International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Development and competitiveness of Indonesian coffee exports Case Studies: Georgia, Germany, Japan, Malaysia, Italy, Algeria, England, Belgium, India, Egypt for the period 2013-2022

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Abstract

This research aims to determine the development and competitiveness of Indonesian coffee exports to Georgia, Germany, Japan, Malaysia, Italy, Algeria, England, Belgium, India, Egypt for the period 2013-2022. The data used is secondary data sourced from BPS, the Directorate General of Plantations and UN Comtrade. The data analysis methods used are description analysis, RAC (Revealed Comparative Advantage) and EPD (Export Product Dynamics). The results of the research show that: 1. The development of Indonesian coffee exports for the last ten years 2013-2022 has generally fluctuated, while to Georgia the last three years have increased consecutively and India for the last four years has increased consecutively. 2. The competitiveness of Indonesian coffee exports for the last ten years 2013-2022 using RCA (Revealed Comparative Advantage) analysis is strong for two countries, namely Georgia and Algeria, while for eight other countries, namely Germany, Japan, Malaysia, Italy, England, Belgium, India and Egypt is weak. With EPD (Export Product Dynamics) analysis, there are eight Raising Star countries, namely Germany, Japan, Malaysia, Algeria, England, Belgium, India and Egypt, while two lost opportunity countries are Georgia and Italy.

Keywords: Competitiveness, Coffee exports, Development of Indonesian coffee exports

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INTRODUCTION

Coffee is Indonesia's leading export commodity. The role of coffee commodities in the Indonesian economy is quite important, both as a source of income for coffee farmers, a source of foreign exchange, a producer of industrial raw materials, and a provider of employment opportunities through processing, marketing and trade (export and import) activities. Coffee originating from Indonesia has a distinctive taste so it is very popular in the international market. However, competition for coffee commodities in the international market is now starting to get tight because many new countries also have superior coffee products, such as in several African countries. Apart from that, countries like Brazil and Vietnam too coffee export performance is increasing (Imamuddin Fathany et al 2022). Even though Indonesian coffee is ranked in the top four in the world, it does not yet have a comparative advantage compared to the other three countries. In connection with these conditions, this research aims to determine the development of Indonesian coffee exports to Georgia, Germany, Japan, Malaysia, Italy, Algeria, England, Belgium, India, Egypt for the period 2013-2022 and the competitiveness of Indonesian coffee exports to Georgia. Germany, Japan, Malaysia, Italy, Algeria, England, Belgium, India, Egypt for the 2013-2022 period.

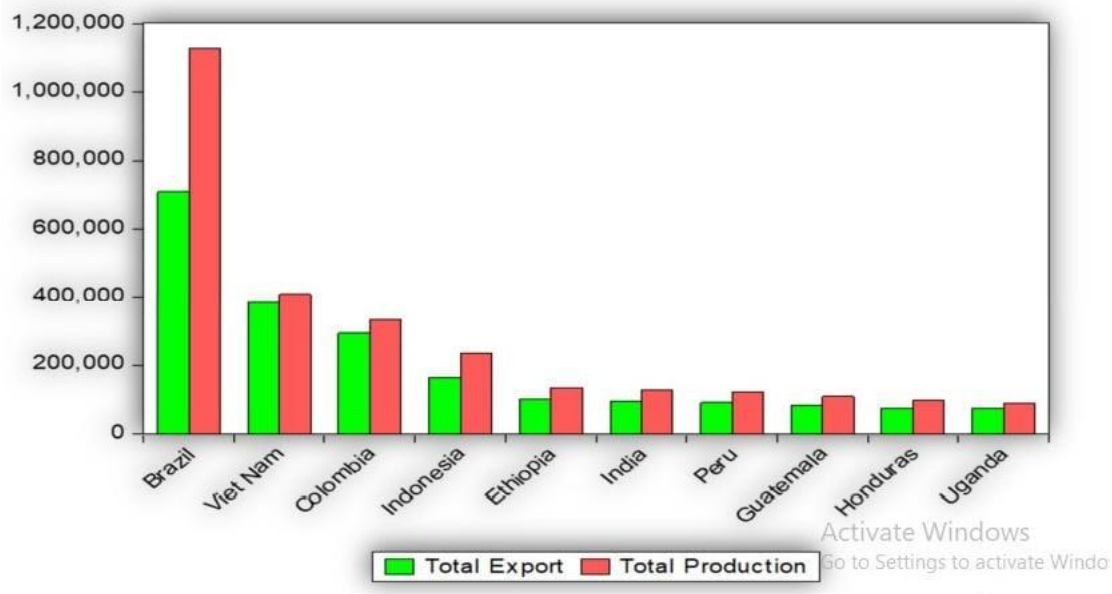
LITERATURE

According to the International Coffee Organization (ICO), coffee consumption is increasing from year to year so that increasing coffee production in Indonesia has a great opportunity to export coffee to the world's main coffee consuming countries such as the European Union, the United States and Japan. Indonesian coffee beans are also supplied to coffee shops such as Starbucks and Quick Check located in Indonesia and abroad. Indonesian coffee exports consist of several types, namely Green Beans, Instant Coffee, Extract, Essence, Concentrate and Roasted Coffee.

World Coffee Production and Exports from ten countries can be seen in Figure 1 below.

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Source: ICO data (2020) and Diriba Hordofa Jalata (2021)

Figure 1: World Coffee Production & Exports from ten countries

In global coffee exports, 81.12% of total coffee exports are made by the top 10 coffee exporting countries. In the 2018-2019 harvest year, total exports world coffee was 2.67 million bags (60 kg each), with Brazil ranking highest, accounting for 27.81% of global coffee exports, followed by Vietnam (14.98%), Colombia (11.52%), Indonesia (6.41%), Guatemala (3.94%), India (3.72%), Honduras (3.57), Uganda (3.31%), Ethiopia (2.92%) are the same as Peru. (WTO, 2017). The call for innovation and technological improvement is important to maintain sustainable competitiveness by increasing added value compared to coffee bean exports. Globally, the scenario of green coffee export trade patterns can flow from developing countries to industrial countries because of traditional trade theory, namely endowment factor theory (H-O).

Based on business status, Indonesian coffee production data for the last ten years, namely the 2013-2022 period, can be seen in table 1 below:

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Table 1. Coffee Production 2013-2022

Status Pengusahaan				
Tahun	**Perkebunan Rakyat (Ton)**	**Perkebunan Besar Negara (Ton)**	**Perkebunan Besar Swasta (Ton)**	**Jumlah Produksi Kopi (Ton)**
2013	645.346	13.945	16.591	675.881
2014	612.877	14.293	16.687	643.857
2015	602.371	19.703	17.281	639.355
2016	632.005	14.628	17.238	663.871
2017	685.799	14.941	17.222	717.962
2018	727.916	13.267	14.868	756.051
2019	742.466	5.635	4.410	752.511
2020	757.290	3.703	1.387	762.380
2021	769.012	4.217	1.460	774.689
2022	787.897	3.853	1.443	793.193

Source: (Directorate General of Plantations, 2021)

Table 1 it can be seen that the total amount of Indonesian coffee production, although fluctuating, has an upward trend. Meanwhile data on the volume and value of Indonesian coffee exports for the last ten years, namely the 2013-2022 period, can be seen in table 2 below:

Table 2. Volume and Value of Indonesian Coffee Exports 2013-2022

Ekspor Kopi		
Tahun	Volume(Ton)	Nilai (US$)
2013	532.139,3	1.166.179,9
2014	382.750,3	1.030.716,4
2015	499.612,7	1.189.551,3
2016	412.370,3	1.000.620,1
2017	464.198,3	1.175.393,1
2018	277.411,2	806.878,6
2019	355.766,5	872.355,4
2020	375.555,9	809.158,9

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2021	384.510,6	849.373,2
2022	433.780,8	1.135.516,2

Source: (Central Statistics Agency 2022)

In table 2 it can be seen that the total data on the volume and value of Indonesian coffee exports over the last ten years, namely the 2013-2022 period, is fluctuating.

RESEARCH METHODS

Data collection methods

The data used are time-series data for the period 2013-2022 obtained online from the Central Statistics Agency (BPS), Directorate General of Plantations and UN Comtrade

Data analysis method

Description, RCA (Revealed Comparative Advantage) and EPD (Export Product Dynamics).

RCA (Revealed Comparative Advantage):

A country's competitiveness in a product or commodity can be estimated through comparative advantage and competitive advantage. Revealed Comparative Advantage (RCA) analysis is a method for analyzing comparative advantage. RCA was developed by Balassa since 1965. RCA is one of the simplest and easiest analysis tools but has a broad interpretation. If RCA is greater than one, then a country has a comparative advantage compared to the reference country. In contrast, revealed comparative disadvantage is indicated by RCA if it is less than one (Torok and Jambor, 2016). The RCA Formula is :

$$\mathrm{RCA_{ij}} = \left(\frac{X_{ij}}{X_{it}}\right) \Big/ \left(\frac{X_{nj}}{X_{nt}}\right)$$

EPD (Export Product Dynamics)

The EPD (Export Product Dynamics) method is used to measure the competitive advantage of a commodity. Competitiveness and export market position are important indicators for every producing country in resolving international trade problems (Khaliqi et al., 2020). The combination of competitiveness and export market position consists of

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four categories, namely: New Stars, Falling Stars, Lost Opportunities, and Retreat. The formula used in calculating EPD is as follows:

$$\frac{\sum_{t=1}^{t} \left(\frac{Xij}{Wij}\right)^{n} tx\ 100\% - \sum_{t=1}^{t} \left(\frac{Xij}{Wij}\right)^{n} tx\ 100\%}{T-1}$$

$$\frac{\sum_{t=1}^{t} \left(\frac{Xt}{Wj}\right)^{n} tx\ 100\% - \sum_{t=1}^{t} \left(\frac{Xt}{Wj}\right)^{n} tx\ 100\%}{T-1}$$

RESULTS AND DISCUSSION

The volume of Indonesian coffee exports to the ten selected export destination countries for 2013-2022 can be seen in table 3 and graph 1 below:

Table 3. Volume of Indonesian Coffee Exports to Ten Export Destination Countries 2013-2022 (kg)

Tahun	Negara									
	Georgia	Jerman	Jepang	Malaysia	Italia	Aljazair	Inggris	Belgia	India	Mesir
2013	12029641	60432678	41921649	42098069	38152497	24265500	20780958	20833448	18292370	17538300
2014	10277120	38067925	41235026	30787856	29745520	10590600	14349603	14360495	14434300	15712860
2015	12205900	47664316	41240685	39393708	43048336	16911600	21388587	5560970	19303040	20854200
2016	11228160	42628429	35352381	40387431	35819833	9885000	18355936	12153440	11574000	21142680
2017	11706460	44739588	29504562	43150944	38102938	19022880	21937522	13157140	8291000	24039600
2018	10746001	13082847	30365966	38802746	27929527	5007900	7573135	6207690	2236570	29307780
2019	12229578	18451560	25593687	36895059	35452199	4872600	18923751	16259641	12578726	34287168
2020	12748000	21322738	23484287	38551473	27236531	5919600	21349498	14758507	19997951	32539713
2021	13338600	12104102	25141204	30742081	24441989	3459000	12259638	14215030	22109626	48521298
2022	15998600	36976547	18839551	28271815	24006170	13143120	20778007	22198979	43650852	37622810

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Graph 1 Development of Indonesian Coffee

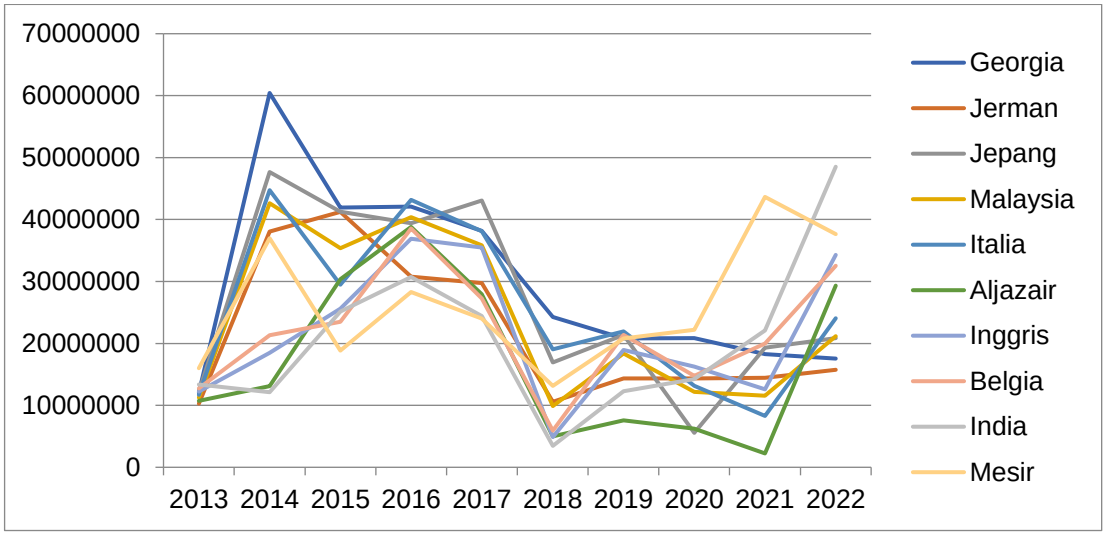


Table 3 and graph 1, it can be seen that the development of Indonesian coffee exports for the last ten years 2013-2022 is generally fluctuating, while there are two countries, namely Georgia, which has increased in a row for the last three years and India, which has increased in a row for the last four years.

Table 4. Competitiveness of Indonesian Coffee Exports 2013-2022

Negara	RCA		EPD		Posisi Pasar
	Nilai RCA	Daya Saing	Pertumbuhan Pangsar Pasar Ekspor (%)	Pertumbuhan Pangsar Pasar Produk (%)	
Georgia	1,4762	Kuat	-0,26691	125,024236	Lost Opportunity
Jerman	0,0664	Lemah	105,7249	118,29479	Rising Star
Jepang	0,0049	Lemah	2,942164	214,289287	Rising Star
Malaysia	0,0176	Lemah	3,702291	5,48618407	Rising Star
Italia	0,0323	Lemah	-7,83037	102,655916	LostOpportunity
Aljazair	2,6931	Kuat	186,6981	165,860743	Rising Star
Inggris	0,0399	Lemah	102,8957	10,064228	Rising Star
Belgia	0,4766	Lemah	102,8957	10,064228	Rising Star
India	0,0046	Lemah	32,37651	415,935555	Rising Star
Mesir	0,2646	Lemah	33,12209	16,4751554	Rising Star

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Table 4, it is known that the competitiveness of Indonesian coffee exports for the last ten year period 2013-2022 using RCA (Revealed Comparative Advantage) analysis is strong for two countries, namely Georgia and Algeria, while for eight other countries, namely Germany, Japan, Malaysia, Italy, England, Belgium, India and Egypt are weak. With EPD (Export Product Dynamics) analysis, there are eight Raising Star countries, namely Germany, Japan, Malaysia, Algeria, England, Belgium, India and Egypt, while two lost opportunity countries are Georgia and Italy.

Ariyadi's research findings (2019) show that the comparative advantage of Indonesian coffee is not as expected because of the quality of the coffee. Indonesian coffee exports are still dominated by coffee beans whose prices are very unstable and easily shaken by market conditions. The coffee beans produced in Indonesia are dominated by the robusta type which is considered second class coffee on the international market. This causes uncontrolled fluctuations in export value and greatly affects the performance of Indonesian coffee exports (Riska Dwi Maulani and Diah Wahyuningsih (2021). Meanwhile, research on factors that influence Indonesian coffee exports to Germany simultaneously includes production variables, international prices, exchange rates, Domestic prices, consumption and substitute goods have a significant effect on export volume but partially only production variables have a significant effect, while international price variables, exchange rates, domestic prices, consumption and substitute goods have no significant effect on the volume of Indonesian coffee exports to Germany (Sitepu I et al (2021). Thus, it is hoped that all relevant parties will work together and support each other, both the government and the private sector as well as coffee farmers, to continue to increase the production and quality of Indonesian coffee, so that in the future the competitiveness of Indonesian coffee exports will increase.

CONCLUSION

1. The development of Indonesian coffee exports for the last ten years 2013-2022 has generally fluctuated, while to Georgia the last three years have increased consecutively and India for the last four years has increased consecutively
2. The competitiveness of Indonesian coffee exports for the last ten years 2013-2022 using RCA (Revealed Comparative Advantage) analysis is strong for two countries, namely Georgia and Algeria, while for eight other countries, namely Germany, Japan, Malaysia, Italy, England, Belgium, India and Egypt is weak. With EPD (Export Product Dynamics) analysis, there are eight Raising Star countries, namely Germany, Japan,

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Malaysia, Algeria, England, Belgium, India and Egypt, while two lost opportunity countries are Georgia and Italy.

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