

How to Improve Business Performance: A Financial Analysis on Micro Tapioca Industry

Febtri Wijayanti, Fithria Novianti, Mirwan A Karim, Arie Sudaryanto, Carolina Carolina
Center for Appropriate Technology Development - Indonesian Institute of Sciences

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Abstract: Village tapioca starch production is an important economic activity in cassava value chain benefitting manufacturers and cassava farmers. There are 6 small units actively running in Subang West Java Indonesia capable to produce only 15 ton/month of tapioca. The limited capacity causes them to face stuck in sales situation from time to time, since marketing is performed individually and it makes them difficult to meet required quantity of product procurement fixed by middlemen. This problem remains for decades and makes it difficult for small tapioca producers to grow competitively. In order to find appropriate solution, a case study was conducted to reveal the underlying predicament. Based on financial analysis to the processing technology, it can be concluded that tapioca producer with the capacity less than 1 ton a day is burdened by high production cost. To meet the requirement fixed by middleman who procure minimum quantity of 2 tons tapioca, the best approach to solve this problem is by establishing a marketing collective action. The scenario shall be to create groups enabling them to sell the product as frequent as once in every 2 days to improve conversion rate. Most effective system would be a group of 5 to 7 tapioca small scale producers, providing they agree upon group's mission benefitting all members. The tapioca producers group will enable them to also obtain not only market access, but also access to technology, finance and other supporting policy.

1 INTRODUCTION

Cassava has an important role in agriculture commodity in Indonesia. It has second biggest productivity beside rice. Not only used for food, but also to feed and bioenergy. With the extent of use of cassava, it should be able to become an agro industry commodity to increase society welfare, especially for cassava farmers. The added value of agricultural commodity should become the source of just and fair prosperity gain for those who are involve in the activity (Wilkinson; Dongan, Mior, 2011). This study explores cassava potential as one of important commodity for agricultural community in providing prospective value add as tapioca starch. The production process of which could be performed by various level technology and scale as well. Making it one of a potential agro industrial activity to support.

Gandhi, Kumar, and Marsh (2001) stated that in order to achieve successful agro industry, at least there are 6 prerequisites to fulfill, i.e. 1) incentive for farmers as main producer, 2) provision of agriculture input and determine who will bear the loss, 3) access to technology 4) visionary consumer behavior relevant to market effectiveness, 5) attractiveness of

investment 6) attention to organization, asset ownership, business management, and quality control. As a business unit, small scale tapioca industry are inflicted with those problems. More specific venture tribulations are: 1) lack of appropriate drying technology, 2) irregular raw material supply, 3) low efficiency due to the business scale, 4) market limited option.

Agroindustry development requires effective business association between farmers and manufacturers regardless of the size (Rebeca, Jonsson, Knutsson, 2013). It commonly found that position of agriculture based small industry in the supply chain management is weak. Unequality in socioeconomic status resulted in failure to create business linkage among potential actors. In reference to latter, this study focuses on business management of small scale tapioca industry in Tanjungsiang Subdistrict of Subang District to unearth the causal factor of low conversion rate of product into cash experienced by them. Revealing the case will direct us to discover strategic solution of the problem to productively trigger achievement of improved business performance which the source of income for those who are involved in cassava value chain

The research about the dependency of SMEs to market provider (middleman) has been done by many researcher. Chau, Goto, Kanbur (2001) conducted a study about the role of middleman as a bridge to reach consumers more widely, despite the negative stigma that middleman considered taking profit too much. Shorten the chain is one of alternative solution. The other problem of SMEs are selling. In the tapioca micro industry, time required to sell the product approximately 1 month. During the time, they should provide production cost. Provide operational cost for 1 month is being their problem.

Cooperation and collaboration concept by Schutze, Baum, GanB, Ivanova, Muller (2011) as a success solution for SMEs. Ignatiadis, Briggs, Svirskas, Bougiouklis, Koumpi (2007) introduce a collaborative business model for the (European) ERP industry of SMEs through PANDA project. In reference to latter, this study focuses on business management of small scale tapioca industry in Tanjungsang village of Subang District to unearth the causal factor of low conversion rate of product into cash experienced by them.

2 METHODS

2.1 Time and Location

The study was conducted in Tanjungsang Subdistrict which administratively is part of Subang District of West Java Province. The area selected is well known for its cassava agro ecosystem owned and managed by local farmers. Field observation was carried out in 2 periods i.e. July-September 2014, and February to July 2016.

2.2 Method

In order to achieve the objective, this study was arranged to use a case study approach. Case study allows us to reveal a complex phenomenon in a limited observation space (Baxter & Jack, 2008). Quantitative data was collected by a survey to 6 tapioca industries as listed on official Village Data, followed by qualitative data collection to 2 representative small scale industries in study location. Technique used in primary data collection was in depth interview utilizing guided questions and direct field observation. Quantitative data was then used to construct financial analysis of the venture. Descriptive analysis was employed to further elucidate the phenomenon, specifically relevant to

tapioca production technology and the business activity.

Analysis Approach using financial analysis, which data and information of production process in Tapioca industries processed into balance sheet. From financial report it can be seen the weakness from the production system and the cycle of sales of tapioca. Based on it, the strategic recommendation is made.

The discussion is focused on the problem of capital utilization which effectiveness is indicated by business cash flow. Assuming there is not much change in productivity except price of raw materials during high and low session, depiction of 12 months production activity is projected to 5 year. Looking at the cash flow will enable us to depict and predict the prospect of capitalization; and further recommend a strategy to improve the business performance.

3 RESULTS AND DISCUSSION

3.1 Local Trade System of Tapioca

Tanjungsang Sub District in Subang Area is known for its cassava production. Supported by its agro ecosystem, Gandasoli, together with Rancamanggung village in Tanjungsang become prominent cassava cluster. Cassava harvested area in Tanjungsang District reach almost 500 hectares, and the land productivity about 20 tonns per hectare (Tanjungsang SubDistrict Profile, 2012). Most of the cassava is used as raw material for food processing, i.e chips and “peuyeum” or fermented cassava. Important to mention, is utilization of small size cassava tuber called “sampeububuk” for tapioca production.

In Tanjung Siang Subdistrict of Subang, there are 6 tapioca producers. As a village popularly known for its good quality of cassava produced by local farmers, tapioca producers becomes an important part of the product’s supply chain. Tapioca producers absorb smallsize cassava or “sampeububuk”, a low valued product that is not utilized by other food processing units. The price of smallsize cassava, the main raw material for tapioca producers, is around IDR600 to IDR1000/kg. Price fluctuates depend on the season. The quantity of raw material input differs among producers. It depends on the amount of money readily utilized as business capital. From 1 ton of raw material, they can produce 220250 kgs of tapioca.

The process of tapioca production from peeling, washing, grinding and milling takes only 5 hours. The crucial time required in traditional tapioca production system is drying which depends on climate. During

dry season, it will take 2 days in average; and eventually longer in rainy season. Dry starch is then stored, and it will be sold when the quantity reaches 2 tons. The minimum quantity fixed by middleman for he utilizes truck capacity as standard. For small scale tapioca producers, the minimum quantity of tapioca collection to sell means prolonged time to store and worst of all, low conversion rate of product into cash. They will keep the milled produce in “sedimentation ponds” or the dry flakes in their storage for one month before they finally have sufficient quantity

The existing marketing systems only provide sale opportunity once in every 2 weeks. The average sale frequency of twice in a month allows them to gain approximately IDR28.000.000, from selling tapioca and its waste that still bear economic value. On the other hand, they still have to keep producing tapioca and this situation is a heavy burden for small scale industry with low capital. In short, they must have sufficient cash to support monthly production activity (Fig. 1).

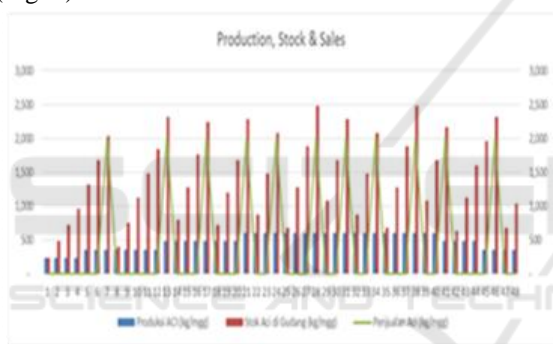


Figure 1: Production, Stock, and Sales of Tapioca Product

It is shown that every month, sales are always lower than production. This situation indicates a high cost of production for conversion rate of product into cash is low due to the imbalance of production and sales.

This condition has been going a long time, from the beginning they start to produce tapioca. Many times, producer complained about lack of capital, while, it happen in the situation when fresh cassava as main raw material is cheap. It could happen because of no sales activity. It means they have no cash to finance their production. It could happen because of their sales set to quota of middleman. Those situations make the stock accumulation in sedimentation ponds or in warehouse. This accumulation has a risk of damage.

Despite their high dependency to the middlemen negatively affects productivity, being independent is not bearable for marketing cost for small scale tapioca

producers to include transportation are not affordable. It is therefore the main reason of why they have no other choice than being controlled by middlemen.

3.2 Investment and Cost of Production

Initial investment or fixed cost is the amount of money need to be spent to start a business. Based on financial analysis of small scale tapioca with a production capacity of one ton a day, initial cost of IDR 74.325.000 is needed to construct production facilities, provide tools and equipment and also to obtain legal business.

In many cases, producer is not count their asset such as land, house, and water installation as their initial investment. In the traditional industry, it could happen. But, in order to this study, we insert it to their initial investment for analysis. As well as legal business. In many producer, especially micro small scale industry, legal business is a things that they ignored. They worry if they have legal business, they have to pay the tax. But, without legal business, they will easily being victimized of “informal tax”, or being criminalized.

Table 1 below indicates amount of money they should provide to start the business. In general, tapioca producer should provide three things, there are: legal business, unit production, and machinery/equipment.

Table 1: Initial Infestation of Tapioca Small Scale Industry

No	Description	Unit	Total (IDR)	Lifetime (Month)
1.	License		1.200.000	
2.	Unit Production			
	Land Rent	1	3.000.000	12
	Production Room	1	3.000.000	12
	Electricity Installation	1	1.500.000	12
	Water Installation	1	2.500.000	12
	Water Pump	1	2.500.000	24
	Precipitation Pool	3	22.500.000	60
3.	Equipment and Machinery			
	Gauze	2	2.000.000	12
	Drying Rack	25	5.000.000	12
	Bamboo Woven Tray	800	16.000.000	12
	Grater	50	1.125.000	24
	Filter	1	8.000.000	24
	Washer	1	6.000.000	60
Total Infestation Cost			74.325.000	

Source: Primary Data, Processed

On the other hand, cost of production for tapioca business with the capacity of 600 quintal a day is

approximately IDR20 million depends on raw material price. The amount of money sufficient to provide raw material, workers, other supporting materials and utilities. Raw material cost takes about 78,3% of overall cost. It indicates in Table 2.

Table 2: Production Cost of Small Scale Tapioca Industry (600kw/batch)

No	Description	Total Cost/Month (IDR)	%
1.	Raw Material (Cassava)	12.800.000	62.64 %
2.	Packaging	416.000	2.04%
3.	Labor	3.320.000	16.25%
4.	Utility	50.000	0.24%
5.	Other Expenses	3.848.802	18.83%
Total Production Cost		20.434.802	100.00%

To be able to have a continuous production activity, a business entity should provide enough money to cover several activities in a row. In the case of small scale tapioca producer in Tanjungsang Subdistrict, when sales can only be done once a month, the amount of working capital should then be provided to support 4 production activities. To have sufficient amount of money, they usually use the help of money lenders; and paying it back when the product is successfully sold.



Figure 2: Effect of Sales Delay to Working Capital

The graph in Figure 2 indicates the amount of money needed by the small scale tapioca producer to have continuous activity. Present situation in which sales is only achieved in delayed time, the amount of capital needed becomes higher. Two week delay will cost them Rp. 6,403,000, and the more delayed time of sale, the more money required for them to support production activity.

Because working capital is usually obtained from the middlemen, the consequences is they have to pay higher price of money. The business relationship cost them a low bargaining power in product marketing in which standard price is usually determined by the middlemen. In the long run, this condition limits

tapioca producers to gain sufficient profit and benefit as they are supposed to earn.

3.3 Collaboration as Strategic Recommendation

Lack of capital is one of problem of the small scale tapioca producer. They don't realize that their lack of capital are happened because of the sales system, which occur from time to time. Entrepreneurs knowledge traditionally cause small scale tapioca producers do not accustomed to recording their expenses and sales in detail, doing market research, and making sales plan.

The problematic delayed sale is a decade long problem encountered by small scale tapioca producer in Tanjungsang Subdistrict. Their limited working capital and storage space causing have placed them into a situation which hamper their business growth. There are cases of business closure due to this unsolved situation. This is the underlying reason of stagnant quantity of tapioca producers in Tanjungsang Subdistrict. Practically there is no supporting scheme implemented to solve this particular problem.

Six tapioca producers in Tanjungsang Subdistrict are able to survive despite many limiting factors. Maximum production capacity performed by this study respondent, KS, is 650 kgs dry tapioca/week. Smaller scale, owned by SR, is able to produce only 100 kg tapioca/week. Based on the sale pattern determined by 2 tons quota set by middlemen, KS suffer delayed sale for 3 weeks and worst case may reach 10 weeks. Figure 3 depicts the dynamics of productivity contrasted with sale quota.

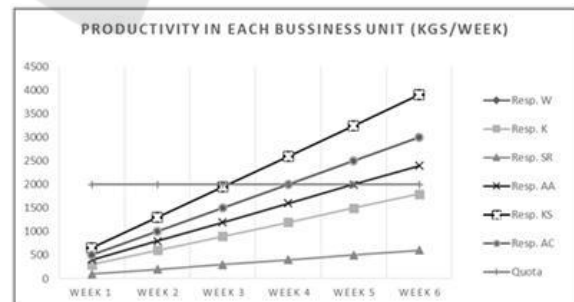


Figure 3: Productivity Each Responden (Kgs/week)

SMEs are in need of marketing knowhow to determine proper markets and customers for their products and to improve design and quality parameters (Aykan;Aksoy;Sonmez, 2013). For SMEs the best way for them to enter new markets is to establish alliances with other SMEs - or with larger

firms (Robson & Bennet, 2000). In the case of small scale tapioca producer who have no other option or more appropriately said is lacking access to alternative market has caused placed them on stagnation. Individual marketing effort is eventually cost them more and the situation makes lower profit gain; but it seems that they do not have a proper solution.

Marketing collaboration can become a proper solution for small scale tapioca businesses. Although not a new concept, networking could be the most appropriate strategy for small scale industries to develop strong business capable to compete. Collaboration allows business to manage risk through sharing scheme, provide access to resources so that improvement of business performance can be achieved (Chakraborty; Bhattacharya; Dobrzykowski, 2014). Collaboration will help small scale businesses like the tapioca industries in Tangjungsiang Subdistrict to have competitive advantage. Financial analysis indicates that collaborative scheme implementation will help them to gain more profit and benefit as well, among others broader market option and higher bargaining position. No delay sales can be achieved, and thus, cash availability could be better due to improved conversion rate.

Collaboration is a process in which those who are involved share information, resources and other responsibilities to plan, implement and evaluate the activity; in other word, collaboration is an arrangement to work together (Camarinha&Afsarmanesh, 2006). Collaboration among tapioca producers in Tangjungsiang Subdistrict is prospective to be established. Economically the strategy is advantageous because: Sales can be performed in a shorter period or higher sale frequency is obtained, Higher sale frequency means faster turnover rate, turn the product into cash, Less working capital is needed

It is shown in Figure 3 that is sales can be done every week, working capital needed is only IDR3.201.000,- depend on the capacity, which can be used to cover the cost of the week after production activity. Through collaboration, sales period can be shortened to become 1 week only rather than 2 weeks.

Collaboration scenario based on each tapioca producer capacity. For the information, in Tangjungsiang Subdistrict, 6 unit small scale tapioca industry have different capacity depends on their ability to provide initial investment. The idea of collaboration can be done without limiting their production capacity. Based on the producers information, we account that with the average of their

productivity, the group can collecting and selling tapioca to middleman in every 1 week as shown in Figure 4.

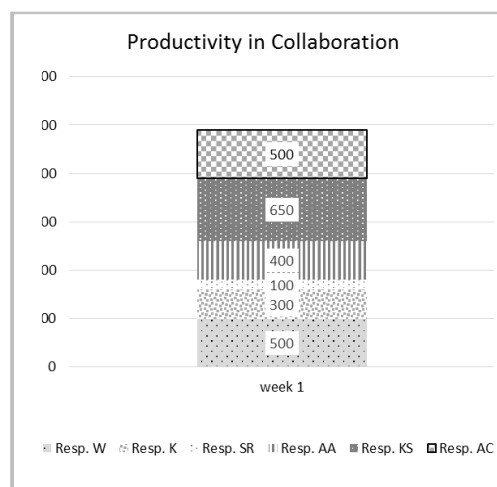


Figure 4: Small Scale Industry Collaboration in Market

According to Coulter (2007), collaboration of small development, however there are drawbacks that should be anticipated as mentioned by Jonathan (2007) as “hidden cost” i.e. : Lost of autonomy to buy and sell certain quality of product, as well as decision to choose buyer and selling time; Lost of time for groups meetings and consolidation; Cost of establishing same perspective, principle and behavior among members; and also to construct and implement rewards and punishment system as a commitment.

In order to reduce high cost of proposed collaboration system, social capital becomes an important key element to humanistic economic development. Important factors embedded in social capital are among others valuable social relation, plausible social transformation and established social network. Due to its significance role in improving economic achievement, it is therefore important to gain thorough understanding of human interaction complexity (Vallejos; Macke; Olea; Toss, 2008).

Villagers in general, still hold the principle of social interaction in which family relation becomes valuable bond. And this is found in Tangjungsiang Subdistrict, especially among farmers where collective action is still performed in many agricultural management activities (Carolina &Novianti, 2016). This is a strong foundation for Tangjungsiang Subdistrict community to establish a collaborative network for economic purposes. Reinforced by a good institutional development, collaboration among small scale tapioca producers is a prospective proposal.

It is expected that collaboration will be established not only for product marketing, but also include the whole production system. As part of the supply chain, small scale tapioca production unit should possess better bargaining position in cassava industry. Collaboration will enable them to be exposed to a broader market, and other benefits such as possibility to cost share and opportunity to technology transfer in order to improve productivity and business performance. However, collaborative network will not be achieved without trust among members (Petrescu; cRuz; Negrusa, 2014). An important point which possible to attain in a community with strong social capital.

It is fair to conclude that the character of small scale enterprise in rural area is traditional in which their natural resource base activity is heavily depend on raw material availability and local market system. In globalization era, holding to that principle will place them into a vulnerable position. It is important to strengthen them with relevant entrepreneurial skill and knowledge to help them survive by increasing their competitiveness. This will require a collective action and institutional approach to shift the paradigm from traditionally managed small scale enterprise to collaborative network. The collaboration of which will enable them to strengthen their bargaining position, solving problem collectively, which at the end creating a more efficient and effective marketing system (Barham & Chitemi, 2009). Proper support is required to increase the capacity and capability of small scale industries to adapt well into meeting market demand and thus establish sustainable business activity they could rely upon (Aykan; Aksoy; Sonmez, 2013).

Of course, to realize the idea of collaboration, there should be one of tapioca producer who pioneered. Communication between producers is absolutely necessary. Intensive communication and meetings required to equalize perception and group purpose. In this part, the role of facilitator is necessary. Facilitator has an important role to be a mediator to make similarity understanding.

4 CONCLUSIONS

Delayed sales is one of the problem of small scale tapioca producer, especially in Subang Region. It is need problem solver to cope that condition. Collaborations could become a prospective alternative to support the business performance of small scale tapioca industry. Collaboration can strengthen them in bargaining power, technology

innovation, and market share. They growth together, and create an social ties more closely. The existing social capital plays an important role to establish an effective knot of collaboration which function not only to improve marketing system, but also to gain better access to technology, capital and supporting policy they deserve.

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