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Trade Analytics
Ex-Post Trade Analysis; HS Code: 420310

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Contents

1. INTRODUCTION:

The leather industry occupies a place of prominence in the Indian economy in view of its massive potential for employment, growth and exports. There has been an increasing emphasis on its planned development, aimed at optimum utilization of available raw materials for maximizing the returns, particularly from exports.

The post liberalization era has generated significant opportunities for the Indian leather industry. With global players looking for new sourcing options, India stands to gain a bigger share of the global market. The leather industry has undergone a dramatic transformation from being a mere exporter of raw materials in the sixties to being a producer of value added finished products in the nineties. Policy initiatives taken by Government since 1973 have been, to a large extent, instrumental for such a transformation. India has about 3% percent share in earnings from the industry. The composition of exports has also been changing, with more and more value added products being exported.

- Indian leather sector stands at USD 17.85 billion
  (Exports – USD 5.85 billion, Domestic Market – USD 12 billion).
- India accounts for 12.93% of the world's leather production of hides/skins.
- High Growth projected in the next five years.
- Indian leather industry has one of the youngest workforce with 55% of workforce below 35 years of age.
- India is the second largest producer of footwear and leather garments in the world.

2. Structure of Industry:

Leather is a prominent industry in India. The main sectors from which its demand is derived are fashion, footwear, furniture, interiors and automotive. While the Indian leather totals up to 13 percent of the worlds' total production of skins, around 10 percent of world's footwear production also comes from India. India's leather industry is bestowed with skilled manpower, innovative technology, increasing industry compliance to international environmental standards and the support of allied industries. The leather industry in India is geographically well diversified, though Tamil Nadu, Uttar Pradesh and West Bengal account for bulk of the output.

The major production centers for leather and leather products in India are located in the States of:

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- ➤ Tamil Nadu – Chennai, Ambur, Ranipet, Vaniyambadi, Vellore, Pernambut, Trichy, Dindigul and Erode
- ➤ West Bengal – Kolkata
- ➤ Uttar Pradesh – Kanpur, Agra, Noida, Saharanpur
- ➤ Maharashtra – Mumbai
- ➤ Punjab – Jalandhar
- ➤ Karnataka – Bangalore
- ➤ Andhra Pradesh – Hyderabad
- ➤ Haryana – Ambala, Gurgaon, Panchkula, Karnal and Faridabad
- ➤ Delhi
- ➤ Madhya Pradesh – Dewas
- ➤ Kerala – Calicut and Ernakulam/Cochin
- ➤ Rajasthan-Jaipur
- ➤ Jammu & Kashmir
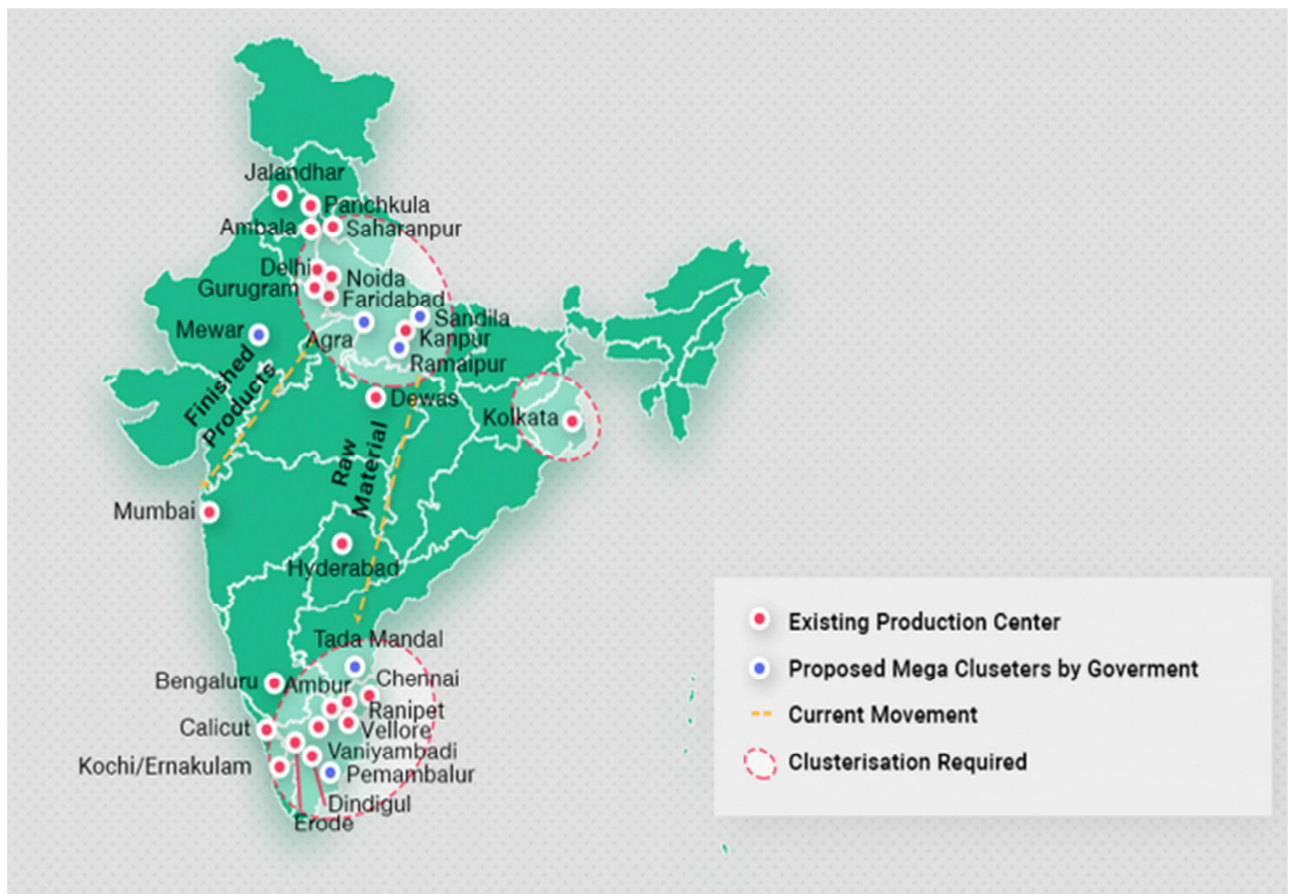
Leather sector is dominated by micro and small units with bigger units accounting for just 5 percent of the total manufacturing units. The distribution of the units in this sector in terms of the broad classification of MSME and others is indicated below:

Table 1: Structure of Industry (Numbers)[2]	Large Units	Medium Units	Small Units	Micro Units	Merchant Units	Total
Finished leather	30	49	309	68	151	607
Leather Footwear	38	46	228	49	81	442
Non Leather Footwear	4	2	34	13	17	70
Footwear Component	29	32	182	28	22	293
Leather Goods	14	13	242	259	210	738
Leather Garments	8	8	132	49	72	269
Leather Gloves	4	3	38	36	24	105
Harness and Saddlery	3	9	74	69	26	181
Total	130	162	1239	571	603	2705

NOTE: Multiple units of a single company are counted as one. But if they produce different products, they figure in each of the production categories.

Source: Department of Industry policy and promotion

Highlights of Leather Product Segments:

- **Tanning Sector** –Annual production about 3 billion sq.ft. Accounts for 10% of world leather requirement. Indian colors continuously being selected at the MODEUROPE Congress
- **Footwear Sector**– Second largest footwear producer after China. Annual Production 2257 million pairs. Huge domestic retail market; 2021 million pairs are sold in domestic market. Footwear (leather and non-leather) export accounts for about 43.5% share in India's total leather & leather products export. The Footwear products mix; Gents 58%, Ladies 30% ,Children 9% and others 3%
- **Leather Garments Sector** – Second largest producer and second largest global exporter. Accounts for 9% share of India's total export from leather sector.
- **Leather Goods & Accessories Sector including Saddlery & Harness**– Fifth largest global exporter. Accounts for about 24% share of India's total export.
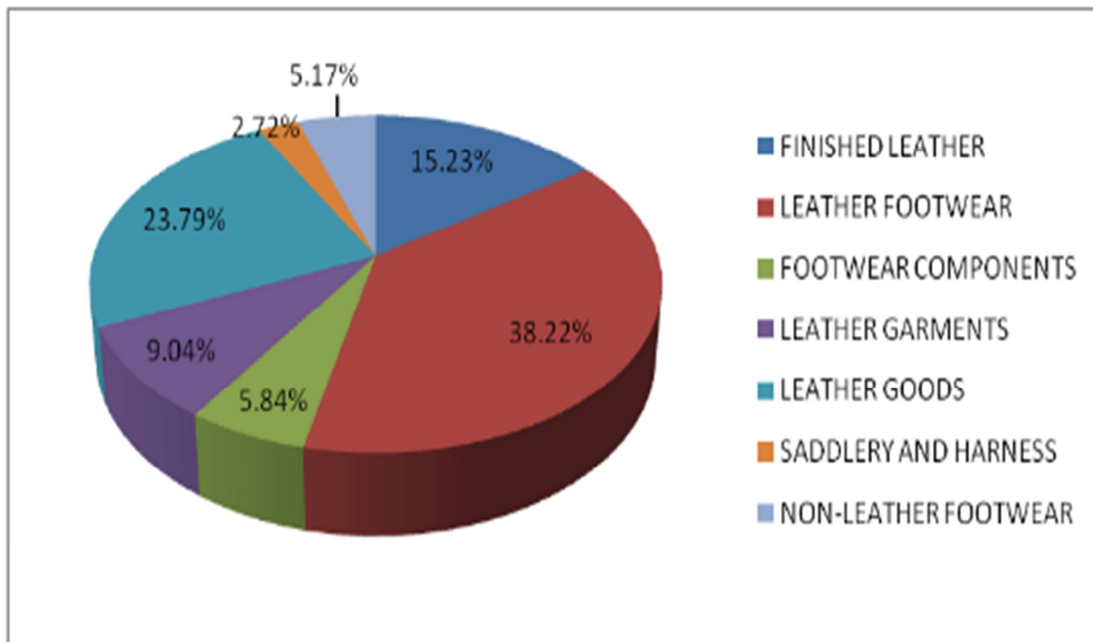
India's Export Of Leather And Leather Products For Five Years

Value In US$ Mn

Product	2013-14	2014-15	2015-16	2016-17	2017-18
Finished Leather	1284.71	1329.05	1046.45	886.39	874.23
Footwear	2557.66	2945.58	2739.06	2765.77	2825.53
Leather Garments	596.15	604.25	553.11	535.66	518.96
Leather Goods	1353.91	1453.26	1370.04	1316.63	1365.33
Saddlery & Harness	145.54	162.70	146.38	142.35	155.88
Total	5937.97	6494.84	5855.06	5646.79	5739.93
% Growth	18.39%	9.37%	-9.84%	-3.56%	1.65%

Source: DGCI&S

% Share Of Leather & Leather Products (2017-18)

- 5.17%
- 2.72%
- 23.79%
- 9.04%
- 5.84%
- 15.23%
- 38.22%

Legend:
- FINISHED LEATHER
- LEATHER FOOTWEAR
- FOOTWEAR COMPONENTS
- LEATHER GARMENTS
- LEATHER GOODS
- SADDLERY AND HARNESS
- NON-LEATHER FOOTWEAR

Strengths of Indian leather sector

- Own raw material source – About 3 billion sq ft of leather produced annually
- Some varieties of goat / calf / sheep skins command premium position
- Strong and eco-sustainable tanning base
- Modernized manufacturing units
- Trained / skilled manpower at competitive wage levels
- World-class institutional support for Design & Product Development, HRD and R & D.
- Presence of support industries like leather chemicals and finishing auxiliaries
- Presence in major markets – Long Europe experience
- Strategic location in the Asian landmass

Emerging strengths

- Design development initiatives by institutions and individuals
- Continuous modernization and technology up-gradation
- Economic size of manufacturing units
- Constant human resource development programme to enhance productivity
- Increasing use of quality components
- Shorter prototype development time
- Delivery compliance
- Growing domestic market for footwear and leather articles

EXPORTS:

India's leather industry has grown drastically, transforming from a mere raw material supplier to a value-added product exporter.

- Total leather good exports from India stood at US$ 3.05 billion during April-October 2018.
- During April-October 2018, the major markets for Indian leather products were US (16.73 per cent), Germany (12.31 per cent), UK (11.41 per cent), Italy (7.48 per cent), and France (5.54 per cent.
- During April-October 2018, exported products include leather footwear component (US$ 196 million), leather garments (US$ 295.06 million), finished leather exports (US$ 466.76 million), leather footwear (US$ 1,293.20 million) and leather goods (US$ 799.47 million)

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Major Markets:

1. The major markets for Indian Leather & Leather Products are USA with a share of 14.76%, Germany 11.92%, UK 10.74%, Italy 6.78%, France 5.69% Spain 4.90%, Hong Kong 4.32%, Netherlands 3.43%, China 2.97%, UAE 2.81%, Poland 2.52%, and Belgium 2.00%.
2. These 12 countries together accounts for nearly 73% of India's total leather & leather products export.
3. Export of leather & leather products to major markets like USA, Spain, Hong Kong, China, UAE etc., have shown negative growth during April-March 2017-18.
4. India's export of Leather and Leather products for the financial year April-March 2017-18 touched US$ 5739.93mn as against the performance of US$ 5646.79mn in the corresponding period of last year, recording a positive growth of 1.65%.

Major Export Destinations of India-Apr-Mar 2017-18

(Value in Million US$)

U.S.A.	847.30
GERMANY	684.41
U.K.	616.41
ITALY	389.06
FRANCE	326.38
SPAIN	281.30
HONG KONG	248.07
NETHERLANDS	196.98
CHINA	170.34
U.A.E.	161.27
POLAND	144.47
BELGIUM	114.80

Export of Leather and Leather Products from India during April-Mar 2017-18 Vis-à-vis April-Mar2017-17

CATEGORY	(Value In Million Rs)		
	APR-MAR 2016-17	APR-MAR 2017-18	% VARIATION
FINISHED LEATHER	59451.99	56348.35	-5.22%
LEATHER FOOTWEAR	142787.54	141388.63	-0.98%
FOOTWEAR COMPONENTS	20033.83	21608.01	7.86%
LEATHER GARMENTS	35927.98	33449.31	-6.90%
LEATHER GOODS	88308.72	88002.50	-0.35%
SADDLERY AND HARNESS	9547.54	10047.30	5.23%
NON-LEATHER FOOTWEAR	22684.23	19122.37	-15.70%
TOTAL	378741.83	369966.47	-2.32%

Source : DGCI &S

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3. Product Identification:

As per the HS code there are as many as 5 broad varieties vide different integral attributes viz: footwear, gloves, belt, clothing etc.

SL No	Code	Product label
1	'420310	Articles of apparel, of leather or composition leather (excluding clothing accessories, footwear ...
2	'420329	Gloves, mittens and mitts, of leather or composition leather (excluding special sports gloves)
3	'420330	Belts and bandoliers, of leather or composition leather
4	'420340	Clothing accessories of leather or composition leather (excluding gloves, mittens and mitts, ...
5	'420321	Specially designed gloves for use in sport, of leather or composition leather

Out of this 5 varieties the product identified is 420310- Articles of apparel, of leather or composition leather (excluding clothing accessories, footwear and headgear and parts thereof, and goods of chapter 95, e.g. shin guards, fencing masks)

4. Shift Share Analysis:

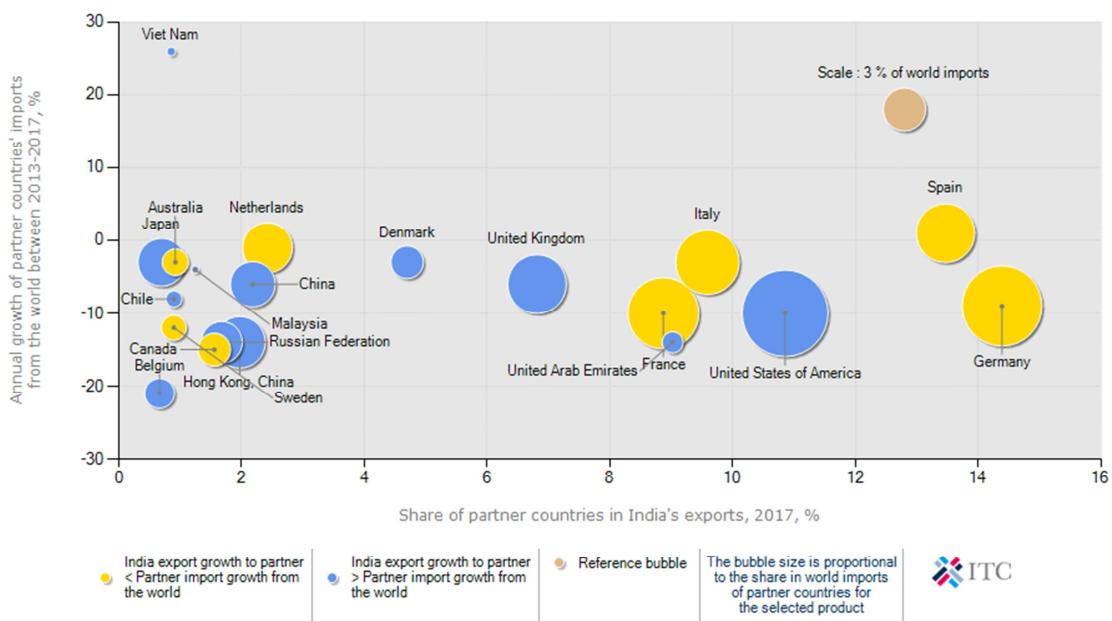After shift share analysis on HS Code 420310, we observe the following:

Importers	Pi
United Arab Emirates	38.60484519
Spain	10.66708889
United States of America	8.44038607
China	7.391597476
Malaysia	4.877786639
Viet Nam	4.376855879
Hong Kong, China	4.317095336
Japan	2.405063426
Denmark	2.149113889
United Kingdom	1.632545208
Korea, Republic of	1.488253226
Armenia	1.479752989
Portugal	1.385045786
Taipei, Chinese	1.348305242
Oman	1.213758928

Shift Share Analysis provides a useful mechanism for better interpreting changes in economic variables between different time periods between 2013 and 2017. From the Shift Share analysis we identified top 15 countries where the market growth and import potential rate is high as well as for Shift Share we normally try to take into account those countries which value above 1. UAE has high import potential of HS420310 from India, followed by Spain and USA.

5. Trade Map Bubble Graphs:

Prospect for Market Diversification:

Prospects for market diversification for a product exported by India in 2017
Product : 420310 Articles of apparel, of leather or composition leather (excluding clothing accessories, footware and headgear and parts thereof, and goods of chapter 95, e.g. shin guards, fencing masks)
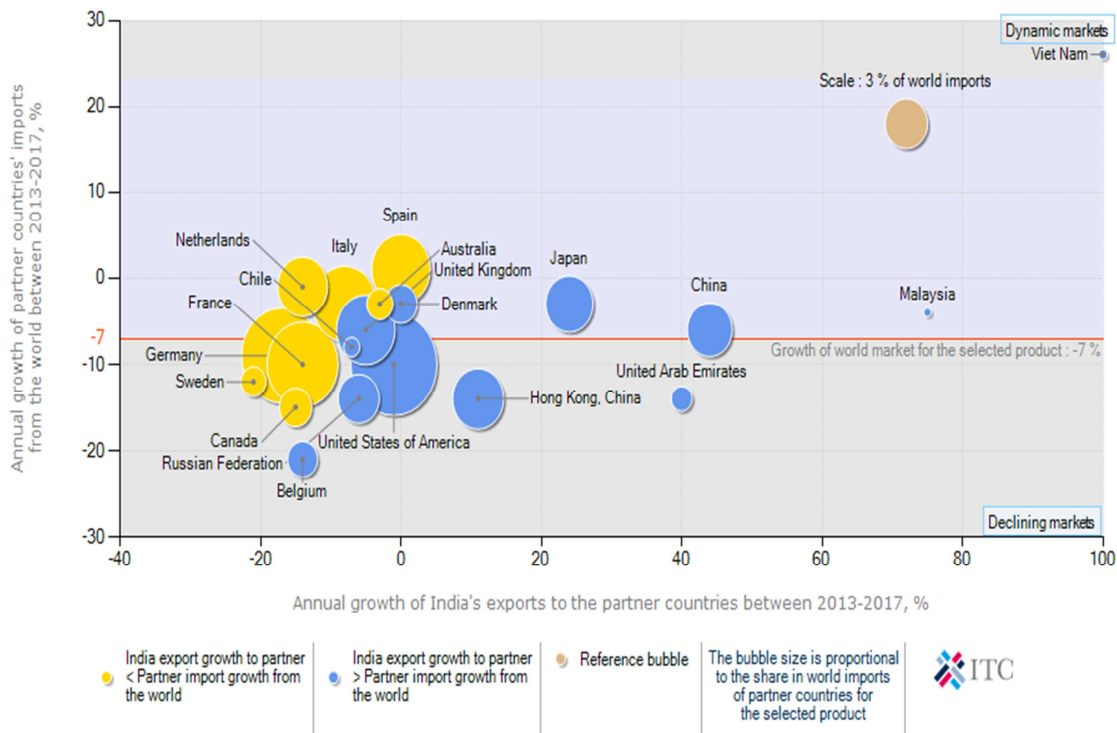
The above Trade Map Bubble represented in blue implies that countries like United States of America, United Kingdom, Russia, Denmark, UAE, and Belgium have a high export growth demand from India and also these countries are having high share of import for this product compare to others. Smaller countries like Malaysia, Chile, and Belgium are also having good demand of HS420310 from India. Hence these markets can also be explore.

Yellow bubbles represent countries where import growth of HS420310 is high from other parts of world but not from India. Indian manufactures should target these high potential countries like Germany, Italy, and Netherlands etc.

Growth In Demand for a product Exported by India:

Growth in demand for a product exported by India in 2017
Product : 420310 Articles of apparel, of leather or composition leather (excluding clothing accessories, footware and headgear and parts thereof, and goods of chapter 95, e.g. shin guards, fencing masks)

The above Trade Map Bubble represents that countries like Malaysia, Japan, Denmark as well as to some extend China has a healthy growth potential for HS420310. Though countries like USA, Belgium, Hong Kong, UAE & Russia having high import demand from India but the trend of market growth is in decline trend and exporters should look into countries which presently having positive annual growth. I.e. Japan.

Growth of National Supply and International Demand:

Growth of national supply and international demand
for products exported by India in 2017

The above Trade Bubble graph implies that with respect to HS420310 India is a net exporter. Though this product has high volume of export in declining sectors, its growth rate is negative. So exporters should do value addition to the products for exporting to have positive growth rate.

6. Tariff Profile of the Partners:

| Importers	Tariff(%)
Spain	0
Malaysia	0
Hong Kong, China	0
Denmark	0
United Kingdom	0
Korea, Republic of	0
Portugal	0
United States of America	3
Japan	3.55
United Arab Emirates	5

The countries which have tariffs within 10% and can be our probable export destination. Since out of the top 15 countries some countries have Zero tariff rate for HS420310 so those countries can be one of our potential markets for export.

Oman	5
Taipei, Chinese	6.7
China	10
Armenia	10
Viet Nam	15

7. Competitiveness – RCA

RCA for the product chosen is calculated over a span of 10 years from 2008-2017.

HS code: 420310	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
RCA	8.58	8.39	7.16	8.68	9.21	8.81	8.78	10.35	10.73	10.41
AVG RCA					8.40					9.82
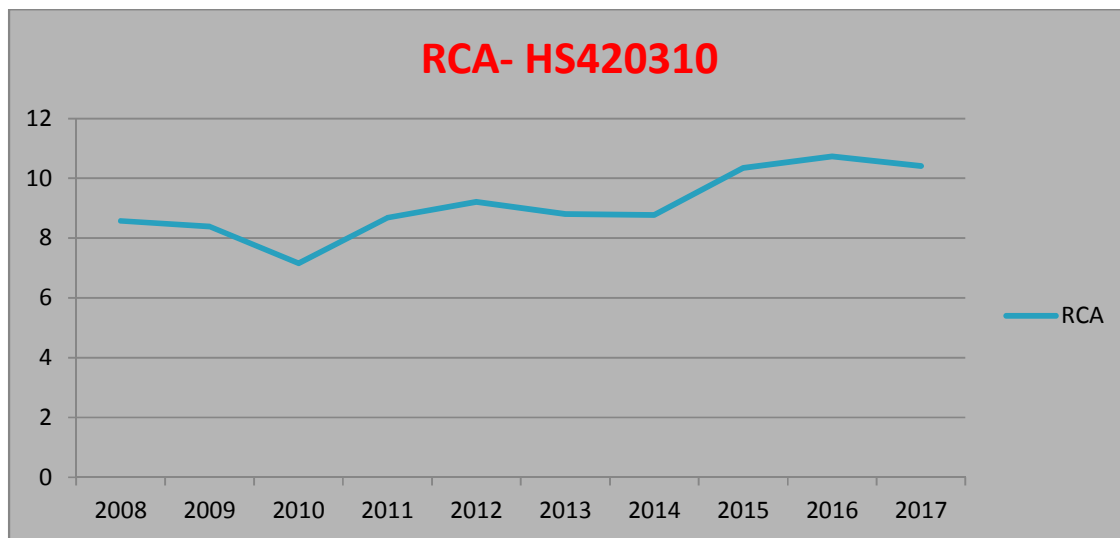
Also average RCA is calculated and we observe a rising pattern over the years for the product. India has a strong and enduring revealed comparative advantage in HS420310 and its still on a rise.

8. Possible Lack of Competitiveness – RCDA

RCDA is also calculated for the product over a span of 10 years from 2008-2017.
Also average RCDA is calculated and we observe a declining trend over the years:

HS code:420310	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
RCDA	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.08	0.05	0.04
AVG RCDA					0.023					0.044
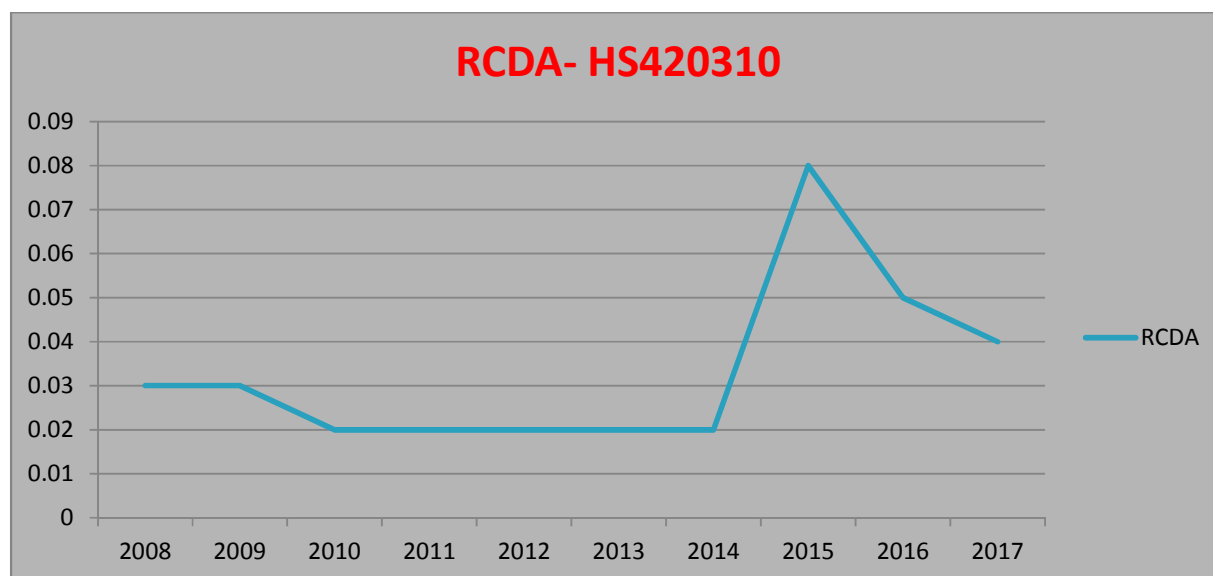
Predicating Trade Specialization

HS 420310		
	RCA>1	**RCA<1**
RCDA>1		
RCDA<1	India	

Thus, rising RCA and declining RCDA, indicate competitiveness of the product as well as India has high comparative advantage for HS420310 and Indian exporters should concentrate on exporting this product by selecting suitable markets.

9. Export Intensity Index

$$XII_{ij} = \frac{x_{ij} / X_{iw}}{x_{wj} / X_{ww}}$$

- xij is the dollar value of exports of country/region i to country/region j

- Xiw is the dollar value of the exports of country/region i to the world

- xwj is the dollar value of world exports to country/region j

- Xww is the dollar value of world exports

Definition

EII tells one whether or not a region exports more (as a percentage) to a given destination than the world does on average**.**

Range

Takes a value between 0 and +∞. Values greater than 1 indicate export flow between countries / regions is larger than expected given their importance in world trade.

Limitation

As with trade shares, high or low intensity indices and changes over time may reflect numerous factors other than trade policy.

Example: We have considered HS code 420310 Articles of apparel, of leather or composition leather (excluding clothing accessories, footwear

Data in 1000USD	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
IND X JAPAN	1146	1354	1089	926	1502	1482	1975	2264	2828	3688	
IND X WORLD	419765	420915	378484	582307	552168	652474	618451	566505	538259	530552	
WOR X JAPAN / JAPAN M WORLD	176871	165783	179616	138132	134483	126421	120517	108787	113443	110717	
WOR X WOR / WOR M WOR	4064706	3334910	3524378	3871519	3609421	3787932	3932351	3384232	3008241	2947706	
	0.06	0.06	0.06	0.04	0.07	0.07	0.10	0.12	0.14	0.19	
Average						0.06				0.12	

Data in 1000USD	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
IND X NETHERLAND(420310)	15908	16476	14733	23654	22671	24975	23500	17934	19594	12840	
IND X WOR(420310)	419765	420915	378484	582307	552168	652474	618451	566505	538259	530552	
WOR X NETHERLAND / NETHERLAND M WOR(420310)	157905	131655	141989	159143	137159	123910	130257	130310	112910	129332	
WOR X WOR / WOR M WOR(420310)	4064706	3334910	3524378	3871519	3609421	3787932	3932351	3384232	3008241	2947706	
	0.98	0.99	0.97	0.99	1.08	1.17	1.15	0.82	0.97	0.55	
Average						1.00				0.93	

Analysis: In the above examples we have selected two market one JAPAN and another NETHERLAND. Here both the cases the value is less than 1. It refers the trade significance with respect to the value of trade between two countries is smaller than would be expected on the basis of their importance in world trade.

If we look at the trend of 10 years trade. Japan and India trade shows increasing trend whereas India and Netherland trade is in decreasing trend. Thus, we can say for HS 420310 trade significance with between India & Japan, India & Netherland are smaller than would be expected on the basis of their importance in the world trade.

10. Revealed Trade Barrier Index

$$RTB_{ik}^{j} = \frac{M_{ik}^{j}}{\sum_k M_{ik}^{j}} \; \bigg/ \; \frac{\sum_i M_{ik}^{j}}{\sum_i \sum_k M_{ik}^{j}}$$

- M_{ik}^{j} is the dollar value of country j's import from country i of product k

- $\sum M_{ik}^{j}$ is the dollar value of the imports of country j of all products from country i

- $\sum M_{ik}^{j}$ is the dollar value of country j's import of product k from the world

- $\sum \sum M_{ik}^{j}$ is the dollar value of the imports of country j of all products from the world.

Definition

RTB tells one whether or not a country exports more of a product (as a percentage) to a given destination than the world does on average.

Range

Takes a value between 0 and +∞. Values lesser than 1 indicate India is exporting a commodity relatively more to the rest of the world than it is to the partner, possibly due to trade barriers therein**.**

Limitation

As with trade shares, value and changes in it over time may reflect numerous factors other than trade policy.

Data In 1000USD										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Japan M 420310 India	4334	4656	5087	5672	5843	5817	6284	7695	9900	9926
Japan M India TOT	5256078	3728110	5638042	6822962	7000142	7072378	6387437	4865163	4674419	5347551
Japan M 420310 WORLD	176871	165783	179616	138132	134483	126421	120517	108787	113443	110717
Japan M WORLD TOT	762533921	551984751	694059160	855380474	886031094	833166061	812184752	625568421	606924047	671892311
	3.55	4.16	3.45	5.15	5.50	5.42	6.06	9.10	11.33	11.26
Average					4.36					8.63

Data In 1000USD										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
NETHER M 420310 IND	16284	17501	18000	22840	18763	17446	20453	12190	12702	12459
NETHER M IND TOT	3402739	3326759	4357224	4995016	5771129	5432213	3573514	3328396	3207005	3607360
NETHER M 420310 WORLD	157905	131655	141989	159143	137159	123910	130257	130310	112910	129332
NETHER M WORLD TOT	494936571	382190422	439986633	492837632	500605323	506162309	508032877	424851378	398336339	450075698
	15.00	15.27	12.80	14.16	11.87	13.12	22.32	11.94	13.97	12.02
Average					13.82					14.67

Analysis: In the above it is showing value of RTB greater than 1. It indicates India is exporting more to the partner countries Japan and Netherland compared to the rest of the world. Thus, we can say trade barriers is less in Japan and Netherland for product HS 420310.

Japan	EII > 1	EII < 1		Netherland		EII > 1	EII < 1
RTB > 1		India		RTB > 1			India
RTB < 1				RTB < 1			

Comparative opportunity in target market: above table indicating for export of product HS420310 from India to Netherland and Japan, trade barrier is less. However as per export for the product HS 420310 from India to those two partner countries is less even if they are having higher import potential. Reason can be completion from other region (L2 players) or local firms (L3 players). India may not be able to properly asses these two market.

11. Export Specialization Index & Trade Balance

$$ES = (X_{ij} / X_{it}) / (X_{kj} / X_{kt})$$

- X_{ij} is the export of product i from country j (to country t)

- X_{it} is the export of product i from country t (to country j)

- X_{kj} is the total export of country j to country t

- X_{kt} is the total export of country t to country j

Definition

The index measures whether a country is exporting one product more intensively to the other, in terms of proportional importance in the export basket.

Range

Takes a value between 0 and 1. Values greater than 1 indicate export specialization in the country j for the product i.

Limitation

As with trade shares, high or low specialization indices and changes over time may reflect numerous factors other than trade policy.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
India X of 420310 to Japan	1146	1354	1089	926	1502	1482	1975	2264	2828	3688
India Overall X to Japan	3624209	3215709	4805077	5592608	6415550	7325476	5756879	4529718	3827283	4503130
Japan X of 420310 to India	0	3	0	0	0	0	0	2	0	0
Japan Overall X to India	7895493	6338462	9042207	11077856	10590546	8593032	8130224	8109855	8188759	8857013
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	#DIV/0!	889.62	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2026.69	#DIV/0!	#DIV/0!
Trade Balance in 420310	1146	1351	1089	926	1502	1482	1975	2262	2828	3688
Overall Trade Balance	-4271284	-3122753	-4237130	-5485248	-4174996	-1267556	-2373345	-3580137	-4361476	-4353883
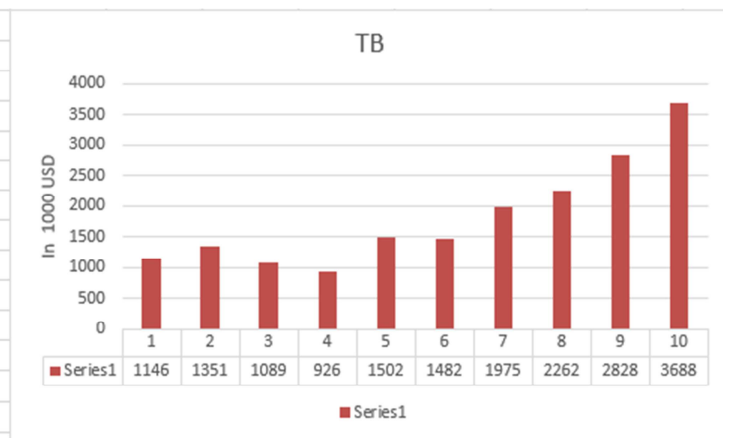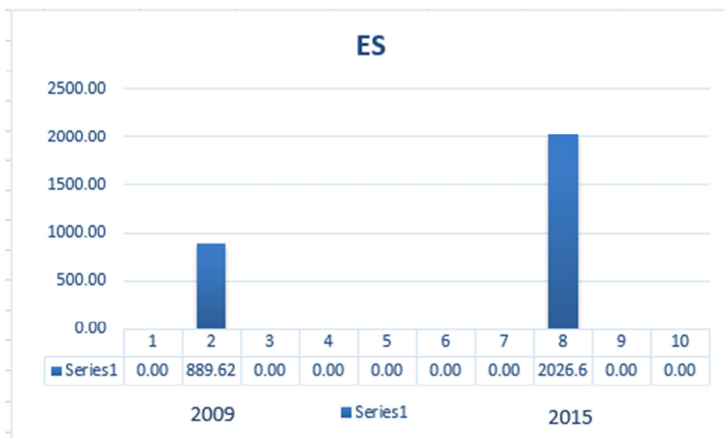
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
India X of 420310 to Netherland	15908	16476	14733	23654	22671	24975	23500	17934	19594	12840
India Overall X to Netherland	6528600	6464920	6572932	9693191	9466429	9170038	6762223	4876540	4868488	5431974
Netherland X of 420310 to India	103	326	65	493	124	191	190	101	97	29
Netherland Overall X to India	2306178	2326572	2277174	2478975	2463198	2141923	2432396	2137045	1887730	2229781
	0.002	0.003	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.002
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	54.56	18.19	78.53	12.27	47.57	30.54	44.49	77.81	78.32	181.75
Trade Balance in 420310	15805	16150	14668	23161	22547	24784	23310	17833	19497	12811
Overall Trade Balance	4222422	4138348	4295758	7214216	7003231	7028115	4329827	2739495	2980758	3202193
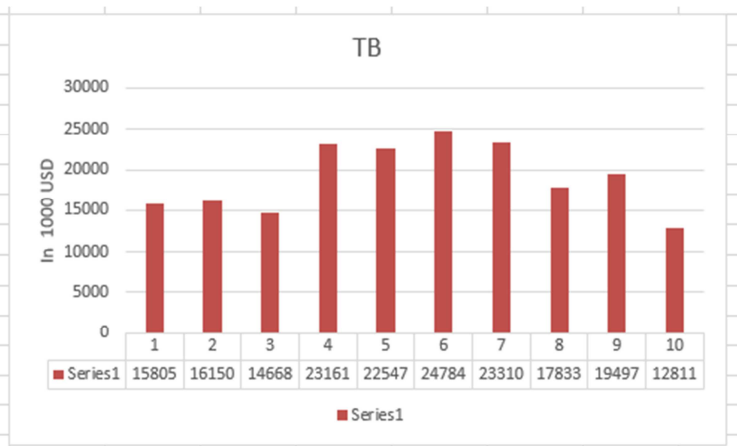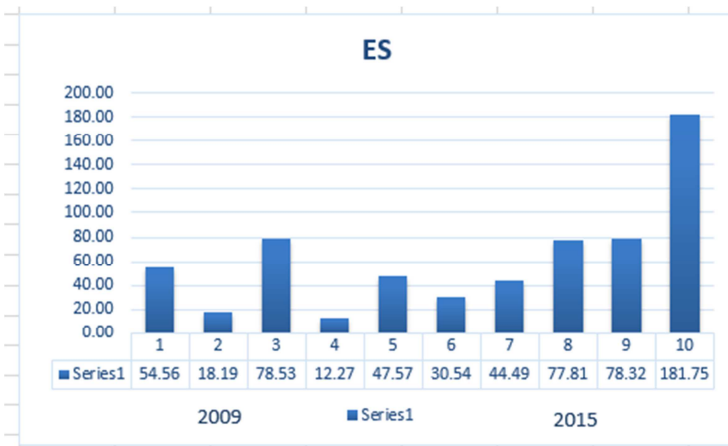
Analysis: It provides product information on revealed specialization in the export sector of a country and is calculated as the ratio of the share of a product in a country's total exports to the share of this product in imports to specific markets or partners rather than its share in world exports. Since ES>1, we can say India is having export specialization for product HS420310.

We can also see trade balance for product HS 420310 is positive in both the partner country Japan and Netherland. Hence opportunity for India for product HS420310 is very high market like Japan and Netherland.

12. Regional Orientation Index

$$\frac{\sum_d x_{isd} / \sum_d X_{sd}}{\sum_w x_{isw} / \sum_w X_{sw}}$$

The regional orientation index tells us whether exports of a particular product from the region under study to a given destination are greater than exports of the same product to other destinations. In other words, it measures the importance of intra-regional exports relative to extra-regional exports.

Definition

The index is the ratio of two shares. The numerator is the share of a country's exports of a given product to the region of interest in total exports to the region. The denominator is the share of exports of the product to other countries in total exports to other countries.

Range of values

Takes a value between 0 and +∞. A value greater than unity implies a regional bias in exports.

Limitations

The index may be affected by many factors, including geographical ones. Because it is based on relative shares, the economic significance of strong regional orientation may come from various reasons.

Data 1000 USD	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
IND 420310 X to ASEAN	346	1121	696	3501	1942	3935	1334	1636	5064	13262
IND TOT X to ASEAN	19433467	17898835	22958453	34497614	32295000	37885468	31294246	26428121	26381170	35414798
IND 420310 X to NON-ASEAN Countries	419419	419794	377788	578806	550226	648539	617117	564869	533195	517290
IND TOT X to NON-ASEAN Countries	162427431	158866201	197450043	266985636	257269769	298725921	286250396	237952883	233945742	260432089
ROI	0.01	0.02	0.02	0.05	0.03	0.05	0.02	0.03	0.08	0.19
IND 420310 X to WLD	419765	420915	378484	582307	552168	652474	618451	566505	538259	530552
IND TOT X to WLD	181860898	176765036	220408496	301483250	289564769	336611389	317544642	264381004	260326912	295846887

Analysis: For product HS 420310 the value is <1, it indicates India does not have regional biasness for exporting to ASEAN. One application of the regional orientation index is the identification of possible cases of trade diversion. In the figure we have calculated the regional orientation of selected India's exports to ASEAN market for 10 years. We see an unbiased in this category, notably articles of apparel. This pattern is suggestive of non-trade diversion in this category.

13. Intra-Industry Trade Index

$$GLU = \frac{\sum_i (X_{ij} + M_{ij}) - \sum_i \left| X_{ij} - M_{ij} \right|}{\sum_i (X_{ij} + M_{ij})} \times 100$$

Range of values: The index ranges from 0 to 1, with zero indicating pure inter-industry trade, and one indicating pure intra-industry trade

The index provides an overall measure of the relative importance of IIT trade in an economy's trade profile. Higher IIT ratios suggest that the **economies of scale** and **variety sources of gains** are being exploited.

The list of country with which India is having more production integration is as below

IIT						
Country	2013	2014	2015	2016	2017	Trend
Switzerlan	0.027	0.003	0.987	0.566	0.061	
Tunisia	0.000	0.286	0.526	0.121	0.600	
Banglades	0.000	0.000	0.000	0.087	0.667	
Turkey	0.013	0.052	0.078	0.415	0.947	

Full list of country with which India is having inter or intra industry trade is mentioned in the enclosed excel file

14. Unit Price Ratio Analysis

Assumption: unit values (UV) of the commodities can be assumed to represent the quality difference among them.

If UV^X and UV^M represent the unit values of export and import items of an industry respectively, then the trade is regarded as horizontal if the ratio of the unit values differs by less than α%, and vertical otherwise.

In other words, for the trade to be horizontal, the following condition must hold:

$$1 - \alpha \leq (UV^X / UV^M) \leq 1 + \alpha$$

α = 25% here

Horizontal IIT – explained by economies of scale in the presence of product differentiation and imperfect competition

Vertical IIT – explained with resource and state of technology difference

Below is the list of country for this product with India is having H-V IIT

HIIT VIIT		
Country	Export Unit value/Import Unit value	
Germany	1.2164	HIIT
Switzerland	1.2252	HIIT
Italy	1.4136	VIIT
United States of America	1.7726	VIIT
France	2.0569	VIIT
China	2.3638	VIIT
Spain	2.7169	VIIT
United Kingdom	3.7085	VIIT
United Arab Emirates	8.2847	VIIT

15. Extensive and Intensive Margin

	Existing product	New Product
Existing Market	Intensive margin	Extensive margin
New market	Extensive margin	Extensive margin

| Summary		
	2013	**2017**
World	652474	530552
Total Change	-121922	
IM	-121463	99.62%
EM	195	-0.16%
MDM	-655	0.537%

The list of countries in IM, EM & MDM are listed in enclosed excel file

Expanding market category for this product is as below

Expanding Market category

Curaçao	Montenegro	Belarus	Paraguay	Bhutan	Bahamas	Guatemala	Tunisia	Congo	Gabon
Nigeria	Zimbabwe	Djibouti	Angola	Azerbaijan	Myanmar	Cambodia	Dominican Republic	Luxembourg	Maldives
Mali	Malta	Mauritania	New Caledonia	Pakistan	Philippines	Sudan	Suriname	Trinidad and Tobago	Uganda
Zambia									

16. Unit Price - Market Share - Product Quality Analysis

Exporters	Market share				Unit price			
	2008-12	2013-17	Change	% Change	2008-12	2013-17	Change	% Change
China	51.16	36.28	-14.88	-29.09	89993.8	98496.4	8502.6	9.45
Italy	20.42	24.2	3.78	18.51	571992	579335.8	7343.8	1.28
India	3.3	6.92	3.62	109.70	175604.2	150534.2	-25070	-14.28
France	4.66	5.14	0.48	10.30	634618.8	723529.4	88910.6	14.01
Pakistan	2.88	5.16	2.28	79.17	48482.8	47056.4	-1426.4	-2.94
United States of America	2.76	4.34	1.58	57.25	184912.2	223476.8	38564.6	20.86
Turkey	3.44	3.74	0.3	8.72	330169.8	369355.4	39185.6	11.87
Korea, Republic of	4.6	4.84	0.24	5.22	130577	124142.4	-6434.6	-4.93
United Kingdom	0.64	1.56	0.92	143.75	176492.8	231333	54840.2	31.07
Viet Nam	0.06	0.7	0.64	1066.67	112000	70440.6	-41559.4	-37.11
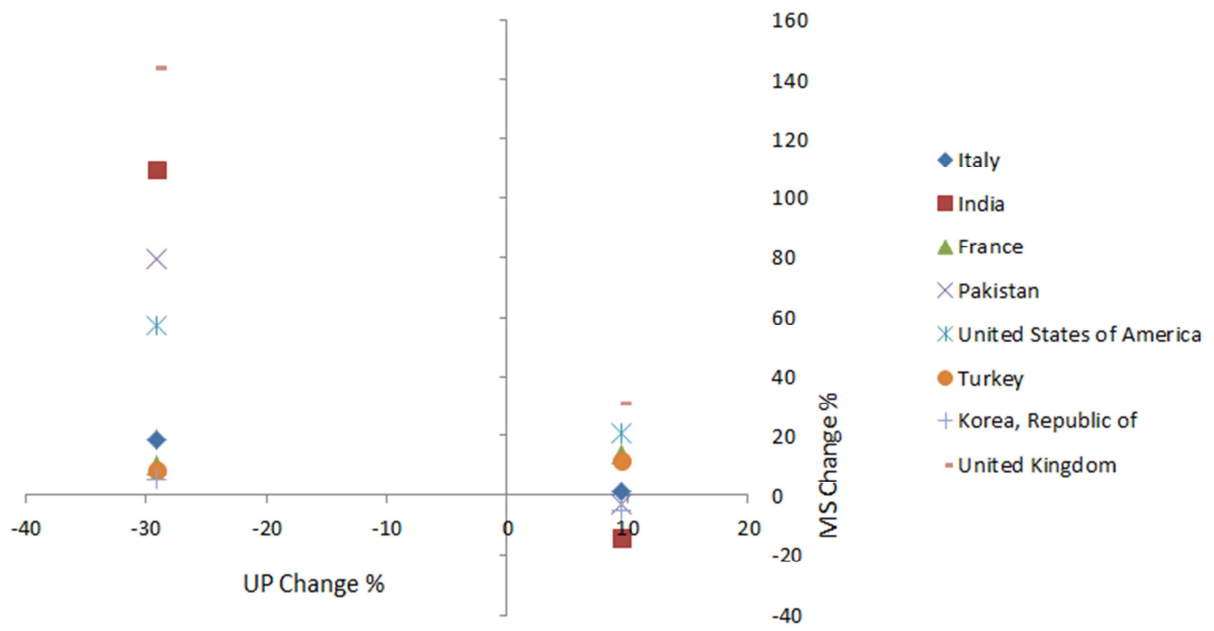
	Rise in Unit Price	Fall in Unit Price
Rise in Market Share	Rising competitiveness /quality up gradation	Market capture through possible innovation / fall in input price

Fall in Market Share	Loss of competitiveness	Death product / Decline in product quality

From the above table it is understood that both US and UK are most superior exporter in competitiveness for this product series to Japan. However, India achied 109.70% increase in average market share in Japan from 2008-12 period to 2013-17 period.

Though China captures biggest market share but their product are majorly into low end quality segment. US, UK, France are into premium quality of product. Even the unit prices are changed remarkably for US and UK product which indicates product sophistication and quality improvement in their product series. Vietnam has jumped maximum in market share position although in totality it is very low. Vietnam has also lost competitiveness in quality after analysing it's unit price drop significantly.

Analysis:

The Japan's leather market is dominated by China, which supplies many low-end products. However, European countries retain an important share of the market, specialising in high-end leather goods and providing products that are highly regarded by Japanese customers. The market is also regulated by voluntary standards and specific labelling measures that ensure high-quality products for end users.

17. CMS Analysis

Constant Market Share (CMS) analysis is a technique for decomposing the growth in a country's exports into components that correspond to holding its market shares constant at various levels.

Here we have tried to identify different components of the growth in the top 10 export market for India through 2 level decomposition

- World Growth Effect
- Commodity Effect & Market Effect (Market Composition)
- Residual Competitiveness Effect (competitiveness effect)

Contribution of different componet of growth or the export of 2017 w.r.t 2016
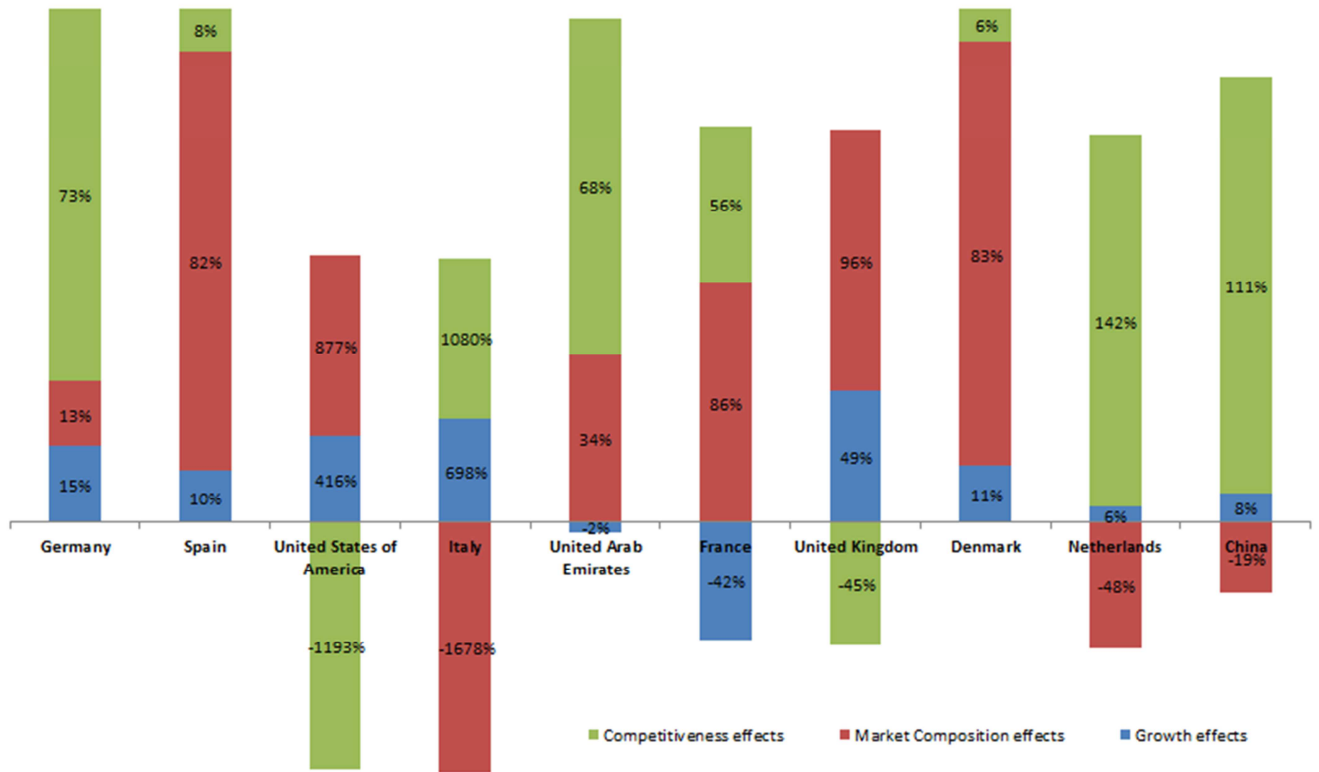
Out of 10 markets listed in our worksheet below are the market for which India is having residaul competitiveness effect as key components

Germany	Italy	United Arab Emirates	France	Netherlands	China

18. Conclusion:

We have analysed the product HS 420310 with India as an exporting country.

Different trade indicators & the significance of the outcomes are discussed in the respective section. Inferences from the trade indices computed for understanding the trade structure between India and its'partner country for product HS420310.