

**Title: Textile Industry Value Chain Analysis China**

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## **Abstract**

This research focuses on the study of value chain analysis of textile industries in China. Marketers and industrialists have been debating on textile development and value chain processes. Value chain analysis (VCA) is said to be a process that helps the firm in identifying its main and support activities that puts a value on its finished goods. A recent modification in policies by the government has intended to support augmented growth. China implemented one child policy and later this resulted in the consequences of a labor shortage. Labor shortage posed a direct impact on labor wages. Therefore, Chinese textile started shifting to different countries. Value chain process was adversely affected due to a substantial rise in labor cost. Increase in CO2 emission affected the green environment. The state should take necessary action to maintain population pyramid in order to tackle any issue of a labor shortage. Strict measures are needed to be taken to reduce the carbon emission.

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## **Introduction**

Industrial improvement has been the core development process that has taken place in last few decades. Mainly, the textile industry has witnessed a spectacular shift in development. The shift from manual processes to automation has gained lot popularity. Marketers and industrialists have been debating on textile development and value chain processes. Increased competition in the industry has shifted industries to bring more and more values into their products in order to seek and retain their consumers. Therefore, value chain and textile industry practices are always referred and linked with each other.

Within last few decades, along with technological developments, China has also gained a lot of development in the textile field. According to Chi (2011), a leading position has been achieved by the Chinese apparel and textile manufacturing companies in the worldwide economy and within the international fabric – apparel supply chain. As per the last decade's industry analysis of China 28.8% population of China is engaged and working in industries (Statista, 2016). According to China textile and apparel industry report, the main key factors that are posing their impact on Chinese textile industries is the labor shortage (DCCC, 2016). Therefore, this research paper mainly focuses on the Textile Industry Value Chain Analysis in the context Chinese industries.

## **Literature review**

Value chain analysis (VCA) is said to be a process that helps the firm in identifying its main and support activities that puts a value on its finished goods. This then helps to analyze these activities in relation to increase the differentiation or minimize the cost. It signifies the inside activities of an organization involves in when converting inputs into outputs. Corporate social responsibility is one of the major aspects of the value chain. International environmental

agencies and local communities' environmental organizations have posed the legitimate duty on industries to create wealth in the methods that circumvent damage to or boost the environment and societal assets. Besides CSR activities an impact of labor shortage has also been seen in Chinese textile industries. A shift in manufacturing industries from China to other countries has also posed an impact on the value chain.

One of the BRIC nation; China is world's fastest growing economy. A recent modification in policies by the government has intended at supporting augmented growth. China has gained better place and importance in the international markets. These policies have also supported China to gain dominance in regional affairs and play a leadership role in its respective region. Yet, Alon et al. (2010) accentuated that it is still vague how the boom of the BRIC nations will be obvious in creating and fulfilling their corporate social responsibility (CSR).

Labor shortage issue has risen in Chinese textile; therefore, cost of labor is getting higher. Involvement of labor is an extensive part of the cloth manufacturing. Even though the technology has been so advanced but still it hasn't replaced the human power in textile manufacturing. The element of labor cost still existed in today's scenario. Due to a shortage of labor, cost of labor was eventually increased. As followed by the economic principle that when the supply is short then demand is usually raised. There were certain reasons stated by the (Chan, 2010) over the shortage of labor. Chan (2010) proposed that the generation workers that were working at cheaper rates were almost over and now they are enjoying their retired life. The reason why the younger labor force is not motivated to work as a labor conversely, the new generation is more educated and better skilled so they will prefer to work at a better position and better task. One other reason that has been debated was that among those young generations many were born during the times when China has implemented the policy of "one child per

family” and at this time they are the mere child of those families. This means that the only labor force of the family is that young generation born during the times of that one-child policy.

Moreover, after a survey conducted in China, that young generation categorically stated that they don't want to be treated like their parent's generation was treated with such low wages and labor. This reason has led them to get more education and be employed at a better position. This raised enthusiasm within them and they considered themselves as a quality working generation.

Regardless of the fact that China is highly populated country but still China is facing a shortage of labor on the coastal side of its provinces.

Lack of labor was linked with the shift of garments and apparel industry to other countries. Shortage of labor led existing labor to increase their wages this was again contradicting and economies of scale. Industrialists in China were not ready to pay high expenses in the form of labor wages. Therefore, this reason has led them to shift their location internationally, the industrialist in China are more focusing on manufacturing their product to the countries having cheaper labor as compared to China. According to the statistics proposed by the official website of a news channel, the Chinese factory workers are demanding and earning an hourly rate of \$3.60 in 2016 (Spohia, 2017). According to the reports of Forbes, this rise in labor cost was almost the 64% more than of 2011 (Forbes, 2017). The shift of industry and increase in labor cost has posed a greater impact on Chinese apparel and garments industry. According to Zhu (2016), this was the first time in the history of China that in 2015, Chinese apparel exports decked down largely, and set back in percentage was 5% and \$286.8 billion. Furthermore, DCCC (2016) reported that Chinese apparel exports to EU was lowered to 10.6% every year and in Japan, it was lowered to 12%. Similarly, the export was fallen to 1.7% to ASEAN countries.

Besides increasing labor cost, the increased rate of CO<sub>2</sub> emission has posed a greater restriction on countries like China to control their massive production.

In addition, shortage of orders, weak domestic consumption, growing electricity and labor cost, and environmental controls; CO<sub>2</sub> emission has taken textile and apparel industry of China for being continually striving just to cope with global competition. One of the major value chain aspects that cannot be neglected is the activity that is carried out for societal development and green environment. This is directly associated with customers' lifestyle and their health condition. People are now more concerned with the idea of eco-friendly products. This does not only involve the products but also the production process associated with producing that product. Consumers being aware of green and organic products with the help of international environmental communities, have been now boycotting and demotivating any such processes of production those contribute to damaging the environment. For reaction, many of the consumers showed strict offence and protested against those companies who were contributing too much in CO<sub>2</sub> emission. This aggression was later reflected in the form of decreased sales and lower profits. Many of the companies were later shut down and some were shifted to a different location away from the population. This activity of controlling CO<sub>2</sub> emission was referred to and is later made the essential part of CSR activity i.e. the relationship between customer and the company.

According to the research conducted by Skaar & Fet, (2012), the value chain can be improved by putting more efforts in CSR activities. Due to the increased awareness of the carbon-free environment, demands of consumers have shifted to environmental friendliness. They not only seek for good products but they do highlight companies that should manufacture

their products by not creating damage to the environment. The following model was proposed by Lin & Moubarak (2014) that covers the potential of reducing CO<sub>2</sub> emission:

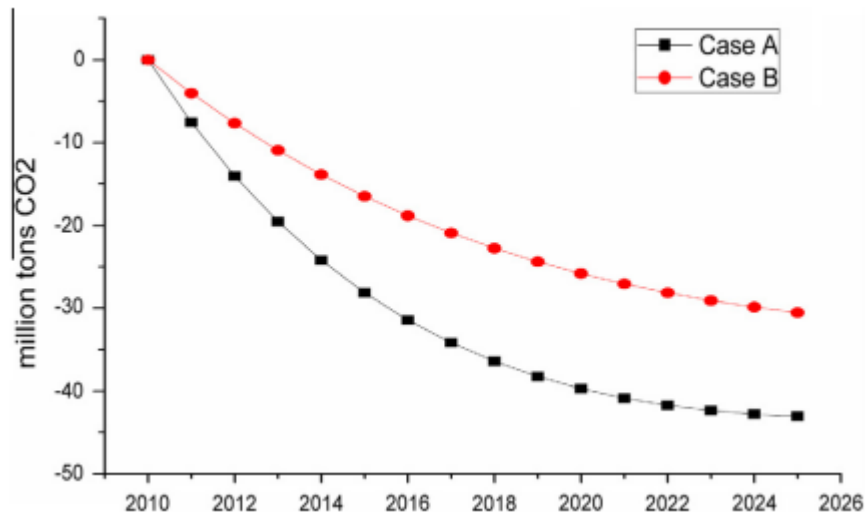


Figure 1: Reduction potential of CO<sub>2</sub> emission in Chinese textile industry.

According to this research, if the emission of CO<sub>2</sub> in textile industries of China is altered for Business As Usual (BAU) scenario to medium scenario (i.e. case B), the quantity of CO<sub>2</sub> emitted will approximately be reduced to 16.4 million tons. This reduction was forecasted for 2015. Following this reduction, 25.8 million tons will be reduced by 2020 and by the end of 2025 this reduction will be accelerated to 30.5 million tons (Lin & Moubarak, 2014).

Whereas, in case A; i.e. the change in CO<sub>2</sub> emission from BAU scenario to the optimum scenario the potential of reducing the CO<sub>2</sub> will be more effective. This scenario proposes that there will be carbon reduction of up to 28.1 million tons in 2015, followed the reduction up to 39.7 million tons by 2020. Moving forward to 2025, it will approximately be reduced to 43 million tons. The achievement of optimum scenarios requires more ambitious measures. Whatever the case textile industry implement, they will have to put a lot in making environment green by increasing plantation. Form an organization perspective this will pose impact in



increasing the expenses in regards of creating a green environment. The central idea as stated by Centi, Quadrelli & Perathoner, (2013) is that businesses have responsibilities that go further than the lawful implementation of their economic activities.

After analyzing with the help of different secondary sources, “the Porters model of the process of the value chain”, can easily be considered to have clearer explanation over the idea of textile industry value chain analysis in Chinese perspective.

Porter put the proposal of the value chain as a process of having several different steps and procedures that ultimately have an impact on profits of the company. In a broader perspective, every direct and indirect activity that is involved in producing and delivering the final product to the consumers is a part of the value chain. Every part has to be kept in the evaluation process while analyzing value chain of the textile industry.

### Porter’s Value Chain Model

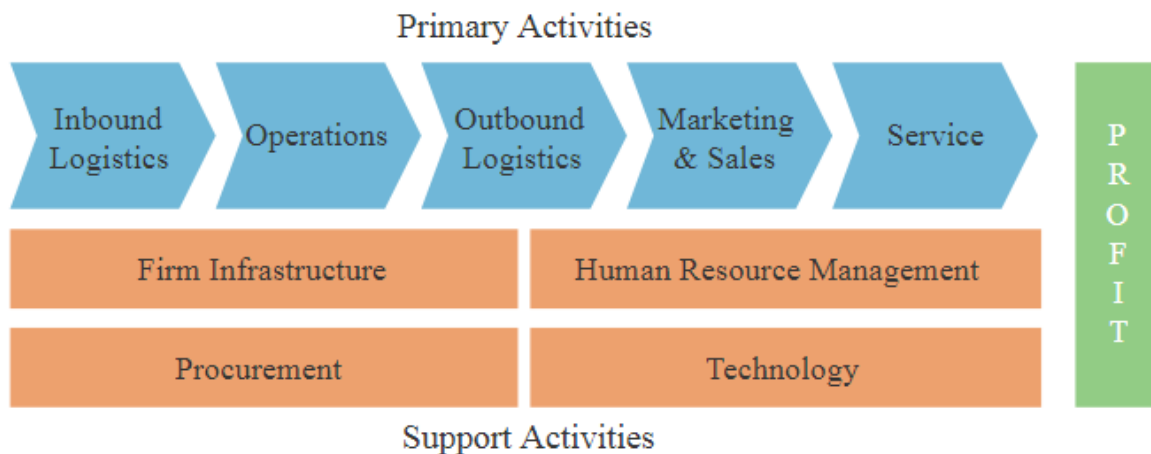


Figure 2: Porter's Value Chain Model.

In a Chinese textile industry perspective, factors having a great impact include the cost of labor, the shift of industry to a different country and creating a green environment as the foremost ideas to be debated. Out of above-mentioned activities discussed, 4 are directly

associated with posing a positive and negative impact on the environment. However, in-bound and out-bound logistics operations and services are related to the environment. Use of eco-friendly vehicles for logistics highly creates an impact in reducing CO<sub>2</sub> emission. Factory operation in a large quantity emits CO<sub>2</sub> gasses that can be countered by having advanced technology; another element of value chain model. The emission of CO<sub>2</sub> is neutralized with the help of planting the trees in areas near population. According to House, Colin & Le (2002), reforestation is now becoming essential, and environmentalists are emphasizing more on planting trees to neutralize CO<sub>2</sub> emission.

The increase in labor cost has directly affected the price of the product as compared to textile products of other nation's brands. China was bound to shift its textile sector to different countries. The rise in cost directly affects the price of the products. Resultantly, it forces industrialists to have an expensive value chain. Consumers that can buy a similar product of different country will never pay the extra amount for Chinese products. According to Asian Development Bank, who seeks for low-cost of production; the textile sector from China is now shifting towards Bangladesh (BTT National Desk, 2014).

## **Methodology**

Primarily, there are two main data collection sources i.e. primary sources and secondary sources. Primary sources involve all the data collection that is done through surveys questionnaires, personal observations, structured interviews and ethnographic studies. Whereas, secondary data collection involves data collection that has already been proposed in different research, articles, and other sources.

This study is based on secondary research data. Secondary data analysis is a usual research data collection method. In this method of research, the data related to the research

problem is collected from several published and authentic sources. In this paper, only secondary data collection method has been used for gathering data. Literature searches were focused exclusively on the additional databases. Different databases were used such as EbscoHost, ProQuest, Google Scholar, Jstor, Elsevier etc.

### **Search strategies**

It is the strategy with which research is carried out. This involves identifying keywords and synonyms:

**Keywords:** The keywords and synonyms used in this research included Chinese apparel value chain, Textile industries of China, Value Chain, Textile industry value chain, Value chain analysis.

**Synonyms:** Synonyms are substitute words that are being used in replacement of original words. They possess almost similar meaning without changing the context of the sentence. The synonyms included Textile industry, the word used was Textile sector, clothing industry, apparel and textile of China. For analysis purpose, the used words were detailed research, facts about industry etc.

### **Limits**

Not all the data available on the internet is relevant. The use of limit has helped to specify the research. While constructing the research question, it is essential to consider several variables which can be helpful to put a limit on research results. This process has helped to elucidate the information that is relevant to the topic.

The limits assigned to the data search are:

- Publication date.

- Age.
- Marital Status
- Languages.
- Country of origin.

Articles linked to this subject study were explored with the help of Google scholar. There is a custom option, which was utilized to assign the range. The use of filters set the focus of study to the point, which is related and appropriate to the main idea of the research. This procedure was actually supportive to reach 'just and authentic' outcomes. Some limits that were used for the research are;

### **Publication date**

How much is backdated data required for concluding this research? For instance, some of the researches' link to dates of 1946, but in this research, the limit for publication date assigned was from 2010 onwards.

### **Age and gender**

If the research is directly affected by demographic variables, for instance, age or gender then some research databases let the researcher put a limit on the search by a toddler, mature, adolescent, the elderly, old etc. This research was not limited to any gender or age. However, while discussing the old Chinese generation that was involved in industrial development may be linked to this idea. But all the secondary data that was demographically specific, was already provided in the research articles.

### **Language**

The language used in this research was US English and the references that have been cited are all referenced using APA style.

## **Country of origin**

Although the research language is US English and the data gathering was related to China, but little information regarding different country has also been cited in this research.

## **Results and conclusion**

China is world's fastest growing and the strongest economy in the world. This economy has taken a lot of years to reach this stage. The Chinese economy has been the breaking world records. However, a textile sector of China has long been facing survival issues. According to this study, the conclusion is diverted towards the fact that labor cost has been raising in China and this has posed a drastic impact on the textile industry. Since the old generation that was involved in the production and layman work of textile and now living a retired life. Their children are more educated than their parents. They are not willing to work for such low wages like their parents did. This shift of generation towards other skills has abounded the workforce. Resultantly labor shortage hit the Chinese textile industry. The value chain process was directly affected by this shift and to cater this issue Chinese industrialists have to shift their production capacity in search of low labor wages. Moreover, the causes of CO<sub>2</sub> emission were largely felt onto the shoulders of CO<sub>2</sub> emitting industries like textile. Operating at a large production scales has contributed a lot to damaging the green environment.

## **Recommendation**

After effects of one child policy hit the Chinese economy indirectly. The issue of shortage of workforce was witnessed by China; therefore, the state should take necessary action to maintain population pyramid in order to tackle any such issue of a labor shortage (Kong, 2009). China has to encourage the educated people to work in textile industries. For creating motivation they will need to have increased wages and salaries. However, this may seem

temporary measure. China has to encourage foreign labors to visit China and work for them. This may involve countries that have lower exchange currency rates. While catering the issue of carbon-free environment, strict measures are needed to be taken to reduce the carbon emission. Use of technology can be found helpful to replace fuel that emits carbon.

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