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The Role of Capital Structure, Human Resources, and Technology in Increasing Salt Farmers' Income

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Abstract

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The natural resources of hot salty springs can be used by farmers to produce salt. The salt farmer profession has not provided an economic improvement for the farmers themselves. The purpose of this study was to determine the role of capital structure, human resources and technology in increasing the income of salt farmers in Jono Village. The research method used in this study was qualitative descriptive approach. The data of this study were obtained from interviews, observations and documents. Data analysis used in this study was an interactive model from Miles and Huberman, 2014. The study was carried out in Jono Village, Tawangharjo District, Grobogan Regency. The results of this study are the capital structure of salt farmers obtained from collectors and human resources from family labor which are still low. The technology used by salt farmers is still very traditional. The results of this study provide recommendations for improving the capital structure, quality of capital resources and technology to improve the economy of the salt farmers.

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INTRODUCTION

Indonesia is an agricultural country (Delima, R., Santoso, H. B. & Purwadi, 2016). The majority of villagers work in the agricultural sector to finance their lives (Pewista, 2010). Agriculture is one form of business carried out by rural communities

by utilizing existing capital and natural resources such as: land and water (Rifkian, Suharso, & Sukidin, 2017). The natural resource used by the community to farm is turning water into salt (Suwasono, B., Munazid, A., & Widodo, 2013).

Salt has an important role in human life (Izzaty & Permana, 2011). Salt is important for consumption and industry. National salt production is still far below the needs of the Indonesian people (Lutfi Assadad & Bagus Serdiadi Bandol Utomo, 2011), even though Indonesia is an archipelagic country whose seas are wider than the mainland (Lasabuda, 2013). Recently, Indonesian government is still importing salt (Baihaki, 2013). Salt is divided into 2 types, namely (1) iodized salt or consumption salt, which is used as a raw material for the production of iodized consumption salt industry. This type of salt is used for various foods and has a minimum of 94.7% NaCl. It is also used for salting fish. (2) Non-iodized or industrial salt is salt used as raw material for the salt base industry with NaCl salt levels above 97% (Taufiq, Putra, & Hartati, 2016).

The lack of domestic salt production is due to weather factors; continuous rain has brought many salt farmers to harvest failure. Consequently, local salt production is not sufficient for self-consumption and industry (Taufiq et al., 2016). In addition to weather factors, another thing that makes the amount of salt production in Indonesia is not yet its maximum number because the process of making salt is still using traditional method (Triajie, H., & Insafitri, 2012). Salt farmers still rely on the sun and simple tools (Halidasari, 2018). Tools used to produce salt are still very old-fashioned, such as wood scrapers and windmills (Rahmi, Suwandi, & Badruzzaman, 2019). In order to harvest, salt farmers must wait a minimum of 10-14 days to 21 days (Arief, 2015). This causes the minimum salt production to become the main trigger for the government to import salt (Rochwulaningsih, 2013).

Jono Village, Tawangharjo District, Purwodadi City, Grobogan Regency is one of the villages that produces the biggest number of salt in Grobogan Regency. Jono Village has the potential of natural resources derived from the earth; the appearance of hot salty springs. This natural resource is then utilized by the people of Jono Village, Tawangharjo District to make salt. The Grobogan Regency Industry and Trade Office revealed that salt production has decreased every year because the number of salt farm families has been declining over the years. In 2016 there were 58 families of salt farmers in Jono Village. But now there are only 50 salt farmer families left in the village and very few young people are interested in continuing the effort to create salt.

The income of salt farmers is relatively low and depends on the weather because they have to be dried in the sun. In dry season, farmers' income is around IDR 500.000 in a single harvest with a harvest period of 10 days, for the rainy season the income of salt farmers is around 300.000 in a period of 15 days. Salt farmers who do not have the capital often borrow the initial capital to middlemen or collectors. In this way, salt farmers who borrowed the capital were required to sell the salt harvest to collectors who provided capital loans.

Some researches with the theme of improving the economy of salt farmers had been carried out by several previous researchers, such as Komaryatin, (2012) with the results of the study that natural factors, working capital, labor and skills have a considerable influence on the income earned by salt farmers. Amami & Ihsannudin's research results (2016) stated that the community salt business is said to be profitable and feasible to be developed. However, the use of production factors in the community salt business by salt farmers has not been technically and economically efficient. Ragil P. Andriyani (2013) provided the results of research that the pond

business is financially profitable, but there are a number of problems that need to be addressed both at the level of market players and policy makers. Natural factors, especially climate variability, require better and more precise management of information systems and weather forecasts. Based on those previous researches, it can be seen that shortcomings or weaknesses of previous research are still present, especially the lacking in discussing the role of capital structure, human resources and technology in increasing the income of salt farmers, so that there is still a gap analysis. The novelty of this research is to discover the role of capital structure, human resources and technology in increasing the income of salt farmers.

The purpose of this research is to find out 1) the role of capital structure in increasing income. 2) the role of human resources in increasing the income of salt farmers. 3) the role of technology in increasing the income of salt farmers in Jono Village, Tawangharjo District, Grobogan Regency.

RESEARCH METHODS

This research was conducted in Jono Village, Tawangharjo District, Grobogan Regency, Central Java. The consideration was the uniqueness of Jono Village; the location is far from the sea, yet the people can produce salt sourced from well water. This research was conducted in October 2019 until March 2020. Data sources in this study used primary data obtained directly from informants, while secondary data were obtained from articles and documents relevant to the research theme.

This research uses a qualitative method with a descriptive model. Informants in this study were 6 salt farmers in Jono Village, Tawangharjo District. Supporting information came from Jono Village Government officials, Tawangharjo District and Grobogan Regency Industry and Trade Office. The technique of taking informants uses the Snowball Sampling technique.

Data were collected by making observations directly at the study site. Interview data collection techniques were carried out to informants with in-depth questions to find out a comprehensive answer regarding the focus of the research, namely the variable capital structure, human resources and technology in increasing farmer's income. Data collection techniques through documentation obtained from the village government of Jono and the Department of Industry and Trade. Researchers used source triangulation techniques and triangulation techniques. Source triangulation was done by testing the answers between farmers and farmers and between the answers of farmers with the answers of the village government. Techniques triangulation was done by testing interview data collection techniques triangulated with data collection techniques through observation.

Data analysis in this study uses an interactive analysis model which is a model of Matthew B. Miles, A. Michael Huberman (2014), with the stages of collecting data related to the research theme, the role of capital structure, human resources and technology in increasing the income of salt farmers. Data is sorted according to research needs. The researcher presents the data that has been processed and the final step is to draw conclusions from the results of research on the role of capital structure, human resources and technology in increasing the income of salt farmers.

RESULT AND DISCUSSION

Profiles of Jono Village Salt Farmers

The age of salt farmers in Jono Village, Tawangharjo District, Grobogan Regency can be seen in the following figure,

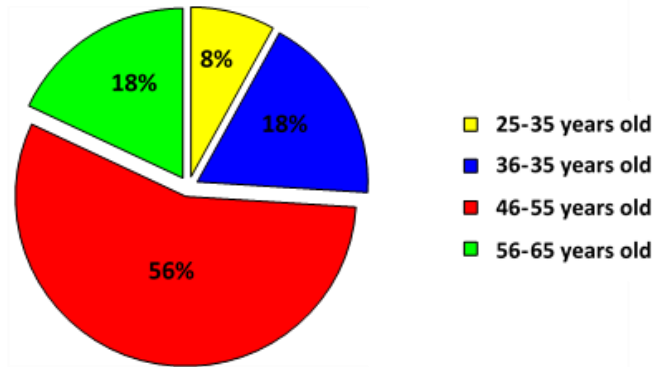


Figure 1. Age of Salt Farmers in Jono Village, Tawangharjo District

Source: researcher data (2020)

Based on the data in Figure 1, it can be explained that the salt farmers of Jono Village, Tawangharjo Subdistrict who had an average age of 46-55 years old were 56%, aged 25-35 were 18%, aged 56-65 were 18% and aged 25- 35 were 8%. From the chart above, the average salt farmer in Jono Village was at the productive age of work, which was 15-64 years old.

The level of education of salt farmers in Jono Village can be seen in the following table:

Table 1 . Educational Level of Salt Farmers in Jono Village

Education	total	Percentage (%)
Didn't finish school	7	14
Graduated from elementary school	32	64
Graduated from middle school	9	18
Graduated from high school	2	4
S1	0	0
Total	50	100

Source: Data from the Head of Jono Village Salt Farmers Group (2019)

Based on table 1, it is explained that most of the salt farmers in Jono village had only elementary school level, as many as 32 people. Not graduating were as many as 7 people. For junior high school graduates were 9 people and high school graduates were 2 people. The majority of farmers with low education were only elementary school graduates, and this is the reason that the human resources have not been maximized.

The number of family members of salt farmers in Jono Village can be seen in the following table:

Table 2. Family Members of the Salt Farmer Family in Jono Village

Family Members	total	Percentage (%)
2 to 3	19	38
4 to 5	26	52
more than 5	5	10
Total	50	100

Source: research data (2020)

Table 2 explains that the salt farmers of Jono Village, Tawangharjo Subdistrict had quite a lot of family members. There were 26 farmers who have 4 to 5 family members. While those with family members from 2 to 3 were 19 people and those who have more than 5 were 5 people.

Koharno (2017) explained that the area of land is the amount of land managed for salt center businesses so as to produce products. The more land that is managed and supported by good salt center business management techniques, then the production can still be increased. Jono Village, Tawangharjo District has medium lands because the salt production center business is passed down from the parents, "the area of land obtained by each family of salt farmers is 80 meters x 6 meters and the area of salt center is only 3 hectares. Land owned by salt farmers already has certificates and land rights "(Results of an interview with Jono Salt Farmers, 1 December 2019).

The longer the farmer works on the activity, the more experience is gained. "The average salt farmer in Jono Village, Tawangharjo Subdistrict has quite a long experience, as many as 16 people have more than 31 years experience in the salt production business and as many as 11 people have 26 to 30 years in the salt production business" (Interview results with the head of the Jono Village salt farmer group on 3 December 2019). The experience of salt farmers who have long and hereditary experience also affect the success of the salt center business, given that salt farmers who have a longer level of experience will be easier to understand and master the salt production techniques, compared with those who still lack in experience. The technique of producing salt in Jono Village, Tawangharjo Subdistrict, is carried out in traditional ways.

At present, there are 50 salt farmers in Jono Village. Mr. Eka Winarna as the head of Jono Village, Tawangharjo Subdistrict, said that the work of salt farmers in Jono Village is a hereditary work. The income of salt farmers in a single harvest averages IDR 500,000 - IDR 600,000 in 9-10 days during the dry season, with the average monthly income of IDR 1,500,000 - IDR 1,800,000. However, the farmers' income during rainy season decreased to IDR 300,000 - IDR 400,000 in 15 days, with an average monthly income of only IDR 600,000 - IDR 800,000.

From the results and data analysis on the condition of salt farmer houses in Jono Village, it was found that their economic situation was low and the condition of salt farmer houses were still relatively poor, as evidenced in photo documentation which shows that their homes were still mostly using bamboo and the floor was grounded. With such circumstances, the salt farmers of Jono Village were still able to pay their children's education, even if only up to high school level.

The Role of Capital Structure in Increasing the Income of Salt Farmers

Capital in salt farming production process activities can be divided into two types, namely fixed capital and non-permanent capital. As explained by Jumriati (2017) factors of production such as land, buildings and machinery are often included in the category of fixed capital. Thus fixed capital is defined as the costs incurred in the production process that does not run out in a single production process. In terms of capital, salt farmers in Jono Village did not get the capital assistance offered to help their salt center businesses. Most of the Jono Village salt farmers depend their main capital on collectors. "The initial capital of the Jono village salt farmer is used for equipment such as buying bamboo for the salt production process that is lent by traders." (Interview with Mr. Suhadi, Salt farmer, 2 December 2019). The low capital owned by the salt farmers results in limited salt production. This is in line with research by Supadi and Achmad Rozany Nurmanaf (2006) which suggested the need to empower salt farmers by providing business capital. Salt farmers' capital is obtained from the results of loans by traders, and this causes the low income received by salt farmers. This is in line with research Zakki & Sayyida (2016) which stated capital structure as a major factor in influencing the income of salt farmers. Alternative sources of capital such as capital from banks with low interest for the process of producing salt and the development of the salt business are deemed necessary to increase the income of salt farmers.

The Role of Human Resources In Increasing the Income of Salt Farmers

The aspect of human resources in the form of education and other skills possessed by salt farmers is also an important aspect in running the business. In order the business can run and develop well, good human resources are required. "The salt center business in Jono Village has human resources which all come from families, for example, the wives and children of salt farmers. Salt farming is a work that cannot be done by a salt farmer alone and requires additional workers from his own family and there is no recruitment of employees" (Interview with a salt farmer in Jono Village, 2 December 2019). The absence of human resource management in the salt production process makes production quality not maximized. This causes salt products not yet competitive in the market, therefore farmers' income is still relatively low. This is in line with Holis & Enduluan's research (2019) which states that the human resources of salt farmers have a role in managing the salt business, so that the productivity of salt processing can increase farmers' incomes. It is necessary to increase human resources in the form of increased education in the form of teaching creativity and innovation skills, as explained by Yunus (2019), individually or in groups that can maximize human resources in the form of ideas, ideas, creativity and innovation in order to produce superior products. Improving the quality of human resources can improve the quality of salt products produced. A good quality salt product will be easily accepted by the market, so sales increase and can increase the income of salt farmers in Jono Village.

The Role of Technology in Increasing the Income Of Salt Farmers

The technology used by salt farmers in Jono Village, Tawangharjo District is still very simple and traditional" (Interview with Jono Salt Farmers, January 1, 2020). For example, a filter made of bamboo is split into two, and the bamboo used by salt farmers is a type of *peting* bamboo. *Peting* bamboo is obtained by the salt farmers from the market at a price of IDR 50,000 for one raft. The dipper is made of plastic ball

which was split into two and given a hole for the bamboo grip. The scraping tool is made from used glass to scrape the ready-made salt grains which are ready to be harvested from the filters made of woven bamboo that is used for the release of salt water that is still mixed with the grain of salt when harvested. The water from the leak is called *Bleng* water. The harvested salt is only packaged using sacks with a weight of 50 kg or plastic for 1kg weight. This traditional technology causes low income of salt farmers; in accordance with the opinion of Ihsannudin, Pinujib, Subejo, and Sumada Bangko (2018) which states that the low application of technology in the management of salt production will increase the cost of salt production which will reduce the amount of income. Technology needs to be improved so that salt production is more effective and efficient which can increase the income of salt farmers.

CONCLUSION

Based on the results of the research and economic analysis of salt farmers in Jono Village, Tawangharjo District, Grobogan Regency, it can be concluded that the age of salt farmers is relatively at productive age. The level of education of Jono village salt farmers is still relatively low and the average number of family members has quite a number of 3-4 people. The land area of each salt farmer family is 80 meters x 6 meters. The experience of an average salt farmer is long enough. The income of salt farmers is quite satisfying during the dry season; however it becomes very low during the rainy season. The conditions of salt farmer's houses are still relatively poor. The capital obtained by salt farmers is mainly from collectors while for human resources they do the farming process themselves without any employees helping. The technology used by salt farmers is still very simple and traditional and has not been able to increase the income of salt farmers.

RECOMMENDATION

It is recommended that the salt farmers stop making debt for capitals with traders. Salt farmers may borrow capital from other trusted parties such as banks that have low interest rates. It is recommended to form a cooperative as a forum for salt farmers to discuss the addition of capital and improvement of technology used so as to increase the income of salt farmers. It is recommended for researchers to further add other variables that are thought to increase the income of salt farmers.

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