TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

Abstract

The present study aims to examine the bilateral trade relationship between India and Vietnam from 2007 to 2021 through Revealed Comparative Advantage (RCA) and Trade Complementarity Index (TCI). The information regarding the commodities have been taken from the database of UNCOMTRADE. The findings of the RCA showed that out of the top five items exported by India to Vietnam namely, iron and steel, vehicles and accessories thereof, electronic goods and its equipment's. aluminum and articles thereof engineering goods and its equipment's India has only advantage in iron and steel and aluminum and article thereof. In case of import from Vietnam, there is replacement of 4 items out of top 5 during the study period. Whereas, the result of the trade complementarity index observed that both countries are losing complementarities. However, the study concluded that the demand and supply of each country which may not be a good sign for bilateral trade between India and Vietnam.

Keywords: Bilateral Trade; Manufactured Commodities; Revealed Comparative Advantage; Trade Complementarity Index; India and Vietnam.

Authors

Jamil Ahmad

Department of economics Aligarh Muslim university Aligarh, India.

Abid Hussain

Department of economics Aligarh Muslim university Aligarh, India. abidhussain8414@gmail.com Futuristic Trends in Social Sciences e-ISBN: 978-93-5747-809-0 IIP Series, Volume 3, Book 13, Part 4 ,Chapter 9 TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

I. INTRODUCTION

India is located in the southern part of the Asian continent (Meng, et al., 2012) while Vietnam lies in the Southeast Asian region(Andaya, 2019). Based on mutual civilizational and cultural heritage, India and Vietnam traditionally share close, solid, and friendly bilateral relations for a long time (Mehta, 2005). Having a similar past has often been an excellent way to build trust. This is what has happened in Vietnam and India. Both countries had historical roots in the common struggle for liberation from colonial rule and the national struggle for independence (Chakraborti, 2002). Leaders like MK Gandhi from India and Ho Chi Minh from Vietnam played a crucial role in the freedom movement. Hence, Mahatma Gandhi in India and Ho Chi Minh in Vietnam are honored as the country's "Father of Nation" for inspiring their countries' courageous resistance to colonial rule. India served as the Chair of the International Commission for Supervision and Control (ICSC), established following the Geneva Accords of 1954, to facilitate the peace process in Vietnam (Marwah et al., 2021). At first, India upheld Consulate-level relations with the former North and South Vietnams. Subsequently, India started complete diplomatic relations with the newly unified Vietnam on January 7th, 1972. The diplomatic ties between the two nations were upgraded to "Strategic Partnership" after the official visit of Vietnam's Prime Minister Nguyen Tan Dung to India in July 2007. India and Vietnam are also strategic partners within the ASEAN and Mekong Ganga frameworks. In 2016, they witnessed the elevation of bilateral relations between India and Vietnam to a "Comprehensive Strategic Partnership" during the visit of Prime Minister Modi to Vietnam (MEA, 2021). The first India-Vietnam Virtual Summit took place in December 2020, and the two nations adopted a "Joint Vision for Peace, Prosperity, and People" at the summit (Naidu, 2021).

The looking east policy of India led to close economic ties between both the nations. India's bilateral trade shows a 27 percent growth in Financial Year 2021-2022and reached around US \$14.14 billion. In 2021-2022, India exported 3736 commodities to Vietnam that amounted to US\$ 6.70 billion (an increase of 34%). India imported around 2080 commodities from Vietnam that amounted to US\$ 7.44 billion (an increase of 21%). In this way India has a deficit in trade balance with Vietnam. Also, Vietnam placed on central position on Act East policy and Indo-Pacific Strategy. The major components of Vietnam's Exported items to India include Mobile Phones and its Components, Computers, Electronic products and its components, Plastics, Rubbers, Pepper, coffee and Cashew. India's Export to Vietnam comprises of iron and steel products, textile materials, fishery, corn, pharmaceutical, pharmaceutical raw materials, and auto spare parts (IBEF, 2023).

Since in a small piece of work it is not possible to consider all the items traded between India and Vietnam, we will consider only majorly traded manufactured goods. In this paper we will try to find out those commodities in which India has comparative advantage over Vietnam and vice-versa, that accordingly both the countries may specialize themselves in a particular line of trade. To know the comparative advantage of a country, Revealed Comparative Advantage Index is prepared.

Futuristic Trends in Social Sciences e-ISBN: 978-93-5747-809-0 IIP Series, Volume 3, Book 13, Part 4 ,Chapter 9 TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

II. LITERATURE REVIEW

Balassa(1977) conducted a study analyzing comparative advantage patterns among industrialized countries from 1953 to 1971. The research highlighted a significant link between the scale and variety of exports. Furthermore, the findings suggested that export diversification tends to increase with the initial advancement of technology, but later decreases as technology reaches more advanced stages. In their study, Richardson and Zhang (1999) used the RCA index to explore the concept of comparative advantage within the United States. The investigation covered various time periods, trading partners, and regions that were classified based on different types of commodities. The researchers found that the United States showed clear patterns of comparative advantage in different regions around the world. Further, these differences can be attributed to factors such as the close proximity of trading partners and the impact of per capita income, particularly in the manufacturing sector. The works of Jha et al. (2008), Mullen and Prasad (2014), Marwah et al. (2021), and Bonagani(2022) have suggested that India's Act East Policy functions as a strategic ally in both bilateral and multilateral contexts. They advocate that enhancing interpersonal interactions via collaborative research, military collaboration, and skill development would increase India's regional influence. Batra and Khan (2005) examined the bilateral trade relation between India and China through revealed comparative advantage from 2000 to 2003. Their findings suggest that both countries enjoy comparative advantage in manufacturing goods, particularly those classified by material. Chandran (2011) conducted a study on the trade dynamics between India and ASEAN, using through Trade Intensity Index (TII) and Revealed Comparative Index (RCA). The analysis revealed that there are industries and goods that may offer reciprocal benefits, hence facilitating increased collaboration between India and ASEAN. Bhattacharyva and Mandal (2010) observed that the ASEAN-India Free Trade Agreement would lead to a rise in Indian imports without negatively affecting exports. Furthermore, the impact of an imposed tariff by India was observed to be greater on the exports of ASEAN member countries. Therefore, a reduction in tariffs would be advantageous for ASEAN.In a study conducted by Bac Xuan Nguyen(2010) found that there is a positive association between Vietnam's export value and its trade with foreign nations. Furthermore, in their studies, Egger (2002) and Trung et al.(2018) both reached the same conclusion that distance plays a vital role in determining the trade potential between India and Vietnam. Dam Hai Van (2019) has proposed potential remedies to assist Vietnam's export initiatives. When attempting to access the Indian market, Vietnamese businesses have encountered obstacles due to the tightening of trade regulations. Renjini et al. (2017), Sharma and Kathuria (2020) and Gulnaz and Manglani (2022) conducted a comprehensive analysis of the trade dynamics between India and ASEAN using the gravity model. The researchers found that the economic partnership between these entities is expected to continue as a mutually beneficial effort. Therefore, it is expected that this will create opportunities for increased trade interactions.

III. METHODOLOGY

The primary goal of this study is to investigate the bilateral trade dynamic relationship between India and Vietnam from 2007 to 2021. The information regarding the bilateral trade commodities have been taken from the database of UNCOMTRADE. After collecting the data, the two important indices have been used namely, Revealed Competitive Advantage

IIP Series, Volume 3, Book 13, Part 4, Chapter 9
TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND

VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

(Balasa, 1965) and Trade Complementarity index (Michaely, 1996) for further analysis with the help of following expressions:

$$RCA = \frac{Y_{ij}}{Y_{it}} * \frac{Z_t}{Z_j} \quad 1$$

$$TCI = 100[1 - \frac{\Sigma(|T_{ij} - V_{uj}|)}{2}] \quad 2$$

(Where, RCA= Revealed Comparative advantage, TCI= Trade Complementarity Index, Yij = Country i (India/Vietnam) Export Volume of commodity j to world, Yit = Country i (India/Vietnam) Total Volume of Export to world, Zj = World Export Volume of commodity j, Zt = Sum Total of Export in World-Wide, Tij= Share of commodity j in Country i (India/Vietnam) total import from the world, Vuj = Share of commodity j in Country u (Vietnam/India) total export to the world).

IV. RESULTS AND DISCUSSION

1. Composition of India's Bilateral Trade with Vietnam: Among ASEAN, Vietnam is considered as one of the important trading partnersof India.In2020-21, Vietnam was the 15th largest trading partner globally and the 4th largest within ASEAN, following Singapore, Indonesia and Malaysia. For Vietnam, on the other hand, India was the 10th largest trading partner globally during 2020-2021(Panda, 2017). The composition of India's export to Vietnam is presented in Table 1 and figure 1 and 2.

Table 1: India's Export to Vietnam

	2007	7	202	1	
Commodities	Value US \$Million	Share in (%)	Value US \$ Million	Share in (%)	
Minerals.	4.578	0.78	130.957	3.18	
Inorganic chemicals	8.666	1.48	81.859	1.99	
Organic chemicals	39.067	6.66	146.313	3.55	
Pharmaceutical products	76.123	12.97	152.236	3.69	
Plastic and articles thereof.	76.968	13.11	157.837	3.83	
Rubber and articles thereof.	15.828	2.70	38.735	0.94	
Raw hides, skins and leather	35.265	6.01	57.846	1.40	
Articles of leather, saddlery, harness and travel goods	0.077	0.01	0.408	0.01	
Man-made filaments; strip and textile materials	1.829	0.31	20.718	0.50	
Textile Articles and Textile Fabrics for Industrial Use.	0.083	0.01	1.815	0.04	
Articles of Apparel and Clothing Accessories, knitted or crocheted	0.047	0.01	0.78	0.02	
Articles of Apparel and Clothing Accessories, Not Knitted or Crocheted.	0.309	0.05	0.506	0.01	

Other made-up textile articles	0.105	0.02	2.18	0.05
Footwear, Gaiters and Such Articles.	0.094	0.02	0.909	0.02
Headgear and Parts Thereof.	0	0.00	0.01	0.00
Articles of Stone, Plaster, Cement and Similar Materials.	1.178	0.20	157.379	3.82
Iron and Steel	55.017	9.37	1,376.31	33.40
Articles of Iron or Steel	4.89	0.83	35.266	0.86
Copper and Articles Thereof.	43.736	7.45	1.084	0.03
Aluminum and Articles Thereof.	46.499	7.92	256.602	6.23
Lead and Articles Thereof.	0.12	0.02	50.765	1.23
Engineering Goods and its Equipment's	44.998	7.67	224.399	5.45
Electronic Goods and its Equipment's.	36.87	6.28	257.022	6.24
Vehicles and Accessories Thereof.Other Than Railways	2.363	0.40	258.719	6.28
Furniture; Mattresses, Lamps and Such Items	0.352	0.06	11.557	0.28
Other manufactured commodities	91.882	15.65	698.306	16.95

Source: Author Calculation based on UNCOMTRADE.

The major manufactured items exported by India to Vietnam in 2007 were plastic and articles thereof, pharmaceutical products, Iron and Steel, Aluminum and Articles Thereof, and engineering goods and its equipment.

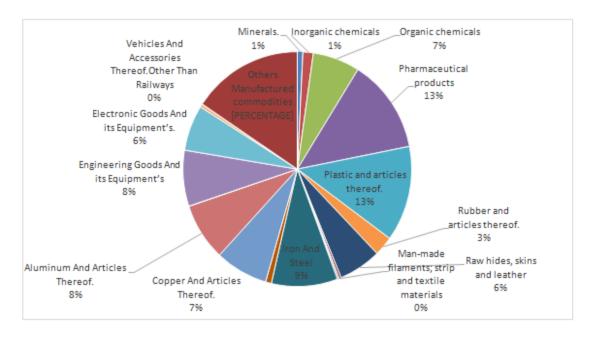


Figure 1: India's Export to Vietnam 2007

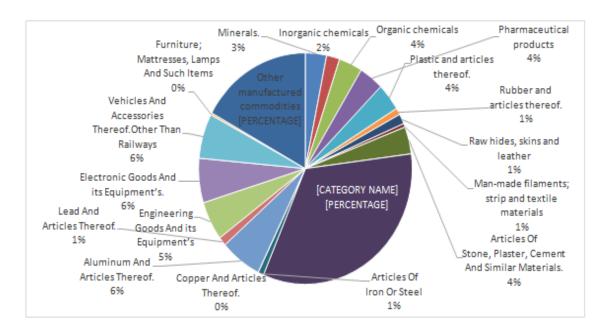


Figure 2: India's Export to Vietnam 2021

While top 5 manufactured items exported to Vietnam in 2020-21 are iron and steel (33.44%, \$1376.31 million), vehicles other than railway and accessories thereof (6.27%, \$258.71 million), electrical items and parts thereof (6.23%, \$257.02 million), aluminum and articles thereof (6.22%, \$256.600 million) and mechanical appliances & parts thereof (5.44%, \$224.39 million). By looking at the change in the composition of India's manufactured items exported to Vietnam, it can be observed that the top 2 items of 2007, have been replaced by new items namely, vehicles and accessories and electronic goods and equipment. Iron and steel export has made a massive growth in its export to Vietnam. This may have happened because of rising demand in Vietnam for its manufacturing sectors.

Table 2: India's Import from Vietnam

	2007		2021	
Commodities	Value US	Share	Value US	Share
25.	\$Million	in (%)	\$Million	in (%)
Minerals.	32.731	26.68	10.101	0.15
Inorganic chemicals	3.138	2.56	533.982	8.19
Organic chemicals	5.492	4.48	7.781	0.12
Pharmaceutical products	0.343	0.28	1.185	0.02
Plastic and articles thereof.	2.308	1.88	423.402	6.49
Rubber and articles thereof.	7.972	6.50	267.337	4.10
Raw hides, skins and leather	0.151	0.12	24.084	0.37
Articles of leather, saddlery, harness and	1.019	0.83	6.022	0.09
travel goods				
Man-made filaments; strip and textile	2.694	2.20	39.493	0.61

materials				
Textile Articles and Textile Fabrics for	0.254	0.21	78.236	1.20
Industrial Use.				
Articles of Apparel and Clothing	0.384	0.31	23.386	0.36
Accessories, knitted or crocheted				
Articles of Apparel and Clothing	0.474	0.39	26.422	0.41
Accessories, Not Knitted or Crocheted.				
Other made-up textile articles	0.119	0.10	7.487	0.11
Footwear, Gaiters and Such Articles.	4.899	3.99	149.508	2.29
Headgear and Parts Thereof.	0.106	0.09	0.643	0.01
Articles of Stone, Plaster, Cement and	0.045	0.04	11.117	0.17
Similar Materials.				
Iron and Steel	9.311	7.59	187.29	2.87
Articles of Iron or Steel	0.145	0.12	248.381	3.81
Copper and Articles Thereof.	0.002	0.00	368.295	5.65
Aluminum and Articles Thereof.	0.182	0.15	5.792	0.09
Lead and Articles Thereof.	0	0.00	13.195	0.20
Engineering Goods and its Equipment's	3.816	3.11	430.121	6.60
Electronic Goods and its Equipment's.	19.953	16.26	3072.432	47.11
Vehicles and Accessories Thereof.Other	0.073	0.06	74.169	1.14
Than Railways				
Furniture; Mattresses, Lamps and Such	0.517	0.42	15.3	0.23
Items				
Other manufactured commodities	26.572	21.66	496.103	7.61

Source: Author Calculation based on UNCOMTRADE

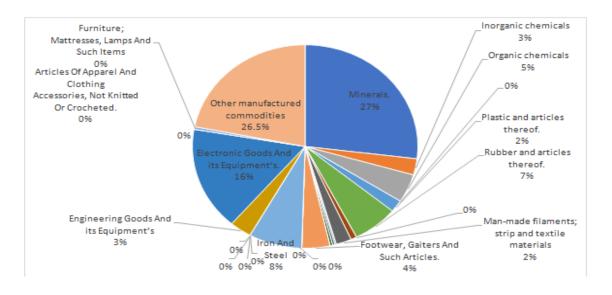


Figure 3: India's Import from Vietnam 2021

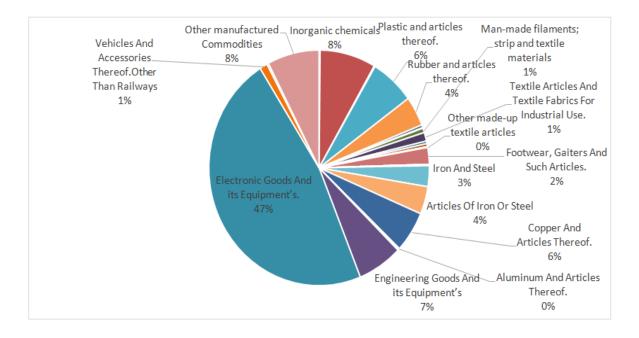


Figure 4: India' Import from Vietnam (2021)

So far as the import of India is concerned, 1.2 percent (\$9 billion) comes from the Vietnam whereas 1.3 percent (5.88 billion) constitutes export of India to Vietnam (www.trading economics.com). In the import composition of India from Vietnam, major items have shown in table 2 and figure 3 and 4for the year 2007 and 2021 respectively. Top 5 items in India's import from Vietnam are electronic goods and its equipment's (47.11%, \$3072.43 million), inorganic chemicals (8.18%, \$533.98 million), engineering goods and its equipment's (6.59%, \$430.12 million), plastics and articles thereof (6.49%, \$423.40 million), andcopper and articles thereof (5.64%, \$368.29 million) in 2021. This represents a drastic change in the composition of manufactured items imported by India from Vietnam. The top 4 items failed in retaining their place as per the record of 2007. Minerals, iron and steel, rubber and article thereof and organic chemicals have replaced by inorganic chemicals, engineering goods and its equipment, plastic and articles thereof and copper and articles thereof. Electronic goods and its equipment have performed well and improved its share from 16.26 percent in 2007 and 47.11 percent in 2021.

2. Revealed Comparative Advantage of India: Revealed Comparative Advantage Indices of India in world have been presented in Appendix (Table 4), calculated on the basis of two-digit HS code. The data collected from ITC calculation based on UNCOMTRADE from 2007 to 2021. On the basis of volume of trade of manufactured items, out of 68 traded items, 25 major items are selected. Since the revealed comparative advantage index value for 15 items are greater than 1it can be seen that India enjoys revealed comparative advantage in15 items and comparative disadvantage in remaining 10 items. In 15 items having comparative advantage for India, other made-up textile articles recorded the highest index value 5.41 in 2007 but reduced to 2.46 in 2020 however, further maintaining the value at 4.09 in 2021. The next items in sequence to comparative advantage is man-made filaments, strip and textile materials with the index value of 2.74 in 2007 and consistent at the index value of more than 2 in the following years. Other items on the list are raw hides, leather items, and articles of apparel whose index value of

Futuristic Trends in Social Sciences e-ISBN: 978-93-5747-809-0 IIP Series, Volume 3, Book 13, Part 4 ,Chapter 9 TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

RCA (Revealed Comparative Advantage) was more than 2 in 2007, butvalues fell and become less than 2 in 2021. Further, the next items in the list to comparative advantage is articles of iron andsteel, itshows similar index value at less than 2 but remain greater than 1. Items like aluminum product and lead related items started with index value of less than 1 in 2007, and reached at the index value of more than 2 in 2021. The remaining items have insignificant index value during the study period.

- 3. Revealed Comparative Advantage of Vietnam: Revealed Comparative Advantage Indices of Vietnam in the world have been presented in Appendix (Table 5) based on two digits HS code. Out of 25 selected items from manufacturing goods, Vietnam enjoys relative comparative advantage in 11 items. The remaining 14 items have a relative disadvantage. The items having a comparative advantage for Vietnamonefootwear, and gaiters &such articles recorded the highest index value of 13.97 in 2007 and continuously fell in the subsequent year. If we ignore the importance of some particular year, it reduced to 7.83 in 2021. The following items in sequence to comparative advantage are rubber & articles thereof, leather items & travel goods, and made-up textile articles, which recorded an index value of more than 3 in 2007, subsequently reached at a value of less than 2 in 2021. The next item on the list are man-made filaments; strip and textile materials showed an index value of 1.70 in 2007, whereas textile articles &textile fabrics for industrial use showed an index value of 0.94 in 2007 but observed rising trends with a value of more than 2 in 2021. Articles of apparel &clothing accessories and headgear &parts show a falling trend. On the other hand, raw hides & leather have almost stable index values. Electronic goods and their equipment have an index value of 0.52 in 2007 and risen continuously and reached to 2.55 in 2021. In contrast, furniture, mattresses, lamps, and such items recorded an index value of 4.22 in 2007, but the value declined in the subsequent years and reached at 2.81 in 2021.
- **4. Analysis of Trade Complementarity Index:** The Trade Complementarity Indices for India and Vietnam have been compiled in Table 3, covering the period from 2007 to 2021. Between 2007 and 2021, there appears to be a partial alignment between India's export supply and Vietnam's import demand, as the indices lie within the range of 0-100. In 2008, India exhibited the highest degree of complementarity with Vietnam, with a value of 66.10. However, this value has significantly decreased to 51.24 in 2021. It suggests that as the indices approaches to 100, there is an increase in the fulfillment of India's export supply to fulfill Vietnam's import requirements. The complementarity indices study indicates that India can meet Vietnam's essential import requirements through its existing export provisions. It is made feasible by the substantial contribution of commodities such as iron and steel, vehicles other than railway(trams) & accessories thereof, electronic items & parts thereof, aluminum & articles thereof, mechanical appliances & parts thereof, etc. The Index value of 66.10 in 2008 suggests that India could accommodate only 66.10 percent of Vietnam's import requirements. This value significantly declined to 51.24 percent in 2021, indicating a decrease in India's export supply compatibility with Vietnam's import demand due to changes in the trade basket of India. From 2007 to 2021, Vietnam's export supply is partly matched with India's import demand since the numbers range from 0 to 100. In 2008, Vietnam also had the highest Complementarity to India, with a value of 60.79. This value has been going down steadily since then, and by 2022, it has dropped to 39.61. It means that Vietnam's export supply is

also getting less and becoming less compatible to meet India's import demand due to changes in trade portfolio.

Table 3: Trade Complementarity Index

Year	India's TCI with Vietnam	Vietnam's TCI with India
2007	64.22	57.3
2008	66.1	60.79
2009	62.96	57.13
2010	58.57	51.6
2011	59.79	49.87
2012	54.49	44.79
2013	50.12	41.36
2014	49.66	40.9
2015	50.13	41.22
2016	49.31	40.34
2017	51.2	39.96
2018	52.07	37.44
2019	52.82	37.21
2020	51.15	40.02
2021	51.24	39.61

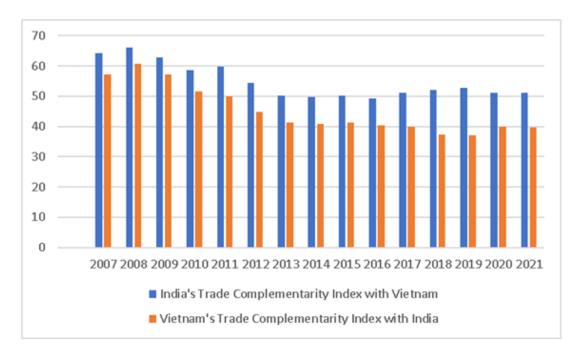


Figure 5: Trade Complementarity Index

Futuristic Trends in Social Sciences e-ISBN: 978-93-5747-809-0

IIP Series, Volume 3, Book 13, Part 4, Chapter 9

TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND

VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

V. CONCLUSION

From the above discussion we can reach to the conclusion that there is a change in the composition of India's export and import to Vietnam. The top 5 items exported by India to Vietnam are iron and steel, vehicles and accessories thereof, electronic goods and its equipment's, aluminum and articles thereof and engineering goods and its equipment's. Out of those five products mentioned above, India has RCA in iron and steel and aluminum and article thereof. The others 3 items are not having RCA even though manage to remain intop 5 exportable items. One common thing that we get in all five items is the improvement in RCA value. Hence, for improvement in export, it seems that the rising value of RCA is more important than its absolute value. In case of import from Vietnam, there is replacement of 4 items out of top 5 during the study period. This replacement has been made by those items whose RCA value has kept on rising during the study period irrespective of its absolute value, because out of these top 5 items only one items namely electronic goods and its equipment's has RCA. This advantage of the items has realized the highest share in India's import from Vietnam. When we look at the trade complementarity index, value we observe that both the countries are losing their complementarities for the demand and supply of each country which may not be a good sign for bilateral trade between India and Vietnam.

REFERENCES

- [1] Andaya, B. W. (2019). Introduction To Southeast Asia. Dalam Https://Asiasociety. Org/Education/Introduction-Southeast-Asia, Diakses Pada, 3.
- [2] Balassa, B. (1965). Trade Liberalisation And "Revealed" Comparative Advantage 1. The Manchester School, 33(2), 99-123.
- [3] Balassa, B. (1977). 'Revealed 'comparative advantage revisited: An analysis of relative export shares of the industrial countries, 1953–1971. *The Manchester School*, 45(4), 327-344.
- [4] Batra, A., & Khan, Z. (2005). Revealed comparative advantage: An analysis for India and China (No. 168). Working paper.
- [5] Bhattacharyya, R., & Mandal, A. (2010). Estimating The Impact of The Indo-ASEAN Free Trade Agreement on India's Balance of Trade. Journal Of Global Analysis, 1(1), 9-25.
- [6] Bonagani, R. R. (2022). India's Bilateral Relations in Regional Trade with The Vietnam: An Analysis.
- [7] Chakraborti, T. (2002). India–Vietnam Relations: A Time-Tested Look East Friendship. Jadavpur Journal of International Relations, 6(1), 239-249.
- [8] Chandran, Sarath (2010). Trade Complementarity and Similarity Between India and ASEAN Countries in The Context Of RTA. Munich Personal Repec Archive (MPRA), Paper No. 29279.
- [9] Dam Hai Van. (2019). GiảiPhápThúcĐẩyXuấtKhẩuHàngHóaViệt Nam Sang ẤnĐộ. Master's Thesis, Ha Noi. China. China Report, 54(4), 442-466.
- [10] Egger, P. (2002). An Econometric View on The Estimation of Gravity Models and The Calculation of Trade Potentials. World Economy, 25(2), 297-312.
- [11] Exploring India Vietnam Trade and Economic Relations | IBEF. (2023, March 1). India Brand Equity Foundation. https://www.lbef.Org/Indian-Exports/India-Vietnam-Trade
- [12] Gulnaz, S., & Manglani, H. (2022). Does Gravity Work in The Context of India and ASEAN Bilateral Trade? An Application of The FGLS Method. Theoretical & Applied Economics, 29(1).
- [13] India-Vietnam Relations—MEA. (2021, June).
- [14] Jha, P. K. (2008). India-Vietnam Relations: Need for Enhanced Cooperation. Strategic Analysis, 32(6), 1085-1099.
- [15] Marwah, R., Hằng Nga, L. T., Marwah, R., &Hằng Nga, L. T. (2021). Histories, Affinities, And Leaders: Vietnam–India Political and Diplomatic Ties. India–Vietnam Relations: Development Dynamics and Strategic Alignment, 1-24.
- [16] Mehta, R. (2005). India-Vietnam Trade: Current Relations and Prospects (No. 22117).
- [17] Meng, J., Wang, C., Zhao, X., Coe, R., Li, Y., & Finn, D. (2012). India-Asia Collision Was At 24 N And 50 Ma: Palaeomagnetic Proof from Southernmost Asia. Scientific Reports, 2(1), 925.

Futuristic Trends in Social Sciences e-ISBN: 978-93-5747-809-0

IIP Series, Volume 3, Book 13, Part 4, Chapter 9

TRADE OF MANUFACTURING GOODS BETWEEN INDIA AND

VIETNAM: AN ANALYSIS OF REVEALED COMPARATIVE ADVANTAGE

- [18] Michaely, M. (1996). Trade Preferential Agreements in Latin America: An Ex-Ante Assessment (No. 1583). World Bank Publications.
- [19] Mullen, R. D., & Prasad, K. K. India-Vietnam Relations: Deepening Bilateral Ties for Mutual Benefit.
- [20] Naidu, G. V. C. (2021). India–Vietnam Strategic Partnership in The Emerging Indo-Pacific Construct. India Quarterly, 77(2), 172-184.
- [21] Nguyen, B. X. (2010). The Determinants of Vietnamese Export Flows: Static and Dynamic Panel Gravity Approaches. International Journal of Economics and Finance, 2(4), 122-129.
- [22] Panda, R. (2017). India-Vietnam Relations: Prospects and Challenges. Liberal Stud., 2, 57.
- [23] Renjini, V. R., Kar, A., Jha, G. K., Kumar, P., Burman, R. R., & Praveen, K. V. (2017). Agricultural Trade Potential Between India and ASEAN: An Application of Gravity Model. Agricultural Economics Research Review, 30(347-2017-2041), 105-112.
- [24] Richardson, J. D., & Zhang, C. (2001). Revealing comparative advantage: chaotic or coherent patterns across time and sector and US trading partner? In *Topics in Empirical International Economics: A Festschrift in Honor of Robert E. Lipsey* (pp. 195-232). University of Chicago Press.
- [25] Sharma, P., & Kathuria, G. (2020). Measuring Potential and Performance of Indo-ASEAN International Trade Using Gravity Model Approach. Amity Journal of Finance, 5(2).
- [26] Trung, N. X., Hung, N. D., & Hien, N. T. (2018). Exploiting The Trade Potential.

Appendix:

Table 4: Revealed Comparative Advantage Index of India

Product label	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Minerals.	117	1.02	0.95	1.10	104	102	119	122	1.07	1.13	1.09	116	126	109	124
In organic chemicals	0.72	0.87	0.69	1.38	0.60	0.86	0.66	0.71	0.71	0.77	0.83	0.85	0.84	0.86	0.83
Organic chemicals	179	1.91	159	1.59	151	180	169	165	1.91	1.98	2.11	239	256	2.87	244
Pharmaceutical products	106	1.10	0.83	0.94	106	130	136	135	1.59	1.59	1.45	145	153	172	132
Plastic and articles thereof.	0.57	0.52	0.42	0.51	0.58	0.56	0.59	0.52	0.57	0.58	0.59	0.72	0.68	0.69	0.59
Rub ber and articles thereof	0.83	0.94	0.70	0.68	0.67	0.79	0.81	0.85	0.88	0.90	0.91	0.98	101	1.07	110
Rawhides, skins and leather	242	2.54	189	1.80	187	213	212	222	2.27	2.11	2.01	195	165	165	134
Articles of leather, saddlery, harness and travel goods	283	2.86	231	1.91	185	188	189	199	2.03	1.97	1.85	180	166	166	149
Man-made filaments; strip and textile materials	274	3.30	3.65	3.64	3.23	3.02	3.02	294	293	262	2.64	2.64	2.63	2.52	239
Textile Articles And Textile Fabrics For Industrial Use.	0.47	0.41	0.36	0.45	0.36	0.47	0.53	0.89	0.58	0.53	0.53	0.55	0.62	0.93	0.87
Articles Of Apparel And Clothing Accessories, knitted or Crocheted	227	2.15	2.28	1.75	167	164	170	1.87	2.21	2.24	2.22	189	192	183	162
Articles Of Apparel And Clothing Accessories, Not Knitted Or Crocheted.	292	2.83	273	2.45	241	244	236	231	2.67	2.56	2.38	205	207	188	176
Other made-up textile articles	5.41	4.69	3.81	4.11	4.13	446	4.23	411	4.70	4.60	4.64	4.68	4.48	2.46	409
Footwear, Gaiters And Such Articles.	161	1.50	126	1.16	110	106	1.14	126	1.29	1.28	1.19	117	110	0.95	0.85
Headgear And Parts Thereo f	0.25	0.31	0.25	0.22	0.22	0.35	0.28	0.30	0.27	0.26	0.26	0.26	0.32	0.39	0.40
Articles Of Stone, Plaster, Cement And Similar Materials.	225	1.91	179	1.80	140	160	158	159	1.64	1.66	1.57	162	183	205	202
Iron And Steel	134	1.39	1.10	1.24	100	115	145	131	1.20	1.30	1.86	141	152	206	213
Articles Of Iron Or Steel	164	1.76	132	1.77	130	159	132	141	1.44	1.36	1.39	135	136	139	129
Copper And Articles Thereof.	184	1.40	101	2.34	0.96	104	105	133	1.30	1.20	1.37	0.59	0.36	0.44	0.59
Aluminum And Articles Thereof.	0.63	0.67	0.61	0.63	0.49	0.64	0.72	0.89	1.03	1.07	1.26	160	172	202	212
Lead And Articles Thereof.	0.63	0.58	100	1.27	137	0.99	160	150	1.64	1.44	2.50	299	3.15	3.43	294
En gineering Goods And its Equipment's	0.32	0.36	0.33	0.31	0.31	0.34	0.36	0.38	0.43	0.44	0.48	0.54	0.56	0.54	0.54
Electronic Goods And its Equipment's.	0.25	0.32	0.42	0.30	0.33	0.32	0.28	0.23	0.21	0.22	0.21	0.26	0.32	0.31	0.31
Vehicles And Accessories Thereof Other Than Railways	0.33	0.43	0.47	0.59	0.49	0.59	0.57	0.62	0.66	0.68	0.67	0.71	0.67	0.64	0.70
Furniture, Mattresses, Lamps And Such Bens	0.32	0.36	0.33	0.31	0.31	0.34	0.36	0.38	0.43	0.44	0.48	0.54	0.56	0.54	0.54

Table 5: Revealed Comparative Advantage Index of Vietnam

Productlabel	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Minerals.	1.50	1.14	1.04	0.71	0.63	0.54	0.42	0.38	0.28	0.22	0.20	0.12	0.13	0.10	0.08
Inorganic chemicals	0.07	0.11	0.16	0.21	0.25	0.32	0.49	0.78	0.69	0.70	0.76	0.69	0.61	0.55	0.62
Organic chemicals	0.08	0.10	0.07	0.12	0.08	0.07	0.06	0.05	0.05	0.05	0.04	0.09	0.11	0.09	0.10
Pharmaceut ical products	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Plastic and articles thereof.	0.57	0.63	0.58	0.59	0.58	0.62	0.59	0.56	0.49	0.46	0.45	0.51	0.55	0.52	0.60
Rubber and articles thereof.	3.26	3.11	2.70	3.63	3.20	2.64	2.26	1.79	1.54	1.58	1.68	1.58	1.62	1.65	1.79
Raw hides, skins and leather	1.56	2.14	1.77	1.70	1.44	1.28	1.12	1.21	1.53	1.40	1.43	1.43	1.66	1.41	1.45
Articles of leather, saddlery, harness and travel goods	3.09	3.20	3.30	3.46	3.28	3.22	3.41	3.88	3.68	3.71	3.25	3.00	2.80	2.47	1.95
Man-made filaments; strip and textile materials	1.70	1.85	2.37	2.54	2.70	2.38	2.18	2.07	1.70	1.51	1.58	1.77	1.55	1.48	2.14
Textile Articles And Textile Fabrics For Industrial Use.	0.94	1.27	1.89	2.69	2.98	2.62	2.56	2.48	2.24	1.84	1.75	1.86	1.96	1.61	2.20
Articles Of Apparel And Clothing Accessories, knitted or Crocheted	5.02	5.55	5.42	5.72	5.29	5.05	4.93	4.84	4.69	4.52	4.41	4.60	4.42	4.01	3.81
Articles Of Apparel And Clothing Accessories, Not Knitted Or Crocheted.	6.96	6.42	6.01	6.46	6.52	6.19	6.07	5.68	5.26	4.85	4.49	4.82	4.59	4.02	3.86
O ther made-up textile articles	3.11	2.56	2.73	3.52	2.78	2.54	2.68	2.46	2.27	2.03	1.87	1.87	1.93	1.61	1.47
Footwear, Gaiters And Such Articles.	13.97	13.44	10.94	11.29	10.99	10.26	9.72	9.48	9.47	9.31	8.94	9.17	9.05	8.40	7.83
Headgear And Parts Thereof.	6.40	5.43	4.99	5.25	4.74	4.23	3.78	3.70	3.37	3.41	2.95	3.00	3.05	2.89	2.76
Articles Of Stone, Plaster, Cement And Similar Materials.	0.73	0.72	0.88	0.82	0.78	0.75	0.76	0.80	0.69	0.71	0.62	0.61	0.72	0.73	0.85
Iron And Steel	0.28	0.88	0.32	0.61	0.73	0.71	0.73	0.76	0.68	0.67	0.73	0.87	0.82	1.01	1.41
Articles Of Iron Or Steel	0.57	0.58	0.59	0.71	0.71	0.73	0.72	0.69	0.64	0.69	0.66	0.76	0.76	0.67	0.72
Copper And Articles Thereof.	0.11	0.21	0.15	0.43	0.20	0.17	0.18	0.22	0.25	0.39	0.48	0.54	0.59	0.51	0.50
A luminum And Articles Thereof.	0.17	0.19	0.17	0.19	0.22	0.28	0.32	0.37	0.41	0.41	0.43	0.48	0.51	0.53	0.56
Lead And Articles Thereof.	0.06	0.14	0.26	0.56	0.54	0.92	0.97	1.12	0.62	0.82	0.85	0.81	0.78	0.66	0.33
Engineering Goods And its Equipment's	0.25	0.35	0.34	0.37	0.38	0.46	0.57	0.53	0.53	0.47	0.44	0.41	0.42	0.55	0.64
Electronic Goods And its Equipment's.	0.52	0.49	0.57	0.75	1.13	1.66	2.02	1.95	2.08	2.26	2.44	2.50	2.55	2.49	2.55
Vehicles And Accessories Thereof. Other Than Railways	0.14	0.13	0.14	0.14	0.14	0.16	0.17	0.17	0.15	0.14	0.13	0.14	0.14	0.15	0.18
Furniture; Mattresses, Lamps And Such Items	4.22	3.92	3.70	3.84	3.21	2.92	2.67	2.60	2.33	2.26	2.25	2.28	2.57	2.82	2.81