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# A Study on the International Competitiveness of China Textile and Clothing Industry

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**Abstract:** Ever since the open policy adopted in China, textile and clothing industry has been playing an important role in the economic development and foreign trade. The achievements prove the competitive advantages possessed by China textile and clothing industry, while we can attribute the advantages to factors endowments as abundant raw material and human labor. These advantages can also be acquired by other countries with similar situations, such as India, Pakistan, Mexico and Turkey. With the abolishment of quota system in 2005, these countries have faced more favorable trade policies than China. China will face a more competitive market than before. Author of this article hopes to understand the international position, competitiveness, existing problems and strategies as industry innovation and upgrade for China textile and clothing industry through analysis.

**Keywords:** international competitiveness, international trade, textile and clothing industry

## 1. THE INTERNATIONAL TRADE POSITION OF CHINA TEXTILE AND CLOTHING INDUSTRY

Textile and clothing industry has been a backbone of trade surplus ever since the open policy adopted in China. As we could see it in table I, the trade surplus created by textile and clothing industry has increased from 31 billion dollars to 225.3 billion dollars from the year of 1999 to 2011 with a sharp increase in the last three years. The percentage of textile and clothing trade surplus on national trade surplus exceeds 100% in several years demonstrate the importance of textile and clothing industry in composition of current account in Balance of Payment.

**Table I. National Position of Textile and Clothing Industry Trade**

Year	Trade Surplus of Textile and Clothing (billion dollars)	National Trade Surplus (billion dollars)	Trade Surplus of Textile and Clothing on National Trade Surplus (%)
1999	31	29.2	106
2000	38.2	24.1	158
2001	39.5	22.5	176
2002	47.5	30.4	156
2003	64.9	25.6	254
2004	80.6	32	252
2005	100.4	101.9	98
2006	129	177.4	73
2007	158.3	262.2	60
2008	167.2	298.1	56
2009	150.3	195.7	77
2010	186.5	182.7	102
2011	225.3	154.9	145

According to statistics recorded by China customs, the export value of textile and clothing reached 254.9 billion dollars in 2012 with an increase rate of 2.8%. In countries like India and Turkey, export of textile and clothing has increased apparently. Export value of textile and clothing from India from the year of 1999 to 2011 has increased from 9.59 billion dollars to 21.12 billion dollars with an average annual increase rate of 9.1%. In the meantime, China export of textile and clothing has been greatly influenced by ‘specific safeguard measures of textile’ adopted by importing countries with the purpose of protecting domestic industry and limiting import from China after China’s entry into WTO. The importance of textile of clothing industry to Chinese economy is obvious based on the data shown in table I. While it doesn’t indicate that the international competitiveness for the industry is prominent as well. We will analyze the competitive position of China textile and clothing industry in the world market in the following part.

## 2. ANALYSIS OF INTERNATIONAL COMPETITIVENESS OF CHINA TEXTILE AND CLOTHING INDUSTRY

Three methods as Market Share(MS), Trade Specialization Coefficient(TC) will be used to in order to analyze international competitiveness of China textile and clothing Industry.

### 2.1 Market Share

This indicator represents value of export for one product from selected country on the value of export for the product worldwide. This indicator can reflect competitiveness of the concerned product directly. It is calculated by:

$$MS = X_{ab} / X_{wb} \quad (1)$$

Where,  $X_{ab}$  represents the export value of product b from Country a, and  $X_{wb}$  represents export value of product b worldwide.

Figures in table II show that the market shares of Chinese textile and clothing have been increasing steadily, the same with some selected countries as India, Mexico, Pakistan and Turkey. Most of the development in those other countries could be attributed to the abolishment of textile and clothing quota system in 2005.

Data shows us that from the year of 1999 to the year of 2011, the average annual increase rate of textile and clothing market share of China is 11.3% and 7.1% respectively, a faster growing pace comparing to other competing countries as India(3.3%,1.9%), Mexico(-6.2%,-10.4%), Pakistan(5%,8%), and Turkey(3.7%,-0.4%) respectively.

**Table II. Market share of textile and clothing industry of selected countries**

Country	Indicator	1999	2001	2003	2005	2007	2009	2011
China	Textiles	8.92%	11.27%	15.40%	20.09%	23.28%	28.44%	32.16%
China	Clothing	16.29%	18.86%	22.29%	26.76%	33.32%	33.90%	37.28%
India	Textiles	3.48%	3.61%	3.53%	4.05%	4.02%	4.33%	5.12%
India	Clothing	2.79%	2.81%	2.50%	3.10%	2.83%	3.79%	3.48%
Mexico	Textiles	1.57%	1.40%	1.20%	1.05%	0.92%	0.77%	0.73%
Mexico	Clothing	4.21%	4.12%	3.13%	2.64%	1.49%	1.30%	1.12%
Pakistan	Textiles	2.91%	3.03%	3.33%	3.47%	3.07%	3.09%	3.09%
Pakistan	Clothing	1.00%	1.10%	1.16%	1.30%	1.10%	1.06%	1.10%
Turkey	Textiles	2.38%	2.64%	3.01%	3.46%	3.72%	3.67%	3.67%
Turkey	Clothing	3.53%	3.43%	4.27%	4.27%	4.02%	3.65%	3.38%

## 2.2 Trade Specialization Coefficient (TC)

Trade specialization coefficient is calculated by net export volume divided by total trade volume. The function is:

$$TC_{ij} = (X_{ij} - M_{ij}) / (X_{ij} + M_{ij}) \quad (2)$$

where  $TC_{ij}$  represents the trade specialization coefficient of product  $j$  in the country  $I$ , while  $X_{ij}$  and  $M_{ij}$  represent the export volume and import volume respectively. The index will range from -1 to 1. It is well recognized that when  $0.8 \leq TC < 1$ , the concerned product has a prominent competitive advantage, and when  $0.5 \leq TC < 0.8$ , the concerned product has a relatively high competitive advantage, when  $0 < TC < 0.5$ , the concerned product has competitive advantage, but it is not obvious. The more approximate to -1, the more competitive disadvantage will the concerned product be.

We could get the information from table III that that trade specialization coefficients of textile and clothing in China for the years concerned are all above 0, which represent a long term export advantage in the world. The trade specialization coefficient of textile in China during the year from 2007 to 2011 are between 0.5415 and 0.6664, which represent a relative high comparative advantage, and also shows an improvement in the competitiveness comparing to previous years. The TCs of clothing in China in the years above are all above 0.9. In the year of 2007, the indicator topped at 0.9663. These represent an obvious competitive advantage of China clothing products in the world. We could attribute the high TCs of clothing to the fact that the import volume of clothing in China is much lower (below 3% of the export volume) comparing to the export. In comparison, the volume of textile import is always above 20% and below 30% of total textile export volume in China. The steady growth of TCs of textile represents the higher growth pace in export of textile than its imports.

Looking at the comparing countries, the trade specialization coefficients of textile in India are between 0.6128 and 0.8216, with a descending trend. Most of TCs of India for clothing are near to 1. The comparative advantage of clothing products is more obvious than textile products in India. The trade specialization coefficients of textile in Turkey have competitiveness while not much obvious. As a comparison, the trade specialization coefficients of textile in Pakistan are between 0.7589 and 0.9438, which shows obvious competitiveness.

**Table III. TCs of Textile and Clothing Industry of Selected Countries**

Country	Indicator	1999	2001	2003	2005	2007	2009	2011
China	Textiles	0.0814	0.1446	0.3085	0.4517	0.5415	0.6002	0.6664
China	Clothing	0.9293	0.9328	0.9468	0.9570	0.9663	0.9662	0.9491
India	Textiles	0.8216	0.7897	0.7016	0.6128	0.6323	0.6022	0.6312
India	Clothing	0.9927	0.9837	0.9864	0.9854	0.9736	0.9745	0.9510
Mexico	Textiles	0.2500	0.3434	0.2092	0.2288	0.1870	0.2416	0.1754
Mexico	Clothing	0.9381	0.9301	0.9187	0.8751	0.8101	0.6866	0.6200
Pakistan	Textiles	0.9483	0.9342	0.9159	0.8754	0.8543	0.8335	0.7589
Pakistan	Clothing	0.9957	0.9953	0.9905	0.9851	0.9685	0.9718	0.9625
Turkey	Textiles	(0.3640)	(0.4407)	(0.4461)	(0.4773)	(0.4375)	(0.4452)	(0.4649)
Turkey	Clothing	0.3636	0.3918	0.4139	0.4866	0.3510	0.3214	0.2566

## 2.3 Revealed Competitive Advantage Index (RCA)

The RCA measures relative advantage or disadvantage of a certain country in a certain class of goods or services as evidenced by trade flows, which is introduced by Béla Balassa. The RCA is equal to the proportion of the country's exports that are of the class under consideration divided by the proportion of world exports that

are of that class.

The function is :

$$RCA_{ij} = (X_{ij}/X_{it}) / (X_{wj}/X_{wt}) \quad (3)$$

In which  $RCA_{ij}$  represents the RCA of a given country  $i$ ,  $X_{ij}$  represents the export volume of product  $j$  in country  $i$ ,  $X_{it}$  represents the total export volume of country  $i$ ,  $X_{wj}$  represents the export volume of product  $j$  of the world, and  $X_{wt}$  represents the total export volume of the world. When  $RCA > 2.5$ , it shows strong export competency of product  $j$ , when  $RCA$  is between 1.25 and 2.5, it shows relative strong export competency of product  $j$ . when  $RCA$  is between 0.8 and 1.25, it shows a middle-level competency of product  $j$ , when  $RCA < 0.8$ , it shows a low competency of product  $j$ .

The RCAs for textile from the year 1999 to 2011 are all above 2.5, which shows strong export competency for China. Although the RCAs for clothing are also above 2.5 for these years, while the indicator has reduced from 4.77 in 1999 to 3.59 in 2011. The development trend should not be ignored due to the importance of textile and clothing industry to the national economy.

When we analyze the indicators, it's not difficult to find that we could attribute the strong competitiveness of textile and clothing industry of China to the strong basis and much lower production cost. The descending competitiveness of clothing shows the slow progress in the technology and product quality. That is also the reason why the export increase rate is relatively lower than electronic products.

**Table IV The RCAs of Textile and Clothing Industry of Selected Countries**

Country	Indicator	1999	2001	2003	2005	2007	2009	2011
China	Textiles	2.61	2.65	2.70	2.79	2.70	2.97	3.09
China	Clothing	4.77	4.39	3.86	3.67	3.81	3.54	3.59
India	Textiles	5.57	5.21	4.60	4.31	3.79	3.29	3.07
India	Clothing	4.47	4.01	3.21	3.26	2.63	2.89	2.09
Mexico	Textiles	0.66	0.55	0.56	0.52	0.48	0.42	0.38
Mexico	Clothing	1.30	1.31	1.02	1.00	0.60	0.52	0.50
Pakistan	Textiles	19.74	20.56	21.45	22.88	24.30	22.15	22.28
Pakistan	Clothing	6.78	7.36	7.38	8.48	8.61	7.59	7.95
Turkey	Textiles	5.11	5.28	4.90	4.99	4.90	4.51	4.97
Turkey	Clothing	7.58	6.77	6.85	6.08	5.22	4.48	4.58

### 3. CONCLUSION

Based on the above indicators, we could learn that the market share of textile and clothing of China is growing quickly. Although the growing pace is amazing, the TC indicator for textile is not as good as for clothing, which shows a strong competitiveness with indicators above 0.9. Comparatively speaking, the TCs for Textile and Clothing of India are both quite high and represent obvious competitiveness. The interesting thing is that Turkey enjoys both a relative strong competitiveness for clothing, and a weak situation for her textile. It is concluded from the RCA that the clothing industry has been experiencing very slow increase in its competitiveness above 2.5, while the RCA of clothing was reduced by 37.1% for the last 10 years showing a downward competitiveness.

From the data above and the survey by the author, it is suggested that in order to increase the competitiveness of textile and clothing industry in China, the research and development o should be strengthened. The product ranges and level of textile and clothing in China are at the middle-lower level with low added value. It is important for the producers in China to improve the product design capability, and to

continuously innovate on processing, producing technology as well as the producing equipments. At the same time, the added value should be improved to customize the products to upscale consumers; the brand strategy should be adopted. The textile and clothing industry should gradually pay less and less attention on OEM, and focus more on developing differentiated products with brand strategy. A brand known and accepted by the customers could help the enterprise to gain competitive advantage in the competing environment; the textile and clothing industry in China also face the problem of lack of qualified crude material from within China for exported products. Efforts should be devoted to the crude material producing in China. We could positively develop and make use of wool, fiberflax, cashmere which are particular owned by China to develop new fabric to achieve diversity of crude material. And also we should bear in mind that natural fibre and chemical fibre development are both important; supportive regulative policies are necessary for the healthy development of textile and clothing industry. Exporting polices and financially supportive policies should be improved to support leading enterprises with high exporting capability, good economic yields. The reform of crude material flowing structure should also be applied to set up normalized market to avoid out-of-order competition and regulate the price of cotton, wool and chemical fibre to guarantee the demands of enterprises. Domestic policies as export rebate, export license could also be applied to expand export; Industry cluster should be formed. The textile and clothing producers in China are dispersed with small scale and weak designing and innovation capability. The clustered industry could help to increase the efficiency and scale and also to reduce the R&D cost to produce spillover effect, to foster joint development for all the enterprises within the cluster.

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