

Analysis of Indonesian Tea Export Competitiveness on the International Market

Ulfah Muflihah¹, Abdul Mutolib², Candra Nuraini^{3*}

^{1,2}Study Program of Agribusiness, Graduate Program, University of Siliwangi,

³Study Program of Agribusiness, Faculty of Agriculture, University of Siliwangi

Corresponding Author: Candra Nuraini candranuraini@unsil.ac.id

ARTICLE INFO

Keywords: Competitiveness, Export, Tea, RCA

Received : 11, August

Revised : 22, September

Accepted: 23, October

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ABSTRACT

This research aims to determine the competitiveness of tea in the international market. The research method used the case study method (Case Study) by applying quantitative methods. The data used is secondary data from the Directorate General of Plantations, BPS, and UN Comtrade, namely data on tea exports, tea imports, total export value, total world export value for tea, and total world export value. The analysis used is RCA (Revealed Comparative Advantage) Analysis and Trading Specialization Index (TSI). The research results show that Indonesia's RCA value is between 1.24 - 1.74, so it can be concluded that Indonesia has comparative competitiveness. However, when compared with other countries, Indonesia is in third place, after India and China. The average TSI for Indonesia was 0.56 in the five years (2016 - 2020), which shows Indonesia's position as a tea-exporting country and is at a growth stage.

INTRODUCTION

One of the agricultural subsectors that has the highest contribution to the Indonesian economy is the plantation subsector. The total export value of US\$ 25.38 billion, or the equivalent of IDR 359.14 trillion, assuming 1 USD of IDR 14,148, was achieved by the plantation sector in 2019 (Ditjenbun, 2020). The contribution of the plantation subsector to the development of the Indonesian economy has increased and is expected to strengthen plantation development as a whole.

One of the plantation commodities that contributes to foreign exchange is tea. The development of export-import values during the 2015 - 2020 period fluctuated with an average of -5% (export value) and 2 percent (import value). In 2020, tea exports experienced an increase, namely an increase of 5 percent, and the importance of imports fell by 30 percent. In general, Indonesian tea exports are divided into two, namely green tea and black tea, with respective contributions of 17.84 percent and 82.16 percent. The top five destination countries for Indonesian exports are the Russian Federation, Malaysia, Australia, the United States, and Pakistan (Ditjenbun, 2020). On the global market side, the decline in Indonesian tea export performance was triggered by an increase in world tea supplies, resulting in prices falling. The countries that contribute to the world's tea supply are China and Sri Lanka. The high world tea surplus causes competition between producing countries to become increasingly tight, so Indonesia needs to increase the competitiveness of tea in the international market.

The results of research (Zakariya et al., 2012), reinforce this condition that the competitive position of Indonesian tea in the international market is favorable. The competitiveness of Indonesian tea is positive because the results of the RCA analysis of Indonesian tea show an average RCA result of > 1 (4.277). However, the competitive position of Indonesian tea is still less than that of Kenya, Sri Lanka, and India but is still higher than that of China. This research uses data from 2001 - 2011, so it is necessary to study using the latest data. It is required to conduct a study regarding the competitiveness of tea in the international market using data from 2016 - 2020. This research aims to analyze the competitiveness of Indonesian tea commodities in the global market.

THEORETICAL REVIEW

Competitiveness is productivity, which is defined as the output produced by the workforce. According to the World Economic Forum, national competitiveness is the ability of the national economy to achieve high and sustainable economic growth. Competitiveness is one of the criteria for determining success and achieving better goals by a country in increasing income and economic growth. Competitiveness is identified with productivity issues, namely by looking at the level of output produced for each input used. This increase in productivity is caused by increasing the amount of physical infusion of capital and labor, increasing the quality of the information used, and improving technology (Porter, 1998).

METHODOLOGY

The research method used is the case study method (Case Study) by applying quantitative methods. The object of the research is to focus on the competitiveness of Indonesian tea in the international market and the largest exporting countries as a comparison using secondary data from 2016-2020. The data used is secondary data from the Directorate General of Plantations, BPS, and UN Comtrade, namely data on tea exports, tea imports, total export value, total world export value for tea, and total world export value.

The analysis used in this research is RCA (Revealed Comparative Advantage) and Trading Specialization Index (TSI) analysis. The RCA value can be formulated as follows (Basri & Munandar, 2010) :

$$RCA\ Index = \frac{X_{ij}/X_j}{X_{iw}/X_w}$$

Information:

X_{ij} : Value of tea exports by country j

X_j : Total export value from country j

X_{iw} : Total world export value of tea.

X_w : World total export value.

Decision-making criteria:

$RCA > 1$: A country's commodity has a comparative advantage.

$RCA=1$: A country's items are equal to the average competitiveness of articles from around the world.

$RCA < 1$: A country's items have no comparative advantage.

This index can be used to find out whether for a type of product, Indonesia tends to be an exporting country or importer. Mathematical formulation of TSI as follows.

$$ISP\ Index = \frac{(X_i - M_i)}{(X_i + M_i)}$$

Information:

TSI is a Trade Specialization Index of tea trade,

X_i is Export value tea commodity from country i (US\$),

M_i is Import value of tea commodities from country I (US\$),

i is the State of Indonesia, and the State Comparison

RESULTS

Contribution of Tea Commodities in International Trade in Indonesia

The tea commodity is one of the leading national plantation commodities as a foreign exchange earner for Indonesia, which has the highest content of catechins or antioxidant active ingredients in the world (Directorate General of Plantations, 2019). According to FAO (2020), the largest tea-producing country in the world in 2020 was China with 2.97 million tons, then in second place was

India with 1.42 million tons, while Indonesia was in eighth place with 138 thousand tons, and Myanmar was in ninth place with 126 thousand tons. The contribution of tea commodities from Indonesia and competing countries, namely China, India, and Myanmar, can be seen in Figure 1.

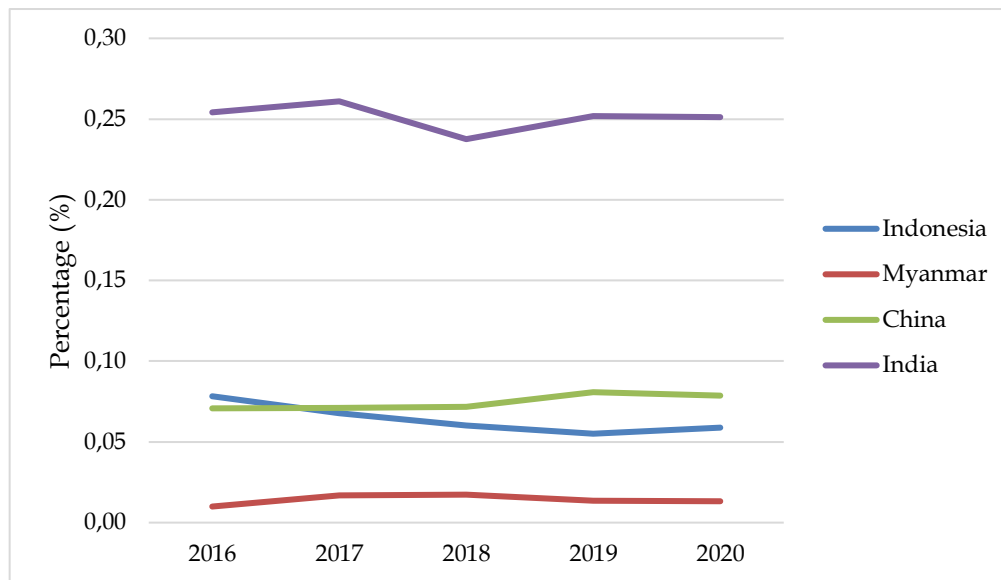


Figure 1. Contribution of Tea from Several Countries to International Trade
Source: UN Comtrade, 2020

Based on Figure 1. India provided the highest contribution of tea commodities for five years (2016 - 2020) in India's international trade (exports) at an average of 0.25%. India's highest contribution of tea commodities was 0.26% in 2017, and the lowest contribution of Indian tea commodities was 0.24 in 2018 in India's export trade. FAO (2016) stated that India and China develop the best tea varieties and collaborate with educational institutions.

China contributed an average of 0.07% to tea commodities over five years (2016 - 2020) in China's international trade (exports). The highest contribution of Chinese tea commodities in 2019 was 0.08%, and the lowest contribution of Chinese tea commodities was 0.07% in 2016 in China's export trade. According to ITC (2020), China is more focused on exporting green tea commodities. India and China have the technology to cultivate organic tea plants and control the weather and climate.

The contribution of Indonesian tea for the 2016 - 2020 period in Indonesia's international trade (exports) is still low (Figure 1), namely an average of 0.06%, still below India and China. The highest contribution of Indonesian tea commodities in 2019 was 0.05%, and the lowest contribution of Indonesian tea commodities was 0.07% in 2016 in Indonesia's export trade. According to (Chaprilia & Yuliawati, 2018), the value of Indonesian tea exports fluctuates and tends to decline in the international market, which can affect the market share of export destination countries. What causes loss of market share is the declining quality of Indonesian tea, the fact that it needs to meet standards and unstable production quantity. Apart from that, the reason why Indonesian tea exports have decreased, according

to (Nurohman et al., 2018), is that the regulation limiting the entry of tea into the European Union No. 1146/2014 requires a maximum residue limit in dry tea leaves of 0.02 ppm with the aim of protecting consumers from the dangers of carcinogenic diseases. So, after the implementation of this regulation, Indonesian tea exports to European Union countries decreased.

Myanmar makes the lowest contribution compared to competing countries, namely India, China, and Indonesia, to tea commodities, with an average contribution of 0.01% over five years (2016 - 2020) in Myanmar's international trade (exports). The highest contribution of Myanmar tea commodities in 2018 was 0.017%, and the lowest contribution of Myanmar tea commodities was 0.010% in 2016 in Myanmar's export trade. The low contribution of Myanmar tea is due to all tea processing being carried out at the micro level and traditional methods, namely small farmers drying their tea leaves during the summer to sell the tea (Somaji Aatif, 2019).

Trade Specialization Index for Indonesian Tea Commodities

The stages of development of Indonesian tea commodities can be analyzed using TSI, which shows Indonesia's specialization as an importer or exporter of tea commodities. Indonesian TSI and competing countries can be seen in Figure 2.

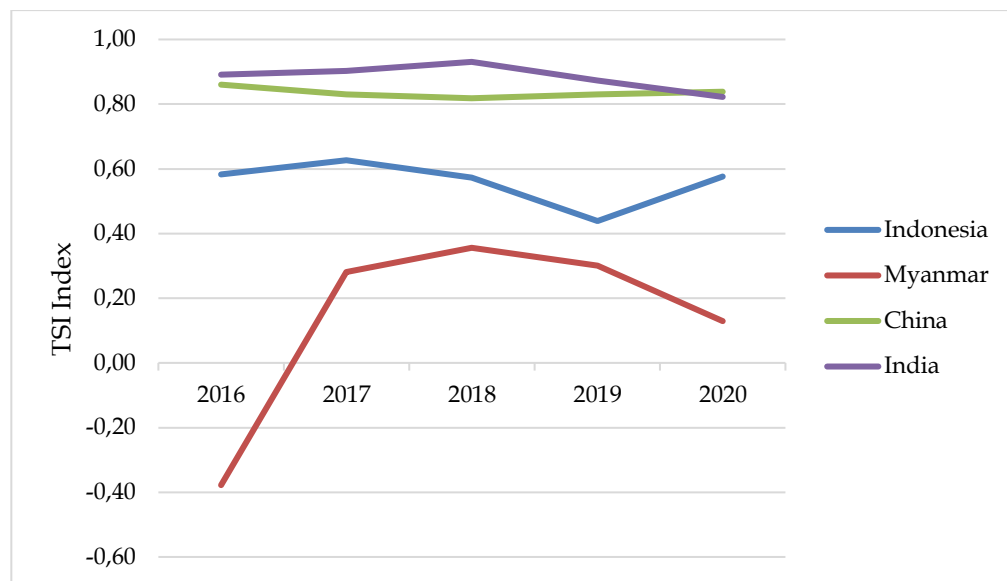


Figure 2. TSI of Several Tea-Producing Countries

Based on Figure 2. India is the highest net exporter country with an average TSI value of 0.88, meaning it is at the maturity stage; namely, the tea commodity is at the standardization stage regarding the technology it contains. India's highest TSI value was 0.93 in 2018, which shows India as a strong net exporter country in 2018, and India's lowest TSI value in 2020 was 0.82.

The second position is China, with an average TSI value of 0.84, meaning it is at the maturity stage. China's highest TSI value was 0.86 in 2016, which shows China as a strong net exporter country in 2016, and China's lowest TSI value was

0.82 in 2018. (Nagoor, 2009) stated that the performance of tea exports in the main tea-exporting countries was declining. Such as China, Indonesia, and India due to a decrease in imports by developed countries and a price war between the main exporting countries of tea commodities. India has the opportunity to dominate the Pakistani tea market, supported by Pakistan's geographical location as a neighboring country to India, which has good relations and is a member of SAFTA (South Asian Free Trade Area).

The average Indonesian TSI was 0.56 in the five-year period (2016 - 2020), which shows Indonesia's position as a tea-exporting country and is at a growth stage in line with research by (Elpawati & Utama, 2021), which states that Indonesia is a black tea exporting country for the country. Russia, Pakistan, Malaysia, Germany, and the United States because Indonesia has standardized black tea production, and domestic needs for black tea have been met.

Indonesia's TSI value tends to decrease along with the decline in the value of exports and imports for the 2016 - 2020 period. This condition is in line with the decline in the area of tea plantations from 113 thousand hectares in 2016 to 112 thousand hectares in 2020, and tea production decreased from 2016 138 thousand tons to 128 thousand tons in 2020 (Directorate General of Plantations, 2020). Indonesia's highest TSI value was 0.63 in 2017 due to an increase in export value and was the highest for five years (2016 - 2020) at 114 million USD, and Indonesia's lowest TSI value was 0.44 in 2019 due to a decrease in export value and was the lowest export value for five years (2016 - 2020) was 92 million USD.

Myanmar tends to be an importing country with an average TSI value of 0.14, meaning Myanmar is in the growth stage and needs to produce tea commodities on a large scale and increase exports. In 2016, Myanmar's TSI value was lowest at -0.38, which shows that 2016 Myanmar was at the introduction stage because the lowest export value was 1 million USD in 2016. Myanmar's TSI value was the highest in 2018 at 0.36 because of Myanmar's export value. The tea commodity increased from the previous year and was the highest export value for five years (2016 - 2020), namely two million USD.

DISCUSSION

Competitiveness of Tea Commodities in Indonesian Exports

Analysis to measure the competitiveness of a country's export commodities is using RCA (Revealed Comparative Advantage) or comparative advantage analysis. (Febri K. P. & Meydianawathi L. G, 2014) explains that a country can increase the competitiveness of export commodities by taking advantage of opportunities to expand international and domestic markets. The competitive position of Indonesian tea and competing countries, namely China, India, and Myanmar, can be seen in Figure 3.

The results of RCA calculations based on Figure 3 show that the country that has the highest comparative advantage or competitiveness in the tea commodity is India in accordance with the research results of (Suprihatini, 2018), which states that India is a tea-producing country that has the strongest competitiveness compared to its competing countries. India had the highest RCA value in 2018 of 6.62, indicating that in that year, India had strong tea comparative competitiveness. India's lowest RCA value in 2020 was 5.39, meaning that in that

year, India had low comparative tea competitiveness. FAO (2022) explains that China and India are experiencing a stable increase in per capita tea consumption and showing a positive trend in per capita tea consumption.

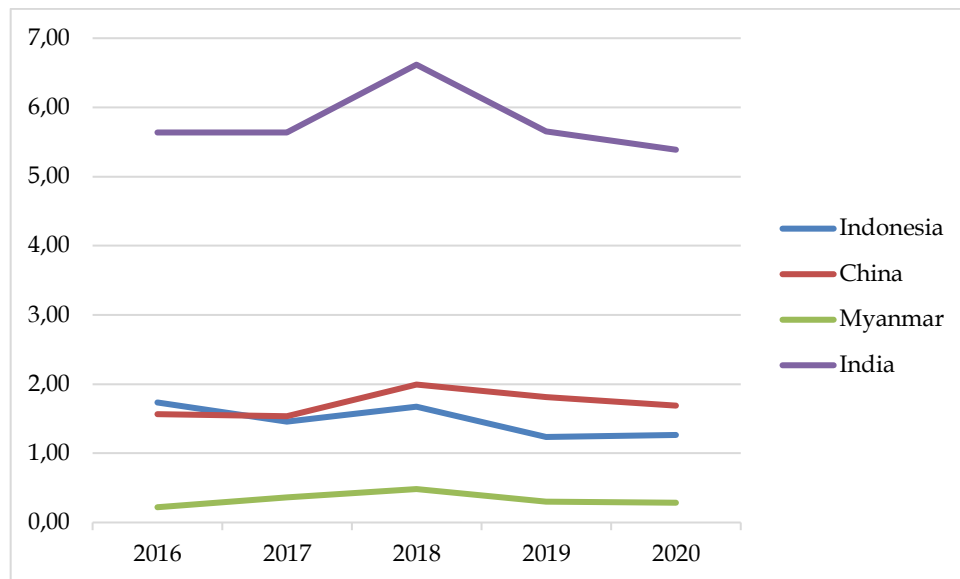


Figure 3. RCA of Tea Commodities from Several Exporting Countries
Source : UN Comtrade (2021)

The comparative competitiveness of Indonesian tea commodities is lower than that of India and China (Figure 3), but Indonesia is still superior to Myanmar. Indonesia's highest RCA value in 2016 was 1.74, meaning that in 2016, Indonesia had strong comparative competitiveness in tea commodities. Indonesia had the lowest RCA value in 2019 at 1.24, which shows that in 2019, Indonesia had low tea commodity competitiveness. Efforts to increase the growth of Indonesian tea exports, according to (Suprihatini, 2018) are by increasing exports of downstream Indonesian tea products, for example, packaged black tea, packaged green tea, and bulk green tea. Then, increase the influence of market distribution on the main export destination countries for tea commodities that have high import growth, for example, Japan, the United States, France, Russia, Germany, and Poland.

The significant difference in RCA value between India and China, Indonesia, and Myanmar is because India has a high proportion of tea export value, namely the ratio of the value of tea exports to the total export value of the country. So China's RCA value is lower than India's even though China is in the first place as the largest tea-producing country in the world, according to research by (Zakariya et al., 2012).

Most of Indonesia's tea production is exported abroad, and the rest is marketed domestically. The dominant type of tea exported in 2019 was black tea at 84.95%, and the remaining 15.05% was green tea. The largest importing countries for Indonesian tea commodities in 2019 were Malaysia, Russia, Pakistan, and the United States (Directorate General of Plantations, 2020).

Myanmar has the lowest average RCA value, namely 0.29, compared to India, China, and Indonesia, which shows that Myanmar needs to have the

comparative competitiveness of tea commodities on the international market with the comparison countries China, India, and Indonesia. Nupus (2019) stated that Myanmar's tea exports were hampered due to the military conflict, as a result of which the main region producing Myanmar tea, namely Shan State, was unable to process export certification.

CONCLUSIONS AND RECOMMENDATION

Indonesia's RCA value is between 1.24 - 1.74, so it can be concluded that Indonesia has comparative competitiveness. However, when compared with other countries, Indonesia is in third place, after India and China. The average TSI for Indonesia was 0.56 in the five years (2016 - 2020), which shows Indonesia's position as a tea-exporting country and is at a growth stage.

ADVANCED RESEARCH

Based on the results of this research, it can be used as a basis for further study, namely the factors that influence the competitiveness of tea and using other analytical tools. So, it can be compared with approaches different than RCA and TSI.

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