

## Exports Competitiveness of the Indian Textile Industry during and after ATC

Girish Kumar gupta and Mohd. Asif Khan

Department of Commerce, Aligarh Muslim University, Aligarh, UP, India

### Abstract

This paper is designed to measure the competitiveness of Indian textile industry in comparison of twelve major players of textile industry in World. International Market Share and Revealed comparative advantage of Balassa have been applied to measure the competitiveness with some useful techniques such as Compound Annual Growth Rate and Coefficient of Variation. The Standard International Trade Classification (SITC) rev. 3 is used at the two digit level of disaggregation of textile data of the United nations. The paper focuses during and after Agreement on textile and clothing changes in competitiveness and exports potential of Indian textile industry. The findings reveals that India is most benefitting country after china after elimination of ATC i.e., 1st Jan 2005 and RCA point of view, India must consider the products which have good export potential in the world textile markets.

**Keywords:** Revealed comparative advantage; ATC; Exports potential; Coefficient of variation; CAGR

### Introduction

The World Economic forum define competitiveness as “The set of institutions, policies and factors that determine the level of productivity of a country” [1]. In Other words, “Competitiveness pertains to the ability and performance of a firm, sub-sector or country to sell and supply goods and services in a given market, in relation to the ability and performance of other firms, sub-sectors or countries in the same market [2]. According to Lall and Sanjaya [2], the *Competitiveness* or *competitive strength* is the ability of firms to withstand competition in the sense of maintaining and/or improving their position in the market. This is taken as firm’s performance in terms of sales, market shares or profits in comparison with the other firms of the industry. Kennedy and Rosson [3] also define competitiveness as the ability to achieve market share [4]. All the above definitions clearly indicating that competitiveness relates to the productivity and market share of a firm or Nation. If a firm or Nation is having high productivity and high Market share, is said to be highly competitive and vice versa. In this paper, market share is supposed to be the good measurement of competitiveness because in reality if the Nation or firm is able to retain or grow its market share in the same market then it will be said to be competitive. In this paper Exports competitiveness of Indian textile sector is measured through percentage share in the international market and revealed comparative advantage (RCA) during and post Agreement of Textile and Clothing of WTO. The RCA has been calculated at the three digit level of SITC (Rev.3) classification. A comparison has been done through Compound annual growth rate (CAGR) and Coefficient of Variation (C.V) during and after ATC. The textile trade was governed till the Uruguay round by Multi fibre Agreement (MFA) which focused on quota limiting imports. But after evolving the WTO in 1995, MFA replaced by ATC, Agreement on Textile and clothing, ATC Set gradual quota removal schedule upto 1<sup>st</sup> Jan. 2005 and on this date all type of quantitative restriction have removed and textile sector was fully merged with the GATT [5]. The trade in Textile sector is free for all countries without any restrictions after the end of ATC so this paper is an attempt to measure the competitiveness of Indian textile sector in comparison of top ten major players in the world textile market according to WTO report 2015 Which are China, EU, India, US, Turkey, Korea republic of, Chinese Taipei, Hongkong, China, Pakistan and Japan [6].

### Review of Literature

A) Fetscherin et al. [6] presented a multidimensional framework

for measurement the industry export competitiveness. They used the concept of industry specialization, industry export growth rate and relative export market share. There are 97 industries in the study has been taken.

B) Lyford et al. [7] measures the competition in US textile manufacturing. The study found that Industry in a relatively weak competitive position but then also us competitive position is improving.

C) Jiang et al. [8] compared the international market share of four textile and clothing export countries. They used competitive advantages index (CA) The result indicates that china’s textile’s international market share was higher but less competitive than the other countries.

E) Verma [9] found that Indian exports to the EU and US are export competitive.

F) Devendra [10] examined the performance of Indian textile and clothing industry in the USA after Post WTO agreement.

G) Verghese [11] measures the competitiveness during the period 1972-78 through relative unit value of exports of manufactures, relative consumer price index, labour cost and relatively profitability. These all methods have their own limitations such as compilation method and coverage of data vary from country to country.

H) Raghuramapatruni [12] has examined the competition and cooperation between India and China. The author used revealed comparative advantage index. Export intensity index. Import Intensity Index and year on year growth.

I) Bhatt [13] used four parameter to measure the competitiveness such as Global competitive Index ranking, Total and labour productivity, foreign direct investment inflows and International trade competitiveness.

**\*Corresponding author:** Gupta GK, Post-Doctoral Fellow, Department of Commerce, Aligarh Muslim University, Aligarh, UP, India, Tel: +91-571 2102607; E-mail: [girishcommerce@gmail.com](mailto:girishcommerce@gmail.com)

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J) Sharma and Bugalya [14] investigated the competitiveness of Indian cotton crop through Standard revealed comparative advantage index.

K) Erumban [15] examined the comparison of productivity and unit labour cost of India and Germany. International comparison for output and productivity (ICOP) methodology has been used in the study.

## Objectives of the Study

1. To measure the growth and trends in the Exports Competitiveness of Indian textile Industry during and post Agreement on textile and clothing in comparison of major players in the market.

2. To examine the variation during and post ATC Revealed comparative advantage (RCA).

## Research Methodology

The 22 years have been taken out for the study from 1995 to 2016. From 1995 to 2004 is considered during ATC Period and from 2004 to 2016 is considered as after ATC period. In order to judge the competitiveness of Indian Textile Industry following measures have been taken out:

## International Market Share

Market share is said to be a key indicator of market competitiveness—that is, how well a firm/Country is doing against its competitors [16]. Greater Market share means greater international competitiveness of the particular product. This is ratio of Textile Exports to the world of country i to the total world textile exports. This can be expressed as follows:

$$\%Share = \frac{xt(i)}{xt(w)} \times 100$$

Where,  $xt(i)$ =Textile Exports from country i to the world.

$xt(w)$ =Total world Textile exports

## Revealed Comparative Advantage (RCA)

The revealed comparative advantage is an index used in international economics for calculating the relative advantage or disadvantage of a certain country in a certain class of goods or services as evidenced by trade flows. It is based on the Ricardian comparative advantage concept.

It most commonly refers to an index introduced by Béla Balassa (1965):

$$\frac{E_{ij} / E_{it}}{E_{nj} / E_{nt}}$$

where: E=Exports, i=Country Index, N=Set of Commodities, j=Commodity Index, t=Set of Commodities

That is, the RCA is equal to the proportion of the country's exports that are of the class under consideration ( $E_{ij} / E_{it}$ ) divided by the proportion of world exports that are of that class ( $E_{nj} / E_{nt}$ ).

A comparative advantage is “revealed” if  $RCA > 1$ . If  $RCA$  is less than unity, the country is said to have a comparative disadvantage in the commodity or industry.

## Compound Annual Growth Rate (CAGR)

Compound annual growth rate (CAGR) is an average growth

rate over a period of several years. It is a geometric average of annual growth rates.

$$CAGR(t_0, t_n) = (v(t_n) / v(t_0))^{1/(t_n - t_0)}$$

$V(t_0)$ : start value,  $V(t_n)$ : finish value,  $t_n - t_0$ : number of years.

## Coefficient of Variation

The coefficient of variation (CV) is the ratio of the standard deviation to the mean (average). It measures the variability relative to the mean. High C.V Shows High Variability, less stability and vice versa. The Formula is:

$$C.V = S.D / Mean$$

## Data Analysis and Interpretation

Table 1 is showing twelfth major countries percentage share of textile in world textile exports. China has 10.76 per cent share in 1995 and this share increased upto 35.23 per cent in 2016. India's Share in world textile is 4.56 per cent in 2016 that was only 2.38 per cent in 1995. The interesting fact is that the share of US, Korea Republic of, China, Taiwan province of, Hong Kong China SAR, Pakistan, Japan, Brazil, Italy and EU (28) has decreased from 1995 to 2016. Only three countries namely India, China and Turkey's percentage share has increased after phasing out of ATC and it is showing increased competitiveness in textile exports while other have decreased competitiveness after removal of Agreement of textile and clothing (ATC). i.e., 1<sup>st</sup> Jan. 2005.

According to Table 2 which is showing revealed comparative advantage during and after ATC, it can be seen that except Pakistan, the RCA of all countries has decreased from 1995 to 2016. Pakistan has strong RCA and it has improved after elimination of ATC, which is 11.86 per cent in 2016 from 10.66 per cent in 1995. The RCA of India has fallen down from 3.84 per cent in 1995 to 2.79 per cent. The Compound Annual Growth Rate (CAGR) has been calculated during and after ATC period. The CAGR of China was negative i.e. -2.63 per cent during ATC but after ATC, it has improved to -0.93 per cent which is indicating that China is benefitting in free environment of textile trade. India's CAGR negatively has increased from ATC period to free period i.e., from -1.12 per cent to -1.76 per cent which is showing that export potential of India has decreased in free trading environment. The positive CAGR of US i.e., 0.69 per cent converted into negative CAGR which is -3.27 per cent after ATC. The negativity of CAGR of India, U.S, Turkey, Hong Kong China SAR, Japan, Brazil and EU (28) has increased after removal of ATC.

On the other hand, China, Taiwan province of CAGR has improved after ATC that is clear signal that these three countries are most benefitting after ATC and same time has improved export potential although percentage share in world textile of Korea and China, Taiwan province of has decreased from 1995 to 2016. The CAGR of Pakistan and Italy has become positive to negative after ATC likewise their percentage share in world textile has also gone down after ATC.

Table 3 is reflecting rank of RCA and Per centage share in 1995 and 2016 of 12 countries. In 1995, EU (28) was at the 1<sup>st</sup> position in percentage share in world textile then China (2), Hong Kong (3), Italy (4), USA (5), Korea republic of (6), China, Taipai (7), Japan (8), Turkey (9), India (10), Pakistan (11) and Brazil (12). In terms of RCA, Pakistan has 1<sup>st</sup> rank, India has 3<sup>rd</sup> rank, China 4<sup>th</sup> and Japan

12<sup>th</sup>. In 2016 there was no significant difference in ranking in terms of RCA, the first four rank of RCA remained the same but in terms

| Year | China | India | US   | Turkey | Korea republic of | China, Taiwan Province | Hongkong china SAR | Pakistan | Japan | Brazil | Italy | EU (28) |
|------|-------|-------|------|--------|-------------------|------------------------|--------------------|----------|-------|--------|-------|---------|
| 1995 | 10.76 | 2.38  | 5.4  | 2.45   | 5.09              | 4.48                   | 10.01              | 1.7      | 2.49  | 0.42   | 7.58  | 34.59   |
| 1996 | 10.19 | 2.59  | 5.37 | 2.44   | 4.81              | 4.36                   | 9.95               | 1.96     | 2.32  | 0.36   | 8     | 34.88   |
| 1997 | 11.78 | 2.5   | 5.62 | 2.6    | 4.72              | 4.37                   | 9.76               | 1.67     | 2.12  | 0.33   | 7.12  | 33.46   |
| 1998 | 11.34 | 2.46  | 5.72 | 2.82   | 4.38              | 3.94                   | 9.34               | 1.63     | 1.93  | 0.3    | 7.32  | 34.45   |
| 1999 | 11.66 | 2.73  | 5.29 | 2.7    | 4.59              | 3.83                   | 9.26               | 1.63     | 2.11  | 0.28   | 6.87  | 32.93   |
| 2000 | 13.37 | 2.93  | 5.73 | 2.61   | 4.7               | 3.98                   | 9.52               | 1.73     | 2.15  | 0.32   | 6.45  | 29.23   |
| 2001 | 14.03 | 2.87  | 5.39 | 2.78   | 4.15              | 3.41                   | 9.28               | 1.75     | 1.97  | 0.35   | 6.9   | 30.75   |
| 2002 | 15.56 | 2.91  | 4.97 | 3.08   | 3.89              | 3.14                   | 8.69               | 1.77     | 1.84  | 0.31   | 6.72  | 31.02   |
| 2003 | 17.56 | 2.84  | 4.65 | 3.39   | 3.36              | 2.73                   | 8.03               | 1.9      | 1.73  | 0.38   | 6.77  | 31.83   |
| 2004 | 18.83 | 2.87  | 4.46 | 3.5    | 2.99              | 2.59                   | 7.76               | 1.83     | 1.71  | 0.42   | 6.65  | 31.62   |
| 2005 | 21.56 | 3.26  | 4.23 | 3.54   | 2.6               | 2.3                    | 7.66               | 2.02     | 1.56  | 0.42   | 6.27  | 30.16   |
| 2006 | 24.64 | 3.33  | 4.01 | 3.37   | 2.26              | 2.1                    | 7.2                | 1.95     | 1.44  | 0.37   | 6.08  | 29.17   |
| 2007 | 26.6  | 3.3   | 3.55 | 3.55   | 2.07              | 1.87                   | 6.5                | 1.74     | 1.36  | 0.37   | 6.19  | 29.68   |
| 2008 | 27.58 | 3.43  | 3.49 | 3.42   | 1.96              | 1.68                   | 5.92               | 1.66     | 1.34  | 0.36   | 6.14  | 29.81   |
| 2009 | 28.76 | 3.86  | 3.3  | 3.32   | 1.98              | 1.66                   | 5.62               | 1.72     | 1.31  | 0.33   | 5.42  | 28.27   |
| 2010 | 30.9  | 4.11  | 3.67 | 3.25   | 2.06              | 1.76                   | 5.26               | 1.79     | 1.34  | 0.34   | 4.94  | 25.63   |
| 2011 | 31.63 | 4.31  | 3.77 | 3.16   | 2.01              | 1.68                   | 4.52               | 1.77     | 1.29  | 0.39   | 4.84  | 25.42   |
| 2012 | 33.31 | 4.34  | 3.59 | 3.32   | 2.02              | 1.61                   | 4.3                | 1.73     | 1.29  | 0.44   | 4.62  | 23.97   |
| 2013 | 34.34 | 4.95  | 3.35 | 3.34   | 1.91              | 1.47                   | 3.93               | 1.71     | 1.08  | 0.29   | 4.51  | 23.99   |
| 2014 | 34.91 | 4.6   | 3.18 | 3.41   | 1.85              | 1.42                   | 3.52               | 1.66     | 1.03  | 0.3    | 4.58  | 24.42   |
| 2015 | 35.54 | 4.74  | 3.25 | 3.27   | 1.77              | 1.41                   | 3.42               | 1.67     | 1.02  | 0.3    | 4.14  | 22.95   |
| 2016 | 35.23 | 4.56  | 3.09 | 3.29   | 1.69              | 1.44                   | 2.96               | 1.52     | 1.01  | 0.28   | 4.23  | 23.59   |

Source: Calculated from Unctad statistics.

Table 1: Percentage Share of Textile Exports in World textile Exports (During and After ATC).

| Year  | China | India | US    | Turkey | Korea republic | China, Taiwan Province | Hongkong china SAR | Pakistan | Japan | Brazil | Italy | EU (28) |
|-------|-------|-------|-------|--------|----------------|------------------------|--------------------|----------|-------|--------|-------|---------|
| CAGR% | 3.7   | 3.84  | 0.47  | 5.8    | 2.09           | 2.06                   | 2.95               | 10.66    | 0.29  | 0.46   | 1.68  | 0.82    |
| 1996  | 3.61  | 4.15  | 0.46  | 5.67   | 1.99           | 2.02                   | 2.95               | 11.25    | 0.3   | 0.4    | 1.7   | 0.84    |
| 1997  | 3.59  | 4     | 0.46  | 5.53   | 1.93           | 1.99                   | 2.89               | 10.7     | 0.28  | 0.35   | 1.67  | 0.83    |
| 1998  | 3.37  | 4.05  | 0.46  | 5.74   | 1.81           | 1.95                   | 2.92               | 10.47    | 0.27  | 0.32   | 1.65  | 0.81    |
| 1999  | 3.38  | 4.21  | 0.43  | 5.75   | 1.8            | 1.81                   | 3                  | 10.98    | 0.29  | 0.33   | 1.65  | 0.8     |
| 2000  | 3.42  | 4.41  | 0.47  | 6.05   | 1.74           | 1.71                   | 3                  | 11.99    | 0.29  | 0.37   | 1.71  | 0.78    |
| 2001  | 3.24  | 4.01  | 0.45  | 5.44   | 1.69           | 1.7                    | 2.98               | 11.63    | 0.3   | 0.37   | 1.73  | 0.78    |
| 2002  | 3.08  | 3.73  | 0.46  | 5.55   | 1.54           | 1.55                   | 2.77               | 11.48    | 0.28  | 0.33   | 1.7   | 0.77    |
| 2003  | 3     | 3.58  | 0.48  | 5.38   | 1.3            | 1.43                   | 2.63               | 11.95    | 0.27  | 0.39   | 1.7   | 0.77    |
| 2004  | 2.91  | 3.47  | 0.5   | 5.08   | 1.08           | 1.37                   | 2.68               | 12.55    | 0.28  | 0.4    | 1.73  | 0.78    |
| CAGR% | -2.63 | -1.12 | 0.69  | -1.46  | -7.07          | -4.43                  | -1.06              | 1.83     | -0.39 | -1.54  | 0.33  | -0.55   |
| 2005  | 2.96  | 3.39  | 0.49  | 5.04   | 0.96           | 1.27                   | 2.74               | 13.13    | 0.27  | 0.37   | 1.76  | 0.78    |
| 2006  | 3.08  | 3.33  | 0.47  | 4.78   | 0.84           | 1.14                   | 2.7                | 13.97    | 0.27  | 0.32   | 1.76  | 0.77    |
| 2007  | 3.05  | 3.17  | 0.43  | 4.63   | 0.78           | 1.06                   | 2.6                | 13.62    | 0.27  | 0.32   | 1.73  | 0.78    |
| 2008  | 3.11  | 3.05  | 0.43  | 4.18   | 0.75           | 1.06                   | 2.58               | 13.19    | 0.28  | 0.3    | 1.83  | 0.81    |
| 2009  | 3     | 2.73  | 0.39  | 4.07   | 0.68           | 1.02                   | 2.14               | 12.29    | 0.28  | 0.27   | 1.67  | 0.77    |
| 2010  | 2.99  | 2.84  | 0.44  | 4.35   | 0.67           | 0.98                   | 2                  | 12.74    | 0.26  | 0.26   | 1.69  | 0.76    |
| 2011  | 3.05  | 2.62  | 0.47  | 4.29   | 0.66           | 1                      | 1.82               | 12.82    | 0.29  | 0.28   | 1.7   | 0.77    |
| 2012  | 3     | 2.77  | 0.43  | 4.01   | 0.68           | 0.99                   | 1.61               | 13       | 0.3   | 0.34   | 1.7   | 0.76    |
| 2013  | 2.95  | 2.79  | 0.4   | 4.17   | 0.65           | 0.92                   | 1.39               | 12.88    | 0.29  | 0.23   | 1.65  | 0.75    |
| 2014  | 2.83  | 2.75  | 0.37  | 4.11   | 0.61           | 0.86                   | 1.27               | 12.76    | 0.28  | 0.25   | 1.64  | 0.76    |
| 2015  | 2.57  | 2.96  | 0.36  | 3.76   | 0.56           | 0.83                   | 1.11               | 12.47    | 0.27  | 0.26   | 1.49  | 0.71    |
| 2016  | 2.67  | 2.79  | 0.34  | 3.68   | 0.54           | 0.84                   | 0.91               | 11.86    | 0.25  | 0.24   | 1.46  | 0.7     |
| CAGR% | -0.93 | -1.76 | -3.27 | -2.82  | -5.1           | -3.69                  | -9.53              | -0.92    | -0.7  | -3.86  | -1.68 | -0.98   |

Table 2: Revealed Comparative advantage (During and After ATC).

of percentage share in world textile, China has the 1<sup>st</sup> rank in 2016 then EU(2) and India shifted from the 10<sup>th</sup> rank in 1995 to 3<sup>rd</sup> rank in 2016 which is showing that India is benefitting after ATC but not too much extent in comparison of china. Pak also improved its ranking in 2016 from 11<sup>th</sup> to 9<sup>th</sup>. It can be concluded that in terms of RCA there is no difference in 1st four ranks in 1995 and in 2016, but in terms of percentage share China and India improved its position from 1995 to 2016.

1. Tables 4-6 shows RCA at three digit level of various Indian textile products according to SITC (Rev.3) classification. Coefficient of variation has been calculated during ATC and After ATC period to judge the variability or stability in RCA so that more stable and unstable export potential textile product can be traced out and proper attention can be given to them. Table 4 showing code no. 261 to 269. Product code 261 (Silk) has revealed comparative advantage because it is greater than one but it has high variability during ATC period i.e.,

| 1995 |           |                          | 2016 |           |                          |
|------|-----------|--------------------------|------|-----------|--------------------------|
| Rank | RCA       | % Share in World Textile | Rank | RCA       | % Share in World Textile |
| 1    | Pakistan  | EU(28)                   | 1    | Pakistan  | China                    |
| 2    | Turkey    | China                    | 2    | Turkey    | EU(28)                   |
| 3    | India     | Hongkong                 | 3    | India     | India                    |
| 4    | China     | Italy                    | 4    | China     | Italy                    |
| 5    | Hongkong  | US                       | 5    | Italy     | Turkey                   |
| 6    | Korea     | Korea                    | 6    | Hongkong  | US                       |
| 7    | China,tai | China,tai                | 7    | China,tai | Hongkong                 |
| 8    | Italy     | Japan                    | 8    | EU(28)    | Korea                    |
| 9    | EU(28)    | Turkey                   | 9    | Korea     | Pak                      |
| 10   | US        | India                    | 10   | US        | China,tai                |
| 11   | Brazil    | Pak                      | 11   | Japan     | Japan                    |
| 12   | Japan     | Brazil                   | 12   | Brazil    | Brazil                   |

Table 3: Ranks of RCA and % share in world textile.

| Year       | [261] Silk  | [263] Cotton | [265] Vegetable textile fibres, not spun; waste of them | [266] Synthetic fibres suitable for spinning | [267] Other man-made fibres suitable for spinning | [268] Wool and other animal hair (incl. wool tops) | [269] Worn clothing and other worn textile articles |
|------------|-------------|--------------|---|--|---|--|---|
| 1995       | 0.67        | 0.82         | 0.2   | 0.5  | 0.17  | 0.04   | 0.07  |
| 1996       | 1.8         | 5.83         | 0.22  | 0.48   | 0.21  | 0.06   | 0.08  |
| 1997       | 3.56        | 3.19         | 0.53  | 0.45   | 0.21  | 0.15   | 0.13  |
| 1998       | 4.87        | 0.84         | 0.68  | 0.63   | 0.19  | 0.17   | 0.1   |
| 1999       | 3.41        | 0.35         | 0.75  | 1.49   | 0.26  | 0.1  | 0.07  |
| 2000       | 3.45        | 0.88         | 0.66  | 1.16   | 0.45  | 0.13   | 0.44  |
| 2001       | 5.06        | 0.27         | 0.87  | 0.68   | 0.33  | 0.14   | 0.51  |
| 2002       | 1.85        | 0.18         | 1.16  | 0.8  | 0.67  | 0.37   | 0.44  |
| 2003       | 1.09        | 0.78         | 1.04  | 1.32   | 0.59  | 0.32   | 0.61  |
| 2004       | 0.81        | 2.17         | 1.32  | 1.3  | 0.79  | 0.44   | 1.03  |
| <b>C.V</b> | <b>0.61</b> | <b>1.16</b>  | <b>0.5</b>  | <b>0.45</b>                                  | <b>0.58</b>                                       | <b>0.71</b>  | <b>0.91</b>   |
| 2005       | 2.21        | 3.21         | 1.76  | 1.61   | 0.87  | 0.42   | 0.36  |
| 2006       | 2.35        | 8.1          | 2.33  | 2.14   | 1.05  | 0.51   | 0.15  |
| 2007       | 1.09        | 12.35        | 3.37  | 2.64   | 1.52  | 0.5  | 0.09  |
| 2008       | 0.63        | 11.25        | 1.14  | 2.91   | 1.71  | 0.59   | 0.05  |
| 2009       | 1.1         | 6.79         | 5.43  | 2.4  | 2.33  | 0.65   | 1.82  |
| 2010       | 1.39        | 11.36        | 5.86  | 2.84   | 2.74  | 0.6  | 1.14  |
| 2011       | 1.27        | 8.32         | 6.8   | 2.24   | 2.54  | 0.52   | 1.21  |
| 2012       | 1.44        | 10.01        | 8.08  | 2.29   | 3.19  | 0.6  | 1.05  |
| 2013       | 2.2         | 12.08        | 7.33  | 2.62   | 2.95  | 0.5  | 1.14  |
| 2014       | 2.05        | 10.24        | 7.1   | 2.45   | 2.85  | 0.52   | 1.17  |
| 2015       | 2.01        | 9.01         | 8.14  | 2.2  | 4.27  | 0.53   | 1.51  |
| 2016       | 1.95        | 7.19         | 10.11   | 2.4  | 4.24  | 0.39   | 1.15  |
| <b>C.V</b> | <b>0.34</b> | <b>0.29</b>  | <b>0.51</b>   | <b>0.15</b>                                  | <b>0.44</b>                                       | <b>0.14</b>  | <b>0.65</b>   |

Table 4: Revealed Comparative Advantage (SITC Rev.3 Code: 261-269).

0.61 per cent and after ATC it is significantly reduced to 0.34 per cent which is better thing for silk exports of India.

Code 263 (Cotton) It is the major crop and raw material for the Indian textile Industry. It shows overall no RCA during ATC period and depicts high instability during ATC but after ATC situation has drastically changed for cotton RCA and variability also significantly improved so it can be said that after ATC the exports potential of cotton improved. RCA for code no. 265 almost doubled after elimination of ATC but C.V remains almost the same. In case of code no. 266 (Synthetic fibres) RCA got doubled after ATC and C.V also gone down, which is positive impact of free trade on synthetic fibre. There was no RCA for code no. 267 (Other manmade fibres) during ATC but after ATC this code significantly improved its status and gained RCA and decreased variability. Indian Wool and other animal hair (Code no. 268) has no RCA during and after ATC and no competitive advantage

so India must try to improve the quality of this code. Code no. 269 (Worn Clothing) also has no RCA during ATC but after ATC from 2009 it has RCA and also decreased variability. The overall thing can be noticed that after ATC all products in the Table 4 has good stability in RCA which is reflecting improved status on Indian textile exports from code 261 to 269.

Table 5 ranges codes 651-659. code no. 651 (Textile Yarn) and 659 (Floor coverings etc.) have high RCA so these Products have high export potential. The code no. 655 (Knitted or Crocheted fabrics) and code has no RCA. The variability of code no. 652, 653, 655, and 656 has remarkably improved after ATC but on the other hand some codes have decreased stability that is code no. 654,657,658 and 659. Code no. 651 (Textile Yarn) has the same variability during and after ATC.

Table 6 reveals the codes from 841 to 848. As can be seen that code no. 841 (Men's Clothing of textile fabrics) RCA was better during

| Year       | [651] Textile yarn | [652] Cotton fabric, woven | [653] Fabrics, woven, of man-made fabrics | [654] Other textile fabrics, woven | [655] Knitted or crocheted fabrics, n.e.s. | [656] Tullies, trimmings, lace, ribbons & other small wares | [657] Special yarn, special textile fabrics & related | [658] Made-up article, of textile materials, n.e.s. | [659] Floor coverings, etc. |
|------------|--------------------|----------------------------|---|------------------------------------|--|---|---|---|-----------------------------|
| 1995       | 6.56               | 7.05                       | 1.91                                      | 3                                  | 0.93                                       | 0.85  | 0.49  | 7.89  | 10.26                       |
| 1996       | 8.57               | 7.13                       | 1.64                                      | 3.17                               | 0.73                                       | 1.11  | 0.59  | 8.47  | 10.33                       |
| 1997       | 9.12               | 6.74                       | 1.74                                      | 4.01                               | 0.47                                       | 1.89  | 0.49  | 9.12  | 9.28                        |
| 1998       | 7.38               | 7.01                       | 1.86                                      | 3.9                                | 0.42                                       | 1.7   | 0.61  | 8.32  | 10.75                       |
| 1999       | 8.11               | 7.18                       | 2.01                                      | 4.43                               | 0.31                                       | 2.43  | 0.67  | 8.53  | 11.27                       |
| 2000       | 8.28               | 7.15                       | 2.2                                       | 4.74                               | 0.29                                       | 2.18  | 0.61  | 9.45  | 11.14                       |
| 2001       | 7.72               | 6.26                       | 2.94                                      | 5.1                                | 0.31                                       | 1.91  | 0.56  | 8.64  | 9.85                        |
| 2002       | 7.02               | 5.23                       | 3.29                                      | 5.09                               | 0.23                                       | 1.95  | 0.55  | 7.96  | 8.91                        |
| 2003       | 6.39               | 4.54                       | 3.81                                      | 4.99                               | 0.29                                       | 1.6   | 0.54  | 7.99  | 8.95                        |
| 2004       | 6.21               | 3.86                       | 3.86                                      | 5.15                               | 0.29                                       | 1.44  | 0.55  | 8.05  | 8.74                        |
| <b>C.V</b> | <b>0.13</b>        | <b>0.2</b>                 | <b>0.34</b>                               | <b>0.19</b>                        | <b>0.53</b>                                | <b>0.28</b>   | <b>0.1</b>  | <b>0.06</b>   | <b>0.1</b>                  |
| 2005       | 5.6                | 3.15                       | 3.24                                      | 4.76                               | 0.23                                       | 1.41  | 0.57  | 7.77  | 9.08                        |
| 2006       | 5.79               | 3.02                       | 2.97                                      | 4.15                               | 0.33                                       | 1.5   | 0.53  | 6.77  | 9.45                        |
| 2007       | 5.98               | 3.02                       | 3.17                                      | 3.74                               | 0.32                                       | 1.64  | 0.57  | 5.89  | 8.06                        |
| 2008       | 5.6                | 3.12                       | 3.82                                      | 3.83                               | 0.4  | 1.87  | 0.56  | 5.12  | 6.98                        |
| 2009       | 4.08               | 2.57                       | 4.18                                      | 3.14                               | 0.35                                       | 1.57  | 0.51  | 4.02  | 5.54                        |
| 2010       | 5.98               | 2.55                       | 3.8                                       | 3.6                                | 0.38                                       | 1.66  | 0.63  | 4.4   | 6.57                        |
| 2011       | 5.31               | 2.76                       | 3.12                                      | 2.57                               | 0.51                                       | 1.33  | 0.57  | 4.46  | 5.01                        |
| 2012       | 6.2                | 3.32                       | 2.74                                      | 2.02                               | 0.44                                       | 1.55  | 0.68  | 4.85  | 5.63                        |
| 2013       | 6.84               | 3.05                       | 2.65                                      | 1.82                               | 0.44                                       | 1.91  | 0.69  | 4.56  | 5.89                        |
| 2014       | 6.5                | 3.46                       | 2.69                                      | 1.79                               | 0.45                                       | 2.01  | 0.86  | 4.47  | 6.32                        |
| 2015       | 6.87               | 3.73                       | 2.88                                      | 1.94                               | 0.45                                       | 2   | 0.85  | 5   | 6.93                        |
| 2016       | 6.27               | 3.29                       | 2.53                                      | 1.76                               | 0.5  | 1.95  | 0.84  | 4.94  | 6.96                        |
| <b>C.V</b> | <b>0.13</b>        | <b>0.11</b>                | <b>0.17</b>                               | <b>0.37</b>                        | <b>0.2</b>                                 | <b>0.14</b>   | <b>0.2</b>  | <b>0.21</b>   | <b>0.2</b>                  |

Source: Calculated from unctad statistics.

**Table 5:** Revealed Comparative Advantage (SITC Rev.3 Code: 651-659).

| Year       | [841] Men's clothing of textile fabrics, not knitted | [842] Women's clothing, of textile fabrics | [843] Men's or boy's clothing, of textile, knitted, croche. | [844] Women's clothing, of textile, knitted or crocheted | [845] Articles of apparel, of textile fabrics, n.e.s. | [846] Clothing accessories, of textile fabrics | [848] Articles of apparel, clothing access., excluding textile |
|------------|--|--|---|--|---|--|--|
| 1995       | 3.99   | 6.62                                       | 9.24  | 2.38   | 1.26  | 2.38   | 5.63   |
| 1996       | 3.94   | 6.42                                       | 5.62  | 2.51   | 1.7   | 1.87   | 5.67   |
| 1997       | 3.73   | 6.41                                       | 4.29  | 1.77   | 1.72  | 2  | 5.62   |
| 1998       | 3.92   | 7.13                                       | 6.48  | 2.59   | 1.86  | 1.96   | 5.46   |
| 1999       | 3.74   | 6.54                                       | 6.36  | 3.05   | 2.29  | 3.18   | 5.02   |
| 2000       | 4.37   | 6.78                                       | 7.34  | 3.2  | 2.16  | 3.8  | 5.45   |
| 2001       | 3.8  | 5.52                                       | 7.66  | 2.91   | 2.06  | 2.61   | 4.31   |
| 2002       | 3.38   | 4.92                                       | 8.05  | 2.92   | 2.18  | 2.35   | 2.94   |
| 2003       | 3.1  | 4.25                                       | 7.3   | 3.04   | 2.21  | 2.54   | 2.99   |
| 2004       | 3  | 4.09                                       | 6.58  | 2.96   | 1.85  | 2.53   | 3.24   |
| <b>C.V</b> | <b>0.61</b>  | <b>1.16</b>                                | <b>0.5</b>  | <b>0.45</b>  | <b>0.58</b>   | <b>0.71</b>                                    | <b>0.91</b>  |
| 2005       | 2.95   | 4.71                                       | 5.59  | 2.87   | 1.9   | 2.51   | 2.65   |
| 2006       | 2.66   | 4.62                                       | 3.96  | 2.45   | 2.03  | 2.32   | 2.65   |
| 2007       | 2.46   | 3.74                                       | 3.51  | 2.18   | 1.96  | 2.25   | 2.48   |
| 2008       | 2.31   | 3.62                                       | 3.28  | 2.26   | 1.8   | 2.61   | 2.82   |
| 2009       | 2  | 3.57                                       | 3.33  | 2.56   | 1.93  | 2.69   | 2.37   |
| 2010       | 1.78   | 3.29                                       | 2.85  | 1.62   | 1.55  | 2.16   | 1.75   |
| 2011       | 1.7  | 3.21                                       | 2.74  | 1.47   | 1.59  | 2.04   | 1.9  |
| 2012       | 1.81   | 2.97                                       | 2.33  | 1.28   | 1.86  | 2.08   | 1.96   |
| 2013       | 1.74   | 2.72                                       | 2.27  | 1.26   | 1.95  | 2.08   | 1.99   |
| 2014       | 1.75   | 2.61                                       | 2.71  | 1.38   | 2.18  | 2.13   | 1.98   |
| 2015       | 1.99   | 2.94                                       | 3.41  | 1.61   | 2.49  | 2.27   | 2.1  |
| 2016       | 2.08   | 2.73                                       | 3.34  | 1.51   | 2.43  | 1.99   | 1.97   |
| <b>C.V</b> | <b>0.34</b>  | <b>0.29</b>                                | <b>0.51</b>   | <b>0.15</b>  | <b>0.44</b>   | <b>0.14</b>                                    | <b>0.65</b>  |

Source: Calculated from unctad statistics.

**Table 6:** Revealed Comparative Advantage (SITC Rev.3 Code: 841-848).



ATC but, it decreased after ATC but C.V has increased after ATC. It clarifies that Exports potential of men's clothing after ATC era has decreased. Code no. 842 (Women's Clothing), Code no.843 (Men's or Boy's Clothing) and code no. 848 (Article of Apparel clothing) have high exports potential during ATC period as their RCA were high but after ATC, exports potential of these products gone down. The RCA stability of code. no. 841, 842 and 843 has decreased after ATC period and stability has increased for code no. 845, 846 and 848.

## Conclusion

It was assumed that after elimination of MFA, World will become free for textile trade and all countries will be benefitted but the truth is quite different. From the RCA point of view, exports potentialities remain almost the same during and after RCA but from the % share point of view china and India are the most competitive country but Brazil like country could not improved their position after ATC. It is clear that after ATC not all countries are benefitting. If we look at disaggregate level of Indian textile, the result are mix. Some codes improved their RCA and some remains the same after ATC. Likewise, C.V also decreased or increased in many codes. The policy makers and Industrialist must pay attention to those codes which have high RCA and less variability after ATC such as code no. 263 (Cotton) and should try to improve quality, price, and marketing strategy to those codes which have revealed comparative disadvantages such as codes no. 268 (Wool and Other animal hair).

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