



The Value - Added Analysis of Gayo Arabica Coffee based on Processing

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Abstract

Indonesia is the fourth largest coffee exporting country in the world after Brazil, Vietnam and Colombia. Aceh is one of the biggest coffee producer regions in Indonesia. Data from BPS shows that there are six regencies which are the centers of coffee production in Aceh Province. Central Aceh and Bener Meriah district are the main production centers of the six district. The planting area of coffee, production and productivity over the past five years shows an increasing trend in the two regencies. This study aims to determine the differences in Value-Added of Gayo Arabica coffee beans based on the processing. The research location was taken in the area of coffee production centers in the Province of Aceh, specifically Bener Meriah and Central Aceh Regencies. These two regencies are the main processing locations for Arabica coffee products in Aceh Province. Data collection methods using deep interviews with green bean coffee agro-industries which have the largest export quota in Central Aceh District, such as KBQ Baburrayan Cooperative and Permata Gayo Cooperative. To analyze the Value-Added of the Gayo coffee commodity, the Hayami Method analysis is used. This study shows that the Value-Added of green beans coffee is higher than the other two processing methods, that is Rp. 28,337 / Kg with ratio 38.40% in Central Aceh Regency and Rp. 26,738 / Kg with ratio 37.14% in Bener Meriah Regency. This is due to the selling price of green beans is relatively high so even though the price of raw materials is high, the Value-Added is still greater when compared to the Value-Added of the production process of grain beans and labui beans.

Keywords: *Coffee; Processing; Value Added*

Introduction

Coffee is an export commodity that plays an important role in international trade. Indonesia is the fourth largest coffee exporter in the world after Brazil, Vietnam and Colombia (ICO, 2018). The level of competition between competitors in coffee exports is very active because the coffee industry has entered the stage of maturity in the peak life cycle of the industry both in raw coffee commodities or coffee derivatives. (AEKI, 2018). Aceh is one of the largest coffee producer in Indonesia. The data of BPS Aceh shows that there are Three Regencies which become the centers of Arabica coffee production in Aceh Province. Central Aceh and Bener Meriah District are the main production centers among the Three Producer area of Arabica Gayo Coffee. The planting area and production of coffee over the past five years show an increasing trend in Central Aceh and Bener Meriah Regencies (BPS Aceh, 2018).

Gayo coffee is quite famous in the world because it has a flavor and favor on cupping taste tested. Despite Europe's crisis demand for coffee from the Gayo Highlands has not reduced in the world market. The opportunities to develop this coffee agro-industry perspective include various aspects such as the strategic environment, demand, resources and technology. Agro-industry project is sustainable agro-industry development. Agro-industries that are built and developed must pay attention to aspects of management and conservation of natural resources as a form of Indonesia's comparative advantage. The aspect of coffee trade can be reviewed in terms of types of commodities, producer, supply and demand.

In general, the types of coffee trading products are: (a) grain coffee/ labui; (b) Arabica coffee beans; and (c) coffee powder. Bener Meriah Regency generally producing coffee in the form of Arabica coffee beans (Green bean). Grain coffee and powder trade is only in small quantities. Arabica coffee trade from this region is almost 90 percent of the total volume of coffee trade outside Central Aceh and Bener Meriah Regencies.

The development of Value-Added of Gayo Arabica coffee commodity is expected to produce a diversified coffee product that has an important meaning, because it can become a superior commodity that has high competitiveness in the international market. Gayo Coffee as coffee representative from Indonesia with a tropical climate, besides having the opportunity to develop the diversified processed coffee product mentioned above. Increasing the Value-Added is expected to be the basis in increasing the competitiveness of Indonesia's coffee trade.

The existence of processing is certainly expected to increase Value-Added of the quality of coffee products. Calculation of Value-Added can be calculated based on processing process, because each type of product from different processing certainly has a different level of Value-Added. Based on the above problem, the main problem of this research is the processing process of which types of processed coffee products have the greatest Value-Added in Central Aceh and Bener Meriah Regencies.

Research Methods

The location of this research was taken in the area of coffee production centers in Aceh Province, namely Bener Meriah and Central Aceh Regencies. Both of these regency are the main processing locations for Arabica coffee products in Aceh Province. Data needed in this study are secondary data and primary data. Secondary data is collected from reports of related instances such as Aceh in Figures, Bener Meriah in Figures, Aceh Tengah in Figures Department of Agriculture reports. Secondary data that is very important are collected among others the amount and capacity processing of Gayo Arabica coffee which is already operating, planting area, and coffee production are obtained from technical instances related to the plantation and processing of Gayo coffee. Primary data were obtained through interviews with agro-industry related parties, namely the KBQ Baburayan Cooperative and Permata Gayo Cooperative.

Hayami Method analysis is used to analyze the Value-Added of the Gayo coffee commodity in terms of process and product. The calculation of Value-Added is based on one main raw material unit. There are several variables related in this Value-Added analysis. Conversion factor, shows the number of processed products produced from one kilogram of raw material. Manpower coefficient, shows the number of direct manpower needed to process one unit of input. While the value of the product shows the value of output produced from one unit of input. Other input values include the values of all trade offs other than raw materials and direct manpower used during production (Hayami et al, 1987).

Results

Arabica coffee plantations in Aceh are thrives and spread in Bener Meriah, Central Aceh and Gayo Lues Regencies. These three regions, which are more than 1200 m above sea level, have the largest coffee plantations in Indonesia, with an area of about 101,438 hectares (BPS, 2018).

The area of Arabica coffee in Central Aceh regency has relatively increased in the last 3 years. This increase has occurred in every sub-disdistrict in Central Aceh, starting from Linge sub-district to Rusip Antara sub-district. This enhancement in coffee area can lead to an increase of Arabica coffee production in Central Aceh Regency. (BPS Aceh Tengah and BPS Bener Meriah, 2018).

The amount of Arabica coffee production in Central Aceh regency has relatively increased in the last 3 years. This increasing occurred in every sub-district in Central Aceh, starting from Linge to Rusip Antara. This enhancement in production was due to an increasing of the Arabica coffee commodity area. However, the total area in Bener Meriah Regency by sub-district in 2015-2017 tends to be stagnant. This means that the area of Arabica coffee in Bener Meriah regency has not experienced a significant increasing in each sub-district in the last 3 years. The stagnation of the total area in the Regency also caused no increasing the amount of Gayo Arabica coffee production in Bener Meriah Regency during the last 3 years.

The results of processing is an agribusiness subsector that has a very big role in increasing the Value-Added of agricultural products that have been obtained. In economic conditions where the industrial sector must be developed in a balanced manner with the development of other sectors such as the agricultural sector that supports the industrial sector. Its purpose for improve and recondition the standard of living of the community is guaranteed and appropriate (Soekartawi, 2016).

Coffee beans processing into rice coffee and ground coffee can be done by farmers and the industry. The industry respondents in this study were KBQ Baburayan Cooperative and Permata Gayo Cooperative. The second election of the Cooperative was carried out on the grounds that the KBQ Baburayan cooperative was the largest cooperative in the Central Aceh Regency and the Permata Gayo cooperative was the largest cooperative in Bener Meriah. These two cooperatives produce integrated coffee bean processed products ranging from fostered farmers to exporters.

Processing by farmers outside the cooperative is usually more traditional, because it uses simple tools. Whereas farmers who are members of cooperatives already carry out modern processing or use machines. The concept of value added is a development that occurs because of inputs that are treated in a commodity. Inputs that cause the Value-Added of a commodity can be seen from changes in commodity, that is changes in shape, place and time.

At the beginning of the development of coffee in Gayo Highlands in the 1950s, most farmers used a dry processing process, because it's easier for them. But in the 1980s, with continued development of the market and the increase of economic agents from outside Aceh, wet processing was increasingly popular.

This time, Arabica coffee beans in Central Aceh and Bener Meriah Regencies are mostly processed by the semi washed and washed methods. Only a few areas are using dry treatment systems. Washed systems require more water because the washing process is repeated. To simplify the processing, KBQ Baburayan and Permata Gayo cooperative will distribute pulper machines to every fostered farmer. Usually a farmer group will have 7-10 members and will be given a pulper machine. While the Huller machine will be distributed to fostered collectors. Furthermore, the grading and sorting process is carried

out by the cooperative. Rice coffee beans must be physically sorted based on size and seed defects. Non-coffee impurities such as leaf chips, wood or coffee husk, must also be separated.

In general, processed Gayo Arabica coffee beans in Central Aceh and Bener Meriah regencies are divided into four categories: (1) Cherry Beans (Red Coffee Beans), (2) Grain Beans, (3) Labui Coffee Beans, (4) Green Beans. Cherry Beans or red coffee beans are coffee beans that have just been harvested and have not meet any processing. While Grain beans are coffee bean products obtained from the processing of cherry beans.

Labui beans are coffee bean products obtained from the processing of grain beans. As for the processing process is the process of exfoliating the epidermis using a Huller machine and then washing several times. Then Green Bean is a coffee bean product obtained from the processing of Labui beans. Based on the results of research conducted in Central Aceh and Bener Meriah regencies, it was concluded that the added value of grain beans in Central Aceh regency was higher at Rp. 16,652 / Kg with a ratio of 38.11%. Grain beans in Bener Meriah Regency is Rp. 16,067 / kg with a ratio of 36.02%. This is because the conversion factor in Central Aceh Regency is greater so that its resulting in more production and the added value becomes more.

Furthermore, the added value of Labui beans in Central Aceh Regency was higher at Rp. 4,339 / Kg with a ratio of 13.77%. Labui beans in Bener Meriah Regency is Rp. 3,878 / kg with a ratio of 12.78%. This is because the price of grain raw materials is quite high so the added value and the added value ratio are not higher when compared to the processing of cherry beans to grain beans.

While the Value-Added of green bean coffee in Central Aceh Regency was higher at Rp.28,337/kg with a ratio of 38.40%. Green bean coffee in Bener Meriah Regency amounting to Rp. 26,738/kg with a ratio of 37.14%. This is because of the selling price of green beans is relatively high so even though the price of raw materials is high, the added value is still greater when compared to the added value of the production process of grain beans and labui beans.

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