

## **Business Model Analysis of Organic Rice Farmers Group (Study Case in Sarinah Organic Farmers Group, Bumiwangi Village, Ciparay, Bandung Regency, West Java Province)**

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### **Abstract**

Indonesia is one of the leading countries that produce rice in the Asian continent. One of the leading Indonesian rice is organic rice that is in demand by consumers in the country and abroad. One of the businesses in the organic rice which is currently being developed is Sarinah Organic Farmers Group in Bandung Regency, West Java. This study will analyse Sarinah business model and provide input in the development of the business. This study uses a qualitative method with case study techniques in Sarinah Organic Farmers Group. The analytical tool used is Business Model Canvas that used to describe the applied business model. Business models are analysed through the Business Design process. The design process is business done through storytelling techniques, map empathy and prototyping. Business design process is done through storytelling techniques, empathy map, and prototyping. There are nine blocks analysed in each Business Model Canvas element: customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. Based on the research result, in the scale of farmers group, Sarinah Organic Farmers Group business model is quite advanced and could be use for similar organic rice farming in West Java especially and Indonesia in general. One of the recommendations for this study is give advices to Sarinah Organic Farmers Group to maximize member development and partnership with key partners with prospect the organic rice business in the Sarinah Organic Farmers Group could be more developed and give benefit to involved farmers.

*Keywords: Farmers Group; Organic Rice; Business Model Canva;; Business Design;*

### **Preliminary**

#### *1.1 Introduction*

Rice is one of the most important primary food products in the world. Indonesia is one of the leading countries in rice production in Asia Continent. Indonesia is the world's third rice producer country after China and India, with total production of 70,600,000 tons (FAOSTAT, 2014). Indonesia excels not only in producing common rice but also superior in producing organic rice. The demand for organic products continues to increase due to health awareness as well as consumer appeal to products that have health benefits. The demand for increased organic products is characterized by countries with large organic farming areas.

Indonesia is the number one country which has the widest area of organic land in the world with the total number of organic lands area 3,910,355.00 hectare. Indonesia has potential in developing organic products. One of Indonesia's main commodities is rice. Several organic lands in Indonesia planted with organic rice. Rice development in Indonesia is supported by production data which tends to increase from year to year.

**Table 1. Rice Production in Indonesia in 2008 – 2015**

	2008	2009	2010	2011	2012	2013	2014	2015
Rice Production	60.2	64.3	66.4	65.4	69.1	71.3	70.9	75.4

(in million tons)



Source: Food and Agriculture Organization of the United Nations and the Ministry of Agriculture in Indonesia 2016.

Based on the table above, there was a decrease in 2011 compared to 2010 and 2014 compared to 2013, but within 8 years Indonesia showed a significant increase in rice production. There are 5 largest rice producing provinces in Indonesia. One of these provinces is West Java. West Java occupies the 2nd place as the largest rice producer in Indonesia. West Java became the second highest province in producing rice because West Java has some superior rice varieties. Excellent varieties of paddy in West Java are Inpari for white rice and Inpari 24 for brown rice. These varieties are capable of producing up to 7 tons / hectare of rice.

West Java is also superior in producing organic rice. One of the featured areas of West Java which produces organic rice is Bandung regency. Bandung Regency is predicted has a 100 hectares land area planted by Organic Rice. One of the Organic Rice business in Bandung Regency is Sarinah Organic Farmers Group. Sarinah Organic Farmers Group is the number one businessman for organic rice in Bandung Regency. The Farmer Group has 32.5 hectares of land that has been certified for 13.7 hectares and leads to certification of 18.8 hectares. Sarinah Organic Farmers Group is capable of producing 138 quintals / hectare (dry milled grain) per harvest season. Sarinah Organic Rice has been certified by the Indonesian Organic Farming Certification (INOFICE) a certification body in organic product on November 7, 2011.

Organic certification obtained by the Sarinah Organic Farmers Group and also the excellent varieties planted successfully made Sarinah become a supplier for organic red rice Tropicana Slim Nutrifood Indonesia. The demand of PT. Nutrifood Indonesia for organic red rice Sarinah Organic Farmers Group can reach 25 tons each month. Besides producing organic red rice for nutrifood, sarinah also produces organic rice for other companies. With these achievements, in 2013 the Indonesian Ministry of Agriculture awarded the Sarinah Organic Farmers Group as the 3rd Rank of the National Farmers Group for paddy commodities.

From the background above we could see that business development in organic farming is very important. Therefore, it is necessary to do a research on an organic farming business about the concept of business model that could develop organic rice farming. This research can be a way to know the position of the business as well as aspects that affect the business using the Business Model Canvas.

## Literature Review

### 2.1 The Business Model Canvas

A business model describes the rationale of how an organization creates, delivers, and captures value. A business model best described through nine basis building blocks that show the logic of how company intends to make money. The nine blocks cover the four main areas of the business: customers, offers, infrastructure, and financial viability.

The nine building blocks are:

- Customer Segments: an organization serves one or several customer segments.
- Value Propositions: It seeks to solve customer problems and satisfy customer needs with values.
- Channels: describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition.
- Customer Relationships: describes the types of relationships a company establishes with specific Customer Segments.
- Revenue Streams: represents the cash a company generates from each Customer Segment.
- Key Resources: describes the most important assets required to make a business model work.
- Key Activities: describes the most important things a company must do to make its business model work.
- Key Partnerships: describes the network of suppliers and partners that make the business model work.
- Cost Structure: describes all costs incurred to operate a business model.



## Methodology

The object of this study is the business model of the Sarinah Organic Farmers Group which includes an analysis of 9 points in the canvas business model. This research uses qualitative research method. The purpose of using qualitative research is to capture expressive information in natural settings. The research technique used by the researcher is a case study research technique. Determination of informants in this study is using snowball sampling. The data collection techniques were used in this research is by direct observation, interview and literature study. To find out the business model that can be applied Sarinah Organic Farmers Group, researchers use the Business Model Canvas through Business Design. There are 6 techniques in business model design that are: (1) Customer Insight; (2) Ideal Formation; (3) Visual Thinking; (4) Prototyping; (5) Storytelling; (6) Scenarios. Each technique in Business Design can be used in accordance with the harmony with each block.

## Result and Discussion

There are nine blocks in the Business Model Canvas traversed by different Business Design approaches. For Customer Segments, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure blocks are obtained through storytelling techniques. For Value Propositions obtained through the Storytelling technique distributed in Empathy Map. When all the blocks are assembled, Prototyping techniques are then made by creating a simple business model from Sarinah Organic Farmers Group which is made simultaneously with representatives of farmer group members.

- Customer Segments

Customer segments of Sarinah Organic Farmers Group categorized as a Niche Market. Sarinah targets a particular market segment. 80% of the final customer of Sarinah Organic Farmer Group is a company, not individual customer. This is caused by the marketing of its products is distributed through a company that has been certified as a provider named PT. Sarinah Agro Mandiri. The other reason why 80% of the final consumers are companies is because the company can guarantee the purchase in large quantities, so that the harvest is not wasted because of the absence of consumers. Companies that buy products will create a new brand use the company brand. 20% of other customers are individual consumers who directly contact PT. Sarinah Agro Mandiri to buy the rice. The average individual consumer is a relative or relative who knows the farmer or the staff of PT. Sarinah Agro Mandiri. The relationship between Sarinah Organic Farmers Group and those companies is also a relationship between supplier-buyer.

- Value Propositions

Value proposition of Sarinah Organic Farmers Group begins with newness by selling different rice which is organic rice that is better for the health of the body and also environmentally friendly. From the design side, farmer groups cooperate with PT. Sarinah Agro Mandiri add sticker with product information and logo of organic Indonesia to facilitate consumer to know the contents of product and guarantee that product is true organic. Sarinah also provides value by way of customization of products offered to suit the needs of consumers. Sarinah produces two kinds of rice, brown rice and white rice.

Red rice varieties used are Aek Sibundong which has a lower glycemic index level than white rice so it suits a consumer to reduce the carbohydrates consumed. The size of the product is adjusted to the consumer consumption pattern. For families, packaging is available with the largest size with a weight of 5 kg while for individual packaging is available in small size with a weight of 1 kg and medium size with a weight of 2 kg.

In terms of Performance, Sarinah offers continuous and assured products by always managing group members who get regular monthly meetings with the aim of sharing sessions about the condition of the group and also counseling from the local counselor agency so that the performance in producing the product can be maintained. In terms of getting the job done, Sarinah provides solutions by way of packing so that the products received by the company have been neat and ready to be delivered to the final consumer.

Sarinah also offers value affordable price. In terms of pricing, Sarinah offers a price of Rp 7,000 / kg with the purchase in the form of dry grain harvest. According to PT. Sarinah Agro Mandiri, this price is suitable and not expensive. This price is set approximately 10% higher of the price of dry grain harvested in the market with the excess quality of organic products. In final pricing, Sarinah cooperates with PT. Sarinah Agro



Mandiri for final consumers pricing. The final price for white rice is Rp 16.000 / kg and Rp 17.000 / kg for brown rice. The price offered is in the form of rice.

- Channels

The channel used by Sarinah Organic Farmer Group to reach customers is indirect selling through PT. Sarinah Agro Mandiri. These channel relationships occur with large sales. PT. Sarinah Agro Mandiri becomes a legal distributor for Sarinah Organic Farmers Group. Furthermore, in reaching consumers, Sarinah Organic Farmers Group cooperates with PT. Sarinah Agro Mandiri conducts direct selling following exhibitions of organic products or special activities from the government both nationally and regionally.

- Customer Relationships

In finding new customers (customer acquisition), Sarinah cooperate with PT. Sarinah Agro Mandiri attended the exhibition of organic products to reach customers. In maintaining good relationship with customers (customer retention), Sarinah has consumer service facilities directly handled by the group management if at any time there is a complaint from the consumer. For upselling, Sarinah Organic Farmer Group partnered with Papak Serang Farmers Group in order to maintain the production stock.

- Revenue Streams

At Sarinah, Revenue Streams are obtained from asset sale. The revenue stream is obtained from the purchase of PT. Sarinah Agro Mandiri who bought the product in the form of dried grain harvest at a price of Rp 7.000 / kg. The income that will be obtained by members of farmers is Rp 5.200 / kg dry grain harvest. Net profit earned by farmer group per year approximately 80 million. Sarinah sells other products in the form of grain and husks. For grain and husk, Sarinah sells the product to chicken farming business. The price of grain and husk is Rp 5.000 / kg.

In addition, Sarinah Organic Farmers Group also provides tractor lending to farmers other groups. The price of tractor lending is Rp 1,500 / tumbak (1 tumbak=14m<sup>2</sup>). Furthermore, Sarinah gets revenue stream from donation from PT. Sarinah Agro Mandiri. In order to establish a good relationship between farmer groups and companies that always work together, PT. Sarinah Agro Mandiri always provides monthly assistance amounting to Rp 28.000.000 / month for the purpose of funding daily operational activities.

- Key Resources

Physical resources owned by Sarinah are an office that is borrowed from PT. Sarinah Agro Mandiri, grain warehouse, rice warehouse, packing place, agricultural production facilities (fertilizer, land rent, etc.), and also thirteen cows. The intellectual resources of the Sarinah are organic certificates obtained after the organic certification process issued by Indonesian Organic Farming Certification (INOFICE) on November 7, 2011. Human resources owned by Sarinah is a member of farmers group consist of 27 members.

Farmer Group members are the main human resources in the business process. Each farmer has their own respective roles in the group management. In managing its resources, the Sarinah Organic Farmer Group implements a contract. This contract refers to the obligation of organic products to have an Internal Control System (ICS) for members. Each member will gain knowledge about organic rice cultivation and get routine counseling from local counselor. In addition, counselor also provides motivation to members of the farmers group through the introduction of organic farming examples that have been successful so as to encourage members. The last is financial resources, Sarinah obtained financial resources from PT. Sarinah Agro Mandiri amounting to Rp 28.000.000 / month.

- Key Activities

The main activity at Sarinah Organic Farmer Group is production activity. Production activities start from the processing of rice fields, selection of superior seeds, planting, field treatment, harvest and post-harvest management. In post-harvest management, Sarinah Organic Farmer Group keeps the product in the form of grain, after request from PT. Sarinah Agro Mandiri, the farmer group will prepare the product in the form of rice according to the company's request. It is intended that the product condition is maintained because organic products if stored in the form of rice will be vulnerable to ticks. Other post-harvest management activities also consist of packing and distribution processes. For packing activity, Sarinah does the division of working hours. It aims to streamline packing time.



- **Key Partnership**










Key partner of Sarinah is PT. Sarinah Agro Mandiri. Relationship of Sarinah and this company is based on Optimization and Economic Scale and Risk and Uncertainty Reduction so as to gain knowledge and access to customers. This partnership makes the Farmers Group out of fluctuate market price because the price of organic rice can be determined by itself and not depend on market price.

Besides PT. Sarinah Agro Mandiri, the partner of the Sarinah which is always continuous in helping the business to run smoothly is Agriculture Department of Bandung Regency Government. The form of cooperation is to provide assistance in the form of goods such as cow, huller machine, and others. The other partners of Sarinah are agricultural counselor from agriculture counseling agency Pacet. The form of partnership with this counselor is trainings and guidance of organic rice cultivation.

- **Cost Structure**

The cost structure of the Sarinah Organic Farmer Group is categorized as Value-driven class. Sarinah focuses on creating value different from other farmer groups as a fundamental food producer by prioritizing its organic products. Cost structure is divided into two characteristics: fixed cost and variable cost. The main fixed costs of the Sarinah consist of the cost of making fertilizer, cow maintenance, and the purchase of cow feed. The variable costs consisted of farmers meeting costs held once a month, the manufacture of liquid fertilizer, seed procurement, land expansion, and other unexpected costs.

Fig. 1. Business Model Canvas Sarinah Organic Farmers Group.

<b>Key Partners</b>  - PT. Sarinah Agro Mandiri - Agriculture Department of Bandung Regency - Agricultural counseling institution of Bandung Regency	<b>Key Activities</b>  - Production process  <b>Key Resources</b>  - Physical Asset: PT. Sarinah Agro Mandiri, Agriculture Department of Bandung Regency - Intellectual Asset: Organic Certificate - Human Resources: 27 Farmers - Financial Asset: Monthly allowance from PT. Sarinah Agro Mandiri	<b>Value Proposition</b>  - Newness: Produce organic rice - Design: add information of the product and organic logo - Performance: managing group members on a regular basis - Customization: Providing products in various sizes and types - Getting the job done: Helping consumers to the packaging process - Price: Offer prices that suit the consumer's wishes	<b>Customer Relationships</b>  - Cooperates with PT. Sarinah Agro Mandiri in reaching final consumers - Has customer service facilities - Cooperate with Papak Serang farmers group in fulfilling consumer demand  <b>Channels</b>  - exhibition - special activities - indirect selling through PT. Sarinah Agro Mandiri	<b>Customer Segments</b>  - Niche Market: supplier-buyer relationship with PT. Sarinah Agro Mandiri
<b>Cost Structure</b>  - Fixed costs: fertilizer production, cow maintenance, purchase of cow feed - Variable costs: regular member meeting fees, liquid fertilizer production, seed procurement, land expansion, unexpected costs		<b>Revenue Streams</b>  - Asset sale in the form of rice, grain, and husks - Tractor rental - Monthly allowance from PT. Sarinah Agro Mandiri		

### Conclusion and Recommendations

Based on the result of the research, in the scale of farmers group, Sarinah Organic Farmers Group business model is quite advanced and can be an example for business in organic farming. However, there are several sectors that must be improved in order to develop the business in accordance with the group's goals.

In the Sarinah Organic Farmers Group business model, researchers see the power in the Key Resources and Key Partnerships blocks. The main strength in a group is its members and the strength of this group is also influenced by the major partners who collaborate with the group. The relationship between group members and partners is an interdependent relationship. Therefore it is necessary to increase the bond between group members and partners to facilitate the rights and obligations of each party.

One of the best ways to increase ties with members is to give award through additional commissions from the final profits of the company according to the contribution of farmers in the production. It aims in accordance

with the group's goal of improving the welfare of group members

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