Export Performance and Revealed Comparative Advantage of India for Handloom Industry

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Abstract

Export performance is a very crucial aspect in the globalised scenario. In the era of cross border trade, an industry wants to survive in the global market for effective financial development of that industry. The survival constrains of the industry is measured by the export performance. So, the foremost motive is to highlight the strength of export performance of the Handloom Industry in association with the international market. Export performance is measured through its quantitative method by applying different RCA indices. It is calculated through the Balassa Index and Lafay index. The indices are computed for traded products come under the handloom industry from the period of the year 2008 to 2017. The studied handloom products having HS code 50, 51, 52, 57, 58, 62, and 63 are being exporter through the world. Calculated indices indicate that some handloom products have a edge in terms of export performance throughout the study period. RCA indices showed important measure through comparative advantage and reflected better insights for the competitiveness of the studied industry and provide suggestions related to trade for the international market. This study also attempts to indicate the trade balance of handloom products and the contribution of handloom export as compared to overall export of the country.

Keywords: Export performance, Handloom Industry, Revealed Comparative Advantage, Balassa Index, Lafay Index, Trade Balance.

1. Introduction

A systematic comparative advantage is a simple explained concept within preidentified bodies of knowledge and it used to provide the different answers of related trade questions such as "which regions and Countries have what types of comparative advantages" (Ten Raa and Mohnen 2001). Bela Balassa's influential paper (1965) used the method RCA for the first time. After that, the concept was used in several studies of UNIDO in 1986 alongside the review of World Bank in 1994 and the (OECD) in 2011. It was also used in publications related to academics by earlier authors and some of recently like Iapadre (2001), Laursen and Salter (2005), De Benedictis et al. (2008) and Amighini et al. (2011) to study or analyse the international trading effectiveness as well as to capture specialization in production. Soete and Wyatt (1983), Cantwell (1995), D'Agostino et al. (2013), Liegsalz and Wagner (2013) also studied the revealed comparative to review the patent data and technological specialization. The discussion related to the trade, the concept of international competitiveness reflects the national ability of trade performance as compared to the other foreign countries (Bobirca and Miclaus, 2007). After the inception of the concept revealed comparative advantage, Liesner (1958) used for the first time in his study for the measurement of RCA. After that, Balassa (1965) used that concept provides the modified structure of RCA. Balassa (1965; 1977; 1989) have studied the RCA in different industries and manufacturing sectors. The RCA measurement is to determine the structure of trade and reflect the specialization of international trade of the countries, and it also gives the outline of several demand and supply factors. (Hilman, 1980, Yeats 1985, Vollrath 1991, Laursen 1998, Dalum et al. 1998, Bojnec, 2001, Widodo, 2009). Greenaway et al. (2008), Goldberg et al. (2010), Menezes-Filho and Muendler (2011), McCaig and Pavcnik (2012), and Autor et al. (2013) were studied the

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change pattern of trade barriers of different commodities and analysed the reflective structures of relative advantages of comparative measures of different countries. Descriptive kind of study had been done in many years. Ferti and Hubbard (2003) and Tongzon (2005) often measured the export-related factors and studied the relative strength of past and prospective trade procedures, trade tariffs, and export subsidies. Salvatore (2007) studied the Heckscher-Ohin theory that discussed the comparative advantage of different countries reflects through the factors of relative endowment across nation and elements of relative price reflects trade efficiency for within and across the nations. There are several studies have been done by many economists that identified the factors of comparative advantage that is related to the demand and the preference of the country that is associated with export and also focused on trade specialization (Lundback and Torstensson, 1998), pattern of trade studied after demand and supply (Bojnec, 2001), trade specialization to increase the economies of scale of industry. (Bastos and Cabral, 2007). Technological specialization (Meliciani 2002) to economic growth is necessary for the country's export performance. A significant concept of literature that established the link between the economic development and complex export structure used the main component RCA in the empirical analysis of trade pattern and specialization strength (Hidalgo et al. 2007; Hausmann and Hidalgo 2011). Researchers are studying RCA that used most commonly for the formation of trade regulations and welfare measures of comparative advantage of any country. Some more research has been conducted that studied the countries' trade basic pattern of comparative advantage for another purpose. Kali et al. (2013), and Barattieri (2014) investigated the production of the country and identified most significant commodities of demand and supply that reflected the trade pattern and degree of specialization, technology discussion or its improvement. This paper studies the trade pattern of export and evaluates the export performance of handloom product of India associated with international trade from the year 2008 to 2017.

2. Handloom Industry

Handloom Industry is the ancient industry that creates employment opportunity for economically unstable people of the general population alongside the farming business in India. The latest census conducted in the year 2009-10 revealed that there are 43.31 Lakh handloom weavers and associated workers operate approx. 23.77 lakh handlooms units. Handloom industry gives direct works to the workers alongside allied working opportunity to handloom weavers. The handloom industry distributed, disordered, and country-specific, which create significant place in the Indian economy. Handloom industry encourage huge population of handloom weavers and related workers to lower income group and caste-like SC, ST, and OBC. Handloom industry is labor-intensive and has no direct effect on the environment. Handloom industry involved in about 15% of the cloth production in India and contribute to the export earning of the country. India produces a total of 95% of the world's handmade fabric that represents the master class of Indian artisans and significance of handloom cloths in Indian perspective. (textile ministry annual report 2017-18). Year wise details of Handloom exports and Handloom cloth production are given below:

Table 1: Source: Handloom Export Promotion Council (HPEC)

Year	Handloom exports (Rs. In crore)	Handloom cloth production (million sq. Meters)
2008-09	1023	6677
2009-10	1252	6806
2010-11	1575	6907
2011-12	2624	6901

2012-13	2812	6952
2013-14	2233	7104
2014-15	2246	7203
2015-16	2353	7638
2016-17	2392	8007
2017-18	2280	7482

3. Literature review

3.1 Revealed Comparative Advantage

There are many researches performed by using the concept of RCA on trade data of the country. Richardson and Zhang (2001) have analyzed the Balassa index of RCA of the USA to study the changes in exports according to different sectors, regions, and time. They find that modifications and variations took place across the world in the export data over the period. These changes and differences are accounted for by factors like per capita income of exporters and geographical constraints which varying across sectors and time. Bender and Li (2002) studied the export performance, export shift and RCA of the Latin American and East Asian regions throughout 1981-1997. They identified the relationship between export patterns through comparative advantage among different areas. They find the export data variations through comparison between the regions. The Vollrath (1991) index has been used for analyzing the differences in RCA among regions. Ferti and Hubbard (2003) examine the competitiveness of the agricultural sector of Hungary through the calculation of RCA index. A classification of indices as ordinal (assign the ranking by the degree of comparison to the products), cardinal (recognizes the level of comparative advantage or disadvantage for the country) and dichotomous (a type of differentiation in the binary form of products by comparative advantage or disadvantage) used. The study showed that RCA were useful as a binary analysis of comparative advantage, but less cardinal in identifying that particular group had no comparative advantage as Hungary. Leu (1998) studied the East Asian economic and identified the changes of comparative advantage by measuring the RCA index from United State America. The measurement revealed that changing environment is highly affect the development level of the countries. Comparative advantages of each country illustrated by the relative price differences between the two countries. The lower relative prices show the higher comparative advantage between the countries (Salvatore,2007). The level of efficiency of production inputs is influenced by the differences in values so that a country utilize its available resources for making any industry much resourceful. Any industry or country will consider the production of that specialized goods, which is a high comparative advantage over different countries. Akhtar et al. (2008) have examined the growth potential of Pakistan footwear industry by measuring the revealed comparative advantage and export performance in the globalized. By measuring through the RCA methodology, the study identified that in the years 2003-06, the footwear industry had converted it's the conditions from negative traded value to positive traded value as compared to the China and India. Kowalski (2011) identified that comparative advantage is an essential factor of trade, whereas the geographic and capital to labor coverage are important factors that explain the trends of business for the industry. There were some other studied factors like energy supply and credit aspects affect the comparative advantage of the country. Some regionally based study between Latin America and Caribbean (LAC) and sub- Saharan Africa (SSA) during the period 1995-2010 of the export category for five sub-sectors of merchandise has been measured by revealed comparative advantage. Hailay (2014) identified the result that reflects the integration of low economic between the regions. Additionally, Latin America and the Caribbean has a stronger RCA than Sub- Saharan Africa (SSA) in the export items of food and sub- Saharan Africa (SSA) region has more RCA in the fuel export, agricultural raw material, metal and ores than Latin America and Caribbean (LAC). Shahzad (2015) measured the RCA index for Clothing

sector of India, Pakistan, and Bangladesh through Balassa Index for the study. The revealed comparative advantage showed that both India and Bangladesh were lagging in comparative advantage for textiles as compared to Pakistan. Whereas, in the case of clothing, Bangladesh dominated in term of high comparative advantage as compared to India and Pakistan. Dushyant et al. (2015) studied the trade between industries and RCA from 2002-13 of five countries: Czech Republic, Poland, Romania, Hungary, and Turkey in the global clothing and textile markets. Since Hungary, the Czech Republic and Poland reflected high intra-industry trade index whereas, an inter-industry trade structure measured of clothing and textiles for Romania. Turkey also showed comparative advantage in apparel when possessing an trade structure between industries. Yilmaz and Karaalp (2015) measured the revealed comparative advantage of Pakistan to global countries. The study identified that revealed comparative advantage was rising for India, stable for China and fluctuating for Pakistan. The findings reflect that carpet industry has the potential of growth over the years, and it can boost the export performance and employment of the country, considering the growth opportunities of cross border trade in the globalised scenario.

3.2 Handloom Industry & Export

Singh Rajmani (1992) identified in research "Management in Handloom industry- A study of the production and marketing of handlooms for Exports" that the utility of handloom products in the country is very high and also the problems associated with it that are affecting the production and also hamper the industry's ability to fulfill the demand for foreign and local communities. M. Soundarapandian (2002) studied in the research that the cotton fabrics were the most demanded item which is exported to the foreign countries. The hand twisted yarn, handwoven cloths, and productive skills of weavers have been handed over from many generations. Maureen Liebl (2004) identified that Indian handlooms emerged as the most preferred exportable items explaining the potential of these obsolete technologies. It needs the efforts through which new consumer could get exposure of those handloom items and make the industry much capable for meeting the new consumers demand and also need to examine the potential cause that has not been realized so far behind the present condition of the industry and should look for some effective interventions. Shameek and Sahana Mukerjee (2012) explained the export relevance for the improvement of Indian economic growth by studying data of the past two decades. Authors investigated the Indian export competitiveness of cotton by calculating through factors related to financial and gave policy measure for the upliftment of the existing conditions. It discussed the specific import-export barriers and recommended for absolute reduction or removal. It also discussed the individual government policies that initiate the exports. Raveendra, Venkata & Harshavardhan (2013), explained that traditional products such as handloom had a potential huge market over foreign countries. This sector contributed over 18.4 % of the total cloth production from the country and approx. 15% of total fabrics exports to a hundred and twenty-five countries. The handloom industry always finds difficulties for identifying effective buyers from different countries and in exporting and marketing of the products. The researcher suggested for taking initiatives that create proper awareness, marketing, and development of exports, motivate the stakeholders for the buyer-seller meet, international trade fairs, exhibitions and creating the effective concessional schemes that should be helpful for the handloom industry and to perform effectively in the exports. Kumar (2014) measured handloom exports during 2009-10. He identified that the order of USD 265 million that increased to USD 365 million in 2010-11. It registered a significant growth of 38% in that period. After that 2011-12, also a golden year for the handloom industry that registered the export of USD 554 million, an increase of 60% from last year. The biggest market of India's handloom export was the USA and EU.

4. Indian Trade of Handloom Products

This data shows the export and import figure of handloom industry throughout 2008-17. The export of handloom product was highest over the year of 2013. Import to global countries always more than export. The import was most top in 2012.

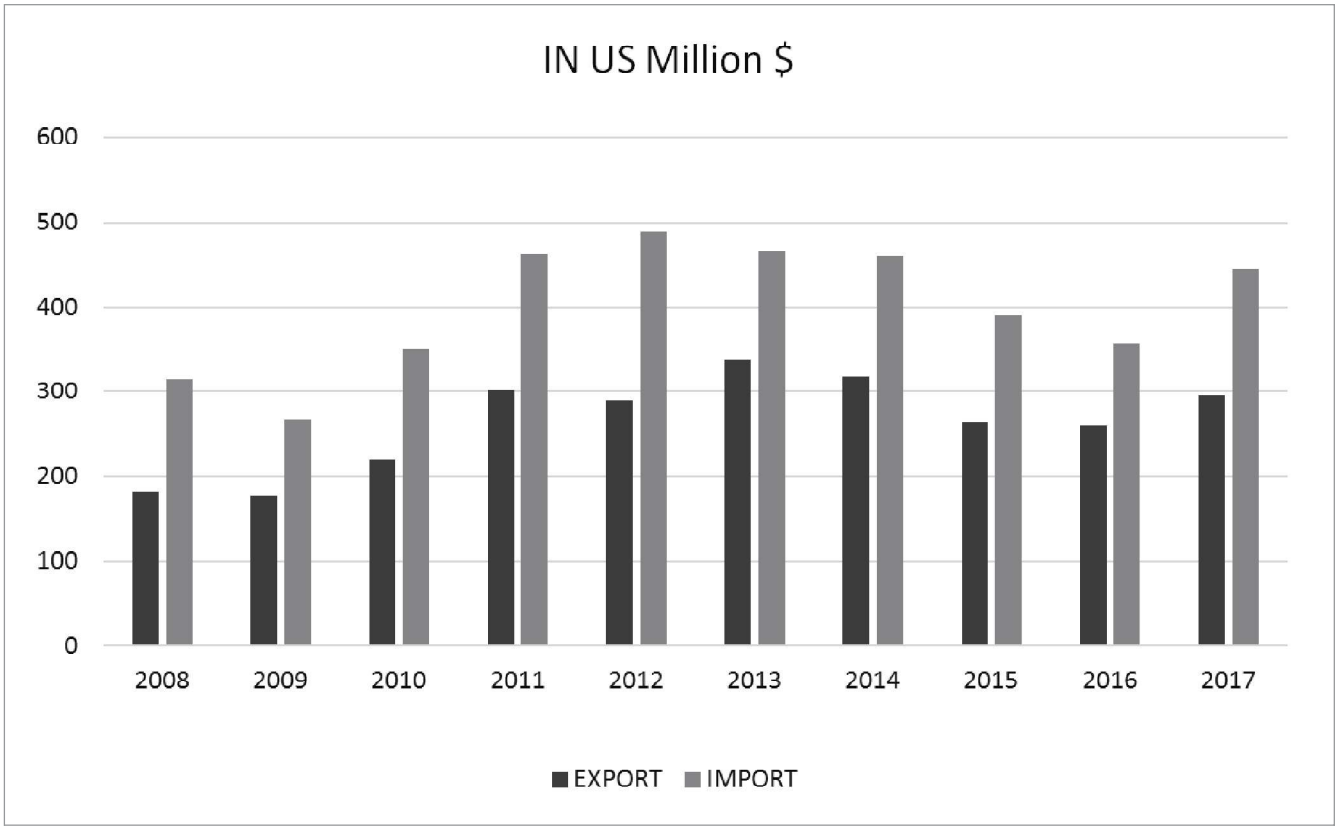


Figure 1: Source: ITC trade map and UN COMTRADE

5. Top Export Countries of India

A table indicating the movement of the top 10 export countries during the years 2013-14 to 2017-18.

Table 2: Source: Handloom export promotion council

S. No.	Country	2017-18 Export Value INR crore	Position during 2017-18	Position during 2016-17	Position during 2015-16	Position during 2014-15	Position during 2013-14
1	USA	599.96	1	1	1	1	1
2	UK	168.46	2	3	2	2	2

3	SPAIN	136.65	3	5	7	10	11
4	ITALY	116.21	4	2	4	4	4
5	GERMANY	114.84	5	6	5	3	3
6	U ARAB EMTS	107.43	6	4	3	14	10
7	FRANCE	105.23	7	7	6	5	5
8	NETHERLAND	88.36	8	8	9	8	9
9	AUSTRALIA	74.82	9	9	10	6	8
10	JAPAN	74.74	10	10	8	7	6

A table is indicating the export of handloom products to top 10 countries during the years 2016-17 and 2015-16. Value in USD Million.

Table 3: Source: Handloom export promotion council

S.#	Country	2016-17		2017-18		% growth 2017-18 vs. 2016-17	
		USD		USD		USD	
1	USA	100.08		93.10		-6.97	
2	UK	18.45		26.14		41.66	
3	SPAIN	15.64		21.21		35.59	
4	ITALY	19.65		18.04		-8.20	
5	GERMANY	14.91		17.81		19.44	
6	U ARAB EMTS	18.18		16.68		-8.24	
7	FRANCE	14.54		16.33		12.28	
8	NETHERLAND	13.69		13.71		0.16	
9	AUSTRALIA	13.35		11.61		-13.03	
10	JAPAN	11.46		11.60		1.24	

The table shows the export of handloom items to top 10 nations amid the year 2015-16 and 2016-17. It might be seen from the above table that among the leading ten export places of handloom items amid FY 2016-17, UK, USA, UAE, and Germany have seen the decay of about 16%, 3%, 4% and 1% individually while France, Netherland, Italy, Spain, Australia, and Japan have enlisted a positive development of 13%, 29%, 14%, 41%, 33%, and 5% separately amid this period.

6. Percentage of Handloom Trade in Total Indian Trade

It is the percentage representation of Indian trade from the year 2008-17. There is an insignificant contribution of handloom export in total export of India. India exports less than 1.75% of handloom products over the years, whereas import is varying from 2 to 2.64% of handloom products.

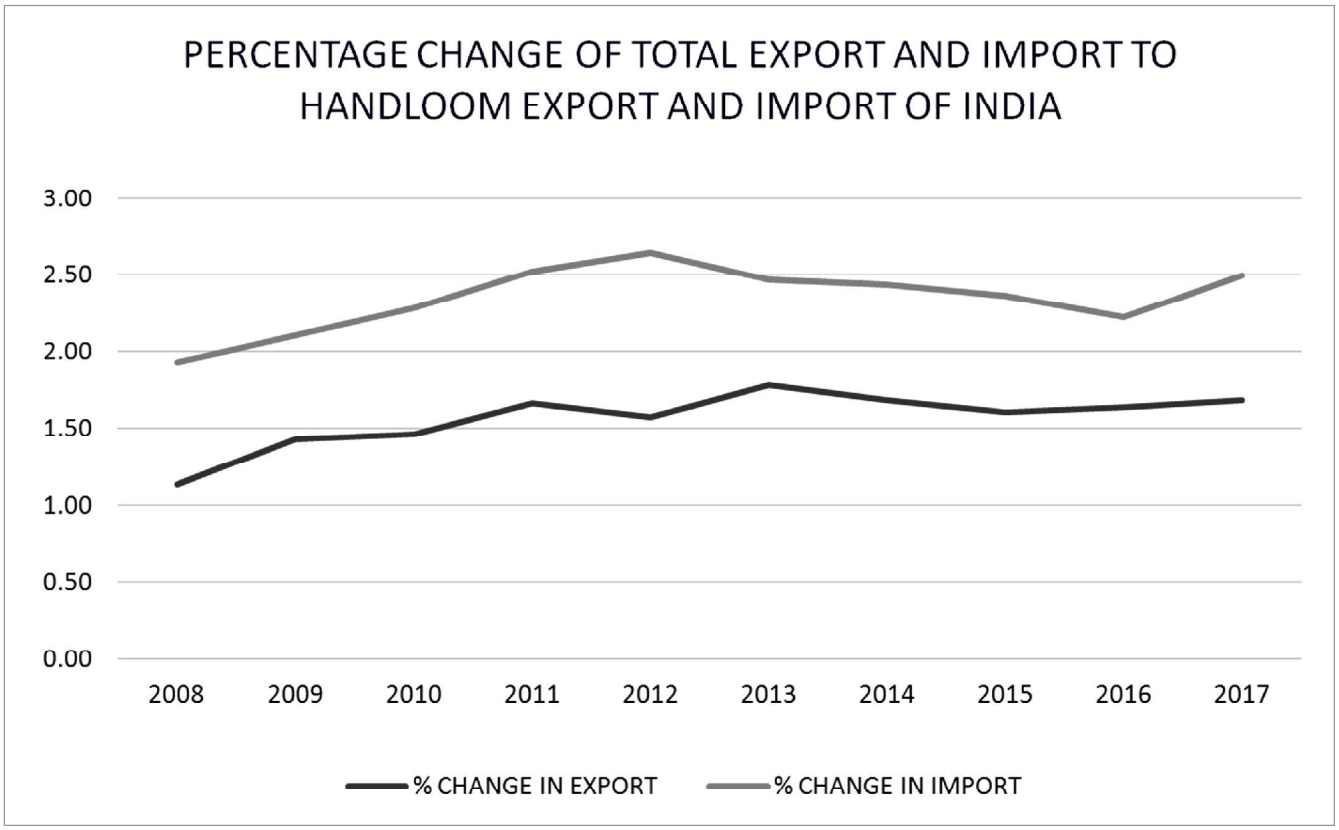


Figure 2: Source: Researcher's calculation based on ITC trade map and UN COMTRADE

7. Trade Challenges of Handloom Industry

There are different trade difficulties looked by India that caused critical trouble in the current account deficit. India's trade deficit augmented to USD 15.33 billion in April 2019 from USD 13.72 billion around the same time a year ago or above market expectations for USD 13.91 billion. The US government declared to pull back GSP (Generalized System of Preferences) advantages to India will affect export of handloom made home textiles items. Among the home textiles that would confront the heat include products made of silk, jute, and specific items, for example, inside decorations, banners, and national flags. National flags transcendently made and traded by SME part represent the biggest of sent out thing at Rs 466 crore ($64 million). (Business Line, November 2018). India is the single biggest nation in the world with the most noteworthy number of handlooms, and it is difficult to source these products in a required quantity from different countries. Concessional tariff under GSP benefits the US buyers as much as it helps Indian exporters, (Ujwal Lahoti, Chairman, Textile Export Promotion Council, November 2018). Handloom fabrics, floor covering, and silk items are fabricated by cottage industry in rural India subsequently giving work to countless female specialists helping in destitution lightening and consistent improvement of small clusters. Untimely withdrawal of GSP advantage will cast a budgetary weight on both the Indian producers and the US retailers, (Business Line, November 2018). The economic slowdown in the US and the EU seem to have adversely affected India's handloom exports. Besides the global downturn, competition from other countries, fast-changing consumer preferences, high production costs, and market dynamics are said to be the primary reasons for the decline. Countries like Pakistan, Sri Lanka and Bangladesh are giving India fierce competition after the EU removed India from the preferential duty list in January

2014. The import duty of Indian Textile exports imposed by 8% in European countries as compared to Pakistan and Bangladesh, whose products are not liable for the same tax (Kanchan Srivastava, 2016). Majority of handloom weavers has the insignificant educational background that caused in unable to understand the government policies and schemes. The intervention schemes failed in the fulfilment of demands of the weaver community. Government department and policymakers also suffer from insufficient information that could reflect the actual conditions of weavers and handloom industry. Because of these situations, policy preparation and its objective deviated from the requirement of community. Due to the absence of facts and figures, the performance of the handloom industry become steady and gradually decreasing.

8. Objective

The objective of the study is to measure the export performance of Indian handloom industry by RCA using Balassa and Lafay Index from the period of the year 2008-17. The primary purpose of the study is to determine the comparative advantage of handloom products being traded over the year 2008-17.

9. Methodology:

9.1 Balassa Index

Balassa defined the method of calculating the revealed comparative advantage. It is a ratio of traded products of the industry by a particular country to the world and total trade of that country to the world. (Vollrath, 1991, Bojnec, 2001).

$$RCA_{ij} = \frac{X_{ij}/X_i}{X_w i/X_w}$$

where,

RCA_{ij} = Revealed comparative advantage of the i^{th} country's j^{th} industry,

X_{ij} = Commodity exports of the j^{th} industry by the i^{th} country,

X_i = Total commodity exports of the i^{th} country,

X_{wj} = World commodity exports of the j^{th} industry,

X_w = Total commodity world exports.

The calculated value of the above index lies between 0 (zero) to ∞ (infinity). If the value of the index is greater than one, then it shows that country i have revealed comparative advantage in product j and value is less than one that indicates the country i shows its comparative disadvantage capability in the product j. The calculated RCA method was further redefined by Dalum et al. (1998), Laursen (1998) and Widodo (2009) and modified revealed comparative advantage (RCA) became revealed symmetric comparative advantage (RSCA). The value of RSCA lies between -1 to +1. A modified formula is as below:

$$RSCA_{ij} = \frac{[RCA_{ij} - 1]}{[RCA_{ij} + 1]}$$

RSCAij represent the revealed symmetric comparative advantage of country i for product j when the value will be above 0 (zero) and vice versa if the value will be below 0 (zero).

9.2 Lafay index

Another method to reduce the empirical weakness of the Balassa index, G. Lafay (1992) is used. It is an index that combines production and trade variables. The Lafay Index is an index that measures the trade specialization concerning the specific product. The specialization of the country's trade is denoted by the higher positive value of the calculated index, whereas the negative value of index shows despecialization. The greater values of indices, the higher the degree of specialization/despecialization of country's trade in a particular production.

Lafay index evaluates the normalized trade balance of the particular country i for a specific product j. The normalized trade balance is the ratio of the trade balance for the product and to the total traded value.

$$LFI^i_j = 100 \left[\frac{X^i_j - m^i_j}{X^i_j + m^i_j} - \frac{\sum_{j=i}^{N} (X^i_j - m^i_j)}{\sum_{j=i}^{N} (X^i_j + m^i_j)} \right] \frac{X^i_j + m^i_j}{\sum_{j=i}^{N} (X^i_j + m^i_j)}$$

Where x^i_j denotes the export of ith country for the product j whereas m^i_j is the import of that product. If the calculated index has a positive value for product j, it indicates the comparative advantage of the country and a high level of specialization on the product j. If the calculated index has negative value, then it shows the reverse characteristics

like comparative disadvantage and low degree of specialization of the particular product. "N" is the number of items analyzed. If we break the Lafay index into three categories, namely LFI1, LFI2, and LFI3, following representations are as follow:

$$LFI_1 = \frac{X_j^i - M_j^i}{X_j^i + M_j^i} \quad LFI_2 = \frac{\sum_{j=i}^{N} (X_j^i - M_j^i)}{\sum_{j=i}^{N} (X_j^i + M_j^i)} \quad LFI_3 = \frac{X_j^i + M_j^i}{\sum_{j=i}^{N} (X_j^i + M_j^i)}$$

It cleared that LFI = (LFI1 - LFI2) LFI3. LFI1 measures the net export for the particular commodity by the total turnover of that commodity; this is known as the Balassa index. LFI2 measure the total net export through the sum for all products to the total turnover. The parenthesis consists of two elements of the index, namely LFI1 and LFI2. If the value of LFI1 is higher than LFI2, then RCA index of the particular commodity is higher than the RCA calculated for all the commodities. The third element, namely LFI3, adjust the value of both the aspects under parenthesis. It denotes the share of a given commodity in the total turnover of the trade. The LFI index indicates the intensity of comparative advantage for the traded aggregation or a group of collection. A positive value of index shows the high comparative advantage, and degree of specialization and negative value signals that comparative advantage is lacking alongside degree id despecialization (Zaghini, 2005). By definition, Lafay Indices sustain symmetricity among all products of the country and the sum must be zero of for all sectors of a given country. The Lafay index calculates specialization for a product j in the country i also relates the contribution of the product in the trade balance of the country alongside the country's entire trade balance and its share of trade. Even though RCA indices reflect relative measures, so calculated results must be noted carefully and with information about their restrictions. The results should be appropriately analyzed with an understanding of limitations. A study of revealed comparative advantage of the industry helps explain the change in export specialization and structural transformation.

10. Data Analysis

The analysis of India's RCA is done through Balassa and Lafay indices. This section focuses on indices calculated for individual HS commodity of handloom industry.

11. India's Comparative Advantage:

The subsections analyse the RCA in exports and imports. There is a detailed calculation of the RCA measures over a period of time (2008-17).

11.1 India's Revealed Comparative Advantage in Exports (Balassa Index):

HS Code	Product Description	RCA Index									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50	Silk	9.01	6.80	7.02	4.63	3.30	2.94	2.90	2.89	2.54	2.19
51	Wool	0.79	0.75	0.76	0.79	0.81	0.63	0.73	0.85	0.77	0.72
52	Cotton	7.54	5.24	8.09	6.61	8.05	8.79	8.23	8.24	7.25	7.19
57	Carpets and other textile floor coverings	7.14	5.47	6.49	4.94	5.59	5.92	6.36	7.02	7.04	6.52
58	Special woven fabrics; tufted textile fabrics	1.46	1.26	1.41	1.13	1.29	1.66	1.77	1.80	1.83	1.82
62	Articles of apparel and clothing accessories	2.84	2.72	2.45	2.40	2.45	2.35	2.31	2.65	2.56	2.35
63	Other made-up textile articles; sets; worn clothing; rags	4.72	3.80	4.11	4.11	4.45	4.23	4.13	4.69	4.61	4.63

Table 4: Source: Researcher's calculation based on ITC trade map and UN COMTRADE

As indicated in Table 1, Revealed Comparative analysis calculated for ten years and all the commodities of handloom. RCA of India derived with the help of Export of India to the world during the period 2008-2017. If RCA>1. It means commodity is more competitive in the world market as compared with the rest of the commodities. The commodities which are enjoying higher RCA are more competitive as compared with the rest of the commodities. RCA of silk is decreasing over the year from 9.01 in 2008 to 2.19 in 2017. It shows significant distress in exporting of silk. Wool has the least RCA over the years that shows the less comparative advantage as compared to other exported commodities.

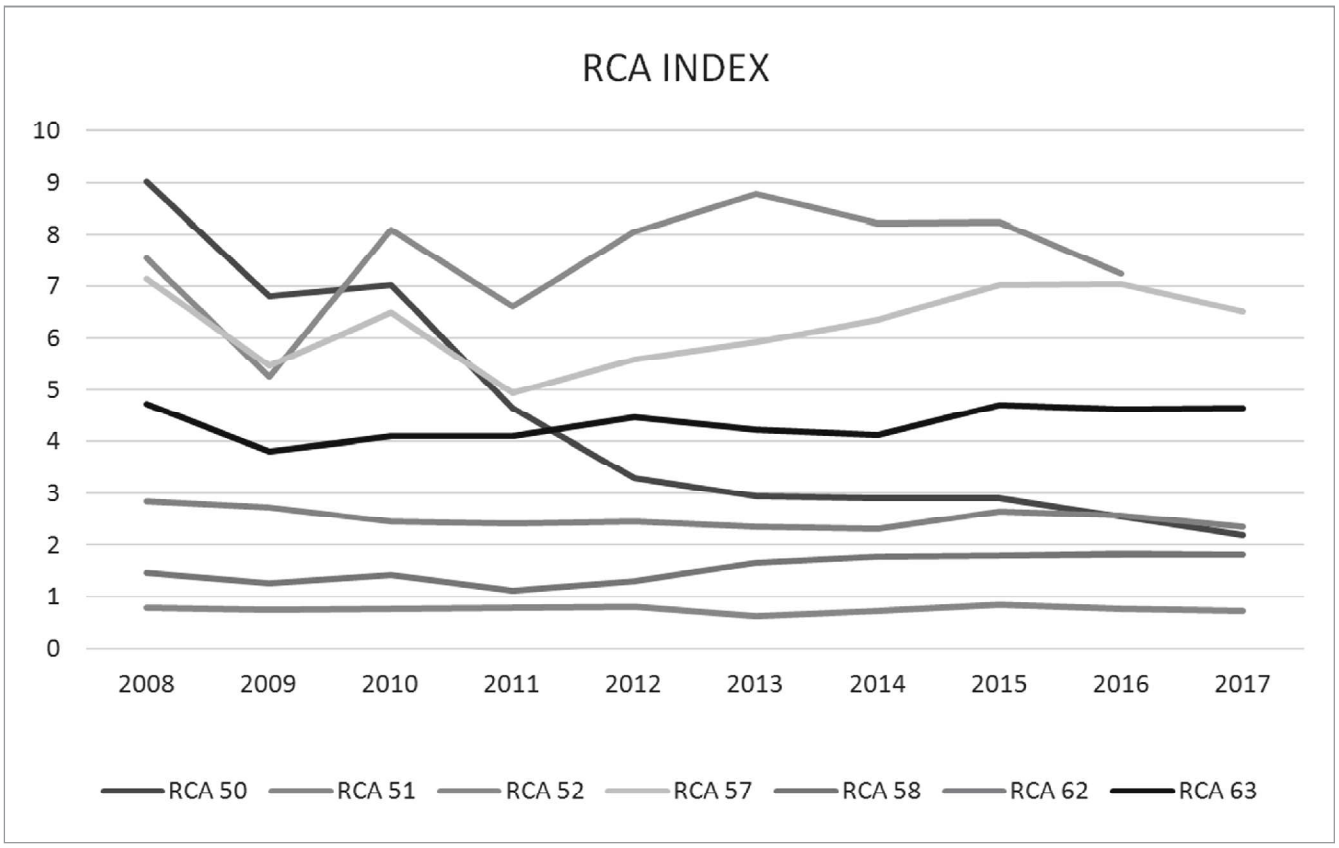


Figure 3: Researcher's calculation based on ITC trade map and UN COMTRADE

The commodities which are enjoying higher RCA are more competitive as compared rest of other products. Handloom commodities like Silk, Cotton, Carpet and other textile floor coverings, other made-up textile articles set are more competitive in the international market from 2008 to 2017 as compare to other commodities like wool, unique woven fabrics, and articles of apparel and clothing. Hence India can increase the trade in particular commodities of Handloom.

11.2 India's Revealed Comparative Advantage in Imports (Balassa Index):

HS Code	Product Description	RCA Index									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50	Silk	6.28	8.11	6.55	5.03	4.85	3.96	3.84	4.47	5.35	5.83
51	Wool	1.22	1.06	1.27	1.10	1.10	1.12	1.23	1.23	1.24	1.10
52	Cotton	0.72	0.49	0.37	0.27	0.47	0.49	0.55	0.51	1.07	0.95
57	Carpets and other textile floor coverings	0.21	0.20	0.23	0.24	0.20	0.21	0.23	0.29	0.30	0.29
58	Special woven fabrics; tufted textile fabrics	0.50	0.59	0.49	0.49	0.54	0.62	0.66	0.83	0.78	0.74
62	Articles of apparel and clothing accessories	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.08
63	Other made-up textile articles; sets; worn clothing; rags	0.22	0.28	0.26	0.26	0.29	0.30	0.33	0.43	0.38	0.30

Table 5: Source: Researcher's calculation based on ITC trade map and UN COMTRADE

As indicated in table 2, India's revealed comparative analysis is calculated with the help of Import figures of all commodities of handloom industry with the rest of the world RCA to find out the competitiveness in the world market. RCA of silk shows significant comparative advantage from the year 2008-17. It has the highest RCA as compared to other commodities.

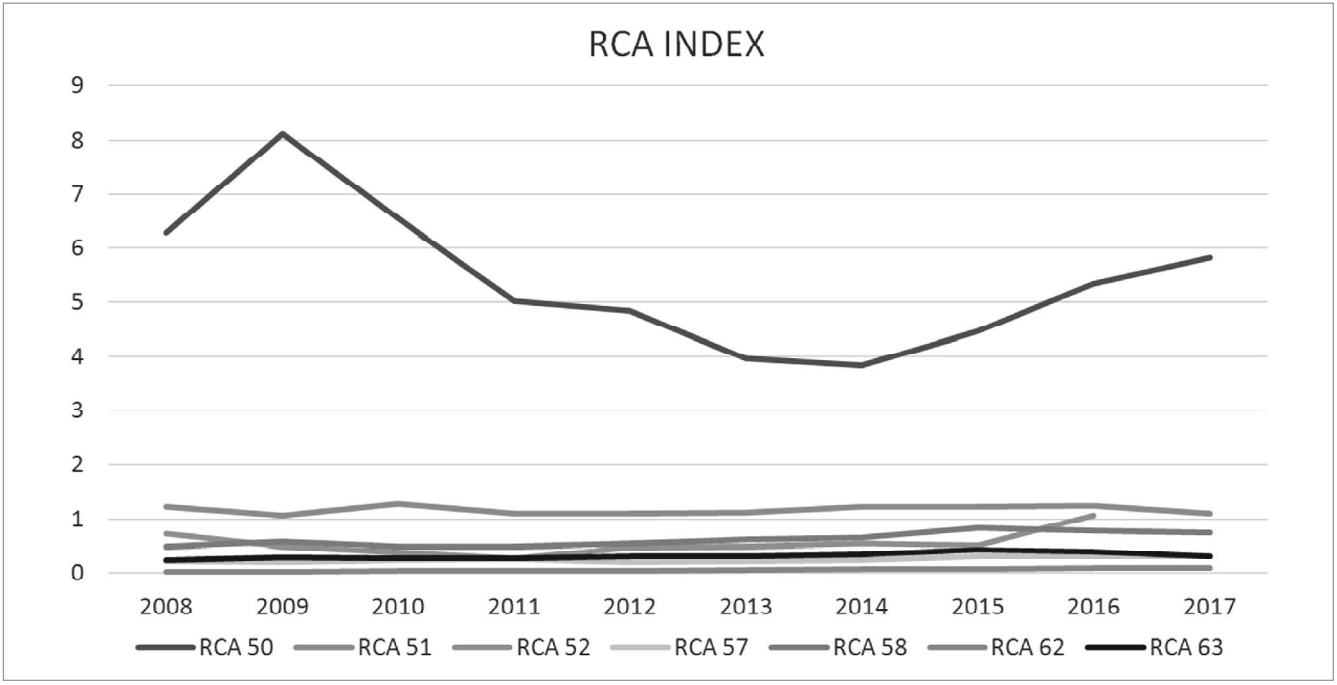


Figure 2: Researcher's calculation based on ITC trade map and UN COMTRADE

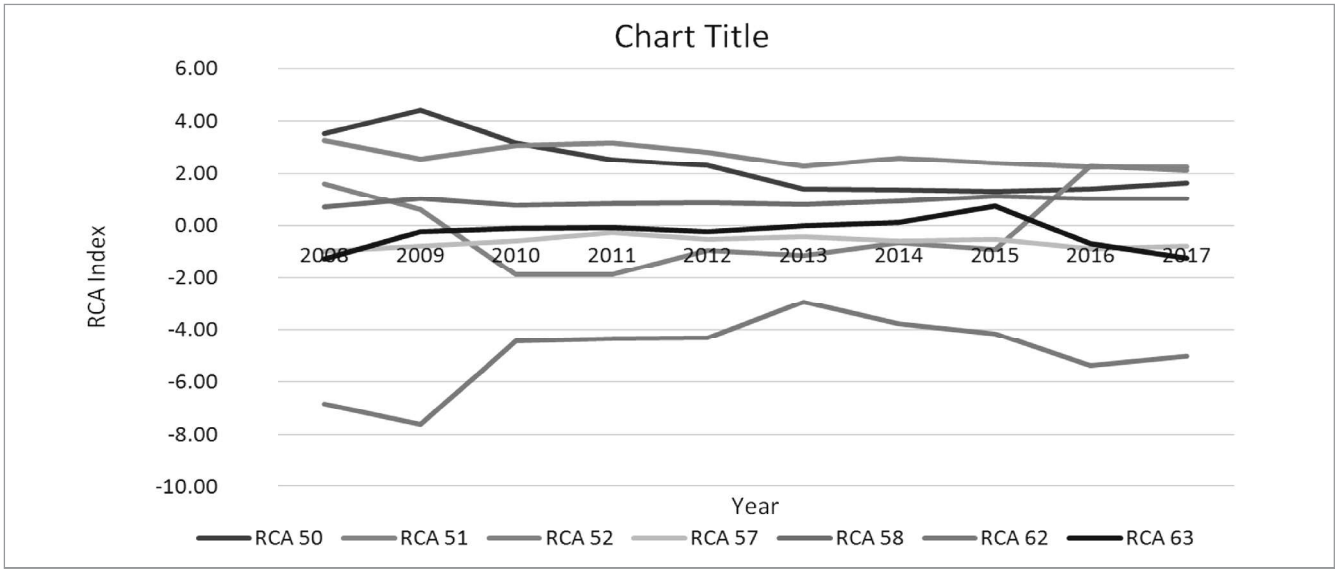
Handloom commodities like Silk and wool are more competitive in the perspective of import from the international market from 2008 to 2017 as compare to other commodities like Cotton, Carpet and other textile floor coverings, other made-up textile articles set, special woven fabrics and articles of apparel and clothing.

11.3 Trade Balance (Lafay Index)

HS Code	Product Description	Lafay Index									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50	Silk	3.53	4.45	3.17	2.53	2.31	1.39	1.37	1.32	1.42	1.65
51	Wool	3.27	2.55	3.07	3.19	2.84	2.29	2.61	2.40	2.24	2.24
52	Cotton	1.59	0.60	-1.88	-1.89	-0.93	-1.12	-0.64	-0.89	2.27	2.11
57	Carpets and other textile floor coverings	-0.99	-0.77	-0.57	-0.26	-0.52	-0.42	-0.60	-0.53	-0.87	-0.77
58	Special woven fabrics; tufted textile fabrics	0.72	1.02	0.77	0.84	0.86	0.79	0.92	1.13	1.01	1.04
62	Articles of apparel and clothing accessories	-6.87	-7.61	-4.45	-4.35	-4.33	-2.92	-3.76	-4.17	-5.39	-5.03
63	Other made-up textile articles; sets; worn clothing; rags	-1.25	-0.24	-0.11	-0.07	-0.23	-0.01	0.11	0.73	-0.69	-1.24

Table 6: Source: Researcher's calculation based on ITC trade map and UN COMTRADE

The LFI index analysis the trade situation of a particular product within the structure of foreign trade boundaries for every country or group of countries (Zaghini, 2003). Analyzing the obtained results, and inferred that silk, wool, cotton, and special woven fabrics have a comparative advantage and country has a high level of specialization on these products and other products shows negative index values that shows relative disadvantage and low degree of specialization in the products.



12. Discussion

The empirical findings suggested that silk has a comparative advantage in export, but it is continuously declining over the last ten years (2008-17). Cotton shows excellent comparative advantage followed by carpet and other floor coverings. Other handloom products like special woven fabrics, articles of apparel and clothing accessories have a significant comparative advantage in export. However, India also imports some raw materials for handloom products. The comparative advantage in import perspective is substantial for silk and wool. Rest products show distress in this index. Lafay index calculated for identifying the degree of specialization of particular products along with its comparative advantages. The computed value shows that silk and wool have high index positive value, which means that the country has a high degree of specialization in producing silk and wool alongside significant comparative advantage to other handloom products. Lafay index of cotton shows mix approach over the years whereas indices of special woven fabrics and tufted textile fabrics show little contribution in export alongside the degree of specialization of the products. Carpet and other textile floor covering have a less significant degree of specialization in these segments and having index nearer to zero. Articles of apparel and other made-up textile segment show negative indices value, which indicates the negative comparative advantage and a high degree of dis-specialization of these products.

13. Implication

The purpose of this article is to present empirical findings of the relative importance of handloom products traded across the country. Competitive advantages or disadvantage change over time for any industry. So that, analysis of the pattern needs to be studied over a specified period. Balassa revealed comparative advantage (RCA), and Lafay index (LFI) are the specific indicators that measure the strength of commodities for international trade. They assess that which commodities have a comparative advantage and which one has a level of specialization in the export and could take suitable steps accordingly.

Conclusion

Hence, it inferred that some commodities of handloom industry have a significant comparative advantage and have excellent export performance, and some commodities need to revive the conditions. Policymakers should categorize the commodities according to the popularity in the export market and maintain the strategies according to the need of the commodities because universal rules and regulation can't be implemented for different performing commodities in the foreign market. Less demanded commodities need more strong supports in terms of product innovation, effective marketing strategies, and identification of potential market. Those commodities which highly competitive advantage also need to be analyzed time to time for maintenance of the position in the market.

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