

Textile industry in Brazil

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Summary:

Brazil is the seventh biggest economy in the world, according to 2014 World Bank report [22]. Therefore, the country has a important role to play in the world's economy and, more specific, in textile industry. The focus is on macroeconomics, since its aim is to understand and improve the economy as whole, not to interpret individuals, firms and government agencies, which happens in microeconomics.

Key words: *Brazil, textile, industry, production, cotton, fabric*

1. INTRODUCTION

The textile industry was the core of the English Industrial Revolution (1760 - 1840). Since then, the need for specialized people to work in this kind of industry has been increasing, although many people from other areas have also been studying it. Economists studied textile industry in order to find out what generated the Industrial Revolution, and, therefore, identify the own causes of economical development. Politicians studied it with a view to discover what provoked militancy of working classes. More recently, feminists drove their attention to textile industry, due to the big number of wage earner women who worked in those kind of industry since the beginning of industrial economy. [3]

The country where the Industrial Revolution began was England. At that time, England had a great influence on Portugal, a sovereign state which overruled the colonial Brazil. There were many attempts from the Brazilian industrials to break from this commercial and political monopole however they were annihilated due to economic measures of interest of the metropolis, Portugal. For many reasons, the Brazilian fledgling textile industry could not compete with English fabrics. [19] This situation lasted until 1844, when a new tariff system came to command the evolutionary process of Brazilian industrialization, almost one hundred years after the beginning of the industrialization in England.

Many national and worldwide ongoings led to the rise and to the fall of the Brazilian textile industry since then. The American Civil War, the Paraguay War, the abolition of the slave trade, the Proclamation of Independence of Brazil, the Proclamation of the Republic, the First and Second World War, the economic rise of China are some of these events.

This paper will elucidate only some of those factors and its consequences to the Brazilian society, due to the complexity and extension of the theme.

2. INTERNATIONAL PANORAMA

Since the creation of the first economic block "Benelux" in 1944, the world has seen the economical productivity and commerce grow in levels never seen since Industrial Revolution. The rising importance of economics blocks, as NAFTA (North American Free Trade Agreement), UE (European Union), APEC (Asia-Pacific Economic Cooperation), ASEAN (Association of South East Asian Nations), MERCOSUL (Common Market of the South) has been increasing the need of technological advance and productivity levels. [21]

The competitive power of some periphery countries, as South Korea, Taiwan, Hong Kong, Indonesia, Thailand, India and Pakistan, forced the traditional producers of textile (North Americans and Europeans) to achieve a new pattern of competition, based not only in prices, but also in quality and flexibility. [12] In the chart below it is possible to analyze which countries were the biggest exporters of textile products in 1980 and 1997. It is also possible to see that Brazil corresponded to 0,7% of textile exportations in 1997. Trough this table we can compare the economic scenario in a window of 17 years, where we can especially notice the rise of Asiatic countries.

Textile exportations - 1980 and 1997

| 1980 | | | 1997 | | |
|----------------|-------------------|-------|----------------|-------------------|-------|
| Country | US\$ (million) | % | Country | US\$ (million) | % |
| Germany | 6.296 | 11,4 | Hong Kong | 14.602 | 9,4 |
| Japan | 5.117 | 9,3 | China | 13.828 | 8,9 |
| Italy | 4.158 | 7,6 | South Korea | 13.346 | 8,6 |
| United States | 3.757 | 6,8 | Germany | 13.053 | 8,4 |
| Belgium | 3.550 | 6,5 | Italy | 12.901 | 8,3 |
| France | 3.432 | 6,2 | Taiwan | 12.731 | 8,2 |
| United Kingdom | 3.108 | 5,7 | United States | 9.193 | 5,9 |
| China | 2.540 | 4,6 | France | 7.214 | 4,6 |
| Netherlands | 2.259 | 4,1 | Belgium | 7.010 | 4,5 |
| South Korea | 2.209 | 4,0 | Japan | 6.750 | 4,3 |
| Taiwan | 1.775 | 3,2 | United Kingdom | 5.618 | 3,6 |
| Hong Kong | 1.771 | 3,2 | India | 4.936 | 3,2 |
| Switzerland | 1.521 | 2,8 | Pakistan | 4.594 | 3,0 |
| India | 1.145 | 2,1 | Turkey | 3.352 | 2,2 |
| Subtotal | 42.638 | 77,5 | Subtotal | 129.128 | 83,2 |
| World | 54.990 | 100,0 | World | 155.280 | 100,0 |
| Brazil | 654 | 1,2 | Brazil | 1.022 | 0,7 |

Sources: WTO and Werner International [21]

We can relate the ascension of Hong Kong, China and South Korea, for example, to the fact that the clothing industry is labor-intensive and it offers entry-level jobs for unskilled labor in developed as well as developing countries. [12] Moreover, it is a sector where relatively modern technology can be adopted even in poor countries at relatively low investment costs.

In 2012 was founded the European Sector Skills Council of the Textile, Clothing, Leather and Footwear Sector (TCLF ESSC) whose objective is to improve training, qualifications and skills of the European labor force in textile industry. The textile and clothing sector accounts for 3% of total manufacturing value added in Europe. [10] Those companies are overwhelmingly small and medium-sized enterprises and cover a broad industry cross-section in terms of product, market segment and geographical spread in Europe.

The industry in Europe developed three main strategies to be able to handle the increasing competitiveness: relocation of factories to low-cost countries; diversification of the spectrum towards high-quality and specialty textiles products; automation and IT-based of the supply chain, which helped to increase flexibility and create global sourcing systems. [20]

3. HISTORY OF TEXTILE IN BRAZIL

Textiles were initially produced in Brazil by indigenous tribes using widely available cotton and other kind of fibers, specially from plants. There is no written evidence about this production, so the historical interpretations were made according to the Portuguese colonialists which first focused about the indigenous' nudity. They ignored the fact that many Brazilian indigenous tribes used some type of fabric cover, from thongs (small skirts) to full tunics with leggings. [9] The ability of indigenous with textile materials was also evident in its elegant hammocks, baskets and ropes made from vines and other fibers. In fact, their weaving techniques were so important ethnographically that even among people of the same tribe the differences towards the end of twine twist was used to delineate the identity of internal groups within larger ethnic groups.

During the first period of colonization (starting from 1530), the textile manufacture was limited to thicker fabrics, made from simply wool and cotton, which were worn by the common classes, expressively slaves. From 1550 to 1700, these subsistence textile products proved to be economically viable, as evidence of its production exists in almost all regions of the vast Portuguese colony.

The reorganization of the Brazilian textile production after 1700 was a direct result of the changes in the textile industry in Portugal. Before the eighteenth century, Portugal had engaged in three distinct phases regarding to the textile industry. It was a importer, producer and cloth merchant. [6] The textile products from Guinea, India, France and Portugal were trade in the archipelago of Cape Verde, which functioned as a real warehouse for trading textile products .

However, a dramatic change in this pattern occurred in 1703, when Portugal and England signed the Treaty of Methuen allowing the British cloth to enter Portugal without restriction, in return for the entry of Portuguese wines standing tariff equal to the French wines. This treaty was indeed interesting to England, since it was in war with France during this period, situation that blocked the trades between those countries.

With this treaty, Portugal intended to develop its port industry and wine production. However, those kind of economical activities didn't have the same potential growth as did cloth for England. In consequence, Portugal started to develop a considerable economic deficit towards England. The increasing commerce between Portugal and England coincided with a gold rush in Brazil, Portugal's colony. Hence, Portugal was able to cover its deficit with gold money, which flowed directed to England.

The consequences of those actions from the Portuguese Monarchy affected directly the industrial development in Portugal and in Brazil, especially in the textile area. Therefore the benefits of specialization and trade over the longer term were illusive. In the mid-century Portuguese government reconsidered the Methuen Treaty and started to aggressively promote the import substitution industrialization and new trade policy in Brazil. [18] This new mode led to the creation of many new contemporary textile centers in Brazil and Portugal, including those of processed silk, cotton and linen.



Map 1: state division in Brazil.

In the eighteenth century, the textile industry in Brazil followed a geographical determinism. In the cold South, production of wool and felt fabrics was more demanding. [3] Fine fabrics were made to meet the demands of gold riches and diamonds miners diamonds in Minas Gerais. Simple cotton was required by indigenous peoples and provided uniforms for the soldiers in the too hot North and the Northeast.

4. COTTON PRODUCTION IN BRAZIL

The indigenous tribes already knew cotton and dominated its planting much before the Portuguese people arrived in Brazil. They were able to harvest, spin, weave and dye fabrics made from the cotton fibers. Commercial cotton production began in the states of the Northeast and the first major producer was Maranhão. Until then, the producers were dedicated to the planting of perennial tree cotton, with longer fibers. In the eighteenth century, the planting of upland cotton, shorter fiber, but more productive, started in São Paulo. [4]

The opening of the Brazilian market to imports of textiles materials and clothing happened from 1986 to 1993 and particularly to the cotton lint, main raw material, started in 1988 when the import rate was lowered from 55% to 10% in 1990. The production of cotton entered a period of deep changes towards rationalization and modernization targeting competitiveness. [17] The reformulation of production and management processes, with direct implications on the level of employment and organizational structure in agricultural production and industrial had become the main objective of the sector in the face of competition with imported products in several stages of processing.

Brazil is the fifth largest producer of cotton, after China, India, the United States and Pakistan . The yield per hectare of cotton is rather high in Brazil, especially in the state of Mato Grosso. [6] It produces and consumes 5% of the world's total cotton crop. Producing approximately 1.2 million metric tons of cotton annually, Brazil exports almost 400.000 metric tons to Indonesia, Pakistan, Japan and Argentina.

World Cotton Production (Millions of 480-pound bales)

| | 2006/2007 | 2008/09 | 2010/11 |
|---------------|-----------|---------|---------|
| China | 35,5 | 36,7 | 33,0 |
| India | 21,8 | 22,6 | 25,0 |
| United States | 21,6 | 12,8 | 18,3 |

| | | | |
|--------------------|-------|-------|-------|
| Pakistan | 9,9 | 8,7 | 10,2 |
| Brazil | 7,0 | 5,5 | 7,0 |
| Uzbekistan | 5,4 | 4,6 | 4,8 |
| Turkey | 1,4 | 1,5 | 2,2 |
| Australia | 3,8 | 1,9 | 2,1 |
| African Franc Zone | 3,4 | 2,2 | 1,7 |
| EU-27 | 1,6 | 1,2 | 1,4 |
| Turkmenistan | 1,4 | 1,4 | 1,3 |
| Greece | 1,2 | 1,2 | 1,2 |
| Syria | 1,0 | 1,1 | 1,0 |
| Argentina | 0,8 | 0,6 | 0,9 |
| Rest of the world | 7,7 | 6,3 | 6,3 |
| World total | 122,0 | 107,2 | 114,3 |

Source: U.S. Department of Agriculture (USDA) [15]

In terms of consumption, Brazil holds fifth place after China, India, Pakistan and Turkey.

World cotton consumption (Millions of 480-pound bales)

| | 2006/2007 | 2008/09 | 2010/11 |
|-------------------|-----------|---------|---------|
| China | 50,0 | 44,0 | 49,0 |
| India | 18,1 | 17,8 | 20,4 |
| Pakistan | 12,0 | 11,3 | 11,6 |
| Turkey | 7,3 | 5,1 | 5,7 |
| Brazil | 4,6 | 4,2 | 4,6 |
| Bangladesh | 3,2 | 3,8 | 4,3 |
| United States | 4,9 | 3,6 | 3,4 |
| Indonesia | 2,2 | 2,0 | 2,1 |
| Mexico | 2,1 | 1,9 | 1,9 |
| Vietnam | 1,0 | 1,3 | 1,8 |
| Thailand | 2,0 | 1,6 | 1,8 |
| Uzbekistan | 0,9 | 1,0 | 1,2 |
| South Korea | 1,1 | 1,0 | 1,0 |
| Taiwan | 1,2 | 0,8 | 1,0 |
| Egypt | 1,0 | 0,9 | 0,9 |
| Rest of the world | 12,3 | 9,9 | 9,2 |
| World Total | 123,8 | 109,9 | 119,7 |

Source: U.S. Department of Agriculture (USDA) [15]

When major cotton producing countries like the United States, China, Australia, and India adopted the use of genetically modified (GM) cotton in the early 1990s, Brazilian officials resisted. [15] With mounting pressure from Brazil's cotton industry lobbyists and with increasing evidence of the cost savings and yield benefits of Bt cotton production, Brazilian officials have begun to liberalize the use of GM cotton seeds.

Nowadays, Brazil's textile industry is the world's fifth largest cotton consumer, just behind China, India, Pakistan, and Turkey. From 1998 to 2010, Brazil has averaged 4.2 million bales of domestic cotton consumption per year. [1] While Brazil's share of global cotton consumption has held steady over the past 5 years, mill use in the United States has been declining. An estimated 70% of fiber usage in the Brazilian textile industry is derived from cotton, 25% from synthetics, and 5% from wool, silk and other natural fibers.

5. TEXTILE INDUSTRY IN BRAZIL

The Brazilian textile sector during the period from 1974 to 1989 had a relative protection from the government, allowing economical accommodation. The market was closed to imported goods, with a very small competition, what gave high profit rates and did not encourage competitiveness. [7] In the early 1990s, with the opening of the Brazilian market to imports, the textile sector was set in a completely different situation. Arrived in Brazil imported products at a very low price, with which domestic goods could not compete.

Within the recovery strategy in business competitiveness was the regional displacement, with the transfer of factories to the northeast and north of Minas Gerais, due to tax incentives and lower costs with hand labor. In addition to tax incentives, some state governments have developed training programs and job training and promoted the creation of worker cooperatives, which acted as subcontractors of industries. [10] States like Ceará opted for tax relief and improved industrial infrastructure, with the supply of sheds, electricity, besides the modernization of ports and airports.

The Brazilian textile industry is constantly growing owing to the acquisition of modern equipment and technical development applied to production, and also the promotion of its professionals through training programs and increasing productivity. [8]

According to data released by the Institute of Studies and Industrial Marketing in the magazine "Brasil Têxtil", Brazil is currently the fifth biggest producer of textile and clothing in the world. This sector gathers around 26.000 companies and employs 1,53 million people in all the chain. [11] The textile industry corresponds to 5,2% of the total income from the transformation industry.

According to WTO (World Trade Organization), the textile sector turnover was approximately US\$ 744 billion in 2012. Brazil, despite being the fifth largest textile industry in the world, corresponds only to 0,4% of this market. More than 50% of textiles is produced in Asia, especially in China. [21]

Production and retail in Brazil

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------|--------|--------|--------|---------|--------|
| Textiles | -1,89% | -6,38% | 4,33% | -14,88% | -5,3% |
| Apparel | 3,46% | -7,86% | 7,17% | -4,4% | -11,5% |
| Retail | 4,84% | -2,72% | 10,62% | 3,58% | 1,8% |

Source: IBGE (Brazilian Institute for Geography and Statistics)

While in the Northeast the focus is on investments of intensive scale, in the South the industry gathers producers of bed, bath and table knitting, medium and small size. In the Southeast the production is focused on artificial and synthetic materials, from large producers of raw materials (viscose, polyester, nylon, spandex, among others) to small and medium-sized weaving, knitting and clothing. [5] The city of Nova Friburgo (Rio de Janeiro) is dedicated to the production lingerie, among others. In 1999, around 58% of the textile industries were concentrated in the Southeast. In the same year, the South and Northeast regions accounted respectively for 23% and 11% of textile industries.

6. CONCLUSION

In the last two years (2013 and 2014), Brazil has been suffering a big structural crises. The "Brazil Cost" is each time higher, what damages the production, not only textile but industries in general. We can understand the "Brazil Cost" as the set of all domestic spending that end burdening products or services. Others describe as cascading taxes, corruption in bureaucratic machine, distortion in the tax structure and high cost of land. [14] Also, there is a big deficiency in infrastructure (transport, ports and communication). The "Brazil Cost" spoils the competitiveness related to exportations, emphasizing the commercial inequalities in relation to major world powers. Therefore, the textile industry, one of the most traditional in Brazil, is going through a very difficult period. Last year, there were more than a thousand layoffs on average every month.

As it is nearly impossible to have a fair competition with Chinese production, the textile industry must innovate. The most viable alternative will be to introduce new attributes to products, and to consider an innovative philosophy of production and consumption. [13] Thus, differentiation strategies can provide higher profit margins. But also it needs to be taken into consideration that innovations need to be produced ethically and responsibly to meet the growing demands of consumers more aware and willing to pay more.

To innovate, experts consider essential to attract, train and retain skilled workers in key knowledge areas. If until recently the average level of technical training was an active differentiation between competitors today, higher education is the level required to handle very diverse knowledge, such as computer, chemical, electronics and mechanics devices, necessary for proper use of the product and manufacturing technologies.

The fact is that foreign competition is out there, and therefore modernization is not luxury but rather a matter of survival. Investment in upgrading the industrial park may seem high at first, especially when the entrepreneur is faced with falling revenues and margins. [2] However, the segment realizes that the return is fast, given the greater efficiency, better product quality and increase of production.

The good news is that there are affordable solutions for businesses of any size. Advances in technology make it possible to reduce fabric waste, increase productivity, reduce production time, create different design and draw on the concept of fast fashion, which is an alternative for the Brazilian market to respond quickly to competition from imported products. It is possible to produce fashion with lower cost and higher quality than we see in the market. Therefore, it is not necessary to hand use of slave labor but rather enhance production through the use of technology available on the market today.

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