020 can be an alternative raw material for flour. Flour as a semi-finished food product created from taro beneng can facilitate the processing of various foods based on taro beneng flour (Kusumasari et al., 2019). Food preparations from taro beneng flour that can be found are brownies and noodles. (Suryandani et al., 2021). Apart from that, the high amylopectin content in taro beneng flour has the potential to be used as a raw material for crunchy and porous types of food such as cakes, biscuits, waffles and crackers and the high protein content has the potential to make taro beneng flour a substitute product for wheat flour (Kusumasari et al. al., 2019). Thus, taro beneng has the potential to be an alternative food source and contribute to programs to strengthen food security through food diversification strategies (Budiarto and Yunia, 2017).

The availability of beneng taro flour products must be in line with the readiness of the industry that houses it. The type of taro beneng flour business found in Pandeglang Regency is a micro business with a simple production site supported by 2-3 workers. The main customer segmentation for this industry is suppliers and processed food MSMEs who are also business partners. The problem found in this industry is that the process of making flour using drying techniques depends on sunlight, so the quality is uneven (Najah et al., 2021). Budiarto and Yunia (2017) revealed that the sanitation level of workers in the production process was not good. The oxalate level in beneng taro flour is quite high, reaching 648.87 ppm. High oxalate content has the potential to cause itching on the tongue and skin when consumed (Kusumasari et al., 2019). However, the absence of other mixtures other than beneng taro tubers in the flour raw material is an added value that can be offered. Then, the product packaging does not include information regarding the identity of the producer and nutritional content (Budiarto and Yunia, 2017). Apart from

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that, the inadequate use of information technology and the internet as marketing media channels is also a problem in the development of the beneng taro processing industry (Wahjusaputri et al., 2018). According to Sisca et al. (2021), the situation as revealed by these researchers can be categorized into two main problems, namely product and process or management.

Evaluation of the problems in the beneng taro flour industry is not only based on the quality of the products that have been created but must also be seen from the overall business model. The business model will provide an overview of the resources needed to create, market, provide value to customers, and generate profits from a business that will be run (Jamaludin et al., 2022). Therefore, updates to the beneng taro flour business model in Pandeglang Regency need to be carried out to create a sustainable beneng taro flour industry.

LITERATURE REVIEW

Beneng Taro Flour Agribusiness

Downey and Erickson (1987) stated that agribusiness is a broad sector in handling agricultural products, starting from input activities (supply of farming materials), production activities, and to marketing. Integration between agribusiness subsystems starts from the upstream subsystem where BPTP Banten (2021) states that the taro beneng production process includes land preparation, compost, and seeds from plants aged 2-3 months. The cultivation system process includes preparing seeds, tilling the soil, planting, fertilizing, controlling pests and diseases, and carrying out the harvest process on plants aged 8-12 months. The downstream subsystem consists of processing beneng taro tubers into flour and marketing it and is supported by supporting subsystems such as agricultural instructors, government agencies and educational institutions.

Innovation

Innovation is a new business carried out by those who run the organization through thinking, creative ideas and research as implementation in running their business (Sisca et al. 2021). According to Ahmed and Shepherd (2010), innovation can be divided into product innovation, process innovation and strategic innovation. Meanwhile, Davila et al (2006) divide innovation into 2 main groups, namely technological innovation and business model innovation.

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Business Model

According to Osterwalder and Pigneur (2017), a business model is an effort to provide an overview of thinking about how organizations create, provide and capture value. revealed that a business model is a basic concept regarding how a business will be run, both internally and externally. Internally, the business model will influence the sustainability of a business so that it can develop. Meanwhile, externally it helps determine the value that will be offered to consumers and how it can generate profits. A business model is conceptualized as a system that consists of various components, is connected between components and dynamic.

Customer Insights

Osterwalder and Pigneur (2017) reveal that a business model built based on customer insight will involve the customer's perspective in evaluating the business model being run. Successful innovation can deeply understand customers, including their environment, daily routines, concerns and aspirations. Customer segment information compiled through an empathy map is obtained through a communication process with customers and then becomes a consideration in developing a business model. Empathy maps are a tool that can help identify consumer profiles based on what they see, hear, think and feel, say and do, the discomfort they feel, and what they want to gain. Customer segment information compiled through an empathy map is obtained through a communication process with customers and then becomes a consideration in developing a business model.

Value Innovation

Kim & Mauborgne (2005) reveal that value without innovation tends to result in large-scale value creation, namely something that can increase value but does not make it superior in the market. Meanwhile, innovation without value tends to rely on technology, market pioneering or is futuristic and often targets something that buyers are not ready to accept. Value innovation becomes a new way to think about and execute strategies that lead to the creation of blue oceans and leave the competition behind. blue ocean strategy is a term used to mark industries that do not currently exist or market spaces that have never been explored, the creation of demand, and the potential for profitable growth opportunities.

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Micro, Small, and Medium Enterprises

Micro, Small, and Medium Enterprises are the types of businesses that according to Law no. 20 of 2008, have the potential to realize economic growth, equal distribution and increase in people's income, create jobs and eradicate poverty. Micro businesses have assets worth IDR 50,000,000 and the highest sales turnover is IDR 300,000,000 per year. Small businesses have a net worth of IDR 50,000,000 – IDR 500,000,000 and a sales turnover of IDR 300,000,000 – 2,500,000,000 per year. Meanwhile, medium-sized businesses have assets worth IDR 300,000,000 – 2,500,000,000 and sales turnover of IDR 2,500,000,000 – IDR 50,000,000,000 and if they exceed this figure, they are included in the large business category.

RESEARCH METHOD

Location and Time

This research was carried out in Pandeglang Regency, Banten Province from December 2022 to July 2023. The selection of the research location was based on the consideration that taro beneng is a superior commodity in Pandeglang Regency and that there is potential for developing the taro beneng flour business in Pandeglang Regency

Research Data Sources

The data used in this research is primary data in the form of identification of the taro beneng flour business and the business model being run as well as information regarding customer insights obtained through direct observation and interviews with taro beneng flour business actors in Pandeglang Regency and their consumers. Secondary data consists of the number of imports of Indonesian wheat and meslin seeds, various problems in the beneng taro flour industry, and findings of processed products obtained from books, journals and related government institutions.

Data Collection Techniques

Data collection was carried out by observing beneng taro flour businesses in Pandeglang Regency, and interviews with beneng taro flour businesses in Pandeglang Regency and their consumers. Apart from that, literature studies are used in the form of books, journals and data from related institutions to support the research process.

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Sampling Methods

The samples for this research were taro beneng flour business actors in Pandeglang Regency and their consumers. The sample of business actors consisted of Rumah Beneng MSMEs in Karang Tanjung District, Saung Talas MSMEs in Cadasari District, and Tunas Mandiri MSMEs in Karang Tanjung District which were selected using a purposive sampling method with the consideration that these businesses were engaged in the production of beneng taro flour, located in Pandeglang Regency. , there is no similar businesses were found other than the three business locations in Pandeglang Regency, and these three businesses have the same business model tendency as the micro business category.

The consumer sample was selected using a stratified random sampling method which divides the consumer population into groups in a structured manner based on the supply chain of beneng taro flour in Pandeglang Regency with a sample size of an unknown population determined using the lemeshow formula:

$$n = \frac{Z^2 \times P(1-P)}{d^2}$$

Description :
n = Number of samples
Z = z score on trust 95% = 1.96
P = maximum estimate = 0.5
d = alpha (0.10) or samplingerror = 10 %

The n value obtained is 96.04 or rounded up to 100 samples with a consumer search process using the snowball sampling method, one consumer will recommend researchers to other consumers, resulting in a sample of 4 suppliers, 11 processed food MSMEs, 81 people from 6 Women Farmer Groups in Pandeglang Regency, and 4 housewives.

Validity and Reliability Test

The validity test uses data triangulation by combining observation techniques, interviews with business actors, and documentation on the taro beneng flour business model in Pandeglang Regency. Then, triangulation of customer insight data was carried out by comparing the results of interviews with consumers in the supplier category, processed food MSMEs, Women Farmer Groups, and housewives. Reliability test with

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kappa reliability test using Nvivo software to carry out qualitative coding reliability testing techniques (Inter-Coder Reliability) (Bandur, 2017). The Inter Coder Reliability results in this research produced an agreement percentage of 81% for data on the UMKM business model for beneng taro flour with the excellent agreement category and 51% for customer insight exploration data with the fair to good agreement category.

Data Analysis Techniques

This research began by identifying the business model of the beneng taro flour business which was found using a 9-block approach on the business model canvas which includes customer segments, value proposition, channels, customer relationships, revenue stream, key resources, key activities, key partnerships, and cost structure (Osterwalder and Pigneur, 2017). Then, identify customer insights through an empathy map approach which consists of 6 components, namely think & feel, see, hear, say & do, pain, and gain. Next, formulate various alternative strategies in the business model through the blue ocean strategy concept through a four-step framework to analyze what must be eliminated, reduced, improved, and created on the current business model canvas for the beneng taro flour business to produce recommendations for a new business model.

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RESULT

A. Beneng Taro Flour Business Model in Pandeglang Regency

<table>
<tr>
<td rowspan="2">Key Partnership

1. Raw material procurement partners:
• Farmer group of Mandalawangi subdistrict
• Farmer group of Kaduhejo Subdistrict
• Farmer group of Cadasari Subdistrict
• Farmer group of Cibaliung subdistrict
• Farmer group of Saketi Subdistrict
• Farmer groups of Ciomas Subdistrict
• Farmer, farmer group, and women farme group of Karang Tanjung subdistrict

2. Processed Food Industry in Pandeglang & Bogor

3. Supplier of beneng taro flour in Bogor, Tangerang, Bekasi</td>
<td>Key Activities

1. Procurement of raw materials:
• Beneng taro tubers or dried chips
2. Production:
• Flour milling
• Weighing and packaging flour
3. Marketing:
• Marketed directly to the processed food industry or through taro beneng flour suppliers
• Pandeglang Women Farmer Group
• Housewife</td>
<td rowspan="2">Value Propostion

1. Using local raw materials

2. No preservatives

3. Products are always new</td>
<td>Customer Relationship

1. Finished products on time

2. Replace scattered or low-quality flour products that customers complain about with new products</td>
<td rowspan="2">Customer Segments

1. Processed food industry in the Bogor and Pandeglang areas

2. Supplier of beneng taro flour which distributes products to the cake industry with coverage in the Tangerang, Bogor, Bekasi area</td>
</tr>
<tr>
<td>Key Resources

1. Production space is not yet standardized

2. Flour machines and production support equipment

3. Capital sourced from business owners

4. 2-3 Production workers with a daily wage system or based on production quantity</td>
<td>Channels

1. Farmers → Flour MSMEs → Suppliers → Processed food industry

2. Chip producers → MSME flour → Exhibition → Supplier → Processed food industry

3. Chips producers → Flour MSMEs→Suppliers/ Processed food industry

4. Chip producerrs → Flour MSMEs → Women farmer group/housewife</td>
</tr>
<tr>
<td colspan="3">Cost Structure

Costs IDR 11,422 – 13,622/Kg with a variable cost structure of 25-60%, fixed costs 0.01-0.02%, and investment costs 40-75%</td>
<td colspan="2">Revenue Stream

1. Sales of beneng taro flour in sacks containing 25 kg at prices IDR 12,000 - IDR 17,000/Kg

2. Total sales volume of beneng taro flour in 2021: 31.8 tons

3. Total sales volume of beneng taro flour in 2022: 36.6 tons</td>
</tr>
</table>

Figure 1. Existing Business Model Canvas for Taro Beneng Flour MSMEs in Pandeglang Regency

Customer Segments

MSME actors in taro beneng flour focus their main customer segment on taro beneng flour suppliers who re-market this flour product to cake shops in various areas, such as Bogor, Tangerang and Bekasi. Apart from that, the target market for this product is the processed food industry based on taro beneng flour such as brownies, noodles and rice in Bogor and Pandeglang. Without customers, it is impossible for MSMEs to survive.

Channels

The various channels used in this business begin with providing raw materials for flour in the form of dried beneng taro tubers or chips from farmers spread across various sub-districts in Pandeglang Regency. Marketing of this product relies on suppliers or the

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processed food industry who routinely order products every month. Then, there are several groups of women farmers in Pandeglang Regency who use taro beneng flour to process it into various foods, such as brownies and donuts for resale at exhibitions or when there are orders and there are housewives around the production location who use this product. Apart from that, business actors have also found new consumers through exhibitions held by the government.

Value Proposition

The value that the beneng taro flour business wants to offer is the use of local raw materials in the form of dried beneng taro tubers or chips originating from Pandeglang Regency. Apart from that, the flour products provided to consumers are always new because production is carried out when orders are made and the raw materials used are pure taro tubers without any other mixtures such as preservatives.

Customer Relationship

Efforts to maintain good relationships with customers are carried out by fulfilling product requests promptly according to customer expectations. If the business actor receives complaints from customers because the quality of the flour is not good or the product is scattered, the business actor will provide a guarantee in the form of replacing it with a new product.

Revenue Stream

Business income is obtained from the sale of beneng taro flour in sacks containing 25 kg at varying prices, namely IDR 12,000 – IDR 17,000/Kg. In 2021, total flour sales by MSMEs of taro beneng flour in Pandeglang Regency reached 31.8 tons with an average income of IDR 162,000,000. Meanwhile, in 2022 total sales of beneng taro flour in Pandeglang Regency will increase to 36.6 tons with an average income reaching IDR 171,200,000.

Key Resources

Owned resources are divided into physical, human and financial resources. Physical resources in the form of a simple production space supported by various production equipment, such as chip crushers, drying equipment, flouring machines and scales. The human resources owned are production workers, numbering 2-3 people with a daily wage system or based on the quantity of flour produced without looking at the

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number of working days and financial resources in the form of personal capital from the business owner.

Key Activities

Activities in the beneng taro flour business begin with procuring raw materials obtained from MSME production independently or by purchasing chips from partners. Making dry chips begins with peeling and shaving the beneng taro tubers with a manual or machine planer and then rinsing them with water and soaking them in a basin overnight in plain water, but some people soak them in salt water. The soaking process is carried out to remove sap from the tubers and minimize the risk of itching. Then, the chips that are still wet will be dried for 2 days under the hot sun. The dry chips will be ground using a petrol-powered flouring machine with a reduction in flour weight of 1 kg for every 100 kg of dry chips because they scatter during the production process. Then, the flour will be weighed and put in clear plastic tied with raffia and lined with a sack filled with 25 kg of flour. The packaging sacks will be sealed with a manual sewing tool or with a sack sewing machine. In one day, the flour production capacity reaches 500 kg. The packaged flour will be marketed to the processed food industry or through suppliers who will re-market the product to various cake shops. Usually orders for beneng taro flour products are taken directly by customers or sent via expedition services.

Key Partnership

Business partners owned by MSME actors in taro beneng flour contribute to the procurement of raw materials for flour and the food industry supplies flour from this business location. Partners for procuring raw materials in the form of dry chips or beneng taro tubers are farmer groups, farmer women group, or combinations of farmer groups spread across various sub-districts in Pandeglang Regency, such as Cadasari, Karang Tanjung, Kaduhejo, Mandalawangi, Cibaliung, Saketi, and there are also Ciomas District in Serang. Ordering dry chips is carried out during the summer to produce good quality chips so that during the rainy season, production activities can continue because they already have an adequate supply of chips. The partners who regularly supply beneng taro flour from MSMEs are suppliers in Bogor, Tangerang and Bekasi as well as processed food industries in Pandeglang and Bogor.

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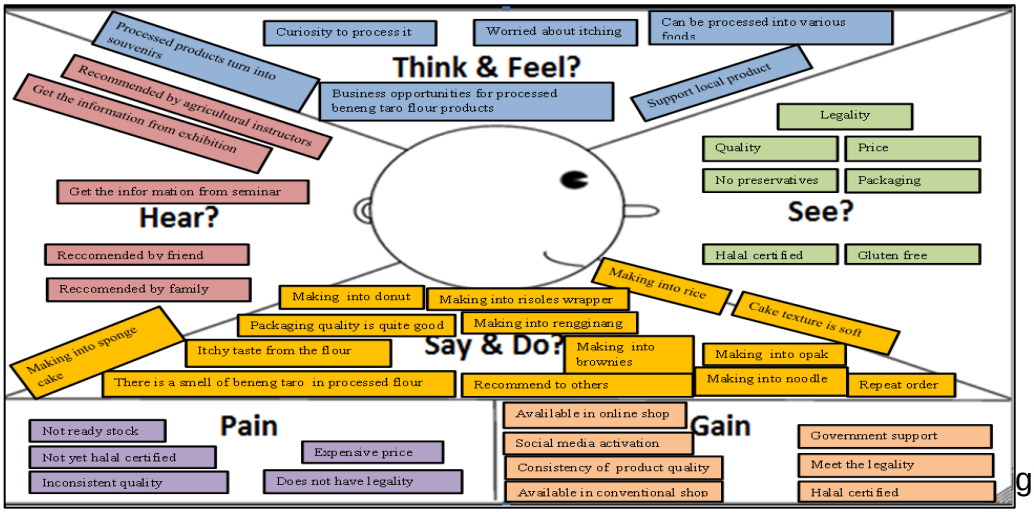
Cost Structure

The various costs incurred by MSMEs for beneng taro flour in Pandeglang Regency are categorized into investment costs, fixed costs and variable costs. Investment costs are in the form of production buildings as well as production supporting machines and equipment with the investment cost percentage for each MSME reaching 40-75% of the total costs. Meanwhile, the fixed costs that must be paid are land and building taxes each year with a percentage reaching 0.01-0.02%. As for variable costs such as purchasing raw materials, labor wages, electricity and water, gasoline for production machines, and plastic and flour packaging sacks, the percentage of costs incurred by MSMEs reaches 25-60% of the total costs required.

Table 1. Total Flour Production Costs per Kg for UMKM Taro Beneng Flour in Pandeglang Regency in 2022

Description	RumahBeneng	Saung Talas	Tunas Mandiri
Total Fixed and Variable Costs	131,151,800	164,471,000	112,715,120
Production Volume (Kg)	9,600	14,400	9,600
Total Production Cost per Kg (IDR)	13,662	11,422	11,741
Selling Price per Kg (IDR)	16,000	17,000	12,000

B. Customer Insights of Beneng Taro Flour



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Identification of customer insight was carried out on 100 samples of beneng taro flour consumers consisting of suppliers, processed food MSMEs, women farmer groups in Pandeglang Regency, and housewives.

Think & Feel

Consumers curiosity about processing beneng taro flour has the highest percentage, namely 22% and is directly proportional to consumers' thoughts that this product can be processed into various foods at 22% and 21% of consumers see business opportunities in the field of processed food from beneng taro flour. Then, 13% of consumers are worried about itching because of the image of products containing oxalate. However, as many as 12% of customers feel that using this product means supporting local food products. Another 10% of customers think that beneng taro flour food products can be a typical Pandeglang souvenir.

See

The most important factor seen by consumers in choosing this product is the quality aspect with a percentage of 33%. Then the price factor of 28% is a consideration for consumers in choosing this product. Furthermore, the legality aspect and product halal certification reached 13%. Then, 10% of customers chose this product because there were no preservatives mixed in and 2% were influenced by the product packaging. Consideration because this product is gluten-free reaching a percentage of 1%.

Say & Do

In this component, as many as 17% said that they processed beneng taro flour to make brownies for their consumption or resale. 9% of customers stated that this flour makes the texture of the cake soft. Meanwhile, 15% of customers process this flour into donuts, steamed sponge cake, opak, rice, rengginang, noodles and skin rissoles. However, 13% of consumers stated that the distinctive aroma of taro beneng was still attached to the processed food products and 3% of consumers stated that there was an itchy feeling when processed into dry cakes. Apart from that, 16% of consumers stated that the quality of flour packaging was quite good and as many as 16% of consumers made repeat purchases. Then, 11% of consumers recommend this product to others.

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Hear

The hear component provides an overview of what consumers hear and to what extent it can influence them to use this product. As many as 75% of consumers stated that they used beneng taro flour because it was recommended by agricultural extension workers. Before the COVID-19 pandemic, agricultural extension workers in Pandeglang Regency actively recommended housewives who were members of women farmer groups to make and sell processed food based on beneng taro flour. Then, 17% of consumers used this product because it was recommended by friends and 6% of consumers were recommended by family. Apart from that, as many as 2% of consumers know about this product from exhibition activities of the Ministry of Agriculture and 1% of consumers know about this product from seminar activities.

Pain

The pain component provides an overview of consumer complaints and concerns. 38% of consumers revealed that the taro beneng flour products they get are sometimes inconsistent. Customers complained that the color of the taro beneng flour product was too dark. Furthermore, as many as 28% of consumers stated that this product was not ready stock, so they had to order first. Then, 26% of consumers think that the price of beneng taro flour is expensive and as many as 4% of consumers complain about the product not being halal certified and not meeting legal aspects.

Gain

The expectations expressed by customers are explained through gain components. 22% of consumers hope that this product will be more easily accessible to the public through conventional shops such as gift shops, traditional markets and food stalls. Then, the hope that the product will be available in online stores is a percentage of 19%. As many as 19% of consumers hope for government assistance in the industrialization of beneng taro flour. Then, social media activation also became an opinion with a percentage reaching 19% because currently social media is used by the public as a medium for searching for information. However, there were 14% of consumers provided input regarding maintaining consistent flour quality, especially in terms of the brightness of the flour color and texture. Then, as many as 2% of consumers want this industry to pay attention to fulfilling legal aspects such as NIB and P-IRT as well as having halal certification.

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Key Partnership	Key Activities	Value Propostion	Customer Relationship	Customer Segments
1. Partner for procurement of raw materials for beneng taro tubers 2. Partner for procurement of dry chips raw materials 3. Supplier of Beneng Taro Flour 4. Food industry based on beneng taro flour 5. Government Agencies (Ministry of Agriculture, ministry of cooperatives and MSMEs, Ministry of Tourism and Creative Economy)	1. Procurement of dry chips raw materials: • Independent production a. Soaking the chips with brine b. Soaking the chips in plain water • Buy dry chips from partners a. dry chips with different grade 2. Production with the application of hygiene principles and sanitation : • Flour milling • Weighing and packaging flour 3. Online marketing **Key Resources** 1. Production room, flour machines and production supporting equipment 2. Human resources in the field of production 3. Human resource in the field of marketing 4. Capital comes from the business owner	1. Using local raw materials 2. No preservatives 3. Products are always new 4. Have a brand 5. Legal (Have NIB & SP-PIRT) 6. Halal certified 7. There is product information on the packaging 8. Quality consistency	1. Finished products on time 2. Low quality product guarantee 3. Customer feedback **Channels** 1. Farmers → Flour MSMEs → Suppliers → Processed food industry 2. Chip producers → Flour MSMEs → Exhibition → Supplier → Processed food industry 3. Chip producers → Flour MSMEs → Suppliers/Processed food industry/ Women farmer group/housewife 4. Farmers/chip producers → Flour MSMEs → E-commerce/Social Media → Consumers	1. Supplier of beneng taro flour who distributes products retail and to the cake industry in the Bogor, Tangerang, Bekasi and other regions in Indonesia 2. Food industry in Pandeglang, Bogor, Tangerang and other regions in Indonesia

Cost Structure	Revenue Stream
Costs Rp. 13,128 – 16,174/Kg with variable cost structure(Marketing human resource salary, new packaging costs) 28.8-63.31%, fixed costs 0.01-0.02%, and investment costs 36.67-71.2%	Projected total sales volume of beneng taro flour for the next period: 40 tons

The business model update was carried out by evaluating the canvas business model that is currently being implemented and the results of consumer insight into Beneng taro flour through an empathy map with a four-step framework perspective on the blue ocean strategy.

Reduce

The process of drying chips is a critical point in the taro beneng flour production activity because the yield of chips is determined by the intensity of sunlight. Weather conditions during the rainy season mean that the quality of the chips produced has different levels of quality. The need to provide raw materials makes some actors use chips with a slightly darker color for the production process and this affects the final color of the flour. So, in key activity components, it is necessary to reduce the use of dry chips of different grades to produce flour with good quality consistency even though it is not easy to face weather challenges.

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Eliminate

For MSMEs that use the soaking method with ordinary water, it is recommended to eliminate the process of soaking chips with ordinary water for key activity components in the production section because based on research conducted by Putri et al. (2021) showed that the results of beneng taro flour produced without the process of soaking the chips in water after going through the rinsing and shaving process, had a brighter color level and produced oxalate levels of 2.42 mg/g or 1.11 mg/g lower. compared to beneng taro which received soaking treatment in plain water for one night, which was 3.53 mg/g.

Raise

The inconsistent quality of beneng taro flour, such as a darker flour color or a slightly rough texture, is a complaint for consumers. Therefore, there is a need to increase the value proposition component in the form of consistency in the quality of the beneng taro flour products produced. Then in the key activity component, in the process of making dry taro beneng chips using the method of soaking in ordinary water, it is necessary to add a 10% salt water solution because based on research conducted by Muttakin et al. (2015) showed that this process was able to reduce oxalate levels by up to 51.5%, namely producing oxalate levels of 1600 ppm or the equivalent of 1.6 mg/g so that it could overcome the problem of itching that can be produced in beneng taro flour.

In the income stream component, total flour sales need to be increased with sales of taro flour in Pandeglang Regency which are projected to reach 40 tons in the next period and will still exceed that figure due to the influence of marketing activity innovation and packaging freshness. Then, in the component cost structure, it is necessary to increase packaging costs with a new design due to the influence of creating a product brand and adding information to the packaging that was not previously mentioned.

Create

In the value proposition component, the creation and development of the beneng taro flour brand have not been carried out by business actors. So, it is necessary to create a brand so that the product is increasingly known to the public with the image that they want to build for this product. Then, business actors need to pay attention to legal aspects by having a Business Identification Number (NIB) and SP-IRT (Home Industry Production Certificate). NIB is used as the identity of business actors in carrying out their business activities and has benefits such as easy access to financing and assistance with business

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development by the government. SP-IRT is needed as a guarantee to business people that their food production meets the requirements and safety for distribution on the market (Herlina and Yulia, 2020)

As a Muslim-majority country, business actors are advised to make halal product certificates to prove that the raw materials, production process and halal guarantee system of a business are by the provisions set by LPPOM MUI (Warto & Samsuri, 2020). Apart from that, information needs to be added to the packaging which includes product name, list of raw materials (Ingredients), contents (Net), BPOM/P-IRT number, product halal, production code, name and address of production place, product expiry date, instructions on how to usage, instructions on how to store it, and complete with nutritional value information (Romli, 2022). Various information needs to be included because consumers pay attention to halal and legal aspects when choosing this product.

Then, in the customer segment block, it is necessary to create a new segmentation in the form of suppliers and the food industry with expansion to various other regions in Indonesia that are interested in using taro beneng flour products because currently it only covers the Pandeglang, Tangerang, Bogor and Bekasi areas. Then, the existence of problems such as a decrease in business partners due to inconsistent flour quality or partners terminating cooperation without clarity makes business actors advised to create services that can accommodate customer feedback by asking intensively what complaints partners experience during the collaboration process and providing the best solution. One way to maintain product quality is to create standard hygiene and sanitation during production in key activity components. through efforts to control production places and equipment, labor, and raw materials that can cause health problems or food poisoning because the food industry is closely related to the health of its consumers. Then, beneng taro flour business actors need to expand their marketing online with the help of product delivery via expedition services to reach markets from various regions because one of the problems with this business is marketing which only relies on consumers who come or contact them directly without making maximum efforts. to find new consumers independently. Therefore, human resources are needed in the marketing sector to increase sales, both directly and online, to support aspects that must be created in the channel component, namely social media activation which is integrated with e-commerce platform activation. Social media is used to find new customers from any location and as a depiction of the product image through the visualization display that you want to present (Permadi et al., 2022). The shift from direct buying and selling transactions to online

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buying and selling transactions requires adaptation to the development of online stores through various e-commerce platforms.

In the main partnership component, it is necessary to assist in management, entrepreneurship, and monitoring of business development for micro-entrepreneurs of beneng taro flour by the Department of Agriculture and the Department of Cooperatives, MSMEs, Industry and Trade of Pandeglang Regency. Apart from that, it is necessary to develop processed food products from taro beneng flour made by processed food MSMEs and women farmer groups in Pandeglang Regency through collaboration with the tourism office to present various processed foods based on taro beneng flour in souvenir shops close to existing tourist locations. are famous and attract a lot of tourists in Pandeglang Regency, such as Carita Beach, Tanjung Lesung, Kampung Domba, and Saung Biru.

The development of innovation in the form of online marketing through new online shop platform channels and social media activation has an impact on the cost structure in the form of human resource salaries due to the addition of a workforce in the marketing sector which did not previously exist, thereby influencing the variable cost presentation of MSMEs to 28.8-63.31% , fixed costs are 0.01-0.02%, and investment costs are 36.67-71.2% of the total costs.

Table 2. Update on Total Flour Production Costs per Kg for MSMEs of Talas Beneng Flour in Pandeglang Regency

Description	Rumah Beneng	Saung Talas	Tunas Mandiri
Total Fixed and Variable Costs	155,267,000	189,047,000	137,291,120
Production Volume (Kg)	9,600	14,400	9,600
Total Production Cost per Kg (IDR)	16,174	13,128	14,301
Selling Price per Kg (IDR)	18,500	18,000	17,000

CONCLUSION

There are three beneng taro flour micro businesses in Pandeglang Regency with similiar business model tendency. The results of the exploration of customer insight influence business model innovation in the form of an aspect that must be reduced, namely the use of dry chips of different grades. The aspect that needs to be eliminated is soaking the chips in plain water. Aspects that must be improved are quality consistency,

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soaking chips in salt water, new packaging costs, and sales volume. Aspects that must be created are expanding customer segmentation to various regions, customer feedback, having a brand, product information on packaging, fulfilling legal and halal aspects, implementing hygiene and sanitation in the production process, online marketing, and creating new channels through social media activation and e-commerce. commerce, adding human resources to marketing and salary costs, as well as creating collaboration with government institutuion.

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