

INDIA'S ELECTRONICS & TELECOM SECTOR AND W.T.O: SOME ASPECTS OF CURRENT GLOBAL TRADE SCENARIO

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Abstract

This paper examines the impact of the Information Technology Agreement (ITA) on India's IT sector. The ITA is a Plurilateral agreement, eliminates tariffs on certain IT products. While India initially benefited from ITA-I, it opted out of ITA-II negotiations, fearing that further tariff reductions could harm its domestic electronics manufacturing sector. This decision was motivated by the "Make-in-India" initiative, which aims to boost domestic production. This paper analyse whether India's decision to prioritize domestic manufacturing over international trade liberalization is the best approach to revitalize its electronics sector. The study suggests that participating in the ITA could increase bilateral trade and potentially mitigate trade diversion effects associated with WTO membership.

Keywords: Information Technology Agreement, Bilateral Trade, Make-in-India, ICT sector, Market Access, Plurilateral Agreement.

Introduction

The Information Technology Agreement (ITA) is a trade agreement involving multiple countries worldwide, including India, as signatories. The primary aim of the ITA is to minimize trade barriers and enhance trade benefits, facilitating substantial growth and transformation in the communication and information technology sectors

within domestic markets. From a global perspective, expanding IT trade and addressing certain trade restrictions could lead to significant advancements in technological innovation and manufacturing. However, an important question arises: have the intended objectives and benefits of the ITA been fully realized in developing nations like India? This study proposes a framework for the Indian government to address challenges and enhance mutual benefits under the Information Technology Agreement (ITA). The recommendations include attracting Foreign Direct Investment (FDI), fostering growth in the emerging IT sector, and boosting the manufacturing capacity of India's IT industry. When India entered the ITA, it lacked dominance due to insufficient domestic manufacturing capabilities. However, this proved to be a hidden opportunity. While India did not attract substantial inward FDI, the liberalized IT imports served as a catalyst for the growth of domestic electronics and ICT manufacturing.

India joined the ITA in 1996, recognizing its lack of a robust domestic foundation in electronics production and related manufacturing processes. During the 1990s, India faced a shortage of technological capabilities and struggled to boost domestic production of IT goods and services. Consequently, India opted to lower trade barriers significantly and increase imports of electronic products to stimulate the growth of its domestic IT sector. As a signatory of the ITA, India reduced import taxes and duties on IT goods to almost zero. Consequently, the trade deficit did not hinder growth; instead, it drove innovation within the Indian IT sector over time. According to WTO Secretariat data, between 1999 and 2005, India registered only 26 patents under the ITA compared to China's 206. This disparity indicates minimal innovation within India's IT industry. In contrast, China leveraged its strong technological position to produce affordable technology, which not only strengthened its global competitiveness but also impacted India's domestic productivity in IT goods and products.

The Information Technology Agreement (ITA) was established with the aim of reducing trade barriers and speeding up the process of acquiring goods and services from trading nations. As a plurilateral agreement, the ITA allows signatories to adopt its rules voluntarily, and the reduction of trade obstacles is specific to the industry. From a global perspective, lowering trade barriers in IT products and services could foster innovation, as developing countries like India could benefit significantly through increased manufacturing and innovation. However, this potential benefit did not

materialize in India because the country's IT manufacturing sector was not sufficiently developed to see tangible results. Economically, it is important to understand that manufacturing and innovation are closely linked. New ideas, inventions, and innovative concepts can only be realized when there is a strong foundation of manufacturing goods and services—such as printers, 3D models, and utilities—because manufacturing provides a platform to turn ideas and inventions into finished, marketable products. This suggests that when a country's domestic manufacturing is underdeveloped, even the best research and development facilities are of limited use, as there are insufficient manufacturing units to convert research ideas into tangible products. In light of the current needs of the domestic IT sector and the broader economic strategy to strengthen local industries, the decision has been made to refrain from participating in the ongoing ITA expansion negotiations for the time being. This decision also takes into account the concerns and opinions of the Indian IT industry, which has expressed reservations about further commitments under the expanded agreement.

This paper aims to evaluate the costs and benefits of signing ITA-1 and ITA-2 agreements. It emphasizes that while ITA-1 focuses primarily on physical ICT products, ITA-2 encompasses a broader range of items, including many that are not traditionally classified as ICT products. These include consumer goods, electronic transmissions, digital content, and products that can be digitized. Furthermore, ITA-2 extends to products that may not yet have official HS codes but are increasingly integral to digital technologies. It is also important to note that participants of ITA-1 and ITA-2 eliminate tariffs on a Most Favored Nation (MFN) basis, meaning developing countries can access the market fully even without directly participating in these agreements. This underscores the complex trade-offs and considerations for countries evaluating the pros and cons of engaging in the ITA framework.

Objectives and Research Methodology

The primary objective is to raise awareness among developing country exporters about the on going market liberalization in the IT sector. The other objectives are-

- The study aims to empirically analyze the global IT trade and amplify the concerns of IT businesses, particularly from developing countries like India.
- To conduct a study of India's growth in the context of international trade.

- To assess whether reducing tariff barriers will benefit the Indian IT industry, particularly in terms of removing non-tariff barriers.
- To examine what government support is needed to fully leverage the benefits of joining global telecommunication pacts and the ITA.
- To propose some suggestions for collaborative approaches between government, businesses, and the international community to facilitate future IT market access programs.

The Indian Information Technology Sector-

India joined the Information Technology Agreement (ITA) in 1996, five years after its inception. As a late entrant, India faced several disadvantages, including:

1. **Low Manufacturing Rates Compared to China:** Despite hosting numerous multinational companies, India struggled with limited technological advancement and high manufacturing costs. As a result, many of these companies opted to sell their finished products within India rather than investing in domestic manufacturing operations.
2. **Cost Disadvantages:** The Indian electronics and ICT industries experienced significant financial setbacks due to higher production costs. These cost disadvantages hampered investments in critical areas such as plant and machinery, technological integration, and the enhancement of production and manufacturing capabilities.
3. **Rising Demand:** The ITA's reduction of trade barriers has led to a surge in imports of IT products, while domestic production has lagged significantly. This liberalization of information and telecommunication services created a growing demand for IT goods and services, but the local manufacturing sector has struggled to meet this demand. As a result, excessive reliance on imports has contributed to India's fiscal trade deficit.
4. **Intensified Competition:** Multinational companies' strategy of manufacturing in countries like China and selling their products in India has heightened competition for domestic firms. This has forced Indian companies to compete with multinationals offering lower-priced goods. Consequently, manufacturing has largely shifted to China, while India has primarily become a consumer market for these imported goods.

In terms of innovation, India faces several fundamental issues and challenges. Despite having a highly skilled and well-trained pool of IT professionals, their talent and expertise are not fully utilized. The research and development efforts of these professionals often fail to translate into finished products due to a lack of sufficient technological capabilities. This gap significantly hampers India's ability to convert innovative ideas into tangible outcomes, limiting the growth of its IT and manufacturing sectors.

WTO Scope of Coverage

Agreement on Agriculture (AoA)

The AoA points to form a reasonable, market-oriented rural exchange framework, centering on household bolster, trade appropriations, and advertise get to. It improves GATT rules, bolsters country economies with negligible exchange twists, and awards exclusions to slightest created nations from decrease commitments. The understanding too addresses non-trade issues like nourishment security and natural concerns, giving extraordinary treatment for creating countries. It covers a wide run of items, counting staple commodities (e.g., wheat, drain, live creatures), prepared products (e.g., bread, butter, meat, chocolates), and a few non-food things, in spite of the fact that fisheries are prohibited.

Non-Agricultural Market Access (NAMA)

NAMA negotiations, part of the 2001 Doha Round, address industrial products and aim to reduce or eliminate tariffs and non-tariff barriers. Key sectors include marine products, chemicals, textiles, electronics, and automobiles. NAMA negotiations focus on tariff reductions, with some "unbound" tariffs (without binding commitments). For instance, India left more than 31% of its NAMA (Non-Agricultural Market Access) tariff lines unbound. Discussions also focused on lowering high tariffs and tariff peaks, with the Swiss Formula suggesting deeper cuts for developed countries compared to developing ones.

General Agreement on Trade in Services (GATS)-

The General Agreement on Trade in Services (GATS), established during the Uruguay Round, parallels GATT but focuses on services rather than goods. Its objective is to create global trade rules for services, ensuring equal treatment for all countries, promoting economic growth through policy commitments, and encouraging gradual liberalization to facilitate international trade and development. GATS encompasses all service sectors, with two exceptions: services provided under governmental authority (Article 1(3)) and measures related to air transport services, as specified in the Annex on Air Transport Services, which covers issues such as air traffic rights and associated services.

Trade-Related Aspects of Intellectual Property Rights (TRIPS)–

The TRIPS Agreement: It promotes trade in knowledge and creativity by addressing intellectual property (IP) disputes. It offers flexibility for WTO members to achieve their domestic policy goals while establishing minimum standards for IP protection. TRIPS covers seven types of IP rights: copyright, trademarks, geographical indications, industrial designs, patents, integrated circuits, and undisclosed information (trade secrets).

Plurilateral Trade Agreements: Plurilateral Trade Agreements include particular bunches of nations and incorporate the Understanding on Exchange in Gracious Airplane, the Understanding on Government Acquirement, the Universal Dairy Understanding, and the Universal Bovine Meat Assention.

Anti- Dumping, Subsidies, Safeguards: The WTO Anti-Dumping Assention (ADA) sets out controls to address "dumping," a hone where outside products are sold at misleadingly moo costs in a showcase, undermining reasonable competition. It sets guidelines for countermeasures, such as additional import duties, to protect domestic industries from harm.

The WTO Agreement on Subsidies and Countervailing Measures governs the use of subsidies, distinguishing between those that distort trade (prohibited) and those that are actionable, allowing countervailing actions if they harm domestic producers. It also includes provisions for investigations, exemptions, and special provisions for developing countries. WTO members can impose "safeguard" measures to temporarily

restrict imports if a sudden surge harms domestic industries. These measures must be transparent, follow established rules, and be aimed at remedying the injury. Affected exporting countries are entitled to compensation, and retaliation is restricted.

The Information Technology Agreement (ITA) is a plurilateral agreement accord aimed at the gradual elimination of tariffs on a range of advanced technological products, including computers, semiconductors, scientific instruments, telecommunications devices, and most components and accessories associated with these items. The parts that follow provide more specific provisions.

. Dispute Settlement Mechanism (DSM)

When one member government feels that another's activities are unfair or against WTO agreements, disputes in international trade often result. With one of the world's most active and successful international dispute resolution systems, the WTO plays a crucial role in resolving these conflicts. Ms. Shailja Singh, Consultant at CRIT, has underlined that the WTO's Dispute Settlement Mechanism (DSM) is considered its "Crown Jewel." The DSM looks for a "positive solution" to conflicts, preferably through solutions that are accepted by both parties (Article 3.7 DSU). Parties may turn to panel or appeal procedures or take alternative conflict resolution techniques into consideration if this strategy doesn't work. These disagreements are handled by the General Council, which is the Dispute Settlement Body.

Global Electronics Sector Trends

Among the businesses with the speediest rates of development in worldwide commerce are gadgets fabricating, ICT, and broadcast communications. By FY 2028, around the world buyer hardware income is anticipated to reach USD 1,177 billion, extending its advertise share from 7% to 8%, agreeing to Dr. Pritam Banerjee, Head and Teacher (CWS) The market for the Internet of Things (IoT), which brought in USD 970 billion in 2023, is predicted to grow from 2% to 3% by 2028, reaching USD 2,205 billion. Dr. Banerjee also pointed out that while India is the third-largest consumer electronics market, it holds only a 2% share in global trade. India remains a primarily importing economy in the electronics sector with limited exports, and none of its firms lead in exports within the electronics or IoT fields. The dominant exporters in this sector

are companies from the US, China, and several European countries like France, Germany, and Japan. Dr. Banerjee attributed India's reliance on imports to the unliberated economies of scale in the domestic market and various challenges faced by the Indian electronics manufacturing industry, particularly in Electronics Systems Design and Manufacturing (ESDM).

Cost Differential: India faces a cost gap of up to 20% compared to China and Vietnam, which hampers its manufacturing competitiveness, particularly in sectors like mobile phone production.

Tax Structure and Duties: India's tall charges and moment substitution laws may dishearten outside producers from setting up operations there. To advance both purport substitution and the integration of worldwide esteem chains for development, a more adjusted technique is required.

Absence of Component Ecosystem: India is intensely subordinate on imports, which raises costs, due to the country's frail inborn component biological system. This dependence limits India's capacity to make essential components locally, especially in zones where low-cost labor may be utilized.

Ease of Doing Business: is hindered by inadequate development of industrial land, leading to increased delays and costs. Furthermore, the protracted compliance processes and a limited number of free trade agreements in comparison to China and Vietnam complicate business operations significantly.

Government Incentive Scheme: scheme may be inaccessible for small and medium enterprises due to stringent eligibility requirements and incentives tied to sales performance. A more adaptable PLI framework is essential to provide support for a broader spectrum of manufacturers.

Delving into the Details of Information Technology Agreement:

At the Singapore Ministerial Conference on December 13, 1996, a sector-specific plurilateral agreement known as the Information Technology Agreement (ITA), formerly known as ITA-1, was reached. Tariffs on a range of information technology products (ITA items) were to be removed. After being signed by 29 nations

at first, ITA-1 grew to include 82 parties, including India. At the 2015 Nairobi Ministerial Conference, a revised version known as ITA-II (or ITA-E) was finalized and signed by 25 countries, including important nations like China, the US, and the EU. India is notably not a signatory to ITA-II, which now has 54 participants. The ITA remains one of the most important tariff liberalization agreements established under the WTO since its inception in 1995. By 2013, the elimination of import duties on products covered by the ITA was reported to impact goods worth USD 1.6 trillion, nearly three times the value of the products included in the 1996 agreement (according to WTO data). The core principle of both ITA-I and ITA-E is the gradual elimination of tariffs on ITA goods, applicable to all WTO members, even those not signatories to the ITA. This means that non-signatory countries benefit from reduced tariffs when exporting ITA products to countries that are part of the agreement.

Tariff elimination under the ITA is applied on an MFN (Most-Favored-Nation) basis, meaning the benefits are extended to all WTO members, even those not part of the ITA. Between 2016 and 2019, the product list covered by the agreement was updated, leading to the creation of the ITA-II goods list. However, it is important to note that ITA-E (the expanded version) does not follow the same MFN approach as ITA-I. Under ITA-E, only the Parties to the agreement. —rather than all members of the World Trade Organization. —can benefit from the reduced tariffs on the newly included products.

Main Product Categories under ITA-1

The following product categories were covered under ITA-1, according to the HS 1996 classification, and had their tariffs eliminated:

- Computers and related parts
- Alloys (Semiconductors)
- Manufacturing of Semiconductor and testing equipments
- Apparatus of Telecommunication
- Related apparatus and Instruments
- Data-storage software and media
- Accessories and other parts

Unique Features of ITA-1

ITA-1 is a notable plurilateral agreement, being the only sectoral agreement in the WTO that mandates zero tariffs on 203 items. These items are divided across two attachments:

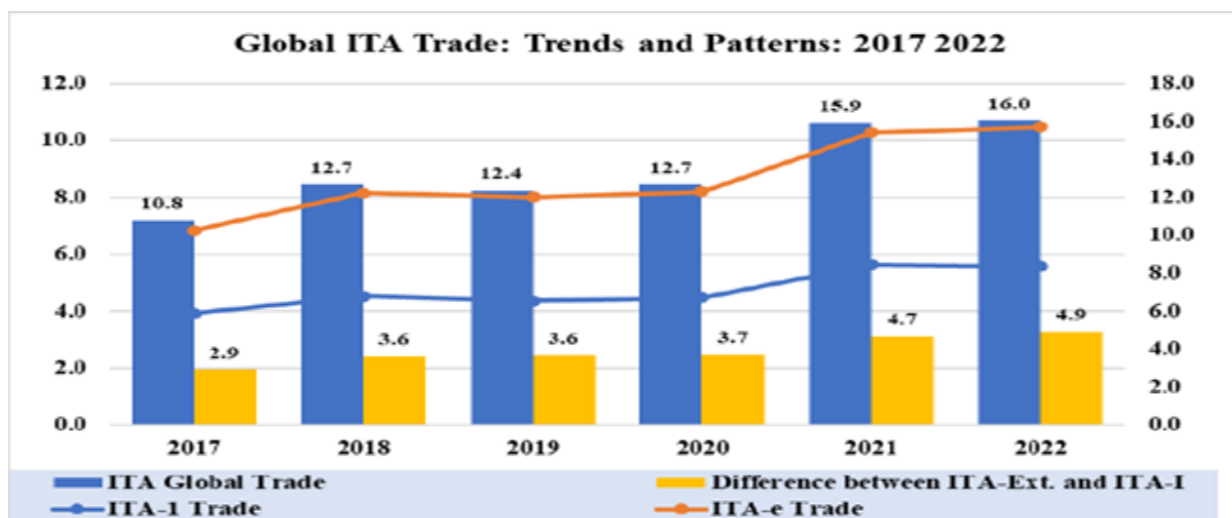
- Attachment A, which is divided into two sections, lists the HS headings or product categories covered by the agreement. There are 112 IT product-related items in Section 1, which correspond to 110 HS 1996 subheadings.
- Section 2: Consists of 45 HS 1996 subheadings and 78 items pertaining to semiconductor production and testing equipment.
- Attachment B provides product descriptions that do not necessarily align with specific HS codes. This section allows for flexibility in product classification, particularly for complex, multifunctional products, and addresses varying national positions on coverage.

MFN Status and Coverage

ITA-1 is an **MFNized** agreement, meaning that its benefits are extended to all WTO members, including non-signatories. This allows countries that are not part of the ITA to still benefit from the tariff reductions on ITA products when trading with signatory countries.

Global ITA Trade Scenario-

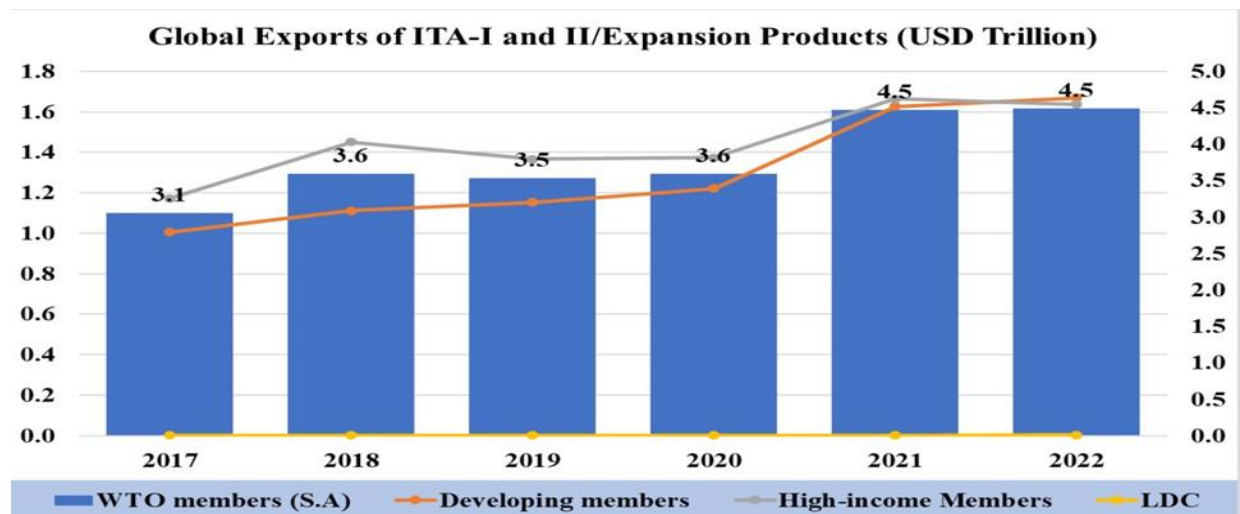
Figure 1: Total ITA Trade Trends and Patterns during 2017-2022



Source: Report on WTO issues and Electronics & Telecom sector in India

Global commerce in ITA goods has grown significantly, rising at an annual rate of 8%, as seen in the figure given during the Capacity Building Workshop (CBW). Trade in ITA goods increased from about USD 11 trillion to USD 16 trillion between 2017 and 2022. Trade in ITA-1 items increased from USD 3.9 trillion to USD 5.6 trillion as part of this total growth. Furthermore, ITA-E items have bigger trade volumes than ITA-1 products, and the gap between the two is continuously widening.

Figure 2: Global Exports of ITA-I & II Expansion Products



Source: Report on WTO issues and Electronics & Telecom sector in India

Global ITA Imports Trends

ITA imports have grown from USD 3.2 trillion to USD 4.8 trillion globally, with both developed and emerging nations contributing significantly to this expansion. It is evident that the gap between these two groups is progressively closing over time.

India's Experience with ITA-1 and ITA-E

India's obligations under ITA-1 are included in the table, and the years 2000 and 2005 were chosen to demonstrate the effects of tariff reductions on local manufacturers at the Capacity Building Workshop (CBW). Specific product tariffs were lowered to zero in 2000 and 2005, affecting 96 and 121 tariff lines, respectively. According to the CBW presentation, 217 six-digit tariff lines were ultimately lowered to zero under ITA-1 on an MFN basis.

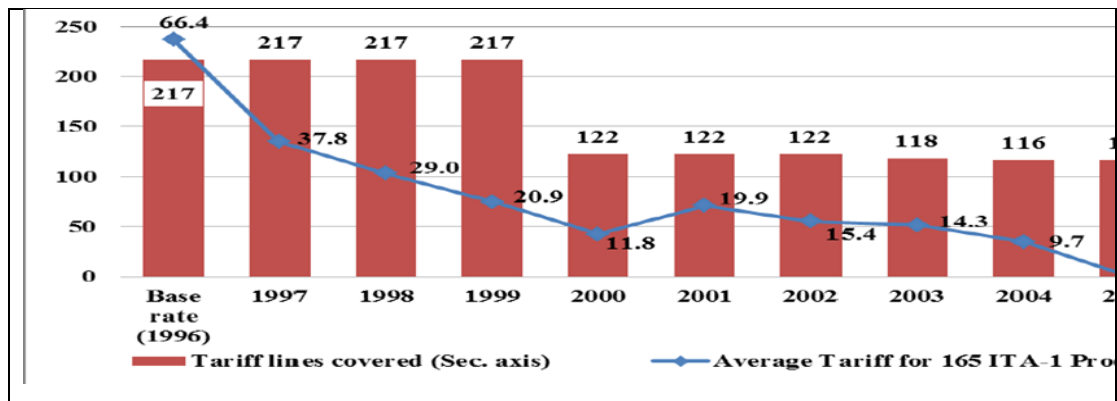
Table 1: Tariff reduction Schedules under the ITA-I During 2000-2005

Sl.no	Base duty (%)	2000	2005	Total ITA-1 lines
1	12	6	0	6
2	22	-	3	3
3	31.7	7	0	7
4	32	-	6	6
5	35	5	5	10
6	40	8	5	13
7	42	-	10	10
8	45	1	0	1
9	50	2	0	2
10	52	1	25	26
11	55	1	0	1
12	61.7	15	2	17
13	66.7	12	26	38
14	70	6	1	7
15	76.7	2	13	15
16	83.4	3	0	3
17	90	10	3	13
18	110	11	17	28
19	116.7	6	5	11
Number of ITA Lines Reduced to Zero		96	121	217

Source: Report on WTO issues and Electronics & Telecom sector in India

175 distinct goods were found among the 217 product lines. However, only 165 goods pertaining to India's ITA obligations could be examined because of data restrictions. The average tariffs for these 165 items were reduced as predicted; in only one year, they went from 66.4% to 37.8%, and by 2005, they had dropped to 0%.

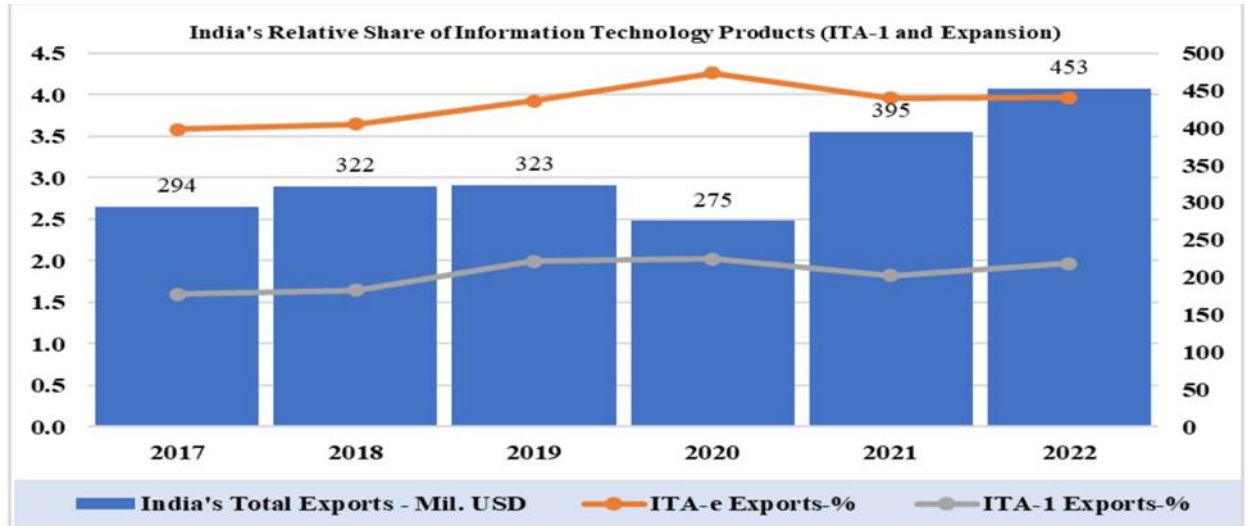
Figure 3: Average MFN tariffs of India on ITA products and count of HS 6- digit tariff lines During 1996-2005.



Source: Report on WTO issues and Electronics & Telecom sector in India

Even though India occasionally missed the dates for certain of its ITA-1 commitments, its performance under the agreement showed a notable drop in tariff lines to nil by 2005. From India's point of view, there was a significant overall decrease in pricing notwithstanding these sporadic delays. The following lists the proportion of ITA-1 and ITA-E goods in India's overall exports.

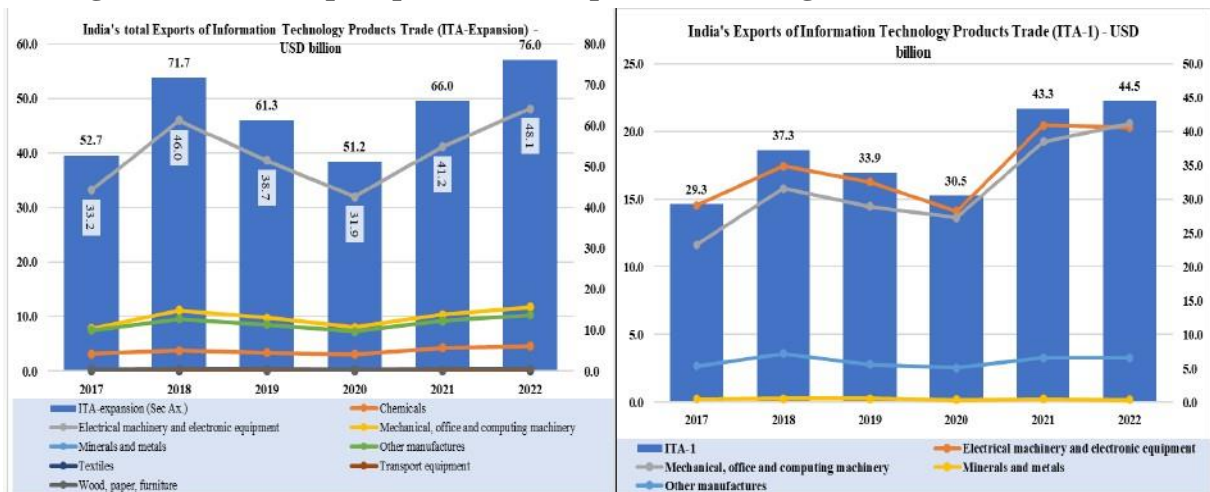
Figure 4: India's Relative Share of ITA- 1 and E Products During 2017-2022



Source: Report on WTO issues and Electronics & Telecom sector in India

India's choice not to join ITA-E can be understood in the context of its export growth, as shown in the figure below. India's total exports grew from USD 51 billion in 2020 to USD 66 billion in 2021, and further to USD 76 billion in 2022. In contrast, the exports of ITA-1 products have remained stagnant, staying at around USD 44 billion in 2021-22.

Figure 7: India's export profile of ITA products During 2017-2022



Source: Report on WTO issues and Electronics & Telecom sector in India

Impact of Tariff Reductions under ITA-1

Any nation deciding to sign the ITA or other trade liberalization accords usually takes into account a number of factors:

- The comparative advantage and competitiveness within pertinent product

categories.

- The necessity of safeguarding domestic manufacturers.
- The advantages of lower-cost imports for local consumers.
- The loss of revenue resulting from import tariffs.
- The possibility of increased tax revenue stemming from a rise in the production of goods and services.
- The advantages of trade liberalization for developing countries are generally associated with the benefits of the Information Technology Agreement (ITA), which include:
 - Improved competitiveness of the domestic ICT hardware sector in the context of international competition.
 - Decreased expenses for ICT products, fostering greater usage, digitization, and enhanced productivity across various sectors.
 - A rise in the export of IT products and services.
 - Greater participation in global value chains (GVCs).

However, empirical studies suggest that for many developing countries, signing ITA-1 had negative outcomes, particularly for countries with underdeveloped domestic IT manufacturing sectors. Research highlights the following issues:

The competitiveness of domestic IT businesses has decreased; local production of IT goods and associated inputs and raw materials has suffered; and greater imports of IT products have resulted in a loss of tariff revenues that cannot be offset by increases in tax income from increased output. Due to comparatively poor competitiveness, many developing countries—including India—became more dependent on ITA product imports, having restricted access to markets in both developed and other developing countries. According to research, this led to a drop in regional IT manufacturing, which had a detrimental effect on the creation of jobs (CBW, 2012).

India's Disputes: DS582, DS584, and DS588/R

Like many other nations, India updates its tariff list on a regular basis to reflect changes to the Harmonized System (HS) code. It went from HS1996 to HS2002 and then to HS2007. India asked the WTO for help in this process, which usually takes

place every four to five years. On November 8, 2013, the WTO Secretariat shared the draft text and assisted India with the transposition. The draft was distributed on May 12, 2015, after a review session on April 23, 2015. The amendments were confirmed on August 12, 2015, after no complaints were voiced within three months. On September 25, 2018, however, India asked that 15 items be taken off the tariff list, claiming that the Information Technology Agreement (ITA) did not apply to these goods India claimed that the HS2007 schedule mistakenly included these products under the 0% tariff, even though they were not part of the ITA agreement.

Legal Issue in India's Dispute: DS582, DS584, and DS588/R

The primary legal concerns in these disputes revolve around the Schedule of Commitments and Article II of GATT 1994. India's central inquiry before the WTO panel is whether certain goods should be exempt from customs duties due to an error in the transposition of the tariff schedule or as a result of India's voluntary agreement. While India recognizes its responsibilities under the Information Technology Agreement (ITA), it argues that the contested products were erroneously included in the transposition and should not be bound by ITA commitments. The WTO panel referenced Article 48 of the Vienna Convention on the Law of Treaties (1969), which addresses errors in treaty formulation. The panel concluded that Article 48 is applicable to WTO disputes and required India to prove that the conditions of Article 48(1) were met.

India's argument primarily focused on the assertion that the WTO Secretariat failed to incorporate the General Council Decision regarding the HS2007 Transposition Procedures when transposing its schedules. India claimed that certain tariff items affected by the transposition were not accurately labeled. Had India been aware of these changes, it would not have consented to the disputed subheadings in its 2007 schedules. The WTO panel highlighted that there exists a common understanding among WTO members regarding the transposition process and the revision of tariff schedules. Neither the WTO members nor the Secretariat deemed the ITA pertinent in this situation. Furthermore, India's acquiescence to the transposition documents without objection at the General Council or the Committee on Market Access signified its commitment to comply with the procedures sanctioned by the multilateral framework.

Way Forward

India is becoming into an active player in the global technology ecosystem, moving from being a passive consumer of technology. According to Shri Ashwini Vaishnaw, India is influencing new technologies including semiconductor research, telecom exports, and the encouragement of domestic phone manufacturing. India plans to sell sophisticated telecom equipment to areas including the US and Europe by 2025. Furthermore, in the next five years, it is anticipated that further investment will be drawn to the growth of a comprehensive local handset manufacturing ecosystem, which is fueled by extensive mobile production for international companies.

An important chance for India to increase economic growth and create jobs is the creation of globally competitive manufacturing clusters. A McKinsey Global Institute report from 2021 suggests that these industrial centers might be vital to propelling India's economy in the future. The Honorable Minister Ashwini Vaishnaw has highlighted efforts to create a complete semiconductor ecosystem in India as part of this strategy. This includes an emphasis on electronics manufacturing, Assembly-Testing-Marketing-Packaging (ATMP), semiconductor design, and fabrication. India's first state-of-the-art semiconductor factory will be built in Dholera, Gujarat, and another is planned in Jagiroad, Assam, as part of a significant investment project approved in 2024 for semiconductor and electronics production. It is anticipated that these measures will advance India's objective of manufacturing all electronics domestically, draw in international chip companies, and improve local chip production, ultimately improving India's manufacturing capacity. Calls have been made for more disaggregated HS codes or richer tariff lines to guarantee that products are more clearly categorized in light of trade concerns brought up by the business sector.

By doing this, trade procedures would be streamlined, ambiguity and misinterpretation would be reduced, and the likelihood of product categorization disputes would be decreased. It is clear by contrasting India's tariff line schedules with those of other nations, such as the USA and the UK, that going beyond the 6-digit HS codes might have major benefits. For instance, the UK uses an 8-digit number for exports and a 10-digit code for imports, whereas the USA uses a 10-digit code for its National Tariff Line. It has been proposed that India might extend its tariff lines in a similar manner.

Over the next ten years, India is expected to emerge as a major center for the production of electronics due to increased export competitiveness and growing domestic demand. One of the main forces behind this expansion will be Electronics Manufacture Services (EMS), which provides Original Equipment Manufacturers with design, manufacturing, testing, distribution, and support. The Production Linked Incentive (PLI) Scheme, which provides incentives ranging from 4% to 6% on incremental sales in specific industries, was launched by the Indian government to promote this goal. Driven by greater use of technology, affordability, and sustainability activities, this strategy aims to overcome capital cost concerns and boost local production.

An additional issue raised in India's trade discussions is the SCOMET List (Special Chemicals, Organisms, Materials, Equipment, and Technologies with dual-use potential). This list includes products that may have both civilian and military applications, and these goods are subject to specific export control regulations. However, the HS codes assigned to these goods do not distinguish between civilian and military use, leading to challenges, such as difficulties in obtaining end-use certificates for dual-use items like routers. To address such issues, experts have suggested that HS code disaggregation could offer a more nuanced approach to managing dual-use goods, simplifying the process and reducing trade complications. Overall, India's focus on improving its technology manufacturing ecosystem and revising tariff schedules to better reflect the changing global landscape indicates its commitment to becoming a global leader in electronics and semiconductor production. By addressing trade-related challenges such as HS code disaggregation and the complexities of dual-use goods, India can strengthen its position in the global tech supply chain.

Suggestions

1. The global community must recognize that countries signing plurilateral agreements have varying capabilities. Therefore, before entering the ITA, protective mechanisms should be established to support the domestic production of IT goods and services in these countries. Additionally, the ITA should be renegotiated with a focus on being more favorable to developing nations. While all signatories share a common interest in reducing trade barriers,

the agreement should include provisions to mitigate the impact of asymmetric trade deficits. It is suggested that certain countries be allowed to implement moderate trade barriers to help their domestic industries better compete with foreign competitors.

2. India should advocate for a new version of the Information Technology Agreement, referred to as ITA-Third, where India can position itself as a global leader. This new agreement should be presented at an international platform, enabling India to compete on equal terms with multinational companies in the same sector.
3. India should focus on increasing revenue by aggressively patenting innovations and leveraging intellectual property to establish a monopoly over the research and development of IT products and finished goods. This strategy could help India gain a competitive edge in the global IT market.
4. Now is an opportune moment for India to negotiate further exemptions, especially concerning goods or products of a similar nature, to better protect its domestic industries and foster growth.

Conclusion

Despite the Indian government's intention in 1996 to liberalize trade, it failed to properly assess the risks and benefits of entering an IT trade agreement dominated by technologically advanced giants. When the agreement was implemented, India's manufacturing capacity was effectively wiped out, and even the potential for growth in the IT goods and services sector could not materialize due to the overwhelming influx of imports at nearly zero import duties. The Indian industry was unable to survive, and the government did not provide adequate support. At that time, the best approach would have been to offer seed funding to domestically established companies to help them compete with foreign market players. Consequently, it can be concluded that the Information Technology Agreement (ITA) was detrimental to India, acting as a barrier to innovation in the country.

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