

Elimination Non Value-Added Chain: Case In Cassava Fermented Industry Bondowoso - Indonesia

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Abstract: This study aims to determine the feasibility of SMEs of fermented cassava processing by identifying production costs and analyzing the value chain. Production cost have impact on determining the selling price. Analyzing the value chain of SMEs is useful for developing SMEs in Bondowoso and Jember Regency. These activities increase the added value of fermented cassava products and analyze the capacity of resources in developing SMEs. Result this research can provide alternative forms of support the regional government to develop the fermented cassava industry. Research method is a qualitative research conducted to collect and analyze data. The results show that there are non-value added activity. The activity includes the selection of raw materials, banana leaf sorting, and select baskets. If the industry can provide suppliers with criteria and quality standards, these activities can be eliminated.

Index Terms: Value Chain, Value-Added Activity, Target Costing, SMEs

1. INTRODUCTION

Low productivity is still an obstacle faced by small and medium enterprises (SMEs), causing low value added economic activity. Companies must have better competitiveness compared to competitors to have a strong position in the industry. If the target market is clear and strong and develops dynamically, the company can achieve success in facing changes in the business environment and has special advantages. Small companies should use strategies that base their resources so they can survive in the escalation of increased competition (Machmud and Sidharta, 2014; Putra and Winarno, 2015). Companies must emphasize the development of internal capabilities that are superior (superior) in order to compete sustainably and be resistant to recessionary pressure. Competitiveness of women will be driven by building competitiveness that is based on the utilization of internal assets of the organization through an organization that is constantly improving business performance. Small and Medium Enterprises will be able to maintain a good position in competition in the industry when it has competence and value to customers, rare, difficult to imitate and difficult to replace (Machmud and Sidharta, 2014). The creation of non-imitability, non-transferability and non-substitution is a product of a combination of entrepreneurial orientation and organizational learning so that it becomes a source of sustainable industry competitive advantage or sustainable competitive advantage (Fauzi and Cariawan, 2019). If the company has resources and competitive competitiveness that is reliable, then better company performance is easily achieved (Eddy and Gorda, 2016; Fauzi and Cariawan, 2019)). Global competition must be faced by companies by increasing the contribution of human resources. This is the same as stated by Pratibha (2017), Reddy, Yerramilli and Sharma (2017) that at present there is only one

basis for sustainable competitive advantage for companies, namely how to manage human resource factors in the company, namely how to manage the human resource factors in the company. According to Pfefer the competitive advantage achieved through resource management can be defined as a competitive advantage of a company that is not easily imitated by competitors because it is not open, cultural influences in managing human resources, as well as relating to skills, abilities, and conformity with existing systems. Strategy is needed by SMEs to increase profits through increasing sales volume (Machmud and Sidharta, 2014; Oktavia, 2015). In addition, a strategy is needed for the company to overcome various threats for the survival of its business. Analyzing the parties related to the company, both internal and external parties is one way to overcome the threat. This is done to identify the interests of these parties for the company.

Value chain analysis is used as an analytical tool in understanding the policy environment that provides for efficient allocation of resources in the economy. Value chains are quite intuitive ideas. The term value chain refers to a series of activities needed to present a product (or service) from the conceptual stage, followed by several stages of production, to delivery to the final consumer and annihilation after use (Vorst, 2004; Suryaningrat, Amilia and Choiron, 2015; Pérez and Oddone, 2016; FAO, 2018). Value chains will be formed if all actors in the chain work in such a way as to maximize the formation of value along the chain. Value chains are used as a tool to analyze sources of competitive advantage. The value chain breaks down the company into activities that are relevant for understanding cost behavior and sources of existing and potential differentiation. The whole set of activities needed to bring products or services from conception, production; marketing to reaching the hands of consumers is a value chain. The activity involved farmers, collectors, industry and traders. This study aims to determine the feasibility of cassava processing SMEs by identifying production costs that have an impact on determining the selling price and analyzing the value chain for this industry. This is done by analyzing the value chain of SMEs made from cassava which is useful for developing SMEs in Bondowoso Regency and Jember as business activities to increase the added value of primary products produced and analyzing the carrying capacity of resources in developing SMEs made from cassava and

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providing alternative forms of support the bias is given by the government in developing the cassava processing industry.

2 LITERATURE REVIEW

2.1 Value Chain

Value chain analysis is used as an analytical tool in understanding the policy environment that provides for efficient allocation of resources in the economy. Value chains are quite intuitive ideas. The term value chain refers to a series of activities needed to present a product (or service) from the conceptual stage, followed by several stages of production, to delivery to the final consumer and annihilation after use (Vorst, 2004; Suryaningrat, Amilia and Choiron, 2015). Value chains will be formed if all actors in the chain work in such a way as to maximize the formation of value along the chain. Value chains are used as a tool to analyze sources of competitive advantage. The value chain breaks down the company into activities that are relevant for understanding cost behavior and sources of existing and potential differentiation. The whole set of activities needed to bring products or services from conception, production, marketing to reaching the hands of consumers is a value chain. The activity involved farmers, collectors, industry and traders.

2.2 Value Added Activity Analysis

Activity analysis includes identifying, compiling pictures and evaluating production activities. The activity identifies the activities carried out, the number of people who carry out these activities, the time and resources needed to carry out the activities, and evaluates the activities of the organization. This analysis sorts the value-adding activities and non-value added activities. Value-added activities are activities that need to be carried out to maintain and develop their businesses in order to survive (Mohammed Al-Shetwi, 2011; Suryaningrat, Amilia and Choiron, 2015; Liang, Luo and Yang, 2018). These activities can meet three conditions, namely:

1. Activities that can produce a change in a situation
2. Changes in these properties cannot be prevented by previous activities
3. These activities enable other activities to be carried out

Activities that do not add value do not need to be carried out because they do not make industrial businesses survive or develop. This activity does not meet the above criteria. Activity analysis is useful to reduce leakage of resources and aims to reduce costs. Cost reduction will follow the reduction in resource leakage. Activity evaluation is a very basic thing to improve profitability (Anugerah, Wahyuni and Mas'ud, 2017; Faria, Ferreira and Trigueiros, 2018; Ganorkar, Lakhe and Agrawal, 2019). There are dimensions of activity performance including efficiency, quality, and time. Measuring efficiency uses the proportion of activity input and activity output. Quality is related to the quality of the implementation of activities. Time is related to how long an activity is carried out. Analysis of the value of activities can be done by measuring the capacity available and the capacity of practices that run in the production process. How to calculate can be done by calculating all the resources possessed for the production process compared with the capacity of practice (Tjahjadi, 2010).

2.3 Target Costing

Target costing does not only bring about changes in efficiency

and reduced production costs. There are several impacts and consequences that become requirements, consequences, involvement and new responsibilities for the overall management (leadership and workforce) of the company (Jayeola and Onou, 2014; El-dalabeeh, 2016; Okpala, 2016; Anugerah, Wahyuni and Mas'ud, 2017). These impacts and consequences are actually part of the target costing itself, including:

1. Participation of subordinates (workers) who are directly related to the production process to their own awareness to participate in the implementation of target costing, especially in identifying waste and eliminating it.
2. Good cooperation between all elements that exist in the company from leaders to subordinates in supporting efforts to improve the company's progress
3. Efforts to build a good relationship with suppliers (suppliers), whether it is cassava suppliers (main raw materials) or others. When a company decides to implement low inventories, this also shows that the company must be applies the principle of buying the required amount, and build good relationship with supplier. Relationship can be realized in the form of a long-term contract as long as there are no very serious problems.
4. There is consistency from management in implementing target costing to improve continually, even if only in the form of improving existing standards.

3 DISCUSSION

This type of research used in this study is a qualitative research conducted to build a theory of data, in which the qualitative method is general, flexible, and develops in the research process, and researchers share more data together in order to obtain as much information as possible. One focus of qualitative research is that phenomena can only be explained and cannot be measured, and researchers when in the field observe them. The qualitative approach of phenomenology is used in this study because it is related to social phenomena and phenomena and their interactions with certain environments and conditions. Data obtained through in-depth interviews with several tape companies in Bondowoso Regency.

3.1 Analysis of Value Added in the Tape Industry Value Chain

The flow of cassava products starts from farmers and then sold to loggers or directly to the tape industry using vehicles. After cassava is processed into tape, retailers will take it and ready to sell to consumers. The tape industry can also sell directly to consumers

TABLE 1
Marketing Margins for Each Cassava Value Chain per Kg in Bondowoso Regency

Performer	Value chain 1		Value chain 2	
	Selling price/kg	Margin/kg	Selling price/kg	Margin/kg
Farmers	1.800	-	1.800	-
Collector	2.050	250	2.050	250
Tape Industry	12.000	9.050	12.000	9.050
Retailers	15.000	3.000		
Total		12.600		9.600

Table shows the value of profit margins in each value chain pattern in Bondowoso district. The tape industry margin is IDR.9,050 / Kg, this shows that the biggest margin from other

actors is because it has many activities ranging from basic cassava to flour so that it experiences added value. Collectors only have a margin of IDR.250 / kg because their activities are only intermediaries without adding value from the cassava itself. The difference in price at each institution varies greatly; this is based on the size of the profits taken by each marketing institution.

3.2 Value Added Analysis of Tape Industries

Analysis of the added value of the tape industry uses units of kilograms of raw materials for one production process. In one production process, the tape industry produces an average of 550 kg of tape from 900 kg of cassava used as raw material for making tape. The conversion factor value in the calculation of added value in the industry is 0.61 that means that each processing of 1 kg of cassava produces 0.61 kg of tape. The amount of labor input needed to process cassava into tape in one production process is 8 hours per day. The coefficient of labor is 0.1. This value indicates that the average labor input requirement for processing 1 kg of cassava into tape is 0.1 hour / kg in one production process. Wages given to workers are IDR.5,357.00 / hour. The Value Added of cassava per kilogram of raw material is positive.

TABLE 2
Industrial Value Added

Tape	Tape Bakar	Dodol	Suwar Suwir
1.453,90	12.503,71	16.046,46	26.322,67

The value of cassava products with processed tape products is IDR.1,453.9 / kg is affected by the selling price of the output (tape).

3.3 Analysis of Value-Added Activities

Analysis of the value of activities can be done by measuring the capacity available and the capacity of practices that run in the production process. How to calculate can be done by calculating all the resources possessed for the production process compared with the capacity of practice

$$\text{Activity Value} = \frac{\text{Resource capacity}}{\text{Practice Capacity}}$$

Employee data shows that on average the industry employs 11 people. So that it can be calculated the capacity of available time resources.

$$\text{Activity Value} = \frac{\text{Time resource capacity}}{\text{Time Practice Capacity}}$$

It takes 136.5 in the practice of production activities. Activity value calculation can be calculated as follows:

$$\text{Activity Value} = \frac{462}{136.5} = 0,30$$

The efficiency of time resource capacity only reaches 30%. This indicates that there is an unused capacity of 70%. In the observations made, there are slack time for workers. UKM tape seeks to maximize the capacity of practice to increase company profitability.

The analysis shows that the industry is still inefficient; this is because the level of optimization of production activities is only 30%. In other words 70% is the unused capacity that is strived to produce added value. Increased costs or the occurrence of costs that are not actually needed due to idle capacity. Efficiency efforts can be made by increasing productivity as well as by saving costs. Things that can be done to reduce costs include:

1. Elimination of activities, namely eliminating activities that do not add value.
2. Activity selection, i.e. select activities from the most effective design that can reduce costs.
3. Reduction of activities, namely increasing the efficiency of the activities required.
4. The division of activities, namely increasing the efficiency of the activities required by using economies of scale, avoiding the emergence of new activities.

3.4 Target Costing and Elimination of Activities

Samples of tape companies sell tape at a price of IDR.15,000 / unit. Product prices on the market vary greatly in that price range, but it seems that some competitors have set lower prices at around IDR 12,000 to IDR 13,500. theta retailers are willing to buy the company's products right now because of the ordering system, buyers with long-term contracts, and longstanding good relations ... there is a price difference of IDR.3,000 - IDR.1,500 / kg, this shows that the company must start making adjustments in order to achieve competitive position. In the application of Target Costing, the price of the product must be based on customer oriented that is according to the ability of consumers, or equal to the prices prevailing in the market. Therefore, the company tries to set prices at the lowest point of the market that is IDR 12,000 / kg. Stages after calculating the magnitude of the target cost that must be achieved is to start business targets with the main goal, reducing production costs. However, before eliminating waste, it is necessary to identify or recognize the type of waste along with the costs incurred. Besides being recognized, the causes of waste must be explored, because the root of the problem is elimination will be implemented.

a. Waste of excess raw material

Excessive purchase of raw materials as needed often occurs. Excess raw materials cannot be used as inventory because unused raw materials are not durable so the company will suffer losses. Therefore, this waste must be eliminated. These expenses can be avoided if the company does not buy excess raw materials. The necessary step is to improve coordination on the part of purchasing with suppliers so that no raw materials are left. Raw materials must be used up in each tape production to avoid losses and at the same time to minimize losses

b. Waste of excess cuts of raw materials

The company produces based on orders, meaning that the number and specifications of products produced are in accordance with the quantity requested by consumers. Standard chopped cassava that is 1 cm long for one unit of cassava. Waste can occur in excess use of cassava. If the excess is weighed, the company suffers a loss due to excess cassava cutting. Improvements that can be done is not to cut the ends of cassava is too long or at least the edges are removed a little so that the remaining results of the cutting are not wasted too much and this also affects the scales.

c. Waste of packaging

Cost reduction also occurs in packaging costs. Cost reduction comes from changes in the cost of using banana leaves for tape packaging. Banana leaves used as packaging tape can be replaced with paper boxes, to minimize costs and increase savings. With cost savings due to the application of kaizen

costing, it will reduce packaging costs. This is due not to a reduction in the units produced but rather to a change of packaging at a lower price.

4 CONCLUSION

Based on the results of research conducted in Bondowoso, farmers, cassava collectors, tape industry, traders, retailers and consumers are involved in the tape industry value chain. Value added analysis in this industry shows that there is an activity that as a whole has a non-value added activity. The activity in question includes the selection of raw materials, banana leaf sorting, and sorting baskets. If the industry can provide suppliers with criteria and quality standards, these activities can be eliminated.

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