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INTRODUCING EMPOWERMENT STRATEGY AS A WAY-OUT FOR SALT FARMING INDUSTRY IN REMBANG REGENCY-INDONESIA

Abstract:

Rembang is considered as one of the salt production centrum in Central Java province. It lies in the eastern-north of Java sea coast. Within a year farmers usually produce with rotation traditional farming system to produce salt and the brackish water aquaculture commodities (either milkfish and/ or shrimp). The salt production in this study area is mosly used for industry since less in quality for consumption purposes. Many efforts had been put on to improve the salt-farming, but can not achieve the maximum target. This is due to the advanced technology for salt-farming system (such as using fondation technique) stipulates the pond solely used for salt production throughout a year. However, farmers in Rembang used to share the pond for milkfish and/ or shrimp production within a year.

The study is aimed to formulate the possible empowerment strategy to improve the salt production. Further, Cost and returns (C/R) and value chains analyes (VCA) have been applied to ascertain which commodities should be given a priority between salt and aquaculture production. The study invoked a mixed-method of quantitative-and-qualitative to answer the objectives posed. In-depth interview and focus group discussion with key-persons and informants were carried out for data collection. The study found that farmers' role were more considered as the price taker more in salt production compare than in milkfish or shrimp. Moreover, the margin of value chains from salt seems to be less favourable to the farmers. In facts, milkfish and/ or shrimp production is just accounted as a complimentary routine activities to complete a year farming system. Thereafter, this study suggests to re-structure the farming system management practiced in the study area thru empowering the farmers; and improvement in institutional set up for agribusiness in salt industry.

Keywords:

empowerment, salt, farming, agribusiness, Rembang, Indonesia

INTRODUCTION

Within a year, farmers in Rembang produce salt and the brackish water aquaculture commodities (either milkfish and / or shrimp). Farmer produce both of those commodities based on the climate condition. Rembang lies in the eastern north of Java sea coast. It had two seasons in a year that the rainy season and dry season. Farmers produce salt in the dry season, while in the rainy season ponds used for the production of brackish water. The problem arise because the farmer retains both products. Which is more advantageous between producing salt and brackish water aquaculture.

The study is aimed to formulate the possible empowerment strategy to improve the salt production. Further, Cost and Returns (C/R) ratio and Value Chain Analysis (VCA) have been applied to ascertain which commodities should be given a priority between salt and aquaculture production. This study analyze the C/R ratio for salt and brackish water aquaculture.

The existing condition of salt industry in Indonesia is shown at Table 1. Table 1 shows that the need for salt is increase year to year. The production salt is fluctuated depend on the climate condition. For example, in the year 2010, Indonesia only produced 30.600 ton salt. It is because of the uncondusive climate. Government reacted with the import salt policy to fulfill the need for salt.

Table 1: The Condition of Salt Industry in Indonesia (2009 – 2013)

Activities / Tahun	2009	2010	2011	2012	2013
The Need for Salt	2.960.250	3.003.550	3.228.750	3.270.086	3.554.670
A. Consumption Salt	1.160.150	1.200.800	1.426.000	1.466.336	1.527.170
a. Household	700.000	720.000	747.000	732.645	742.170
b. Various Food Industry	160.150	165.800	269.000	282.000	285.000
c. Marinating Fish Industry	300.000	315.000	410.000	451.691	500.000
B. Industrial Salt	1.800.100	1.802.750	1.802.750	1.803.750	2.027.500
a. CAP Industry	1.600.000	1.600.000	1.600.000	1.601.000	1.822.500
b. Non CAP Industry (Leather, textiles, soap, etc)	200.000	202.750	202.750	202.750	205.000
Production Salt	1.371.000	30.600	1.113.118	2.071.601	205.000
A. Consumption Salt	1.371.000	30.600	1.113.118	2.071.601	701.671
B. Industrial Salt	0	0	0	0	0
Import Salt	1.736.453	2.187.632	2.615.202	2.361.017	1.962.556
A. Consumption Salt	99.754	597.583	923.756	495.073	0
B. Industrial Salt	1.636.699	1.590.049	1.691.446	1.865.944	1.962.556

Source: Marine and Fisheries Ministry, 2013

Table 1 shows that the demand of salt in Indonesia fulfill from own production and also abroad. In 2013 Indonesia can fulfill all of the demand of consumption salt. However, for industrial salt, Indonesia still need import from abroad, especially from China, US and Australia.

The existing condition of salt industry in Rembang is shown at Table 2.

Table 2: Existing Condition of Salt Industry in Rembang Regency 2011 – 2013

No	Activities	Result		
		2011	2012	2013
1	Potential Land Area	1998,3 ha	1998,3 ha	1998,3 ha
2	Land Area Production	1584,9 ha	1714,31 ha	1736,76 ha
3	Land Area PUGAR	557,63 ha	1467,61 ha	1519,24 ha
4	The total amount of salt Farmers	4.210 person	4.210 person	4.210 person
5	Number of People's Salt Farmers PUGAR	1250 person	3.557 person	3.968 person
6	Number of groups people's salt	125 KUGAR	358 KUGAR	68 KUGAR and 176 BUNG KUGAR 4 pilot project group
7	Total Production of Salt	125.109,44 ton	186.531,94 ton	107.121,09 ton
8	Number of Salt Production PUGAR	50.609,01 ton	163.464,37 ton	107.121,09 ton
9	Salt farmer productivity	79 ton / ha / season	111,38 ton / ha / season	70,51 ton / ha / season
10	Technology and Business Salts Used	Traditional	Simple Screw System	Ulir + terpal
11	Salt price (KW1 and KW2)	KW1: Rp 600 KW2: Rp 400	KW1: Rp 400 KW2: Rp 300	KW1: Rp 600 KW2: Rp 400

Source: Dinas Kelautan dan Perikanan, 2014

The study is aimed to formulate the possible empowerment strategy to improve the salt production. Further is to ascertain which commodities should be given a priority between salt and aquaculture production

From the results of the field survey shows that the salt farmers have limited information about the price of salt at the farm level. During this time, the determination of the price at the farm level is completely determined by the middleman / broker. Realtor will go to the farmers' ponds and conduct transactions. Farmers have no other choice but to accept the offer of middlemen to sell salt to the middlemen. It is related to the attachment of farmers to offer brokers to earn money at the start of production (in the early months of production).

Value Chain Theory

According to Hellin and Meijer (2006), VCA applying the principles of how to map the market potential and value chain from one actor to another actor. According Simchi-Levi,

et al. (2003), Value Chain is a series of approaches are applied to integrate suppliers, businesses, warehouses and other storage areas efficiently so that the product is produced and distributed by the appropriate quantity, location and timing to minimize costs and satisfy customer needs. Value Chain Management aims to make the whole system to be efficient and effective, the minimum total system cost, of transport and distribution until the inventory of raw materials, materials in process and finished products. Through these objectives, the emphasis is not only limited to minimize transportation costs or reduce inventory, but rather the integration of suppliers, factories, warehouses and stores efficiently cover the company's activities from a strategic to operational.

The distribution of goods from producers to consumers involves institutions that can be classified into four groups. Middleman / realtor is a marketing agencies that are directly related to salt farmers. Middlemen make transactions with salt farmers either in cash, debt bondage or the purchase contract. Middlemen often also called the realtor. Traders is a conducting marketing agencies by collecting salt from farmers. Traders Retailers are marketing agencies that deal directly with consumers.

Methods

The analysis tool used is the R/C ratio for salt and milk. This analysis tool is used to ensure the commodity which should be given priority in the two commodities. Value of R/C ratio is obtained by comparing the total revenue and total costs. Return Cost Analysis (R / C) ratio is the ratio between revenue (revenue) and expenses (cost) with the decision criteria as follows:

1. If $R / C > 1$, meaning business people experience the benefits of salt farmers
2. If $R / C < 1$, meaning business people salt farmers suffer losses
3. If $R / C = 1$, meaning business people salt farmers breakeven (no experience gains / losses).

RESULTS

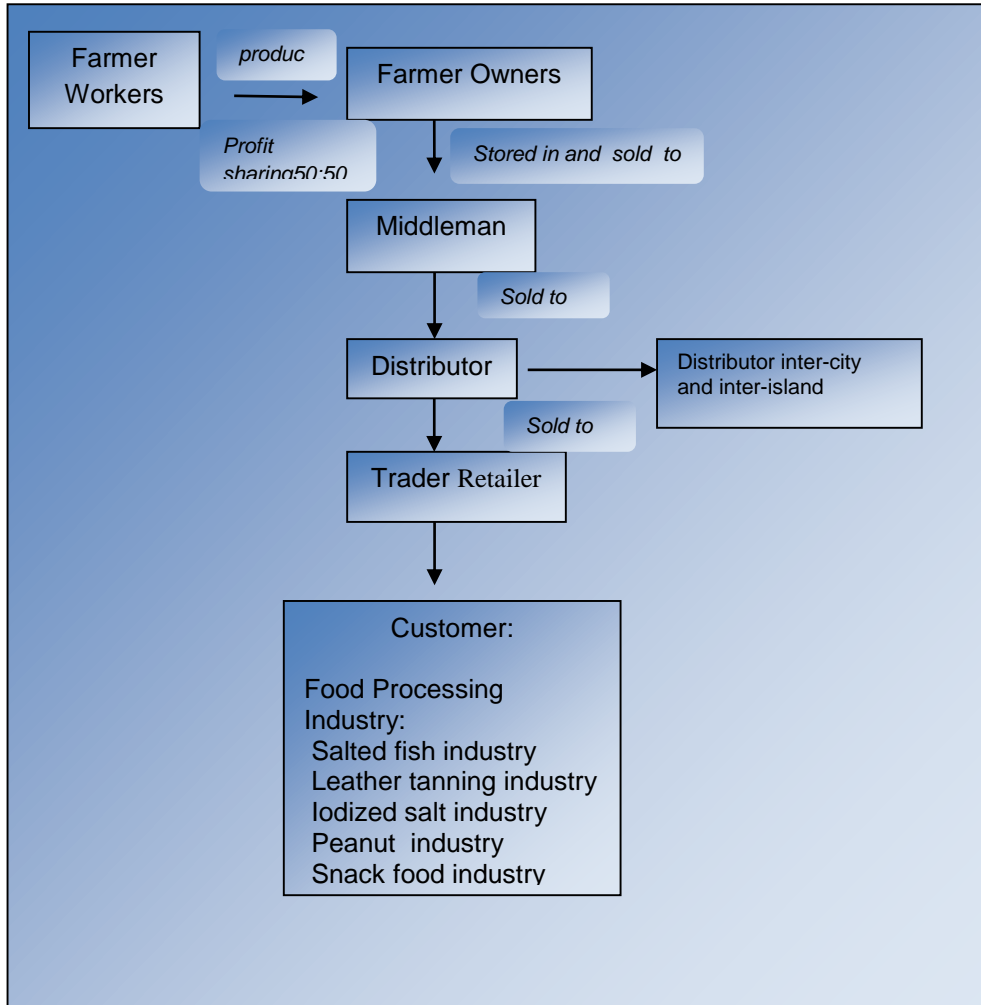
Table 3: The R/C Ratio of Salt and Milkfish Production

No	Description	Salt Production / Ha/ Season (Rp)	Milkfish Production / Ha / Season (Rp)
1	Total Revenue	120 ton @ Rp 400/kg Rp48.000.000,-	800 kg @Rp 15.000 / kg Rp12.000.000,-
2	Total Cost	Cost of Equipment Rp 470.000,- Labor Cost Rp 5.400.000,- Rp 5.870.000,-	Cost of Equipment Rp 132.000,- Fertilizer Cost Rp 550.000,- Cost of Seed Rp 420.000,- Labor Cost Rp 1.000.000,- Rp 2.102.000,-
3	R/C Ratio	8,1	5,7

Source: Primary data, 2015

Mapping of salt value chain

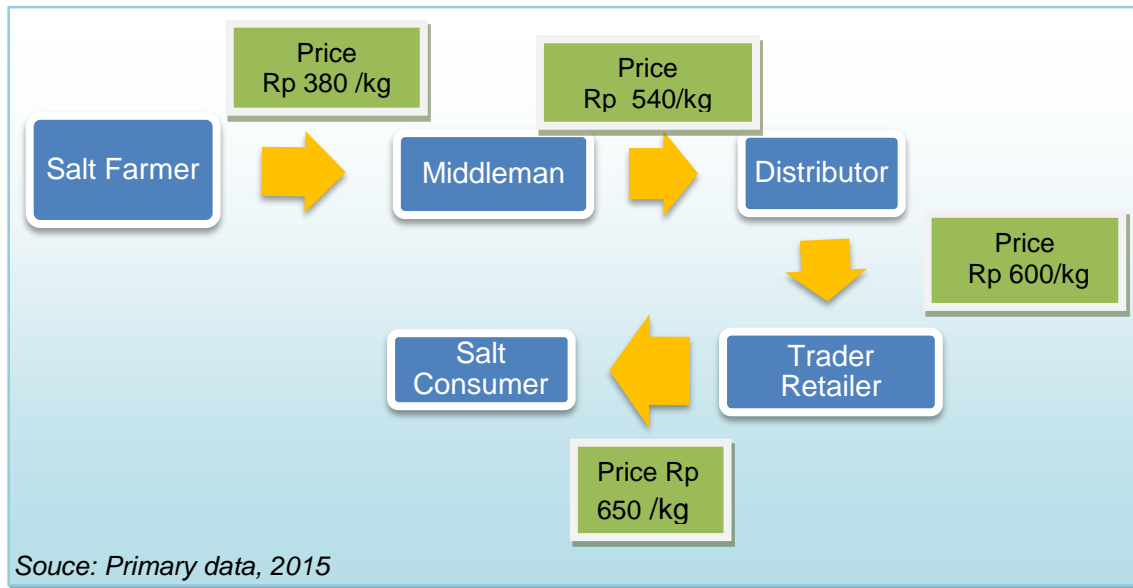
Figure 1: Mapping of Salt Value Chain in Rembang Regency



Source: Primary data, 2015

Margin Price on the Salt Industry

Figure 2: Margin Price on the Salt Industry in Rembang Regency



CONCLUSIONS

Feasibility of salt and milkfish in this study is shown a high score. It means that both of salt and milkfish could be a prospective business in the future. However, Farmer decided to produce salt as a priority for their business. Milkfish production for a farmer just accounted as complementary routine activities to complete a year farming system. Thereafter, this study suggests to re-structure the farming system management practiced in the study area through empowering the farmers and improvement in institutional set up for agribusiness in salt industry.

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