Marketing Strategic and Competitive Positioning of Palm Sugar Business development

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Abstract. The palm sugar business is one of the promising businesses because the product demand is high. However, the majority of this business is still traditional managed caused by lack of knowledge and skills and lack of government attention to improving this business area. This study aimed to analyze the marketing strategic and competitive positioning of the palm sugar business at the community around the Forest Education of Hasanuddin University Makassar. The research framework is adapted from Osterwalder’s business model framework (Business Model Canvas) with the nine elements (customer segments, value propositions, channels, customer relationship, revenue streams, key resource, key activities, key partnerships, and cost structure). In-depth interviews method was select to identify the business model in the nine elements. To ensure business development strategy, Internal Factor Analysis Summary - IFAS and External Factor Analysis Summary - EFAS were calculated. The analysis of the Business Model Canvas and IFAS-EFAS indicates that maintaining good relationship with the customer is a key to success. However, it is important to propose a unique value proportion according to the actual needs of consumers.

1. Introduction
Palm sugar is one of the potential product of Non timber forest product that can contribute farmers’ income [1]. Palm sugar as one of the limited non timber forest product is a very important product to development of NTFP’s in Indonesia [2]. This is partly due to the palm sugar is a product that has high economic value so as to support the economy of rural communities and have a bright market [3][4].

Palm plantation area which is in South Sulawesi amounted to 7,293 ha with sugar production of 3,174 tons peryear. Maros which is one of the palm sugar producing districts in South Sulawesi based on statistical data Maros regency in 2015 indicates that sugar production increased by 75 tonnes in 2011 to 88 tons in 2012. Similarly, in 2013 the production of palm sugar is also increase to 91.3 tons.

One of the villages located in Maros regency which has the potential of palm sugar is Rompegading village located in District Cenrana. Based on the initial survey in this village there are several groups of farmers who produce and sell palm sugar product. However, this effort has not been able to develop as a business model, still managed traditionally done well in the production and marketing process. Therefore, it need to expand the effort to identify or develop strategies palm sugar business development by using Business Model Canvas (BMC) so that the business can grow and can provide improved welfare for the community.
BMC is the concept of the business model developed by Alexander Osterwalder and Yves Pigneur and managed to change the concept of complex business model becomes simple. Through the BMC approach, the business model is displayed in a single canvas, contains nine elements that can describe a business model that is being done. Because of its simplicity, this method can help with simple canvas in analyzing the business development strategy, including efforts of palm sugar product [5]. BMC also assist in describing, analyzing and designing innovative business models in an effort to create, deliver and capture value in order to enter and create a space market and generate demand through value innovation [6].

Based on this, it is necessary to conduct research that aims to identify or develop business development strategies in Palm Sugar Business through the BMC Approach which is integrated with SWOT analysis and Internal Factors Analysis Summary (IFAS) and External Factors Analysis Summary (EFAS). SWOT, IFAS and EFAS analysis are used to identify strengths, weaknesses, opportunities and threats that determine the performance of this business unit. Thus the business of palm sugar is expected to be more developed so that it can become the main source of income for the community.

2. Material and Method

2.1. Data collection
The research was conducted in the village of Rompegading’s Village Cenrana, Maros, South Sulawesi province. Primary data were obtained from the observation, interviews to farmers Sugar, chairman and members of Farmers Group Moncongjai, middlemen, traders, and consumers involved in the marketing of palm sugar. The type of data to be collected related to nine key elements of the BMC (customer segments, value propositions, channels, customer relationships, revenue streams, key resources, the main activities, partnerships, and the cost structure). In addition, internal factors (strengths and weaknesses) and external factors (opportunities and challenges) were identified which is affected the business unit of palm sugar.

2.2. Data analysis
Identification of palm sugar business model at Farmers Group Moncongjai done through analysis of BMC on the nine key elements. Identification of the internal and external factors palm sugar business conducted through a SWOT analysis on nine key elements of the BMC. Internal analysis performed to obtain the power factor to be used and the factors to be anticipated weakness. While external analysis carried out to develop the factors that can be utilized opportunities and threats factors that need to be avoided. To evaluate these factors should be weighted and scoring on each of IFAS and EFAS matrix.

3. Results and discussion

3.1. The Existing Model of the Business Palm Sugar
The aim of determination pH is to determine the acidity of mango fruit and to know how the effect of pH with freshness indicator of mango fruit.

Customer segments (CS). A customer is the most important aspect in a purchase transaction, without knowing who our customers would not have happened a buying or selling it. Knowing who you want to reach or served are certainly beneficial for a business unit in carrying out its activities by deciding which segment will be served and were ignored [6]. In this palm sugar business units, the customer segmentation or customer segment is middleman. Farmers sell their palm sugar on middleman then brought it to the market for resale and then up to the consumer. In addition, there are some farmers who directly bring their product to the local market.

Value proposition (VP). The VP is the reason that makes customers switch from one company to another. Value proposition can solve customer problems or satisfy customer needs. Each value proposition consists of a combination of specific products or services that serve the needs of specific
customer segments that can take advantage of the company offers to customers [5] [6]. Market chain of the palm sugar business is quite simple where farmers directly sell their product to intermediary/middleman (67%) or directly sell to the nearest market (33%). The value proposition in palm sugar business is accessibility or affordability traders easier to collect and distribute palm sugar produced by the makers of palm sugar. Palm sugar has been produced directly delivered to a place or house traders. In addition, other value proportion is preservative-free that are harmful to health benefit; they only use natural ingredients in the cooking process palm sugar.

Channel (CH). Element in identifying business model also plays an important role is the channels. Channels shows how a company communicates with customers and reach out to them to provide the value proposition offered. Human resources in company plays an important role in the channel element because the customer still wants to meet with the manufacturers to ask for product information or to troubleshoot problems that may exist related to the product [8]. Channels in palm sugar business are indirect selling (through middleman) and direct selling (direct sales to nearest market). To expand the market farmers (community) may also need to implement the online marketing.

Customer Relationships (CR). Achieving customer satisfaction is the main goal of the marketing. Therefore, the company must provide a better service than competitors that exceed customer expectations by implementing customer relationship management or customer relationship [9]. Customer relations built into palm sugar business is personal relationships between farmers as a palm sugar producer and middleman or collectors. They built trust and commitment to the customer through individual service.

Revenue Streams (RS). A revenue streams is income received by the company from the consumer that is the core of the business for their sustainability. Elements describe the flow of revenue streams generated by the company's revenue from each customer [10]. In this palm sugar business, revenue derived from direct sales to traders and sales directly to the market. Revenues obtained in the form of palm sugar sales results to traders who sold directly at prices ranging between Rp. 10,000 - Rp. 15,000 a piece (Rp. 30,000 per kilogram), while the price of direct sales to the market of Rp. 33,000 - Rp. 35,000

Key Resources (KR). The main resources are the resources used by companies in creating, offering value propositions, reaching markets, maintaining relationships with customers to earn revenue. The main resources consist of three elements, namely physical (equipment and raw materials), intellectual (brand and partnership), labor and finance. The main resources in this palm sugar business are sugar palm plants, work equipment, labor and fuel wood. Palm sugar is a producer of sap as the main raw material in the manufacture of palm sugar. The main source of raw material comes from partners (landlords of sugar palm plants to obtain palm sap). Other main resources used are work equipment consisting of ladders, container nira, machetes and knives, cooking pots, stoves, and printing tools. While labor generally comes from family members of the palm sugar maker itself so it does not require capital expenditure in the payment of labor.

Key Activities (KA). Every business model has main activities. This is the most important action so that the company can operate successfully. The main activity describes the important activities that affect pricing; these activities may include production, distribution, design, and sales. The main activities can also be categorized into three things: the operation of the product (design, innovation, product manufacturing), operation services (solving problems) as well as platforms and networks [10]. The main activity of the farmers’ community is producing palm sugar (solid sugar). Palm sugar is produced by tapping of the sap from inflorescence of the tree and boiling it down to crystallize into various shape and sizes. Tapping sap conducted by the makers of palm sugar from 07.00 am to 05.00 pm. Meanwhile, the process of cooking the sap into sugar is done twice the cooking process, the first at the time after taking the afternoon nira which is cooked so as not to change the taste to palm wine, then continued to cook together the results of the sap in the morning. To concentrate the nectar into solid sugar, the fresh juice is boiled down and evaporated before being poured into small baskets woven of Tarra leaves (Artocarpus sp) to form rectangular shape. After that, it will be marketed in accordance with the existing customer segments with direct marketing and to the collector
Key Partner (KP). Main partnership describes the network between suppliers and partners who make the business model work. The company has a variety of reasons, and partnerships are the cornerstone of a variety of business models to reduce risk or obtain their resources [4]. Partnership within this palm sugar business is suppliers’ relationships to ensure reliable supply. The profit-sharing system applied in the land use agreement is a ratio of 1:10 for the part of the owner of the sugar plant. The point is when the farmer has made 10 solid sugar then the owner of the sugar plant or partners will get one. The partnership carried out by the palm sugar maker is only with aren tree land owners, this community group has not made a partnership with the government.

Cost Structure (CS). The cost structure is an all expenses incurred to operate a business model. Such costs may include fixed costs (fixed cost) and variable costs (variable cost) [4]. The structure of the costs incurred by palm sugar business is low (cost driven) for raw materials such as palm sugar and firewood was taken directly from nature. In addition, labor used to produce solid sugar comes from a family member. In the packaging process also still use natural materials such as leaves of Tarra (Artocarpus). Costs incurred only for the cost of transport of the product to middleman and transport cost to the nearest market.

Results of identifying the nine elements present in the Business Model Canvas can be seen in Figure 1 where the image can summarize the previous explanation of the elements of the BMC which customer segment, value propositions, channels, customer relationship, revenue streams, key resources, key activities, key partnerships, and cost structure.

Table 1. Value Proportion

| Key Partner     | Key Activities                        | Value Proportion | Customer Relationship | Customer Segment      |
|-----------------|---------------------------------------|------------------|-----------------------|-----------------------|
| Land owner of   | Production process of palm sugar       | Accessibility and| Personal relationship  | Segmentation market:  |
| Palm Tree       | (solid sugar)                         | distribution     |                       | Middleman              |
| Middleman       |                                       | Free preservative|                       |                        |

| Key Resources   | Channels                              | Revenue Stream   |
|-----------------|---------------------------------------|------------------|
| Raw Material    | Indirect selling                      | Direct selling of palm sugar |
| Human Resources | (partner/middleman)                   |                   |
|                 | Direct selling                        |                   |
|                 | (nearest market)                      |                   |

3.2. Internal Factor Analysis Summary (IFAS) and External Factor Analysis Summary (EFAS)

Total acid is the overall amount of acid contained in a material. Total acid associated with pH but different principles. The pH level measures the total strength of the acid, while the total acid measures the amount of acid.

Based on the analysis conducted on the strengths and weaknesses of the ninth BMC elements contained in palm sugar business, then get results in accordance with Table 1.
### Table 2. Internal and External Factors of the BMC Elements

| No. | BMC Elements | Strength (S) | Weakness (W) | Opportunity (O) | Threat (T) |
|-----|--------------|--------------|--------------|-----------------|------------|
| 1   | SP           | There is a fix buyer loyalty | Weakness of buyers loyalty | High demand of palm sugar | Other competitors |
| 2   | VP           | Accessibility and natural preservatives of palm sugar processing | The size of the palm sugar produced is quite large | The awareness of a healthy lifestyle | Similar products are better quality |
| 3   | CH           | Lower marketing costs | Market access is still lacking, there is no such marketing efforts conducted online sales | The development of communication technology | The communication technology will make partners easily switch to another palm sugar producer |
| 4   | CR           | Personal relationship of trust that exists between the farmers and buyer | Limited market access | Customer satisfaction will give you more new customers | Consumer dissatisfaction with product yield |
| 5   | RS           | Direct sellingtraders | Revenue is only dependent on one product | The development of home industry | The number of competitors |
| 6   | KR           | Availability of human resources | Skill less | The partnership program the government | Continuity of production is threatened if only rely on raw materials (palm tree) from natural forest |
| 7   | KA           | The processing of palm sugar that is sustainable | Equipment is still very modest | Post-harvest processing technologies reasonably available | A high number of competitors |
| 8   | KP           | Personal relationships between farmers and landowners | Price is determined by the buyer | Availability of land owned by other farmers | There are no partnerships with local government |
| 9   | CS           | Minimum costs because the available raw materials in natural forest | The production process depends on the availability of raw materials that exist in nature | The use of equipment to increase the quality and production | Using the equipment will increase the costs that would impact on revenue |

3.3. *Competitive Strategy by using IFAS and EFAS*
The stages in compiling the table of Internal Factor Analysis Summary (IFAS) and External Factors Analysis Summary (EFAS) are to determine the weight of each factor from a scale of 0.00 to 1.00 where all the weights do not exceed the total score of 1.00. While the rating is assessed with a scale ranging from 4 (outstanding) to 1 (poor).

### Table 3. Internal Factor Analysis Summary (IFAS)

| Internal Factor Evaluation | Weight | Rating | Score |
|----------------------------|--------|--------|-------|
| **Strengths (S)**          |        |        |       |
| SP                         | 0.10   | 4.00   | 0.40  |
| VP                         | 0.09   | 4.00   | 0.36  |
| CH                         | 0.16   | 2.00   | 0.32  |
| CR                         | 0.11   | 3.00   | 0.33  |
| RS                         | 0.14   | 3.00   | 0.42  |
| KR                         | 0.09   | 4.00   | 0.36  |
| KA                         | 0.08   | 3.00   | 0.24  |
| KP                         | 0.10   | 3.00   | 0.30  |
| CS                         | 0.13   | 3.00   | 0.39  |
| **Sub total**              | 1.00   |        | 3.12  |
| **Weaknesses (W)**         |        |        |       |
| SP                         | 0.10   | 2.00   | 0.20  |
| VP                         | 0.15   | 3.00   | 0.45  |
| CH                         | 0.11   | 3.00   | 0.33  |
| CR                         | 0.15   | 4.00   | 0.60  |
| RS                         | 0.12   | 3.00   | 0.36  |
| KR                         | 0.08   | 4.00   | 0.32  |
| KA                         | 0.08   | 3.00   | 0.24  |
| KP                         | 0.15   | 3.00   | 0.45  |
| CS                         | 0.07   | 3.00   | 0.21  |
| **Sub total**              |        |        | 3.16  |

### Table 4. External Factors Analysis Summary (EFAS)

| External Factor Evaluation | Weight | Rating | Weighted Score |
|---------------------------|--------|--------|----------------|
| **Opportunities (O)**     |        |        |                |
| SP                        | 0.10   | 4.00   | 0.39           |
| VP                        | 0.08   | 4.00   | 0.40           |
| CH                        | 0.14   | 3.00   | 0.32           |
| CR                        | 0.09   | 4.00   | 0.42           |
| RS                        | 0.13   | 3.00   | 0.36           |
| KR                        | 0.10   | 3.00   | 0.39           |
Based on the results obtained from the scoring results of IFAS and EFAS, there will be a quadrant of the business position of palm sugar.

The total value of strength (3.12) is reduced by the total value of weakness (3.16) so that the IFAS value is -0.04. While the EFAS value is obtained by reducing the total value of opportunities 3.30 and the total value of threats 2.39, the results for EFAS value are 0.91
The weaknesses of palm sugar products is that the size produced is too large so the product becomes unattractive. In addition, dependence on collecting traders makes limited market access available. On the other hand, the opportunity faced is the high demand for palm sugar because of the increasing awareness of people about healthy lifestyles. In addition, with the development of information technology makes it easier for farmers and buyers to interact.

The figure 2 shown that the quadrant positioning of the palm sugar business in quadrant 3 which means that the business need to apply the turn around strategy. This business needs to improve the quality of palm sugar by changing the size of packaging that is more attractive. In addition, business sustainability needs to be maintained to maintain the flow of business income.

4. Conclusion
The palm sugar business in Rompegading Village, Cenrana District, Maros Regency is still a simple business model. This business still maintains the same market segmentation for a long time, without any effort to get new customers. Therefore it is necessary to change the strategy of the business model model that has been implemented so far. The right choice of strategy is a turn around where this business must capture market opportunities by increasing the value of its propositions and expanding the market network.

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