Analysis of Factors Affecting the Volume of Coffee Export in Central Aceh to The United States

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ABSTRACT
U.S is the largest export destination of Gayo coffee from Central Aceh Regency, Aceh Province because the United States is the largest coffee importer country and has the largest export market potential for Indonesian coffee. Therefore, this study aims to find out the economic factors that affect the volume of coffee export from Central Aceh to the U.S market. Data in this study used time series data during the period 2015-2020. This research is influenced by several independent variables, including Total Coffee Production in Central Aceh (X1), International Coffee Prices (X2), and Rupiah Exchange Rate Against the USDollar (X3). The result of this study is that the International Coffee Price and Rupiah Exchange Rate Against the USDollar significantly affect the Volume of Coffee Export in Central Aceh to the United States. While variable total production has no significant effect significantly.

Keywords: Total Production, Gayo Coffee, Export, U.S Market.

INTRODUCTION
Indonesia is one of the countries in the world that still utilizes primary sectors such as (agriculture, forestry, and marine) for leading commodities in International Trade (Christa, 2017). One of Indonesia’s leading export commodities is coffee. Coffee is a plantation commodity that has an important role in the national economy because it has several contributions, including as a source of state foreign exchange, farmers income, job creation, regional development, agribusiness and agro-industry drivers, and environmental conservation advocates (Sudjarmoko, 2013).

Central Aceh is one of the areas in Aceh that has a cool plateau. Where because of the cool air is one of the largest agricultural products obtained from coffee plants. Coffee that comes from Central Aceh and its surroundings or commonly called Gayo coffee has its own characteristics. No wonder that this coffee is most sought after and in interest to foreign countries. Gayo coffee or more specifically called Gayo Arabica Coffee. Coffee commodity has become one of the sectors that has a good prospect to develop in domestic market to international market today. Gayo coffee is a variety of Arabica coffee that becomes one of the leading commodities originating from the Gayo, Central Aceh, Indonesia (Market Coffee Brief, 2018). Also obtained Fair Trade Certified from the International Organization of Fair Trade on May 27, 2010. Central Aceh regency is one of the central areas of coffee production with an area of about 48 thousand hectares with an average production of 25 thousand tons per year. According to the Expert Staff Expert Staff in International Relations of the Ministry of Trade and Industry, “ACEH is one of the regions that contributes to the value of national exports, currently Aceh is ranked 29th in the export activities.”
In this era of free trade, global business competition makes each country encouraged to carry out international trade. International trade plays an important role for a country’s economy. One of the international trade activities is exports (Sovriandre, 2015) according to the International Coffee organization (ICO), the United States has the highest rate of coffee consumption in the world. The high level of coffee consumption in the United States is due to the culture of the United States drinking coffee every day to start activities and discuss business and personal interests to familiarize the atmosphere. This makes the association of coffee exporters from Indonesia make the United States as an opportunity to export coffee from Indonesia.

Central Aceh is one of the largest exporters of Arabica Coffee, especially to the United States which reaches 3.15 million kg (Syukri, 2015). Coffee that has a distinctive taste has long been famous in the United States, so it is always exported there. Head of Aceh Central Statistics Agency (BPS), stated that the value of Gayo coffee exports to the United States increased in the period January-July 2019 by 45,244,287 USD. This figure was increased in the January-July 2018 appeal of 32,135,090 USD (Wahyudin, 2019). Coffee exported is still in the form of green bean. A total of 73.2 tons of Gayo coffee beans will be exported abroad outside the Governor of Aceh, Nova Iriansyah abroad (Kumparan, 2020).

According to one of Gayo cooperative owners in Central Aceh, Indonesia’s coffee exports from January to April 2020 to the Europe amounted to 269,000 tons. Of these export volumes, 93% of Indonesia’s coffee exports to Belgium, Italy, Germany, and Spain. While exports to the Americas in the same period amounted to 207,000 tons (BPS, 2020). One of the characteristics of Gayo coffee taste is its strong aroma so it is interesting and matches the taste of The Americans and Europeans. In the first coffee auction event in Indonesia held by Specialty Coffee Association of Indonesia (SCAI) in Bali, October 10, 2010, Gayo Arabica coffee won the first national champion (BPTP Aceh, 2018).

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume Export of coffee (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>207.000</td>
</tr>
<tr>
<td>2019</td>
<td>205.000</td>
</tr>
<tr>
<td>2018</td>
<td>180.000</td>
</tr>
<tr>
<td>2017</td>
<td>157.000</td>
</tr>
<tr>
<td>2016</td>
<td>150.000</td>
</tr>
<tr>
<td>2015</td>
<td>145.000</td>
</tr>
</tbody>
</table>

Source: Data Processed

METHODOLOGY
The Research Sites
This research was conducted through the website in obtaining various sources of data accurate and supportive, among others: Agency Indonesian Statistics Center, Ministry Indonesian Trade, International Coffee Organization (ICO), and Bank Indonesia. Use of the official website used in this study because of the validity of the accurate data and has received recognition by government and international institutions.

The Research Data
Research data on this observe is:
- a. Volume of Coffee Export in Central Aceh to United State for the period 2015-2020
- d. Rupiah Exchange Rate against US Dollar the period 2015-2020

RESULT AND DISCUSSION
Total of Coffee Production in Central Aceh
Total of coffee production in Central Aceh Variables experienced the highest point is 66,249 tons on in July December 2020, and the lowest point was 58,800 ton in 2015. Average value Total of coffee production
in Central Aceh variables starting from the month January 2015 to December 2020 is 61,350 tones. Coffee Production the largest occurs in June, July, and the peak is in August. This happens because the month is the flowering period and the time obtained from the harvest coffee simultaneously in Indonesia.

**International Coffee Prices**

Average Domestic Coffee Production at 2018 was 60,701 tons, then on 2019 the average Coffee Production increase to 61,701 tons. In 2020, Average Coffee Production increased again from the year previously to 66,242 tons. The influence of weather is a factor dominant influence the level of coffee production national and pandemic from Covid-19.

**Rupiah Exchange Rate against US Dollar**

Rupiah to U.S dollar change price average rupiah to U.S dollar change rate during 2015 to 2020 tends to experience ups and downs. The average exchange rate of Rupiah to US Dollar during the three years is Rp.13,500 / US Dollar.

**Volume of Coffee Export in Central Aceh to United State.**

The average volume of coffee export from Central Aceh to the U.S for six years is 14,325.0 tons.

From table 1 it can be known that two variables include international coffee price and rupiah exchange rate against US have a positive relationship to Volume of Coffee Export in Central Aceh to United State because probability is below 0.05 percent.

**CONCLUSION**

From the results of Eviews, the research on factors affecting the volume of coffee exports in Central Aceh to the United State during (2015-2020) shows that in the variable result of international prices, and the exchange rate of rupiah to U.S Dollar simultaneously significantly affects the volume of coffee exports from Central Aceh to United State. While in the variable total production affects insignificant variable bound. In this case it is clear that this factor affects the volume of coffee exports in Central Aceh to United State. Before and after the pandemic covid-19 coffee exports to United State increased due to the large number of enthusiasts. Even with the high price of international coffee does not prevent coffee enthusiasts in United State to buy it.

**Table 2**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.056754</td>
<td>0.082648</td>
<td>0.686686</td>
<td>0.5416</td>
</tr>
<tr>
<td>X2</td>
<td>6.043923</td>
<td>1.350861</td>
<td>4.474127</td>
<td>0.0208</td>
</tr>
<tr>
<td>X3</td>
<td>-1.080226</td>
<td>0.305601</td>
<td>-3.534755</td>
<td>0.0385</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.871851</td>
<td>Mean</td>
<td>709.5000</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.786419</td>
<td>S.D.</td>
<td>852.6028</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>394.0287</td>
<td>Akaike info criterion</td>
<td>15.09758</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>465775.9</td>
<td>Schwarz criterion</td>
<td>14.99346</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-42.29273</td>
<td>Hannan-Quinn criter.</td>
<td>14.68078</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>2.503476</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Processed, 2021
REFERENCES


