

Market Structure and Competitiveness of Indonesian Unmanufactured Tobacco in the International Market

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Abstract

In Indonesia, tobacco, main commodities of cigarette industry, has a contradictory position. It came with health issues, but on the other side it made big contributions in revenues for the country. This research aimed to analyze the market structure and competitiveness of Indonesian unmanufactured tobacco in the international market. The secondary data collected by time series from 2005 to 2020, and analyzed through Concentration Ratio (CR), Herfindahl Hirschman Index (HHI), Revealed Comparative Advantage (RCA), and Trade Specialization Index (TSI). The results showed that unmanufactured tobacco commodities indicated the features of monopolistic market structure (CR = 34.03%; HHI = 492.00). By RCA, Indonesia considered possessed a strong competitiveness as tobacco exporter (RCA1 = 3.03; RCA2 = 1.19; RCA3 = 1.40). But on the contrary, by TSI, Indonesia was still in the import substitution stage (TSI1 = -0.10; TSI2 = -0.57; TSI3 = -0.30), indicating low level of competitiveness.

Keywords : *unmanufactured tobacco; market structure; competitiveness; comparative advantages; competitive advantages*

INTRODUCTION

In Indonesia, the tobacco plant is one of the plantation sub-sector commodities that has made a real contribution as a source of income for farmers and a provider of employment. Tobacco is also one of the main commodities used in the cigarette industry, where consumption is the biggest contributor to excise duty and is one of the biggest revenues for the country. The three largest tobacco-producing provinces in Indonesia are East Java, West Nusa Tenggara, and Central Java. Even so, the development of tobacco as a trade product faces formidable obstacles. As the main raw material for cigarettes, tobacco is also affected by issues regarding health problems because tobacco is often

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associated with cigarettes. When anti-smoking campaigns are actively promoted, tobacco production will also be affected.

Tobacco as a trading commodity is coded HS24 and then classified into three major groups, namely HS2401 (unmanufactured tobacco; tobacco refuse), HS2402 (cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes), and HS2403 (other manufactured tobacco and manufactured tobacco substitutes; “homogenized” or “reconstituted” tobacco; tobacco extracts and essences). Of these three groups, HS2401 is the closest to agriculture as it is a raw, unprocessed product. HS2401 is then divided into three categories as HS240110 (tobacco, not stemmed/stripped), HS240120 (tobacco, partly or wholly stemmed/stripped), and HS240130 (tobacco refuse).

Based on UN COMTRADE (2022) as stated in Table 1, in 2010, exports of Indonesian tobacco commodities to the world under the HS code 2401 had an export volume of 57,408 kg with a value of US\$ 195,633,000. In 2019, this export volume decreased to 33,265 kg but the value increased, namely US\$ 201,976,000. The fluctuation of this value indicates that the tobacco commodity in the international market has a fairly good reputation, where Indonesia is the 11th ranked tobacco exporter country in the world.

By put aside the elements of health and the environment as top priorities, the prospects for tobacco in the business world are still very promising for the benefits of various economic sectors. This situation causes the dynamics of competition in the industry to become increasingly stringent, both between companies and between countries.

As a party involved in the international tobacco market, Indonesia needs to prepare a strategy to be able to remain competitive with other exporting countries. This drives the need for information on the structure of the market entered and conditions of competition in that market. This is what then drives this research with the aim to analyze market structure and competitiveness of Indonesian unmanufactured tobacco in the international market.

Table 1. Tobacco HS2401 exporter countries

Rank	2010			Rank	2019		
	Country	Export Volume (Kg)	Export Value (US\$)		Country	Export Volume (Kg)	Export Value (US\$)
1.	Brazil	493.007	2.706.731	1.	Brazil	530.168	2.047.113
2.	USA	180.987	1.175.335	2.	Zimbabwe	173.558	782.996



3.	India	163.403	713.312	3.	USA	104.696	756.169
4.	China	251.276	615.862	4.	China	194.113	564.037
5.	Malawi	144.794	585.159	5.	India	185.946	554.616
6.	Zimbabwe	90.195	420.000	6.	Malawi	136.410	498.382
7.	Turkey	78.878	401.315	7.	Germany	56.992	375.105
8.	Italy	75.706	289.080	8.	Italy	67.214	312.829
9.	Germany	66.302	399.672	9.	Turkey	46.665	262.471
10.	Argentina	65.497	291.522	10.	Argentina	52.673	186.414
11.	Indonesia	57.408	195.633	11.	Indonesia	33.265	201.976

Source: UN Comtrade (2022), processed

LITERATURE REVIEW

Tobacco is a tropical plant originating from the Americas. The natives use it in traditional ceremonies and for treatment. Tobacco was first used in North America, then entered Europe via Spain (BASYIR, 2006). Tobacco (*Nicotiana tabacum* L) is a seasonal plant belonging to plantation crops, mainly used for its leaves as raw material for cigarettes. According to SUSILOWATI (2006), tobacco is classified as below:

Famili : *Solanaceae*
 Sub Famili : *Nicotianae*
 Genus : *Nicotianae*
 Spesies : *Nicotiana tabacum* and *Nicotiana rustica*

Tobacco is one of the trading commodities whose value fluctuates quite a bit in the international trade market. TAMBUNAN (2004) says that trade arises because of differences between supply and demand. According to GONARSYAH in Elfrida (2008), there are several factors that encourage international trade, namely: 1. Countries trade because they want to expand the marketing of export commodities, and there are differences between one another; 2. Countries trade with the aim of achieving an economic of scale in production.

Market structure is the classification of market forms based on characteristics such as the type of product produced, the number of companies in the industry, whether or not it is easy to enter or leave the industry, the role of advertising in industrial activities, and so on. The market structure is divided into four types, namely: perfect competition market, monopoly market, oligopoly market, and monopolistic competition market.

In a perfectly competitive market, each producer cannot change the price, if the producer raises the price above the equilibrium price, the producer will lose consumers



(WIDYASARI and MANZILATI, 2013). A company is called a monopoly if the company is the only seller of an item and if the item has no substitutes or in other words, according to AMINURSITA and ABDULLAH (2018), this company does not produce substitutes for the main product. An oligopoly market is a market where the supply of one type of goods is controlled by several companies. In general, the number of companies is more than two but less than ten (MARLIANI, 2015). Monopolistic market structures are basically the same as those in pure competition market structures, except that in monopolistic competition market structures product differentiation is introduced and there is little market power for producers to regulate market conditions (MANKIW, 2006).

In the scope of competitiveness, there are comparative advantages, competitive advantages. Comparative advantage which was popularized by David Ricardo in 1823 has considered the opportunity cost in which the country will specialize at low production costs and vice versa (KRUGMAN & OBSTFELD, 2009). As for competitive advantage, according to PORTER (1985), competitive advantage grows fundamentally from the value a company can create for its buyers beyond the line of value creation. While the structure of the market is usually referred to the relationship and characteristics of the different elements in the market (ZENG et al., 2020).

Comparative advantage is a key concept to explain specialization in the export of goods. According to BOEDIONO (1991), a country will only export goods that have a high comparative advantage, and import goods that have a low comparative advantage. According to SIMATUPANG (1991), there are three main factors that affect comparative advantage, namely: (1) Availability of production facilities or factors of production in types or quantities that differ from one country to another; (2) There is a fact that in certain production branches people can produce more efficiently if the scale of production is bigger (economies of scale); and (3) There are differences in the pattern and rate of technological progress.

A country gains a competitive advantage if the companies/commodities in that country are competitive. The source of competitive advantage is uniqueness. This means that products are not easily imitated or copied by competing countries.

Table 2 describes research related to this research to broaden the insight in terms of previous research and current research. Several reliable sources were also taken to enrich this research.

Figure 1 showed the framework serves to determine the flow of this research. Thus, the aims of this research is to answered these following questions:



- How does the market structure for unmanufactured tobacco in the international market?
- Based on comparative advantage, does Indonesian unmanufactured tobacco possessed competitiveness when compared to the big three tobacco exporter countries?
- Based on competitive advantage, does Indonesian unmanufactured tobacco possessed competitiveness when compared to the big three tobacco exporter countries?

Table 2. Prior researches

REF	Research Purpose	Tools Analysis
SUSILAWATI (2007)	To analyze competitiveness and the factors that influence the export volume of Indonesian pepper in the international market	RCA, TSI, Gravity Model
SUBHANI et al (2018)	To analyze Indonesian coffee export competitiveness in the international market	RCA, ECI, Multiple linear regression
SAFITRI (2016)	To analyze Indonesian tea competitiveness in the international market	HHI, CR, RCA, EPD, TSI
WIJAYA et al (2023)	To analyze the comparative and competitive competitiveness of East Java Province tobacco exports in the international market from 2007 to 2021	RCA, TSI
RASYID et al (2018)	To analyze the competitiveness of tobacco commodities in Indonesia during the period 1970-2016	TBI, Granger model, ECM
TETI et.al (2022)	To analyze the development of exports of processed and non-processed Indonesian agricultural products in the ASEAN region and the competitiveness of exports of agricultural products in ASEAN countries to the main destination countries.	TSI, CMS, RCA
XIA and DEWI (2022)	To analyze of the trade specialization and competitiveness of Indonesian coconut oil in the international market	TSI, RCA
NISA et al (2023)	To analyze the performance and competitiveness of Indonesia's cocoa bean trade compared to other producing countries in the International market	RCS, TSI, AR, ECI
REDDY et al (2022)	To assess the competitiveness of India's commercial crop commodities	RSCA

Source: own calculation



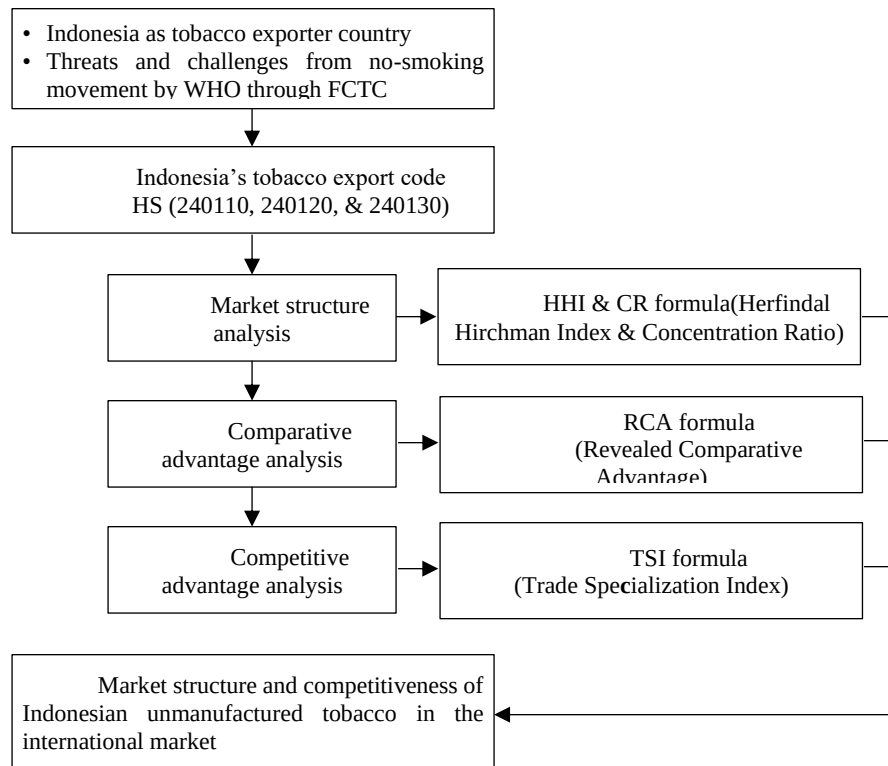


Figure 1. Conceptual framework

Source: own calculation

Based on explanation above, the following hypotheses were developed:

- H1: There is a certain market structure in the Indonesian unmanufactured tobacco market*
- H2: Based on comparative advantage, Indonesian unmanufactured tobacco possessed competitiveness when compared to the big three tobacco exporter countries.*
- H3: Based on competitive advantage, Indonesian unmanufactured tobacco possessed competitiveness when compared to the big three tobacco exporter countries.*

METHOD

The research was done from November 2022 until January 2023, focusing on unprocessed tobacco with code HS240110 (tobacco, not stemmed/stripped), HS240120 (tobacco, partly or wholly stemmed/stripped), and HS240130 (tobacco refuse). The data obtained in time series from 2005 until 2020 focusing on unmanufactured tobacco

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exporting countries, and was sourced from Indonesian Central Bureau of Statistics (BPS), Food and Agriculture Organization (FAO), Indonesian Ministry of Trade, Indonesian Ministry of Agriculture, Indonesian Ministry of Industry, International Trade Center (ITC) and United Nation Comtrade (UN Comtrade). The data collected from four countries, that was the big three tobacco exporter (Brazil, USA, Zimbabwe), and Indonesia.

Market Structure

According to SALVATORE (2012), the Concentration Ratio (CR) can be used to measure structural power because it involves the absolute number of companies and size distribution. In this study the ratio used is CR4. This was chosen to see in more detail the level of market structure that occurs in the international tobacco market. The calculation of the market concentration ratio is carried out using the following formula (FEBRIYANTI, 2008) and can be interpret as stated in Table 3:

$$S_{ij} = X_{ij}/TX_j \quad \dots(1)$$

S_{ij} : The j-th country's tobacco market share in the international market

X_{ij} : Tobacco commodity

TX_j : Tobacco exporting countries to international markets

$$CR_4 = S_{ij_1} + S_{ij_2} + S_{ij_3} + \dots + S_{ij_4} \dots(2)$$

CR4: Market concentration value of major tobacco producers in the international market

S_{ij} : The j-th country's tobacco market share in the international market

i : Tobacco commodity

j : The n-th tobacco exporting countries to international markets

Table 3. Interpretation of CR value

CR Value (%)	Category	Market Structure Interpretation
$CR_4 = 0$	Minimum	Perfect competition
$0 < CR_4 < 40$	Low	Effective competition or monopolistic competition
$40 \leq CR_4 \leq 60$	Middle down	Monopolistic competition or loose oligopoly
$60 \leq CR_4 \leq 90$	Middle Up	Tight oligopoly dominant firm with competitive fringe
$CR_4 \geq 90$	High	Dominant company with competitive fringe or effective monopoly (near monopoly)
$CR_4 = 1$	Maximum	Perfect monopoly

Source: FEBRIYANTI (2008)



Another method to measure the level of concentration in an industry is the Herfindahl Hirschman Index (HHI), calculated by adding up the squared value of the market share of all companies in the market. The higher the HHI value, the greater the level of concentration in the industry (SALVATORE, 2012). The HHI value reflects a country's market share control in the international market. calculating the HHI value uses the following formula (ARSYAD, 2008) with interpretation as Table 4:

$$HHI = Sij_1^2 + Sij_2^2 + Sij_3^2 + Sij_4^2 + \dots Sij_n^2 \quad \dots(3)$$

HHI : Herfindahl Hirschman Index

Sij : The j-th country's tobacco market share in the international market

i : Tobacco commodity

j : The n-th tobacco exporting countries to international markets

Table 4. Interpretation of HHI value

Traits	Monopoly	Oligopoly	Monopolistic	Perfect Competition
HI	HI = 10.000	2500<HI<10.000	100<HI<1000	HI<100
Number of producers	One	Few	Several	A lot
Barriers to market entry	Very high	High	Relatively low	None
Power to determine price	Very big	Relative	Little	None
Profit	Excess	A little too much	Normal	Normal
Efficiency	Not good	Not good	Quite good	Good
Market information	Very limited	Limited	Quite open	Open

Source: Salvatore (2012)

Comparative Advantages

To analyze comparative advantage, the Revealed Comparative Advantage (RCA) formula is used. The RCA value indicates the level of competitiveness of a country's commodity against the world. The method for calculating RCA according to Munandar is as follows:

$$RCA = \frac{(Xij/Xj)}{(Xiw/Xw)} \quad \dots(4)$$

Xij : Value of tobacco exports from Country j to international markets

Xj : Total export value of all commodities from Country j to international markets

Xiw : Export value of tobacco commodities from all countries to international markets.

Xw : Export value of all commodities from all countries to international markets



- i : Tobacco commodity.
- j : Countries that export tobacco to the international market.
- w : All Countries in the world

If the RCA value > 1 , then a country has a comparative advantage above the world average so that the commodity has strong competitiveness. Otherwise, if the RCA value < 1 , then a country has a comparative advantage below the world average so a commodity has low competitiveness.

Competitive Advantages

To find out the dynamic aspects of the competitive advantage of a commodity, the TSI formula (Trade Specialization Index) is used. In general, according to the INDONESIAN MINISTRY OF TRADE (2014), TSI calculations can be used with the following formula:

$$ISP = (Xia - Mia) / (Xia + Mia) \dots (5)$$

Xia : Export value of Indonesian tobacco commodities

Mia : Import value of Indonesian tobacco commodities

i : Tobacco commodity

a : Indonesia

If the TSI value is positive ($0 < TSI < 1$), then the country concerned tends to be an exporter (domestic supply is greater than domestic demand). Conversely, if the TSI value is negative ($-1 < TSI < 0$), then the country tends to be an importer. The increase in TSI value is in line with its competitiveness.

TSI can also identified the growth level of a commodity in trade. It is categorized in five stages, according to INDONESIAN MINISTRY OF TRADE (2014):

1. Introduction stage (TSI value -1.00 to -0.50)
2. Import substitution stage (TSI value -0.5 to 0.00)
3. Growth stage (TSI value 0.01 to 0.80)
4. Maturity stage (TSI value 0.81 to 1.00), can be called net exporter
5. Steps back to import (TSI index value again decreased in the range 1.00 to 0.00)

RESULTS

Market Structure

According to UN COMTRADE (2020), international market of tobacco commodity was dominated by the big three tobacco exporter countries, that is Brazil, USA, and

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Zimbabwe. Then author added Indonesia to the list to find out Indonesia's market structure in international market compare to this big three. The market share of these four tobacco exporter countries is as follow (Figure 2):

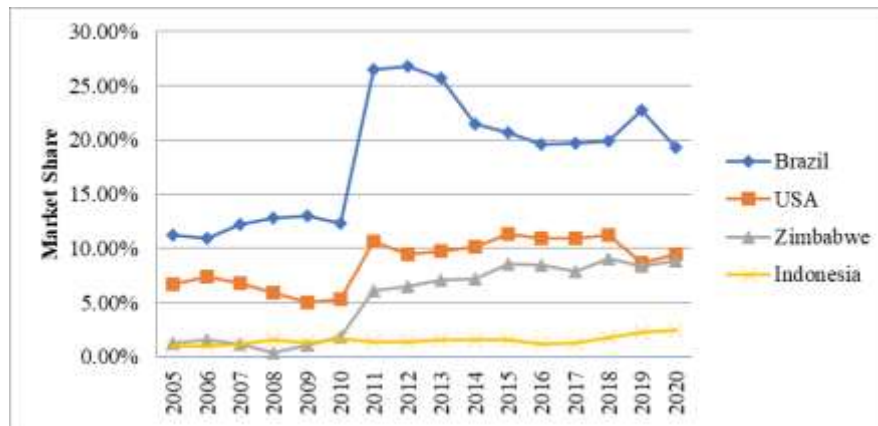


Figure 2. Market share of big three tobacco exporter countries and Indonesia

Source: UN Comtrade (2022), processed

Brazil consistently being the top exporter over the last 15 years, with big gap domination over market share. The export trend tend to be raising, and there was a significant climb in 2011 for the big three countries.

In CRn analysis, the calculation included four tobacco exporter countries (Brazil, USA, Zimbabwe, and Indonesia). Meanwhile for HHI analysis included all tobacco exporter countries. The result of these analysis from 2005 to 2020 can be seen in Table 5.

CR4 average value was 34.03% and categorized as low. This result indicated that the unmanufactured tobacco market had monopolistic structure.

Table 5. CR and HHI of unmanufactured tobacco in the international market

Year	CR4 (%)	HHI
2005	20,23	174,13
2006	20,92	178,61
2007	21,34	197,58
2008	20,66	200,93
2009	20,35	196,87

2010	21,26	186,21
2011	44,63	854,78
2012	44,21	854,57
2013	44,20	809,88
2014	40,33	615,54
2015	42,08	630,16
2016	40,26	578,16
2017	39,79	570,44
2018	42,06	610,08
2019	42,11	669,32
2020	40,05	544,79
Average	34,03	492,00

Source: own calculation

The average value of HHI analysis was 492.00. This result also indicated the characteristic of monopolistic competition market, where there was a greater monopoly power and unevenly distributed market share in the industry. In monopolistic market, there was several producers with relatively low barriers for new comers to enter the market. There was a little power to control the price but still give normal profit. The efficiency and access to information also quite good.

Comparative Advantage

For tobacco code HS240110, as stated in Table 6, Zimbabwe has the highest RCA value (3.60) even though the fluctuations were quite pronouns. The highest happened in 2015 with 9.60 point, while the lowest happened in 2009 with 0.16 point due to the rise in domestic demand. Indonesia was following after with 3.03 point for RCA value with more stable trend. The highest happened in 2013 with 4.55 point, while the lowest happened in 2008 with 0.32 point as the impact of the sudden rise in Zimbabwe's market share in international market, and became the only year in which Indonesia's competitiveness was weak ($RCA < 1$).

As for tobacco code HS240120 and HS240130, Brazil dominated with average RCA value at 21.58 and 21.22 sequentially. These figures were far above Zimbabwe's which is in second place with average 3.83 and 3.20 respectively. The highest RCA value happened in 2005 and 2006, both code for Brazil and Zimbabwe, while the lowest for Brazil happened in the latest year of 2020. Both countries had a downward trend.



Indonesia placed last between these four exporter countries for tobacco code HS240120 (RCA value = 1.19) and HS240130 (RCA value = 1.40), both with upward trend although not very significant. Indonesia's competitiveness for HS240120 was weak during 2008, 2011, 2012, 2016, and 2017. For HS240130, Indonesia appeared to had the lowest competitiveness compared to two other commodities because the $RCA < 1$ occurred for almost half of the study period (2005, 2006, 2008, 2011, 2012, 2015, and 2019).

Table 6. RCA value of unmanufactured tobacco of the big three tobacco exporter countries and Indonesia

HS Code	HS240110				HS240130				HS240120			
Year	Brazil	USA	Zimba bwe	Indo nesia	Brazil	USA	Zimba bwe	Indo nesia	Brazil	USA	Zimba bwe	Indo nesia
2005	1,73	0,60	1,58	3,68	28,63	2,12	2,12	1,13	25,35	0,53	7,92	0,69
2006	1,72	0,65	1,93	3,17	26,45	2,25	9,43	1,03	31,05	0,63	3,06	0,76
2007	1,71	0,76	1,50	2,89	28,48	2,01	1,57	1,22	30,67	0,62	2,95	2,64
2008	1,60	0,56	6,08	0,32	27,67	1,82	1,22	0,92	26,97	0,47	1,32	0,95
2009	1,57	0,49	0,16	3,47	27,93	1,43	1,97	1,00	23,02	1,10	7,66	1,20
2010	1,68	0,80	1,09	2,77	23,75	1,41	2,87	1,42	16,57	1,50	5,84	2,02
2011	1,97	0,74	3,60	2,19	22,50	1,38	4,24	0,87	18,93	1,54	1,66	0,77
2012	2,23	0,51	6,18	2,42	23,79	1,23	3,39	0,97	23,26	0,85	4,24	0,60
2013	1,60	0,56	2,09	4,55	24,41	1,26	3,95	1,05	26,75	1,18	4,08	1,63
2014	1,88	0,49	7,43	3,65	20,90	1,26	4,14	1,12	20,52	0,95	1,29	1,91
2015	1,79	0,61	9,60	3,17	19,95	1,26	4,68	1,20	17,19	0,95	1,80	0,99
2016	1,79	0,53	2,29	2,64	19,03	1,22	4,56	0,94	16,09	1,14	1,13	2,12
2017	1,68	0,58	3,22	2,72	17,49	1,25	4,38	0,88	13,71	1,07	1,84	1,95
2018	1,66	0,56	2,45	3,36	17,17	1,25	4,60	1,23	16,65	1,14	1,92	2,56
2019	1,76	0,65	5,96	3,76	20,20	0,89	4,08	1,92	19,82	0,75	2,92	0,11
2020	1,83	0,84	2,41	3,82	16,94	0,96	4,05	2,00	13,96	8,52	1,70	1,62
Average	1,76	0,62	3,60	3,03	21,58	1,43	3,83	1,19	21,22	1,43	3,20	1,40

Source: own calculation

Competitive Advantage

Table 7 showed the result of TSI value calculation of Indonesian tobacco code HS240110, HS240120, and HS240130 from 2005 to 2020.

For tobacco code HS240110, Brazil was the only country that came up with positive TSI value (average 0.54), indicating the country's role as the exporter in growing stage. Meanwhile USA, Zimbabwe, and Indonesia got negative result, means that the three countries were tend to be an importer and had weak competitiveness.



For tobacco code HS240120 and HS240130, Brazil, Zimbabwe, and USA consistently show positive TSI values indicating that they act as importers, with Brazil and Zimbabwe possessed mature level and very strong competitiveness, while USA was in growing level with strong competitiveness. On the other hand, Indonesia also showed consistency as importer country with minus value of TSI (average -0.57 and -0.30 respectively), indicating weak competitiveness level.

Table 7. TSI value of unmanufactured tobacco of the big three tobacco exporter countries and Indonesia

HS Code	HS240110				HS240120				HS240130			
Year	Brazil	USA	Zimbabwe	Indonesia	Brazil	USA	Zimbabwe	Indonesia	Brazil	USA	Zimbabwe	Indonesia
2005	0,72	-0,54	-0,34	-0,12	1,00	0,61	0,98	-0,50	0,98	-0,45	0,84	0,19
2006	0,67	-0,40	-0,88	0,44	1,00	0,66	0,99	-0,47	0,99	-0,30	1,00	-0,12
2007	0,65	-0,40	-0,53	0,23	1,00	0,66	0,88	-0,48	0,99	-0,28	0,87	0,46
2008	0,60	-0,38	0,63	-0,04	1,00	0,72	0,92	-0,62	0,98	-0,37	1,00	-0,11
2009	0,57	-0,52	-0,99	0,23	1,00	0,69	1,00	-0,48	0,98	0,08	0,96	-0,28
2010	0,70	-0,24	-0,74	-0,08	0,95	0,37	0,86	-0,41	0,95	0,32	0,96	-0,16
2011	0,65	-0,33	-0,34	-0,40	0,99	0,35	0,95	-0,62	0,97	0,33	1,00	-0,56
2012	0,70	-0,56	-0,30	-0,61	0,99	0,25	0,94	-0,60	0,98	-0,08	1,00	-0,72
2013	0,28	-0,50	-0,39	-0,39	0,99	0,24	0,97	-0,60	0,96	0,06	1,00	-0,39
2014	0,40	-0,58	-0,65	-0,42	0,99	0,38	0,98	-0,58	0,92	-0,13	0,94	-0,46
2015	0,39	-0,44	0,77	-0,11	0,99	0,39	0,99	-0,54	0,92	0,23	1,00	-0,67
2016	0,31	-0,53	-0,05	-0,23	0,98	0,39	0,97	-0,67	0,87	0,36	1,00	-0,11
2017	0,49	-0,48	0,17	0,00	0,98	0,46	0,97	-0,76	0,88	0,52	1,00	-0,29
2018	0,61	-0,53	0,38	0,02	0,98	0,45	0,95	-0,72	0,97	0,32	1,00	0,00
2019	0,42	-0,31	0,71	-0,10	1,00	0,26	0,98	-0,56	0,98	0,05	1,00	-0,71
2020	0,53	-0,18	0,61	-0,03	0,99	0,33	0,96	-0,57	0,96	0,22	1,00	-0,91
Average	0,54	-0,43	-0,12	-0,10	0,99	0,45	0,96	-0,57	0,95	0,05	0,97	-0,30

Source: own calculation

DISCUSSION

The result of market structure of unmanufactured tobacco commodity code HS240110, HS240120, and HS240130 indicated the features of monopolistic market. CR4 analysis classified the market as low concentration with CR4 value 34.03%, that interpreted the structure of monopolistic competition. In line with this, the HHI value analysis (492.0) also identified the market as monopolistic market. This type of market featured the relatively low barrier in entering the market with little power to determine the



price. But the profit potentially obtained said to be normal with the quite good efficiency and openness for access to information.

This result came different from WHO (2021) that stated that the tobacco market structure is typically a monopoly or an oligopoly. This was in line with CAVALERI (2019) that stated that tobacco market in Euro area had high concentration that indicated effective monopoly structure. This differences probably due to the difference in countries that involved in the research, because WHO mostly took example from Asia and Africa.

According to the comparative advantages analysis, Indonesian unmanufactured tobacco commodities can be identified has strong competitiveness because the RCA value were > 1 , means the comparative advantages are above the world's average. However, Indonesian tobacco code HS240110 appeared to be in a more prominent position than HS240120 and HS240130, as it came in second place when compared to the big three tobacco exporter countries. As shown in Table 5, Brazil leads by far for HS240120 and HS240130, and they seemed to keep their focus on those two commodities even though there were quite number of fluctuations on the way. This also seemed to be the case for USA where the average value of HS240110's RCA was less than half the value of two other. However, there were differences in trends between Brazil and USA, where Brazil's HS240110 was quite stable, HS240120 tended to decrease, and HS240130 had a significant increase in 2020. As for Zimbabwe, they seemed to keep the balance between the three commodities.

This result support PUTRA et al (2015) who came to similar conclusions, that Indonesian tobacco were in a good state and possessed comparative advantages. On the contrary, TETY et al (2022) found that Indonesian unprocessed agricultural products (tobacco included), does not have a comparative advantage and high competitiveness.

On the other hand, competitiveness advantages analysis of unprocessed tobacco commodities using TSI showed a contradiction to RCA, where Indonesia appeared to had more of a tendency to be identified as tobacco importer, rather than exporter. The average TSI value for all three commodities came as negative, indicated the tendency. HS240110 and HS240120 fell into the second stage (import substitutional) group, while HS240130 were at introduction stage, which is the very first stage. These facts implied the low level of competitiveness of Indonesian unmanufactured tobacco commodities. When compared to the big three countries, there were almost all came as positive, except for HS240110 of USA and Zimbabwe. Brazil and Zimbabwe even appeared at maturity stage (fourth stage) with very strong competitiveness for HS240120 and HS240130.



This finding was in line with RASYID et al (2018) who discovered that Indonesia was consistently identified as tobacco net importer. The competitiveness was getting weaker because of import penetration that covered over the export. However, according to Putra et al (2015) competitive advantages of Indonesian tobacco still lead over Thailand and French.

The contradiction between comparative advantages and competitive advantages in results also revealed by WIJAYA et. al (2023). Even when the tobacco obtained strong competitiveness through comparative advantages, the domestic production could not fulfill the demand from cigarette industry in the area.

INDAH et al (2018) and VARELA (2022) both agreed about price being one of the important factors affecting competitiveness. INDAH et al (2018) even noted that export price reflect the quality and quality of the commodity. Other factors were quality, human resources, distribution channel, technology, and productivity.

CONCLUSIONS AND OUTLOOK

The international market of unmanufactured tobacco commodities (HS240110, HS240120, and HS240130) has the structure of monopolistic market with low concentration.

Based on comparative advantages analysis, Indonesian unmanufactured tobacco has a strong competitiveness for it placed above the world's average. The not stemmed/stripped tobacco (HS240110) competitiveness were more prominent than the processed one, both stemmed (HS240120) and refused (HS240130).

On the contrary, Indonesian unmanufactured tobacco came at low level competitiveness, according to competitive advantage analysis. Indonesia was more inclined as importer, not exporter for all type of unmanufactured tobacco.

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