



Effect of Technical Barriers to Trade on Chinese Textile Product Trade

Ningchuan Jiang

Visiting Professor, FedEx Global Education Center, UNC, Chapel Hill, NC 27599, USA

Depart. Economics and Management, Chengdu Textile College, Chengdu 611731, China

Abstract

It has been more than five years for China's entry into WTO. With the decrease of regulations of tariff barrier and non-tariff barrier, the export market of Chinese textile products has been expanded and the market shares have been increased, which arouses great attention of many countries in the world. Some countries increase the limit of import. What should be noticed is the more covert and more agile trade barrier, which becomes the biggest barrier of export of our country's textile products.

This article reviews the concept and content of technical barriers to trade, concludes the condition of technical barriers to trade in the textile product field of America, Europe and Japan, analyzes the reasons of technical barriers to trade combining with Chinese textile product export condition and the effect from technical barriers to trade and finally discusses the measures of dealing with technical barriers to trade and existing problems of Chinese textile product export.

Keywords: Technical Barriers to Trade, China, Textile Product Trade, Effect

China is the biggest country producing and exporting textile products. The textile industry is China's traditional predominant industry and pillar industry to gain export profit for the country. Since the reform and opening to the outside of the world, especially after entry into WTO, facing quickly increasing domestic and foreign demand and medium & low level product market, Chinese textile industry has developed greatly. The textile industry is an important industry of Chinese national economy, which plays a very important role in solving employment and expanding export. According to the data of National Development and Reform Commission, in 2007, the export volume of Chinese textile products reached \$171.2 billion, which increased by 18.9% than last year and occupied 8.9% of Chinese import-export volume; in 2007, the trade surplus of Chinese textile products occupied 6% of the total national trade surplus.

However, Chinese textile product export always faces the widest and the most strict quota limitation and more rigorous trade barriers. With the arising of new trade protectionism, the new trade barriers with the core of technical barriers to trade appear constantly, which results in more and more new trade disputations. Here the author propose a question: what is Technical Barriers to Trade?

1. Concept and Development of Technical Barriers to Trade

Technical Barriers to Trade (for short TBT) means that in order to maintain national security, guarantee human beings' health and safety, protect ecological environment, prevent trick and ensure product quality, one country adopts various compulsory or non-compulsory technical limited measures, such as technical regulations, standards and eligible evaluation procedure to authenticate import products on their technology, sanitation quarantine, product packing and label, which can improve products' technical demand, increase importing difficulty and limit import finally. These measures become the barriers for other countries' products to enter this country's market freely.

Here are the types of TBT:

1.1 Rigorous and complex technical standard.

Developed countries have stipulated rigorous technical standard for many finished products. There are product standard, test method standard and safety & sanitation standard; there are industrial product standard and agricultural product standard. These standards are not the same in various countries, that is, the products can accord with one country's technical standard but not accord with another country's standard. Let me take clothing woolens as an example. France stipulates that the lowest woolen-contained amount is 85%, Belgium's standard is 97%, while German's standard is 99%. Technical standards can not only limit the rendition of foreign products but also set barriers for foreign products.

1.2 Technical laws and regulations.

The documents with legal sanction include law, decree or administrative regulations, which are issued and implemented

by power organs. Some countries issue more and more complex technical regulations to limit importing products. Export of one product is related with various compulsory regulations of import countries. For example, when exporting textile products to America, Japan, France, Britain and Canada, one country should consider some relevant regulations such as demand of burning behavior standard, otherwise exporting products may meet with barriers.

1.3 Management regulations of product packing and label.

Some countries make rigorous regulations on packing's and labels of import products. The products must accord with these regulations, otherwise they are prohibited from being imported or sold in the import country's market. The regulations include material, specification, word, figure or code of the product packing. Some packing materials should be testified by the exporter providing with disinfection documents, otherwise products cannot be used or imported. For example, in Jan. 1999 Canada proposed the quarantine demand for wooden packing's of Chinese import products. However, in June of 1999, European Union proposed new demand for wooden pickings' of Chinese import products, that is, wooden pickings' should not contain barks and wormhole with the diameter more than 3mm, wooden pickings' should be dried and should not contain water amount for more than 20%. Other countries also propose some relevant demand for Chinese products.

Labels are extremely important for exporting apparel. For example, European Union countries stick ecological labels on import textile products. The ecological label "OKO-TexStandard 100" is the passport for textile products enter the textile products market of EU; Australia stipulates that on the labels of import apparel, there must be components of raw-materials, age and stature explanation, washing method and production country; Canada stipulates that lobes of import apparel must be printed in English and French.

1.4 Inspection procedure.

With the severe competition in the international market, in order to implement trade protectionism policy many developed countries adopt various covert protection methods, among which inspection procedure is one important trade barrier. The forms of inspection procedure are: increasing inspection items, making inspection technology more complex, increasing demand of parameter veracity, inspection instruments, inspection methods, inspection environment and inspection technicians. For example, European Union demands to inspect whether import textile products own heavy metal, pesticide and pentachlorophenol, which becomes a trade barrier difficulty for developing countries to overcome.

1.5 Environmental and ecological standard.

In 1996, International Standard Organization (ISO) issued ISO 14000 *Environment Management System* international standard, but many countries stipulate their own standards according to local condition, which brings severe barriers to international trade. In the name of protecting environment, developed countries stipulate rigorous technical regulations through legal method to form a green technical barrier to prevent foreign products from entering the domestic market.

2. Technical Barriers to Trade in Textile Product Industry of America, EU and Japan

The textile industry in China always produces much profit. One fifth of Chinese foreign trade export volume comes from the textile industry. The main target markets of Chinese export textile products are America, European Union and Japan. And these three places feel the great threat coming from Chinese textile industry. Combining with other elements such as politics, economy and environment protection, these three places stipulate various technical barriers to trade especially aiming at Chinese textile products. These technical barriers to trade are listed as following:

2.1 America.

There are compulsory acts, demand for packing and labels, evaluation procedure for testing eligibility's and green barriers, among which green barriers have two types. One type of barriers is set in the progress from designing and producing textile products to reject and reuse products; another type of barriers is to demand that textile products should not exert bad influence on the consumers' health during the process of using and wearing textile products.

2.2 European Union.

EU is the first group which realizes the technical barriers to trade in the international trade. TBT in the textile product industry are: eco label, health and safety regulations, green barriers, EU new policies for chemical products, social accountability standard(SA8000)GS. mark,etc.Eco labels: among these marks, Oeko Tex Standard 100 and Eco Label are most popular. Oeko Tex Standard 100, about product quality, is stipulated and issued in 1992 by International Environment Protection Textile Association on the basis of doing research on product ecology, which is used for testing the harmful substances of textile products. Comparing with Chinese current textile product standard, Oeko Tex Standard 100 gives definite and quantitative regulation on ecological harmful substances in textile products.

Green barriers: with the excuse of protecting ecological environment and consumers' health, EU stipulated the ban of Chinese textile products export to establish "green barriers" to prevent Chinese textile apparels from entering their markets. For example, on Jan. 6 of 2003, EU passed the instruction of 2003/03/EC to prohibit the manufactures from

using the blue colorant in textile leather products.

2.3 Japan.

except for some regulations similar with TBT, in order to enter Japanese market, the textile products must satisfy various compulsory technical standards, such as national specification, group specification, random quality standard.

3. Reasons for China Encountering TBT

3.1 Trade protectionism re-arising and foreign countries protecting domestic textile apparel market

TBT is gradually replacing tariff and non-tariff barriers. In future, the trade disputes caused by TBT will be more. Especially after the textile quota was cancelled, European countries and America were stricken greatly. New protectionism re-arose. Many countries made use of TBT to suppress some competitive countries such as China to protect their domestic market, decrease unfavorable balance of trade and win some chips on politics.

3.2 Developed countries strengthening the consciousness of environment protection, safety and health. With the popularity of consciousness of sustainable development and environment protection as well as the increase of people's living standard, developed countries develop their standard of environment protection, safety and health on textile apparels. However, because there is great gap between Chinese textile products and the developed countries' standard, Chinese textile products are always limited by TBT such as green barriers, eco labels, safety demand, eligible evaluation procedure, SPS, pickings and labels.

3.3 Developed countries decreasing trade favorable balance to protect domestic market

Because the labor cost is high in developed countries, their competition ability to sell medium & low level textile products is lower than that of developing countries. Their domestic market shares are also impacted by the same foreign products with low cost. Therefore, setting TBT is a kind of method to protect domestic market. After entry into WTO, the export trade volume of Chinese textile products gradually increase. American, Japan and EU are the main markets for Chinese exporting textile products. There exists mint trade favorable balance in importing & exporting textile products and this trade favorable balance is increased from 2000 to 2003 intensely. Because of the severe existence crisis in the textile industry, America, Japan and EU have to adopt measures. Therefore, they set various TBT to abate domestic employment pressure, decrease impact of import products and reduce trade favorable balance.

3.4 China lagging behind the western countries in technology and manufacturing equipment as well as having not strong competition ability Chinese textile products export is comparatively not competitive.

Even though Chinese textile products export has been developed for the recent years, but because of the slow technical level, most of export products are featured with low technology, low quality and unadvanced manufacturing equipment. Comparing with the foreign products' improving production technology, product quality and standard, the weakness of Chinese export products is obvious. According to some relevant materials, 70% of industrial standards are lower than that of international standard. Therefore, even if the developed countries do not stipulate complex and rigorous technical standards, most Chinese products will be refused.

3.5 China having unadvanced technology and inspection equipment as well as low standard.

For a long time, Chinese textile apparel has been inspected in some traditional items. The inspection equipment is simple without high precision. Lacking technical communication and cooperation with foreign competitors, Chinese textile inspection technology lags behind that of developed countries. Until now, there are almost 90 items of national standard which are relevant with safety of textile products. Even though these standards adopt ISO standard, but there is still a gap with international standard, which causes big difference in the inspection results and forms technical barriers to trade.

3.6 Exporting enterprises lacking authentication consciousness, quick-response mechanism and early warning mechanism.

Because most Chinese export enterprises' information channels are hindered, they lack standard consciousness, regulation consciousness, authentication consciousness and information of foreign TBT, which make themselves passive when facing foreign TBT. Therefore, most export products cannot reach international technical standard including manufacturing condition, craftwork and method. Even if some products have quality inspection, but without authentication, these products still cannot enter the main markets of foreign countries, which causes the loss of profit of the enterprise.

4. Effect of TBT on Chinese Textile Products

The developed countries such as America, EU and Japan limit the export of textile apparel through stipulating relevant technical regulations and standards, which exert more and more influence on Chinese textile product export. From the nature, TBT is a double-edged sword, which has positive influence on international economy and Chinese economic development as well as the negative influence.

4.1 Positive influence.

Currently, foreign rigorous TBT is greatly affecting Chinese textile product export. However, from a long-term view, it will exert positive influence on the development of Chinese textile product industry.

4.1.1 Driving technical advancement.

Foreign TBT becomes the challenge to Chinese textile product export, meanwhile, it provides strong momentum for Chinese textile industry to realize technical advancement.

4.1.2 Promoting adjustment of products' structure.

With the purpose of protecting environment and human beings' health, the proper technical index is stipulated to decrease harmful textile products trade, which also can promote Chinese textile industry to adjust products' structure, develop further processing products of environment protection and regard "green textile apparel" as a new growth point for export. Thus Chinese textile products can break foreign TBT and enlarge the international market occupancy rate.

4.1.3 Promoting the change of conception.

From some certain point of view, Chinese textile products export encountering foreign TBT may make the operators and manufacturers of Chinese textile industry change their wrong conception: from only focusing on products' outside quality to focusing on products' outside and inside quality; from only emphasizing on products' quality to emphasizing on product's quality and manufacturing process; from taking economic profit as primacy to emphasizing on economic profit and consumers' profit.

4.1.4 Perfecting construction of system.

Currently, China has more than 10 centers of inspecting prohibited dye in the textile products exporting bases such as Shanghai and Suzhou. And more than 20 inspection organizations in China have gained authentication qualification to issue inspection report of prohibited dye. At present, there have been more than 200 enterprises getting authentication certificate of Oeko-TexStandard 100. This will be good for fair competition in domestic market and for leading consumers to choose satisfactory products. And it's meaningful for China to expand textile product export volume and break developed countries' green barriers.

4.2 Negative influence.

Statistics of UN Trade Developing Conference shows that Chinese textile export products suffers great loss for \$7.4 billion because of TBT. Some experts think that TBT's influence on Chinese textile product export is more than that of anti-dumping case. Therefore, TBT's negative influence on China is more than positive influence. In 2002, 67.2% of textile apparel enterprises were influenced by TBT. A huge amount of products had to retreat from foreign market and suffered the loss for \$1.17 billion. In 2003, 74.4% of enterprises were influenced by TBT with the loss of more than \$1 billion. The loss extent is larger than that before China's entry into WTO. 15% of Chinese textile products could not accord with American "green" demand, thus exporting products for \$8 billion were influenced. EU's Instructing of Prohibiting Nitrogen Dye has influenced more than 70% apparel enterprises. German "green angel", Canadian "environment choice", Japanese "eco standard" have made the barrier for Chinese textile products export. And various bad influences appear.

4.2.1 Entry requirement for Chinese textile products is high and international shares are challenged.

Chinese textile products are always exported to markets of Chinese Hong Kong, Japan, America and EU, in which the export shares occupy over 75% of Chinese total export volume. However, green barriers are severe in these places which pay more attention to environment protection and safety. Their green trade barrier system becomes more and more complete and the standards are rigorous than before. TBT especially green barriers have become a very important barrier in textile products trade. These stipulations not only strictly limit the usage of harmful chemicals in textile products but also give definite environment protection demand in various stages of textile product lifecycle, including manufacturing fiber, planting & disposing cotton, processing & manufacturing products and consumption, etc. These stipulations include chlorinated organic carrier, formaldehyde residues, antiseptic, soluble heavy metal residues, acid & basicity extent of fabric, coloration extent & special odor; prohibiting usage of elements destroying ozonosphere; controlling or perishing some harmful germina; the released waste in manufacturing process cannot exceed the standard. If Chinese textile products cannot reach the standards stipulated by these countries, the market shares will be shrunken. And America, Japan and European countries are important members of "Trade and Environment Committee" in WTO. Their activity always result in Domino Effect so that some emerging industrialized countries also simulate them to make TBT, thus Chinese textile products export may encounter more severe situation.

4.2.2 Export cost is increased and competition is weakened.

The implement of green barriers demands that the principles of environment science and eco science should be applied into the process of products' manufacturing, processing, storage and transportation, which forms a complete and

non-pollutant environment management system and influence every link of process from manufacturing, selling to handling abandonment. Therefore, in order to reach the environment standard of importing countries, Chinese textile products exporters have to increase investment of equipment and labors as well as do environment authentication. The improvement of inspection machines and authentication & inspection fee in the designated foreign inspection organizations will increase the export cost of enterprises. However, Chinese textile enterprises' competition advantages focus on low-cost labors. The products' technical content is low, which weakens Chinese textile industry's competition in the international market. As a developing country, China has to acclimatize the "green tide". There's no way for China to exclude and reject it. In order to acclimatize the "green tide" and break the TBT, the fee of every link of process from manufacturing, selling to handling abandonment will be increased, thus the total cost also will be augmented. The original price advantage is comparatively weakened, the enterprise's profit is influenced and the international competition of enterprise's export will be bated.

4.2.3 Complex procedure and high expense will increase the cost.

The application of EU's textile products' eco label is handled in European countries and the procedures are complex. These complex procedures and demands increase the application difficulty and export cost of Chinese enterprise. After EU's REACH code was implemented, according to the estimate of EU, the inspection fee of every chemical element is 85,000 Euro and the inspection fee of every new element is 570,000 Euro, which will result in great trade barriers for Chinese textile industry.

4.2.4 The affected scope is vast and some relevant industries are influenced.

TBT not only influence Chinese textile apparel industry but also affect printing & dyeing industry, chemical agents industry, fiber & raw material industry, transportation industry and decrease the business and income of these industries.

4.2.5 TBT not only affects the market occupancy rate and income of Chinese export enterprises but also influences Chinese employment.

According to survey, when Chinese textile products export is decreased for 1%, the domestic production will be decreased for 0.5%. The number of unemployment population will be 36,000, which will cause great social pressure. The extremely high dependence on international trade will make Chinese textile industry face great international market risk.

5. Measures to Cope with TBT for Chinese Textile Products Export

With the trend of integrative international economy and trade liberalization, and when traditional and non-traditional tariff barriers are dismantled, Western developed countries adopt more covert, less transparent, not easily to be supervised and predicted protective measures---- Technical Barriers to Trade to prevent products of developing countries from entering domestic markets. Therefore, doing research on measures to cope with TBT of developed countries is meaningful for Chinese export trade and production.

5.1 Main methods adopted by the government

5.1.1 Strengthening cross-national communication and negotiation to reduce TBT.

Chinese government should positively participate in international bilateral and multi-lateral negotiation and strengthen communication with developed countries' governments to reach understanding and memo among countries and reduce TBT as much as possible. The government should develop diplomacy in textile industry to strengthen competition in Chinese textile industry. Through reinforcing the communication, intercourse and mutual trust with the international rivals, cooperators, relevant industries, consumers, social groups, economic & political organization and individuals, the government should try to banish and avoid the collision and gulf due to misunderstanding, which can enhance Chinese international image, establish the status of powerful country, create Chinese textile national brand, improve the general good reputation of Chinese textile industry, construct industrial system in order to ensure that Chinese textile industry can stabile, healthily and quickly develop in the era of economic and trade globalization.

5.1.2 Strengthening macro-regulation, standardizing and guiding industry to develop healthily.

The government should strengthen macro-regulation, encourage establishing high technology and environmental protection textile enterprises and encourage powerful enterprises to invest and establish enterprises outside of China. The government also should standardize and guide the textile industry to develop healthily, which can promote industry to upgrade.

5.1.3 Pushing international standard.

According to statistics, 70-80% of Chinese current industrial technology standard is lower than international standard or foreign advanced standard and technical equipment lags behind the developed countries for 10 to 20 years. The government should increase propaganda, extend international standard such as ISO 9000 quality management and

quality guarantee standard and ISO 14000 environment management standard. Even though ISO standard is not compulsory standards but it is authoritative in the world. Promoting ISO standard is the passport for products entering international market.

5.1.4 Stipulating various technical rules and standards suitable for international market.

Facing more rigorous technical demand of foreign TBT, China should stipulate and perfect technical regulations about textile products, health and environment protection. China should supplement and perfect current methods of inspecting textile products, enhance accuracy and reliability of inspection methods, strengthen compulsory standard and relevant technical regulations with key limitation index and promote the system of "environment protection mark". For the current problems of disobeying stipulating, implementing and supervising regulations, the government should connect enterprise manufacturing, people's demand with form of supervising inspection level.

5.1.5 Establishing special institution and doing serious research on TBT agreement.

Chinese relevant departments should establish special institutions, organize experts to participate in stipulating international standards and reflect some opinions and demands of Chinese textile apparel export enterprises on international standards. The government should establish and perfect quick-response and early warning mechanism by consulting EU's early warning mechanism, which is divided into four grades from low level to high level including green, yellow, orange and red grades. When the export is increased sharply, the government can adjust the export of domestic enterprises to avoid TBT; when the foreign countries set the higher level TBT for some certain textile apparel, the government can adjust early warning grade to remind domestic enterprises of noticing the change. Therefore, the early warning mechanism can create good conditions for Chinese textile products entering international market.

5.1.6 Strengthening cultivating talents.

To some extent, market competition is the talents competition. The government should increase the investment on inspection technology, methods of inspecting products' quality, collocation of inspection equipment, technical laws and regulations to cultivate the technical talents.

5.2 Measures to Cope with TBT for Chinese textile enterprises

The textile industry is one of pillar industries of Chinese national economy. The output and production ability of Chinese chemical fiber, yarn, cloth, silk and apparel ranks No. 1 in the world. China has become the biggest country manufacturing textile products in the world, but just the biggest not the most powerful.

The change of all countries' economic development level and industrial structure has the direct influence on the transit of textile trade mode. Analyzing from international competition, the decisive elements are labor cost and technical level. China is featured in huge population and low cost labor. Therefore, Chinese products always cost-effective in the international market. However, this advantage is challenged by other countries such as India, Pakistan, Bengal. Comparing with these countries, Chinese coast areas have lost the advantage of low labor cost. Therefore, Chinese textile industry should improve competition advantage by making use of labor cost advantage. The government should do the following things:

5.2.1 Improving export products' quality and ameliorating structure of export products.

The product quality is the key for existence and development of enterprise. Chinese enterprises have to invest more on science and technology, improve products' technical content, promote new products in international market or realize technical innovation to make structure of export products satisfy demand of various consumers, especially the consumers of developed countries. For TBT in EU, American and Japanese markets, we should readjust products' structure according to the changed technical standards in order to make our products enter the international main markets.

5.2.2 Establishing Chinese own brands and increasing products' additional value. Brand is created through long-term anneal in the market. A well-known international brand symbolizes high-quality products, reliable and honest consumers and continuous profit of enterprise. At preset, in Chinese export textile apparel, there's no any brand or just appointed brand by the buyer or processing trade for buyer. The brand and profit is occupied by the buyer. How can Chinese textile products establish their own brand and form the reliable products conception? Therefore, Chinese textile apparel export enterprises should emphasize on brand establishment of products to make more consumers know Chinese products and enterprises.

5.2.3 Cultivating China's own technical talents.

One hand, Chinese government should cultivate talents. On the other hand, Chinese enterprises should improve scientific and technical level. The government should cultivate export specialist and talents in enterprises' quality supervision department and financial management department. These talents should learn in the practice and practice to learn to change old conception, renovate knowledge, improve their own quality to face the fierce international competition.

5.2.4 Cultivating the specialists familiar with relevant laws and regulations about TBT.

If Chinese textile apparel export enterprises want to overcome TBT, they need support and assistance of government, especially macro-regulation on collection of TBT information, technical codes, standard and evaluation procedure. On the other hand, the enterprises should improve their own international competition and develop the core competition products to stride TBT with high-quality products.

5.2.5 Exploring new markets to stride TBT.

One reason for Chinese textile apparel encountering TBT is that Chinese export markets are centralized in Japan, America and EU. According to statistics, the export volume in these three markets occupies 75% of Chinese textile export volume. Markets' extreme concentration arouses dissatisfaction of relevant enterprises of import countries and trade friction between exporter and importer and even makes the importing countries stipulate higher technical standards to limit importing products. In order to avoid unnecessary trade friction, Chinese enterprises should go on the way of market diversifying, that is, Chinese enterprises can explore wider markets outside of the main markets, which can avoid unnecessary trade friction and develop the trade relationship with other countries to find new development space for textile apparel export.

5.2.6 Abiding by the laws and regulations and managing the business with credit.

International trade emphasizes on efficiency and credit. No matter who breaks the international trade laws, he/she will be punished by the regulations. The social responsibility standard and eco environment standard have become the main TBT for Chinese textile products export. Therefore, in the international trade, first, Chinese textile industry should implement labor regulations strictly, stick to people-oriented idea and maintain workers' rights; second, Chinese enterprises should establish quick-response mechanism; third, Chinese enterprises should establish strict quality-supervision mechanism, enhance "green" environment protection consciousness. In the raw materials adoption, manufacturing, designing, packing and disposal after using products of textile products, Chinese enterprises should implement according to environment protection regulations, promote eco environment protection authentication, stick to international standard and adapt to the internationalization trend; fourth, Chinese enterprises should establish credit service mechanism. Only doing business with efficiency, regulations and credit can Chinese enterprises win the competition in the international market.

References

- Wang, Zhonghui, *Striding Technical Barriers to Trade-- Influence of Technical Barriers to Trade on Chinese Textile Products Trade*, China Social and Scientific Publishing House, 2005.
- Wu, Guanrong, Zhang, Shouming, *Influence and Countermeasures of Technical Barriers to Trade on Chinese Textile Products Trade*, Economic Issues, Feb. 2003.
- Yin, Zhengping, *Technical Barriers to Trade and Chinese Textile Products Export*, Jan. 2007.
- Zhang, Liang, Yan, Jun, *Research on Technical Barriers to Trade Encountered by Chinese Textile Products Trade and Countermeasures*, International Trade Issue, April 2005.