

# *The Impact of Green Trade Barriers on Chinese Tobacco Industry*

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**Abstract:** The tobacco industry is an important pillar of the local economy, but the development and growth also need to bring the spirit of innovation into play, actively go abroad, open up international markets, and increase market share. However, the green trade barriers set by the international tobacco market have restricted Chinese tobacco enterprises from going out. This paper analyzes the importance of tobacco enterprises going worldwide and the advantages and disadvantages of green barriers. The study examines the necessity of green trade barriers from the perspective of world trade status and China's policy trend, and then clearly introduces the definition and manifestation of green trade barriers. The results show that green trade barriers promote the innovation of domestic tobacco technology to a certain extent, but also damage the international competitiveness of China's tobacco industry. This paper puts forward three countermeasures from three aspects. In tobacco cultivation, it is recommended to implement pest control at the start of planting. Enterprises should carry out innovation and reform in production and management processes. On the government side, it is recommended to provide protection and support to the tobacco industry.

**Keywords:** tobacco, green trade barriers, trade competitive index

## **1. Introduction**

As an important part of international trade, tobacco export has always been attracting much attention. China is the world's largest tobacco producer and exporter, and the scale of its tobacco export is huge. With the economic development of all countries in the world, the scale of international trade is constantly expanding, and environmental problems have become increasingly prominent. The issue of sustainable development has begun to attract widespread attention. In order to protect the environment, some measures taken by various countries directly or indirectly restrict or even prohibit the trade of some products, which have become green trade barriers [1]. However, on a global scale, the increasingly intensified green trade barriers have gradually become a stumbling block. According to a report from the World Trade Organization (WTO), which provides case studies on various green trade barriers implemented internationally, it has provided some references for the environment-related trade barriers that China's tobacco exports may face. Therefore, this paper mainly studies the green trade barriers in the tobacco industry and proposes countermeasures and suggestions.

Green trade barrier refers to the laws, standards, or conventions that restrict trade import and export formulated by a country or region for the sake of human health and safety, so as to achieve the

sustainable development of industry economy and society [2]. Green trade barriers are a series of trade measures designed to restrict or prohibit imports for the purpose of trade protection. This paper refers to the non-tariff technical barrier implemented on the basis of the environmental protection and national health of the importing country. Technical barriers, green tariffs, green quotas, etc. constitute green trade protectionism, of which green technical barriers are the most commonly used one.

In addition, this study aims to achieve good trade relations between countries and promote the development of countries and enterprises. At this stage, in terms of tobacco import and export, tobacco exports are being hit by green trade barriers, which have hit China's international trade to a certain extent.

This paper specifically uses the trade competitive advantage index (TC index) to analyze the competitive advantage of Chinese tobacco in the international market. The study finds that green trade barriers would affect the development of China's tobacco industry to some extent, so this paper suggests that the tobacco industry should make changes in cultivation, business and government, and further, the tobacco industry needs to reform in order to survive.

## 2. Green Trade Barriers and Tobacco Import and Export

### 2.1. Tobacco Industry in China

China is the world's largest producer and consumer of tobacco, with more than 300 million smokers, more than 28 percent of adults and more than half of adult men in China regularly smoke [3]. China, with its largest global population and the highest number of smokers, has consequently emerged as a significant tobacco exporter. As a result, the Chinese cigarette market has garnered considerable attention within the international tobacco industry. Due to a variety of reasons, Western tobacco not only has a declining local consumer base and declining consumption but also has a weakening market advantage in countries that export through traditional trade channels, thus forcing Western tobacco monopolies to find new support points for survival and development [4]. Some studies have shown that scholars and public health proponents should move the focus away from narrow economic aspects of liberalization towards specific issues that are more likely to affect tobacco control, such as intellectual property rights protections and investor-state dispute settlement [5].

According to statistics from the National Bureau of Statistics, China's tobacco production totaled 2,188,100 tons in 2022, an increase of 60,500 tons compared with 2021. The output of cigarettes was 2,432.15 billion, an increase of 13.91 billion, up by 0.6% from the previous year. In the same year, the consumption of cigarettes in China was 2,428.07 billion, an increase of 14.221 billion, up by 0.6% from the previous year. In addition, China's tobacco industry exported 12.285 billion cigarettes in 2022, down by 11.3% from the previous year. Figure 1 shows the changes in China's tobacco industry between 2021-2022.

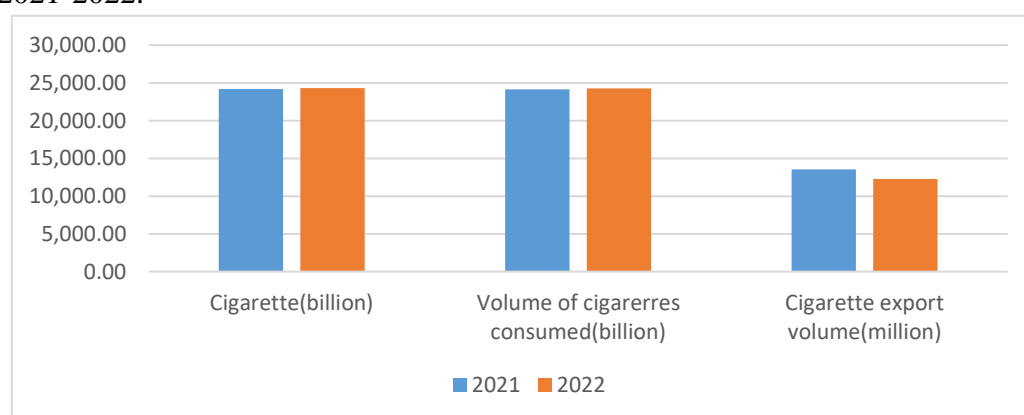


Figure 1: Tobacco industry in China.

## 2.2. Tobacco Industry Overseas

World tobacco production is sluggish, and total sales are stagnant. This fluctuation in total volume is accompanied by an uneven development of tobacco sales worldwide. Tobacco sales are mainly concentrated in developed countries such as the United States, Canada and Europe, which account for only one-quarter of the world's population but consume more than half of the annual cigarette production every year [6].

In 2022, in addition to Philip Mo International, British American Tobacco, Japan Tobacco, Imperial Brand four major multinational tobacco companies, Korea Tobacco company overseas sales increased against the trend, the United States Altria Group sales continued to decline sharply, India Tobacco Company, Egypt Oriental Company, Vietnam National Tobacco Company and other business performance is good, Indonesia salt warehouse company sales and performance have suffered great setbacks.

In addition, the world's (excluding China) tobacco production overall remained stable with flue-cured tobacco output of 1.742 million tons. Production in Brazil and the US declined, with the overall price of tobacco prices increasing, and the performance of the two major tobacco companies improved.

The Altria Group, an American tobacco company, estimated that cigarette sales in the entire US market fell by about 8.0% in 2022, compared with an average annual decline of 4.5% over the past five years. In the context of the continuous decline of cigarette consumption in the US, cigarette sales continued to decline sharply. In 2020, cigarette sales were 4,477,000 boxes, and in 2022, cigarette sales were 1,694,000 boxes, a decrease of 9.7% compared with 2021. According to the news released by the Altria Group in February 2023, the group's annual sales revenue of tobacco products in 2022 was us \$20.69 billion. None of these figures include taxes.

Sales revenue from tobacco products in South Korea in 2022 was 3,573.8 billion won (\$2.83 billion), up by 14.1% year on year; and tobacco profit was 1,036.43 billion won (\$820 million), an increase of 28.8% year on year. In 2022, the sales grew rapidly in both South Korea and overseas markets, for both combustible cigarettes and heated cigarettes.

Indian tobacco products' sales revenues in 2022 were 234.51 billion Indian rupees (\$3.09 billion), which increased by 15.3% year on year. Figure 2 shows the tobacco market situation of the US, South Korea and India.

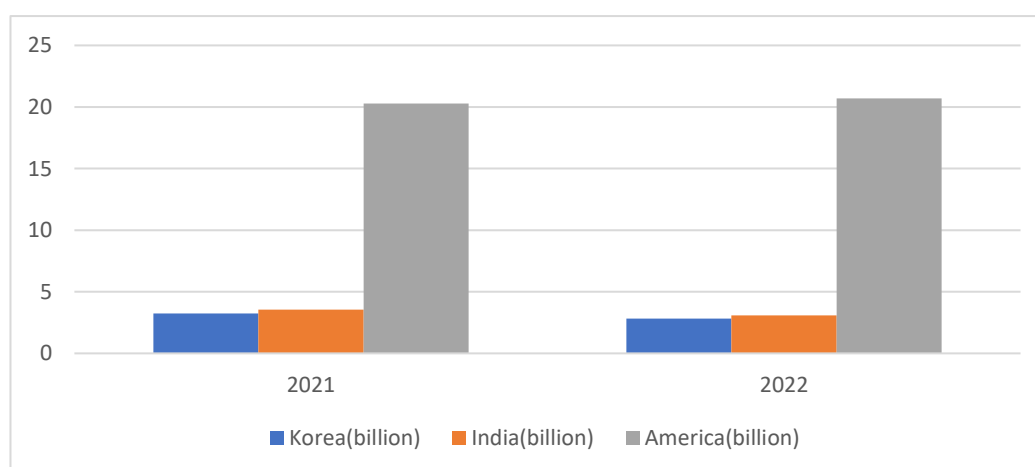


Figure 2: Tobacco industry revenue in the United States, South Korea and India.

### 2.3. The Impact of Green Trade Barriers

Green trade barriers put forward the use of more environmentally friendly materials and strengthen the protection of the environment. These two requirements have great harm to many industries, such as the energy industry, automobile manufacturing, food industry, etc., and at the same time, also affect the tobacco industry.

The harm of green trade barriers to the tobacco trade is mainly reflected in encouraging people to reduce the demand for tobacco, and there are many restrictions on the export of the tobacco trade. For example, some countries require imported tobacco products to meet environmental protection standards and certification requirements; some countries may impose higher taxes on tobacco, and some countries may restrict the amount of tobacco they import. This has greatly affected the development of the tobacco industry. The development of an industry is hindered, which may stimulate enterprises to take action to reduce costs. It is often in the form of layoffs, and these enterprises could use the cost savings to improve quality. Over time, this would affect the income of a region and some employment problems.

### 3. International Competitiveness of Chinese Tobacco

The Trade Competitive Advantage Index (TC Index) is often used to analyze the trade competitiveness of different countries. Based on the Chinese sample from February 2020 to September 2023, this paper uses the TC index to calculate the international competitiveness of China's tobacco industry, so as to intuitively show the impact of green trade barriers on China's tobacco industry. The formula for the TC index is expressed as follows.

$$TC = \frac{X_i - M_i}{(X_i + M_i)} \quad (1)$$

In the equation above,  $X_i$  is the export value,  $M_i$  is the import value, and 'i' is the country (or industry).

If the TC index is greater than zero, means that the industry in the country is in a dominant position in the competition, and the larger the TC value, the more significant the competitive advantage of such industries in the country; conversely, the smaller the TC value, the lower the competitive advantage [7]. The evaluation model of the Trade Competitive Advantage Index is as follows in Table 1.

Table 1: The evaluation model of the Trade Competitive Advantage Index.

Interval	Level of Competitive Advantage
(-1, -0.6)	High
(-0.6, -0.3)	Medium
(-0.3, 0)	Low
(0, 0.3)	Low
(0.3, 0.6)	Medium

According to the data substitution formula, the calculation results are shown in Figure 3, and the chart shows that China's tobacco industry began to develop rapidly in February 2020, and its competitive advantage continued to rise. In 2021, competitive advantage suddenly declined, as governments around the world tightened tobacco regulation. From 8 to 13 November of the same year, World Health Organization (WHO) hold a conference with the countries on the WHO Framework Convention on Tobacco Control, which requires the member countries to enforce tobacco

regulation and impose taxes on tobacco products with the aim of reducing public tobacco use and exposure to tobacco smoke. In other periods, the development of China's tobacco industry was basically stable, and its competitive advantage was basically maintained.

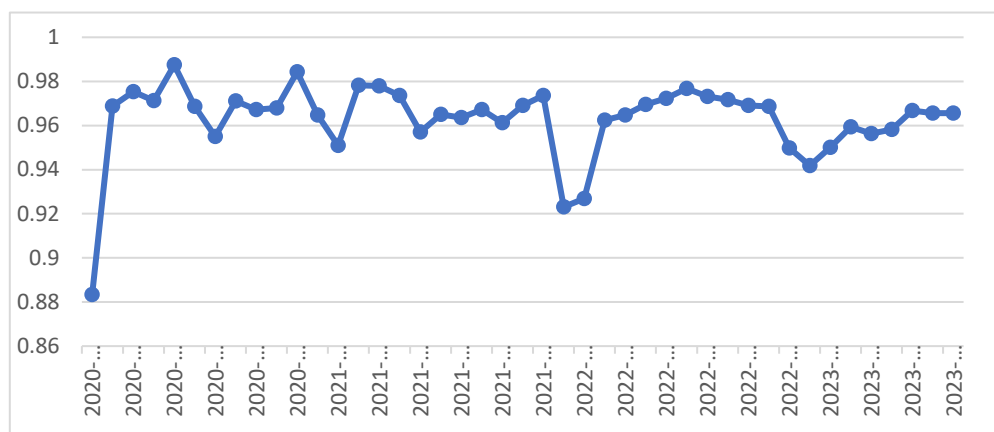


Figure 3: Trend of international competitive advantage of Chinese tobacco.

## 4. Suggestions

Regarding the problem of improving the tobacco industry in China, many scholars have proposed a large number of methods, such as the sustainable development of China's tobacco industry. Some studies have shown that the sustainable development of China's tobacco industry is facing great challenges. However, there are many opportunities lurking just waiting to be discovered [8].

### 4.1. Tobacco Cultivation

In terms of tobacco cultivation, tobacco growers need to take some safety measures to control tobacco pests and diseases in order to cultivate good varieties of tobacco. Scientific cultivation of tobacco also needs to pay attention to the difference between the time and amount of medication, and the need to prescribe the right medicine for tobacco, without three drugs [9].

### 4.2. Enterprise Management

On the enterprise side, strong tobacco brands need to be established, some tobacco companies in China are regulated by the state. In addition to many benefits, there are many strict rules. In a work environment with rewards and punishments, business management becomes easier. Enterprises should pay more attention to these four important steps: product, price, place and promotion.

Enterprises should strengthen the diversification of tobacco products, price flexibility, mastery of channels and brand promotion. In addition, enterprises should also improve the quality and safety inspection and quarantine system of tobacco products, green packaging, green marketing and adhere to technological innovation. What's more, it is necessary to continue to strengthen the relevant training of employees [9].

### 4.3. Government Support

On the side of the government, the government should call on society to provide impetus for the reform of the tobacco industry. The government can offer information, consultation, and guidance to enterprises for their export initiatives while enhancing the early warning system for green trade barriers affecting tobacco businesses. Government entities can be structured to provide robust support and define development goals for enterprises. Simultaneously, efforts can be made to bolster public

awareness regarding environmental protection. The 13th Five-Year Plan for the tobacco industry published by the Ministry of Industry and Information Technology describes the policies and objectives of the Chinese government in relation to the development of the tobacco industry [10].

## 5. Conclusion

Green trade barriers have promoted the innovation of domestic tobacco technology to some extent, but they have also damaged the international competitiveness of China's tobacco industry, and in order to change this situation, China's tobacco industry should be changed in farming, business and government.

This article puts forward a few suggestions. First, the government should use the internationally promulgated quality standardization system to improve internal manufacturing conditions, manufacturing facilities, improve its own sanitary conditions, and increase the cultivation of excellent new tobacco varieties. Second, through quality certification, the products are introduced into the international market to meet the quality requirements of consumers in various countries for the tobacco industry. Finally, it is necessary to improve the visibility of tobacco operators and enterprises, maintain and increase market share, and enhance competitiveness in the international market.

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