

Complementarity Analysis of Chinese and Indian Textile Enterprises

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Abstract: China and India, as the world's two major textile trading countries, are both partners and competitors. With the globalization of trade, the rapid development of science and technology as well as the change of trade mode, the change of competition concept, tariff and non-tariff barriers and many other factors, the textile trade between China and India no longer operates in a traditional way. According to the research of "One Belt and One Road", we mainly analyse the relevant data through the econometric analysis model, Porter's five forces model, exponential function and model, and find out the main factors affecting the trade of textile enterprises between China and India. In this paper, we will analyze the advantages and disadvantages of textile products of the two countries and screen the factors through the establishment of the model, observe the advantages possessed by each of the textile enterprises in China and India, compare the complementarities of textile products and enterprises of the two countries, observe and predict the possible direction of the textile industry of the two countries in the future, and finally put forward some suggestions to strengthen the complementarities of the textile enterprises of the two countries through the analysis.

Keywords: comparative advantage, complementarities, trade, textile products

1. Introduction

The trade of textile products between China and India in the context of economic globalization has attracted much attention in recent years [1]. Both countries are in the Asian region, in the textile products have similar display of comparative advantage, at the same time, the two countries of the textile products target exporters are also mostly developed countries, such as the United States, the United Kingdom, Japan and so on, which in turn makes the two countries in the globalization of the market has become a competitor, and the competition is fierce. In recent years, the textile products of China and India spread all over the world, and the textile products of the two countries have certain characteristics. First of all, China and India textile products in the textile market both occupy a large proportion of the textile products of the two countries export trade volume are increasing year by year, this is the first feature of the two countries textile products, but also their common characteristics. Secondly, the textile products import and export categories are similar, mainly focusing on textile raw materials and finished textile products such as textile clothing. Furthermore, the textile industry in China and India are not the same product structure, resource conditions and other factors, which leads to the advantages and disadvantages of the two countries' textile products are different [2].

These characteristics provide the possibility of textile product complementarity analysis. The reform of the textile industry in China and India started almost at the same time. In 1991, India gave up the planned economy and the licensing system, which had seriously affected the vitality of the Indian economy from this point of view, and the textile development of the two countries almost began in this period. The textile foreign trade of both countries grew rapidly after the Cold War, for example, in 1992, the first phase of industrial reform in both countries, the trade of textile products was still not proportional to the size of the market and the size of the population of the two countries, but in 2012, the exports of textile products of both countries have reached a phenomenal amount. Due to the impact of the global financial crisis in 2009, the pace of optimization and upgrading of the textile industry has slowed down, and with the economic adjustment between the two countries, as well as the development of multilateral trade, the export value of textile products of China and India has nearly increased by more than 10% every year. In this paper, we first use the theory of comparative advantage to form a preliminary concept of textile products in the two countries, so as to attract jade, and then through the establishment of the complementarity model will be the two countries of textile products complementary degree of explicit

[3].

2. Theoretical foundation and research content

2.1 The concept of complementarity and the theory of comparative advantage

Complementarity refers to the relationship between the two countries textile products can be tied to each other, complementary to jointly meet a certain desire or demand [4]. When the two countries have complementary products, it means that the two sides have a dynamic and stability, at this time if the bilateral trade between the two countries, it can make the two sides of the same kind of industry to make progress together, prompted by trade exchanges, and to a certain extent can improve the two sides of the two countries the quality of products and technology [5].

The theory of comparative advantage can be expressed by the fact that the difference in labor productivity between two countries is not equal in any product, and that each country should focus on producing and exporting products with comparative advantage and importing products inferior to the comparative product [6]. Advantage, i.e., the theory of comparative advantage means that international trade is based on the relative differences in production technology, and not every country should focus on producing and exporting products with comparative advantages and importing products with relative disadvantages. According to the principles of the theory of comparative advantage in trade, the basis of emerging trade is explained on a more comprehensive basis. In this paper, according to the theory of comparative advantage, China and India should fully utilize the resources available in the theory. With comparative advantage, effective combination of factors of production is essential to achieve effective utilization of factors of production [7-8].

2.2 Research content

By modeling the resulting data and thus analyzing the complementarity of textile firms between the two countries. In this paper, we will analyze the trade complementarity index by establishing the trade complementarity index, which is different from the competitive analysis model, and the trade complementarity index model carries out the analysis of the degree of complementarity through the C-value, and determines the degree of complementarity between the textile enterprises of China and India by calculating the C-value[9-10].

3. Complementarity Analysis of Chinese and Indian Textile Enterprises

3.1 China-India Textile Enterprises Trade Complementarity Index

The trade complementarity index is mainly designed to measure the level of trade complementarity of similar products in different countries, i.e., if the product structure of a country exporting a certain type of product is similar to or coincides with the structure of another country's textile products, then it can be said that trade in this product between the two countries is complementary [11]. When the product has trade complementarity, if you can eliminate trade barriers through various means, you can achieve mutual development, mutual benefit and win-win purpose. If the trade complementarity index is small, it means that the degree of trade complementarity of the product is low, the development of trade between the two countries is more likely to be restricted. The formula for the trade complementarity index is:

$$C_{ij} = RCA_{xik} \times RCA_{mjk}$$

where RCA_{xik} denotes the comparative advantage of country i in product k as measured by exports; RCA_{mjk} denotes the comparative advantage of country j in product k as measured by imports; W_k denotes the total international trade of countries in product k ; and W denotes the value of world trade in all products.

3.2 Analysis of the Trade Complementarity Index Model of Chinese and Indian Textile Enterprises

China and India textile products are mainly concentrated in primary products and are currently labor-intensive products, for textile products, many of which are two-way complementary products. According to the results of the trade complementarity index, China and India have complementary advantages of textile products are not the same, but mainly concentrated in textile and clothing products. For some

textile and apparel products, both China and India have complementary, i.e., two-way trade complementary products, while for some categories of textile and apparel products, only one of the countries in China and India has complementary advantages [12].

Table 1: Trade Complementarity Index for Textiles and Clothing Exported by China and Imported by India

Year	RCA for China's textile and apparel exports	RCA for Indian textile and apparel imports	Complementarity index C
2016	3.6685	0.3584	1.2561
2017	3.5588	0.3947	1.3655
2018	3.4467	0.5028	1.6725
2019	3.4352	0.4865	1.4952

Table 2: Trade Complementarity Index of Textiles and Clothing Imported by China and Exported by India

Year	RCA for China's textile and apparel imports	RCA for India's textile and apparel exports	Complementarity index C
2016	1.2662	0.3584	5.6258
2017	1.1754	0.3947	5.5411
2018	1.0685	0.5028	4.2357
2019	0.8352	0.4865	3.6554

3.3 Model construction

Table 1 Shows the index of complementarity of textile and apparel products between Chinese exports and Indian imports in the global market. Compared to India, China's foreign trade dependence on textile and apparel products is high, and domestic demand for textile and apparel products is diverse and rapidly changing. Thus even though China is the world's largest exporter of textile products, its comparative disadvantage as measured by import RCA is more pronounced.

Comparison of table 1 and table 2 shows that the latter's complementarity index is greater than 3, which means that China's imports of China and India's garment and textile products corresponding to the trade complementarity is more significant. Therefore, for China and India, the textile products of the two countries are complementary, if we can effectively utilize the resources, harmonious cooperation, can promote the quality of the textile products of the two countries to improve the quality of products, promote exports, increase the welfare of the two countries. In addition to the above analysis of product complementarity, the authors believe that it is worth mentioning that China's textile industry chain and supply chain is more perfect compared to India, the resulting economies of scale will be more considerable. In the textile trade between the two countries, the textile industry chain between China and India also has complementary value. India can use China's textile industry chain for India's textile production services, and China in the process can also be more optimized and upgraded the degree of compactness of the domestic textile industry chain. The use of industrial chain complementary to realize the textile products complementary, can form a more perfect production closed loop.

4. Problem and recommendations

4.1 China-India textile firms fail to capitalize on their complementarities

In the textile foreign trade between the two countries, India's high degree of trade protection, in the global market, high tariff countries in addition to Europe and the United States in addition to a number of developed countries, India is also one of them, and at the same time the existence of trade friction between China and India also makes the two countries textile enterprises cannot play a complementary nature [13].

In the India-China textile trade, the two countries have strong textile and garment complementary textile enterprises. In terms of design art and quality, Chinese textile and garment will have more advantages than India. If India can strengthen exchanges and cooperation in this regard, it will not only play a positive role in the upgrading of the textile industry structure of the two countries, but also help

the two countries to obtain a larger market share in their respective target markets and establish a higher reputation.

4.2 Utilizing trade between the two countries to achieve complementary benefits for textile companies

With the increase in the number of countries participating in the Belt and Road Initiative, the positive economic and trade benefits it has brought to both China and the participating countries are becoming more and more significant. The positive economic and trade benefits of this construction for China and the participating countries are also becoming more and more significant. The textile industry is essentially a basic industry of the country, and as the construction of the "Belt and Road" continues, the textile industry is also moving forward to a high level, and the textile industry is an important industry for both China and India, and the country has always attached great importance to this industry[14]. Therefore, in this context, to promote bilateral trade between China and India is a win-win situation for both countries. China as the world's largest consumer market, the demand for textiles is very large, and India as the Asian region's population and production of large countries, the same prospect. Thirty years ago, China's actual per capita textile consumption is far lower than other European countries, and according to data in recent years, China's per capita textile consumption has exceeded the global level of textile consumption, about two to three times as much as other European countries.

So, if China and India can reach a consensus on the import and export of textile trade, for the complementary textile enterprises in the two countries can give certain concessions, the development of reasonable policies to reduce technical and trade barriers to an open and inclusive attitude to cooperation, it is bound to be able to produce "1 + 1 > 2" economic benefits. For the current situation between the two countries, China can use the new technology in recent years to help Indian textile enterprises continue to upgrade, improve the process and reduce labor costs, while India should further expand the demand for Chinese raw materials and emerging materials and procurement, which can also prompt China to establish confidence in the textile enterprises, textile enterprises continue to upgrade and replace the textile enterprises, through the promotion of trade exchanges between Chinese and Indian textile enterprises, deepening the complementary dependence of textile enterprises of the two countries, taking advantage of the strengths and weaknesses of the two countries. We can promote the trade between Chinese and Indian textile enterprises, so as to deepen the complementary dependence of textile enterprises of the two countries and complement each other. Both countries can develop their own textile enterprises with the advantages of other countries [15].

4.3 Accelerate the industrial structure upgrade of Chinese textile enterprises

China has a relatively complete hardware and software infrastructure advantages, scientific research talent reserves, vast land area, as well as high-quality raw materials (such as cotton and wool) production base, while the chemical industry is also developing more rapidly, so the textile industry to high-end raw materials end of the transfer has a solid foundation. Southeast Asia and other countries have the advantage of labor costs and tariffs, but the lack of infrastructure, labor quality and technical proficiency is not as good as China, it is difficult to undertake the transfer of upstream high value-added links. According to the Labor Force Survey Report released by the Vietnam Statistical Office, as of the first quarter of 2021, only 15.5% of the total working population had college, bachelor's degree or higher education, and the proportion of those without training experience was as high as 74.02%; correspondingly, the proportion of intermediate and advanced technical and professional positions in the total employed population was only 10.9%, and employment in the manufacturing industry is still dominated by elementary jobs at a low level of technology. Jobs are still dominated by low-skilled elementary jobs.

Therefore, it is believed that China's leading textile enterprises will transfer low value-added links to low production cost countries, while focusing on product research and development and refinement of management, is to follow the trend of transformation and upgrading of the domestic industrial structure, valuation and profitability enhancement of the effective strategic direction.

5. Conclusion

The two countries have their own advantages and disadvantages in the textile industry, for textile and apparel products, China has a more competitive, but at the same time with the Indian textile clothing and complementary. In the textile raw material products, India is the same. Generally speaking, the textile

industry in China and India are more similar, but because of the two countries in the factor endowment, geographic location, production conditions and other factors are different and complementary. Especially in textile and apparel, China and India can strengthen cooperation and exchanges, so as to absorb each other and integrate to promote the development of textile industry.

China and India should actively utilize their own advantages and resources, with an open and inclusive heart to strengthen bilateral trade, and promote the continuous upgrading of the textile industry in both countries. China and India as the world's two emerging economies, although the textile industry is in a different stage of development, but the overall complementarity is strong, if you can make good use of the complementary characteristics of the two countries' products, can form a healthy competition, the two countries are good. At the same time, the Textile enterprises should rely on the "Belt and Road" international exchanges and cooperation, and continue to seize the opportunity to develop the advantages of their own products.

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