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**Trade Rules in E-commerce:
WTO and India**

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List of Abbreviations

ASEAN	Association of Southeast Asian Nations
B2B	Business-to-business
B2C	Business-to-consumer
B2G	Business-to-government
C2C	Consumer-to-Consumer
CAGR	compound annual growth rate
CECA	Comprehensive Economic Co-operation Agreement
CEPA	Comprehensive Economic Partnership Agreement
CII	Confederation of Indian Industry
DeitY	Department of Electronics & Information Technology
EC	European Commission
e-commerce	Electronic commerce
EU	European Union
FDI	foreign direct investment
FICCI	Federation of Indian Chambers of Commerce and Industry
FTA	free trade agreement
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GST	Goods and Services Tax
ICT	Information and Communication Technology
IoT	Internet of Things
IPR	Intellectual Property Right
IT	Information Technology
ITeS	Information Technology enabled Services

ITA	Information Technology Agreement
M2M	Machine to Machine
MEIS	Merchandise Export from India Scheme
MeitY	Ministry of Electronics and Information Technology
MFN	most favoured nation
OECD	Organisation for Economic Co-operation and Development
OSS	Open Source Software
PE	permanent establishment
RBI	Reserve Bank of India
RCEP	Regional Comprehensive Economic Partnership
SEZ	Special Economic Zone
SME	Small and Medium Enterprise
STP	Software Technology Park
TFA	Trade Facilitation Agreement
TFS	Trade Facilitation Agreement in Services
TiSA	Trade in Services Agreement
TPP	Trans Pacific Partnership
TRAI	Telecom Regulatory Authority of India
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNCITRAL	United Nations Commission for International Trade Laws
UNCTAD	United Nations Conference on Trade and Development
US	United States
USD	United States Dollar
USTR	United States Trade Representative
WTO	World Trade Organization

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Abstract

Electronic commerce (e-commerce) is an integral part of business activities, and various models of e-commerce have emerged with liberalisation and technological developments. Global e-commerce trade has seen fast growth, which is predicted to continue in the future. The sector is now discussed in various international forums, and a group of countries are exploring the possibility of open, transparent and non-discriminatory e-commerce trade rules in the WTO. India has not joined this group as commitments in the WTO may reduce the ability of the government to promote and support domestic industry. India is also actively engaged in bilateral and regional trade agreements such as the Regional Comprehensive Economic Partnership (RCEP), and e-commerce is a key component of such agreements. Given this background, the objective of this paper is to understand the growth of the e-commerce sector globally and in India, the developments in the WTO, and India's position. Based on secondary data and information, and one-on-one meetings with 30 stakeholders, the paper makes policy recommendations on what India's strategy in the WTO should be.

The study found that India does not have data on trade in e-commerce, which can help identify the country's strengths and areas of concerns, based on which policymakers can take informed decisions. The regulatory regime for e-commerce is evolving across the world and India is no exception. While the study has identified certain gaps and inconsistencies in the regulations, the autonomous regime in India is more liberal than that implemented by countries which are willing to negotiate trade rules. The paper recommends that India should join the negotiations. Simultaneously, it needs to collect data and information on (a) different business models, (b) issues faced by e-commerce companies in scaling up, (c) how e-commerce can be used as a platform to promote exports of handicraft, apparel and other products, and (d) what needs to be done to make India a global manufacturing and sourcing hub. India should support its domestic industry and domestic e-commerce players. However, such support should be given in a way that is consistent with the country's commitments to the WTO and helps e-commerce companies scale up at a fast pace. India may also review regulations implemented by other countries on issues such as data protection and consumer privacy, and design its own regulations based on global best practices and the country's requirements. It can also collaborate with like-minded countries to develop strategies to protect domestic policy space. A defensive position in the WTO may force India to accept trade rules in e-commerce in the future that may not benefit the country.

Key words: *e-commerce, WTO, trade, India, FTA*

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Trade Rules in E-commerce: WTO and India

Arpita Mukherjee and Avantika Kapoor

1. Introduction

Electronic commerce (e-commerce) is a form of non-store sale of goods and services to the consumer where no direct proximity between the buyer and the seller is involved. According to the World Trade Organization's (WTO) work programme on electronic commerce, "electronic commerce" involves the production, distribution, marketing, sale, or delivery of goods and services by electronic means.¹ The Organisation for Economic Co-operation and Development (OECD) defines e-commerce as anything that involves conducting electronic transactions, i.e., the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organisations, conducted online.² The Asia-Pacific Economic Co-operation (APEC) simply defines e-commerce as any business conducted online.³ According to the United Nations Conference on Trade and Development (UNCTAD), e-commerce could be defined as the trading of goods and services through electronic media.⁴

E-commerce is not limited to the purchase of a product, but also includes email and other communication platforms, and all information or services that a company may offer to its customers over the internet, from pre-purchase information to after-sale services and support. An e-commerce transaction can involve enterprises, households, individuals, government, and other public and private organisations.

There are different business models of e-commerce transactions based on the agents involved (see Table 1).

Table 1: Categories of E-commerce Trading

Category	Agents Involved	Description
Business-to-business (B2B)	Sales between wholesalers, retailers, manufacturers, etc.	This is the exchange of services, or information between businesses rather than between businesses and consumers.
Business-to-consumer (B2C)	Firms sell goods directly to consumers	This includes financial transaction or online sale between a business and consumers
Business-to-government (B2G)	Firms and the public sector	Use of the internet for public procurement, licensing procedures, and other government-related operations
Consumer-to-Consumer (C2C)	Consumers	Consumers selling products to other consumers; also involves sale of second hand or used products

Source: Compiled from WTO (2013b)

¹ Source: https://www.wto.org/english/tratop_e/ecom_e/ecom_e.htm (accessed on December 27, 2017)

² Source: <http://www.oecd.org/internet/ieconomy/2771174.pdf> (accessed on December 27, 2017)

³ Source: <https://www.apec.org/Groups/Committee-on-Trade-and-Investment/Electronic-Commerce-Steering-Group> (accessed on December 27, 2017)

⁴ Source: <http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1438> (accessed on December 27, 2017)

The business-to-consumer (B2C) model accounts for the majority of transactions in terms of numbers, while the business-to-business (B2B) model is the largest model based on revenue. Consumer-to-consumer (C2C) is also a fast growing component on the global e-commerce platform.

Conducting business under e-commerce involves multiple players in the value chain. It includes information technology (IT) goods such as telecommunication equipment, semiconductors, and computers; services such as telecommunication services, logistics services, distribution services, and payment and financial services (for example, Paytm and PayPal). It includes online travel bookings, and retail transactions such as online purchase of goods by consumers (such as books, clothes, etc.), digital media distribution (purchase of music and e-books online), digital libraries, etc. It also includes application-based (app-based) aggregators selling specific services such as Ola cabs of ANI Technologies Private Limited and Uber Technologies Incorporated for transport services. E-commerce companies can have operations in the domestic market. They can be regional players or global multinationals.

There are also two models of e-commerce based on how the firm is involved in providing the product or service electronically. First is the marketplace model of e-commerce where an IT platform is provided by an e-commerce entity on a digital and electronic network to act as a facilitator between buyer and seller. Marketplaces are platforms that enable a large, fragmented base of buyers and sellers to discover price and transact with one another in an environment that is efficient and transparent. An example of an e-commerce firm operating under the marketplace model is China's Alibaba Group Holding Limited, which provides C2C, B2C and B2B sales and various other services. The firm only acts as a platform where consumers and sellers meet, and it is not directly involved in inventory, stock management, logistics, etc. The second model is the inventory model of e-commerce, where the inventory of goods and services is owned by the e-commerce entity and these goods and services are sold to the consumers directly. The main feature of the inventory model is that the customer buys the product from the e-commerce firm. The firm manages an inventory (stock of products), interfaces with customers, runs logistics and is involved in every aspect of the business. An example of a firm under this model is Amazon.com Incorporated.

There are several benefits of e-commerce that are well-documented (for example, see Chiu et. al, 2014; Rahayu and Day, 2015; Choe, 2016). E-commerce can help small and mid-sized businesses in developing countries such as India to access global markets. It has a lower cost of entry compared to traditional businesses, requires less staff, and firms can reach their customers directly by cutting down on intermediaries. They are also able to acquire a lot of information on their customer purchase behaviour. E-commerce helps consumers access and compare a wide range of products and services, purchase from any location and at any time according to their convenience, and get the product delivered to the place of their choice.

E-commerce is an evolving sector. Globalisation, liberalisation of the services sectors such as telecommunications, technological development, government support for digitisation, and the development of new business models and non-store retail formats have fuelled the growth of

e-commerce. Internet penetration has enabled more and more consumers to buy digitally, and worldwide; retail e-commerce sales are rising. This has enabled the e-commerce market to expand rapidly in the past 3-5 years. Devices like smartphones and tablets, and technologies like 3G, 4G, Wi-Fi and high speed broadband are increasing the number of online customers. Banks and other players in e-commerce provide easy and safe online platforms to pay effortlessly.

According to UNCTAD, the global e-commerce market was worth approximately USD22.1 trillion in 2015-2016. Out of this, B2B was valued at around USD18.9 trillion and B2C was valued at USD2.2 trillion. UNCTAD data also shows that emerging economies account for most of the growth in the market. In 2015-2016, Asia-Pacific was the strongest B2C e-commerce region in the world with a turnover of USD1.05 trillion. It was followed by North America (USD664 billion) and Europe (USD505.1 billion). China was the world's largest B2C e-commerce market in 2015-2016, valued at USD975 billion, followed by the United States (US) (valued at USD649 billion). Over 40 per cent of total global e-commerce spending comes from China. Brazil, India and the Republic of Korea. Russia also moved into the top 10 e-commerce markets in 2015.⁵ In developed countries, most of the e-commerce transactions are conducted domestically while in developing countries, cross-border trade accounts for the bulk of e-commerce transactions.⁶ The US and China are among the largest exporters of e-commerce, while India is among the fastest growing markets for e-commerce.

Some of the leading global e-commerce companies include Alibaba Group Holding Limited (which is mainly engaged in C2C sales), Amazon.com Incorporated, Apple Incorporated, Google LLC, eBay Incorporated, JD.com Incorporated, Macy's Incorporated, Target Corporation, etc. (the last two examples are of traditional brick-and-mortar retailers that have pushed for online presence over the past two to three years). A study by Technavio (2016) estimated that the global e-commerce market will grow steadily at a compound annual growth rate (CAGR) of more than 19 per cent by 2020. Another estimate by UNCTAD suggests that retail e-commerce sales will grow from USD2.3 trillion in 2017 to USD4.5 trillion by 2021. According to the same study, e-wallets (such as PayPal) will be the most popular payment methods, followed by credit and debit cards (UNCTAD, 2017).

With the growth of cross border trade in e-commerce, this sector is now widely discussed in various international organisations and multilateral forums such as the WTO, G-20 and OECD. For example, the OECD came up with the "Action Plan for Electronic Commerce" in 1998 in Ottawa. The plan looks at policies relating to establishing ground rules for the digital marketplace, enhancing the information infrastructure for e-commerce, taxation and regulations, maximising the benefits of e-commerce, and building trust for users and consumers.⁷ In May 1998, the WTO members adopted the "Declaration on Global Electronic Commerce" to create new opportunities for trade in e-commerce. This led to the

⁵ Source: http://unctad.org/es/paginas/newsdetails.aspx?OriginalVersionID=1281&Sitemap_x0020_Taxonomy=Information%20and%20Communication%20 (accessed on December 28, 2017)

⁶ Source: <http://www.unescap.org/sites/default/files/Ecommerce%20Global%20Trend%20and%20Development.pdf> (accessed on December 29, 2017)

⁷ Source: <http://www.oecd.org/development/electroniccommerce.htm> (accessed on January 10, 2018)

establishment of a comprehensive work programme on e-commerce in September 1998 to examine all trade issues related to global e-commerce, including issues identified by WTO members, and look at the development implications of e-commerce, e-commerce in the General Agreement on Trade in Services (GATS) framework, and intellectual property issues.⁸ E-commerce is also a key component of new age trade agreements such as the Trans Pacific Partnership (TPP), Trade in Services Agreement (TiSA), and Regional Comprehensive Economic Partnership (RCEP) agreement, and trade rules on e-commerce are designed in these agreements.

Given that e-commerce is important for the expansion of trade, inclusive growth and improved social conditions (for example, see Higgins and Prowse, 2010; Terzi, 2011), most discussions in international forums focus on challenges in regulating different aspects of e-commerce, and ensuring that regulations do not act as barriers to the growth of this sector and trade. Unless the sector is regulated, it can lead to several issues such as violation of e-contracts, tax evasion, violation of privacy, piracy, spam, lack of consumer protection for online purchases, and sale of restricted products online. While consumers and businesses can get cheated and legitimate businesses can face loss of revenue, governments can face loss of income through tax evasion. Hence, it is necessary to regulate this sector, and both developed and developing countries acknowledge it. Some of the key elements of the regulations involved in this sector include privacy policy, anti-spam laws, compliance of payment cards with data security standards, consumer protection regulation for non-store purchases, e-contract regulations, regulations governing IT, and new technologies such as cloud computing, anti-competitive regulations, trademark, patent copyright regulations, and regulations related to financial transactions and taxation. At the same time, it is also important to ensure that regulations are not unnecessary barriers to trade and growth of the e-commerce sector, and they should support the development of technology and business models. Given the fast-paced growth of the sector globally, it is necessary for a country's regulations to protect the sector, promote growth and create an enabling environment for businesses, increase the revenue of the industry players, tax appropriately, ensure national security through prohibition of certain areas of access, and decrease misuse due to breach of security.

The importance and growth in cross-country e-commerce trade has encouraged many developed countries to collect and collate data on e-commerce. Some countries provide data on e-commerce trade, which are typically derived from either enterprise surveys (supply side) or consumer surveys (demand side). For instance, the Bureau of Economic Analysis (BEA) in the US collects and collates data on transactions on e-commerce.⁹ In Japan, in the survey of households conducted by the Statistical Standards Department, Statistics Bureau, for collecting household survey data, questions are asked on the sum of sales and purchases via the internet.¹⁰ The European Union (EU) provides data every two years on whether firms

⁸ Source: https://www.wto.org/English/tratop/E/ecom/e/ecom_e.htm (accessed on January 10, 2018)

⁹ Source: <https://www.bea.gov/newsreleases/international/trade/2017/trad0817.htm> (accessed on January 16, 2018)

¹⁰ Source: [https://unstats.un.org/unsd/trade/events/2017/suzhou/presentations/Agenda%20item%2011%20\(b\)%20-%20UNCTAD.pdf](https://unstats.un.org/unsd/trade/events/2017/suzhou/presentations/Agenda%20item%2011%20(b)%20-%20UNCTAD.pdf) (accessed on January 16, 2018)

have carried out sales overseas using the internet. It also conducts consumer surveys to collect data on the proportion of overseas online purchases made by internet users in EU countries. Within the EU, for example in Spain, total web sales of enterprises with 10 or more employees can be broken down by destination (Spain, EU, rest of the world). However, apart from what is provided by a few developed countries, there is no cross-country e-commerce trade data available. Moreover, most estimates of e-commerce do not make a clear distinction between whether it is domestic or international, and many countries that collect data on e-commerce sales through surveys do not include questions about the share or value of cross-border transactions (UNCTAD, 2016). Consequently, discussing issues relating to e-commerce in international forums can prove to be a challenge.

Another challenge that arises when developing countries negotiate e-commerce in international forums is that infrastructure is weak in developing countries, and the access to infrastructure such as telephone connectivity or broadband is low and uneven. For example, according to the International Telecommunication Union (ITU), India had an unconnected population of 660 million with broadband penetration being merely 16.8 per cent in 2016. Only 1.4 per cent Indians had a fixed broadband connection, while 29.5 per cent individuals used the internet.¹¹

Since e-commerce trade is dependent on the regulatory environment, and different regulatory environments of different countries can be a trade barrier, countries have tried to harmonise regulations or recognise best practices in multiple forums through model guidelines, voluntary codes of conduct, etc. For example, during the OECD's Ministerial Conference titled, "A Borderless World: Realising the Potential of Global Electronic Commerce", which took place in Ottawa in October 1998, the Committee of Fiscal Affairs of OECD and its participating countries concluded that the taxation principles that guide governments in relation to conventional commerce such as neutrality, efficiency, certainty and simplicity, effectiveness and fairness, and flexibility should also be applicable to e-commerce.¹²

The OECD Council adopted the international instrument for Consumer Protection in the Context of Electronic Commerce ("1999 Recommendation"). Twenty-eight countries had signed on the guideline in March 2000. It sets out the principles for voluntary codes of conduct for businesses involved in e-commerce, offers guidance to governments in evaluating their consumer protection laws regarding e-commerce, and gives consumers advice about what to expect and what to look for when shopping online. The guidelines were revised on March 24, 2016.¹³

The United Nations Commission for International Trade Laws (UNCITRAL) came up with model laws such as the Model Law on Electronic Commerce (1996) and Model Law on Electronic Signatures (2001) to harmonise regulations across countries and ensure that e-commerce does not

¹¹ Source: <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (accessed on January 16, 2018)

¹² Source: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=sg/ec\(98\)14/final](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=sg/ec(98)14/final) (accessed on January 17, 2018)

¹³ Source: <https://www.oecd.org/sti/consumer/ECommerce-Recommendation-2016.pdf> (accessed on January 17, 2018)

face discrimination. For example, the UNCITRAL Model Law on Electronic Signatures (2001) aimed to enable and facilitate the use of electronic signatures by establishing criteria for the equivalence between electronic and hand-written signatures. At present, the law has been adopted by 33 countries including India, China, the US and the United Kingdom (UK).¹⁴ Thus, there have been efforts to have a predictable regime that supports growth of e-commerce and trade through several international platforms.

While there are efforts made to harmonise regulations and have international best practices, a core concern of developing countries is that they should have the policy space to promote national digital industrial development, give subsidies, offer tax benefits to domestic companies, protect infant industries, and have the right to use local content requirements, especially if their companies cannot compete with global multinationals from developed countries such as the US. They have expressed concerns that WTO rules may undermine their ability to regulate and support the growth of domestic industry.¹⁵

In spite of these challenges, developing countries such as India are some of the fastest growing markets for e-commerce. The Indian e-commerce market is projected to grow by 31 per cent by 2020 over the current value (KPMG, 2016), fuelled by factors such as the rise in middle class consumers, falling prices of telephones and internet connectivity, emergence of start-up businesses, increased employment and investment in the sector, and government support in promoting digitisation. Small and medium enterprises (SMEs) have been able to access the global market through e-commerce, and studies have found that the costs of accessing global markets through e-commerce are lower than that of traditional commerce, which involves a large number of intermediaries (for example, see Gunasekaran et al., 2010; Grandon and Pearson, 2004; Simpson and Docherty, 2004). India has developed as an IT/Information Technology enabled Services (ITeS) business process outsourcing hub, and is a proponent of liberalisation of Mode 1 services trade (services supplied from the territory of one member into the territory of another member) in the WTO, and in its bilateral and regional trade agreements. Recently, India proposed an Agreement on Trade Facilitation in Services in the WTO.

India is actively engaged in bilateral and regional trade agreements such as the RCEP, and e-commerce is a key component of such agreements. However, India has expressed concerns over participating in e-commerce discussions in the WTO. In November 2017, India submitted a formal document to the WTO¹⁶ opposing any negotiations on e-commerce. It stated that it would continue to work under the WTO's work programme, but would not participate in any negotiations related to opening cross-border digital trade. According to some studies in India (for example, see Gupta, 2017; Ram, 2017), India is not yet ready to

¹⁴ Source: http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2001Model_status.html (accessed on January 29, 2018)

¹⁵ Statement by the African Group (WT/MIN(17)/21). Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/21.pdf> (accessed on January 19, 2018)

¹⁶ JOB/GC/153: Draft Ministerial Decision on Electronic Commerce – Communication from India. Available at https://docs.wto.org/dol2fe/Pages/FE_Search/DDFDocuments/240274/q/Jobs/GC/153.pdf (accessed on January 16, 2018)

negotiate e-commerce in the WTO because domestic policies are still evolving, and the negotiations can adversely affect the ability of the government to promote domestic industry. Given this background, *the objective of this paper is to understand (a) the growth of the e-commerce sector in India, (b) the regulatory regime and policy incentives and the gaps in regulations if any, (c) developments in the WTO, and (d) the issues that India faces or is likely to face, and based on these, make policy recommendations on what India's strategy in the WTO should be.* The paper is based on a review of secondary literature; review of communications, proposals, meeting notes, etc., in the WTO; and one-on-one meetings with industry, sector experts and academicians on what the issues faced by this sector are, the issues that are likely to arise if India wants to sit for the e-commerce negotiations in the WTO, and what the country's strategy in the WTO should be.

The layout of the paper is as follows. The next section – Section 2 – provides an overview of the e-commerce sector in India, selected policies/regulations affecting this sector, and policy incentives to promote the growth of the sector in India. Section 3 examines the discussions on e-commerce in the WTO, and how the discussions are moving towards a rule based system that can facilitate e-commerce trade. Section 4 covers India's representation and position regarding e-commerce in the WTO. The last section – Section 5 – discusses the issues and concerns for India, how India can improve its domestic capabilities, and what its strategy in the WTO should be.

2. E-commerce Sector in India

Although China is the largest market for e-commerce globally, India is the fastest growing one.¹⁷ The number of internet users in India increased from 170 million in 2013 to 330 million in 2016, and is expected to rise to approximately 700 million by 2021. The percentage of internet users solely on mobile devices increased from 52 per cent in 2014 to 73 per cent in 2016 (Boston Consulting Group and Retailers Association of India, 2017). Out of the 830 million young people who are online worldwide, 39 per cent are in China and India (2017 estimates).¹⁸

The rise in the number of internet users especially among the young population and in the middle class segment, increased digital literacy, rising smartphone penetration and falling data usage charges, growing acceptability and ease of online payments, availability of various government services online (such as electronic filing of taxes), and the proliferation of internet-enabled devices are the key factors driving the growth of e-commerce in the country across all business verticals (such as travel, real estate, fashion, health, entertainment, and education).

¹⁷ Source: http://unctad.org/es/paginas/newsdetails.aspx?OriginalVersionID=1281&Sitemap_x0020_Taxonomy=Information%20and%20Communication%20 (accessed on January 2, 2018)

¹⁸ Source: <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf> (accessed on December 29, 2017)

In India, there is no official data available on the e-commerce market or cross-country trade in e-commerce. A number of consultancy and industry associations have provided current and future estimates of this sector, which vary but show high growth (see Table 2).

Table 2: E-commerce Market in India: Present Size and Projections

Organisation	Size of the Market (in 2016)	Estimated Size of the Market in 2020
KPMG (2016)	USD 27.5 billion	USD 80 billion
India Brand Equity Foundation (2017)	USD 15 billion	USD 64 billion
Confederation of Indian Industry (CII) (2016)	NA*	USD 100 billion
Boston Consulting Group and Retailers Association of India (2015)	USD 16-17 billion (in 2014)	USD 60-70 billion (in 2019)
Federation of Indian Chambers of Commerce and Industry (FICCI) (2017)	NA*	USD 100 billion

Source: Compiled from different industry reports

*not available

By segments, in 2016, the online travel segment (including travel and e-ticketing websites) was the largest segment and comprised about 61 per cent of the e-commerce industry in India. E-commerce retailing was the second largest segment (with a share of 25 per cent), followed by the financial services and classified segments, job searches and online matrimony, which together contributed to about 15 per cent of the market by value. The e-retail market in India is the fastest growing market, and the share of online retail in the total retail market is expected to rise from 2.5 per cent in 2016 to 5 per cent by 2020 (KPMG, 2016). This growth is being driven by factors such as increased internet penetration and smartphones, focus on advertising, ease of shopping for customers, innovative payment options, deals and discounts, and rapidly changing lifestyle needs marked by an increasingly young consumer population. As per the estimates by the Confederation of Indian Industry (CII), the number of online shoppers in India was 39 million in 2015; this is expected to reach approximately 220 million by 2020 (CII, 2016). In terms of digital modes of payments, while the penetration is low, there has been substantial traction. As per the data by the Reserve Bank of India (RBI), approximately 278 million point of sales¹⁹ transactions were made on debit cards and 123 million on credit cards in October 2017.²⁰

In recent years, start-ups have emerged in areas such as e-retailing (Flipkart, Snapdeal, Fashion andYou), credit lending (Faircent), food delivery services (Swiggy.com, Fresh to Home, ID Fresh Food), and logistics management services (FarEye, Unbxd). According to NASSCOM and Zinnov Management Consulting (2017), aggregators in e-commerce are receiving substantial funding from investors, which is leading to the growth and scaling up of start-ups. The growth of the e-commerce sector has also driven the growth of third party

¹⁹ Point of sales transactions in the context above refer to transactions that involve swiping of a debit or credit card on the card reader to make payments.

²⁰ Source: <https://rbi.org.in/scripts/atmview.aspx> (accessed on January 2, 2018)

logistics companies (for example, House of Patel, VRL Group, Transport Corporation of India Limited, Gati Limited, DTDC India, and DHL Express) which provide services (such as warehousing, inventory, packing, shipping, and tracking) for customised last-mile deliveries.

Although the sector is growing and is projected to grow at a fast pace, studies have highlighted certain concerns. The B2C e-commerce market is driven by stiff price competition (large discounts are offered by different online retailers such as Snapdeal, Flipkart, and Amazon.com Incorporated) and payments are largely made on a cash-on-delivery basis. Companies find it difficult to retain customers (for example, see Srinivasan et al., 2002; Gefen and Straub, 2004). Moreover, India lags far behind countries such as China, Brazil, the US, and the UK in key information and communication technology indicators (see Table 3).

Table 3: Information and Communication Technology Indicators (2015)

Indicator	India	US	UK	China	Brazil
Active mobile-broadband subscriptions per 100 inhabitants	9.36	99.225	87.79	56.03	88.62
Fixed broadband subscriptions per 100 inhabitants	1.34	31.53	37.72	18.56	12.23
Fixed broadband Internet tariffs (USD per month)	24.03	16.32	12.68	31.91	16.62
Internet users (per 100 people)	26	74.55	92	50.3	59.08
Debit card used in the past year for direct payments (% age respondents aged 15+)	10.67	76.23	96.37	48.56	59.16
Credit card used in the past year for direct payments (% age respondents aged 15+)	3.36	60.13	61.69	15.83	32.05
B2C Internet use (on a scale of 1-7, where 1=not at all and 7=to a great extent)	4.2	6.3	6.4	5.3	5.0

Source: WITS and ITU. Accessible at <https://wits.worldbank.org/analyticaldata/e-trade/country/IND#section3> (accessed on January 2, 2017)

In terms of international trade, there is no data on trade in e-commerce in India. E-commerce trade encompasses both IT goods and digitally trade services. According to ASSOCHAM and NEC Technologies India Private Limited (2017), the demand for electronic products in India is expected to grow at a CAGR of 41 per cent during 2017-2020 to reach USD400 billion by 2020. Domestic production, which was growing at a CAGR of 27 per cent in 2017, may reach USD104 billion, leaving a gap of approximately USD300 billion, which has to be covered by imports.

2.1 Government Policies, Acts, and Laws Regulating E-commerce in India

In India, e-commerce is regulated by several government bodies, including the Department of Telecommunications (under the Ministry of Communications), the Ministry of Electronics and Information Technology (MeitY), the Ministry of Information and Broadcasting, the Ministry of Finance, the Reserve Bank of India (RBI), and the Ministry of Commerce and Industry. In addition to the policies enacted by various ministries, the telecommunications regulatory body in India, Telecom Regulatory Authority of India (TRAI), regulates

telecommunication services in India, including fixation/revision of tariffs for telecommunication services.

There are several acts and laws that regulate the e-commerce sector. The type of regulations that affect an e-commerce company depends on its business model and type of offerings. As mentioned earlier, an e-commerce company can have a marketplace based or inventory based business model, it can offer payment and financial services, or it can be a digital platform for audio-visual services, etc. Some of the regulations such as those on electronic contracts can be applicable to all e-commerce companies, while other regulations (such as those related to copyright of online movies) may be applicable to only those who have such offerings. Some of the e-commerce regulations are discussed below.

The Indian Information Technology Act, 2000, along with the amended Information Technology Act, 2008, aims to promote e-commerce by granting legal recognition to e-commerce transactions, electronic records, digital signatures, electronic fund transfers between banks and financial institutions, etc. It facilitates filing and acceptance of digitally signed documents by the government. However, this Act in itself cannot cover all governance issues. It covers some issues, while for others there are other regulations. For example, electronic contracts are governed by Indian Contract Act, 1872, and Section 10 of IT (Amendment) Act, 2008,²¹ while much of the payment issues are addressed through RBI regulations and guidelines.

Intellectual Property Rights (IPRs) are constantly generated on e-commerce platforms in the form of updated technology, software, design and branding, etc. For this, patents are granted under the Patents Act, 1970, and the Patents (Amendment) Rules, 2006. An e-commerce company's trademark is registered as per the rules provided by the Trade Marks Act, 1999.²² Copyrights in India are granted under the Copyright Act, 1957, and Copyright (Amendment) Act, 2012. Electronic payments and online money transfers are also sought to be made easy under the Payment and Settlement Systems Act, 2007.

The Consumer Protection Act, 1986, was enacted to redress consumer grievances, promote and protect the interests of consumers against deficiencies and defects in goods or services, and to secure consumer rights against unfair trade practices. However, the Act is outdated and does not protect consumers against purchases through non-store retail formats. To overcome this hurdle, the Consumer Protection Bill of 2018 was introduced in the Lok Sabha on January 5, 2018, to replace the existing Act of 1986. According to the Bill, "e-commerce" means buying or selling of goods or services, including digital products, over a digital or electronic network. In order to prevent unfair trade practices in e-commerce, the Bill empowers the central government to take measures in the manner as may be prescribed to protect the interest and rights of consumers.²³

²¹ Source: <http://www.eprocurement.gov.in/news/Act2008.pdf> (accessed on January 18, 2018)

²² Source: <http://lawmin.nic.in/ld/P-ACT/1999/A1999-47.pdf> (accessed on January 22, 2018)

²³ Source: <http://www.prsindia.org/uploads/media/Consumer%20Protection,%202018/Consumer%20Protection%20Bill,%202018.pdf> (accessed on January 18, 2018)

India has incorporated uniform principles of alternative dispute resolution (ADR) in the Arbitration and Conciliation Act, 1996,²⁴ (amended in the year 2015²⁵). The Arbitration Act provides for alternative dispute resolution mechanisms like arbitration, conciliations, etc., for national and international stakeholders.

The Department of Electronics & Information Technology (DeitY) under the MeitY has taken many initiatives to promote and foster the adoption of Open Source Software (OSS) which has various advantages such as increasing interoperability, developing local capacity, reducing costs, achieving vendor independence, enabling localisation, and reducing piracy/copyright infringements.²⁶ The National Policy on Information Technology, 2012, also mentions its objective to adopt “*open standards and promote open source and open technologies*”.²⁷ The Policy on Adoption of Open Source Software for Government of India was released in 2015 to encourage the formal adoption and use of OSS in government organisations. Its core objectives are to provide a policy framework for the rapid and effective adoption of OSS, to ensure strategic control in e-Governance applications and systems from a long-term perspective, and to reduce the cost of ownership of projects.²⁸

The MeitY came up with a draft Internet of Things (IoT) policy in 2015 to create an IoT industry in India of USD15 billion by 2020, undertake capacity development (human and technology) for IoT specific skill-sets for the domestic and international markets, undertake research and development for all assisting technologies, and develop IoT products specific to Indian needs in all domains.²⁹ A revision of the draft was presented in 2016.³⁰ Among Indian states, Andhra Pradesh approved the policy on IoT to turn the state into an IoT hub by the year 2020.³¹

India’s cyber security policy (National Cyber Security Policy, 2013) served as a framework for defining all actions related to the security of cyberspace. It caters to the whole spectrum of Information and Communications Technology (ICT) users and providers, including home users, small, medium and large enterprises, and government and non-government entities. Its objectives are to create a secure cyber ecosystem in the country, generate adequate trust and confidence in IT systems and transactions in cyberspace, and enhance adoption of IT in all sectors of the economy. It also aims to strengthen the regulatory framework, provide fiscal benefits to businesses to adopt standard security practices and processes, and create a culture

²⁴ Source: <http://lawmin.nic.in/ld/P-ACT/1996/The%20Arbitration%20and%20Conciliation%20Act.%201996.pdf> (accessed on January 31, 2018)

²⁵ Source: <http://www.indiacode.nic.in/acts-in-pdf/2016/201603.pdf> (accessed on January 31, 2018)

²⁶ Source: <http://meity.gov.in/content/free-and-open-source-software> (accessed on January 30, 2018)

²⁷ Source: http://meity.gov.in/writereaddata/files/National_20IT_20Policyt%20_20.pdf (accessed on January 30, 2018)

²⁸ Source: http://meity.gov.in/writereaddata/files/policy_on_adoption_of_oss.pdf (accessed on January 30, 2018)

²⁹ Source: http://meity.gov.in/sites/upload_files/dit/files/Draft-IoT-Policy%20%281%29.pdf (accessed on January 30, 2018)

³⁰ Source: http://meity.gov.in/writereaddata/files/Revised-Draft-IoT-Policy_0.pdf (accessed on January 31, 2018)

³¹ Source: <https://timesofindia.indiatimes.com/city/vijayawada/Andhra-Pradesh-cabinet-okays-Internet-of-Things-IoT-policy/articleshow/51234273.cms> (accessed on January 30, 2018)

of cyber security and privacy, enabling responsible user behaviour and actions through an effective communication and promotion strategy.³²

The government's Policy on Open Standards for e-Governance, which has been effective since November 2010, provides a framework for the selection of standards to facilitate interoperability between systems developed by multiple agencies. It gives organisations the flexibility to select different hardware and software for implementing cost-effective e-governance solutions. Thus, it promotes technology choice, and avoids vendor lock-in. It aims to ensure reliable long-term accessibility to public documents and information. The policy aims to make specifications of the standards – including associated patents and extensions – accessible and royalty-free.³³

The National Policy on Universal Electronic Accessibility was approved by the Union Cabinet on October 3, 2013. This policy recognises the need to eliminate discrimination on the basis of disabilities as well as to facilitate equal access to electronics and ICTs. The policy facilitates equal and unhindered access to electronics, and ICT products and services by differently abled persons (both physically and mentally challenged) and to facilitate local language support to facilitate equal access.³⁴ The scope of the policy covers technological aspects including access to electronics and ICT products (both hardware and software), and services by differently abled persons in the areas of universal design, assistive technology, and independent living aids.³⁵

With regard to the adoption of services related to cloud computing in India, the government passed the cloud policy in 2014, which was coined the “Meghraj” Policy. The aim of the cloud policy is to formulate a comprehensive vision of a government cloud (GI Cloud) environment available for use by central and state government line departments, districts, and municipalities to accelerate their ICT-enabled service improvements.³⁶ In March 2017, the MeitY also released guidelines for government departments on contractual terms related to cloud services, highlighting key considerations that government departments need to be aware of when procuring cloud services.³⁷ Cloud computing system can be of help to departments, especially in handling a sudden rise in web traffic generated to access their websites, such as in the case of train ticket booking, form filling or tax submission on the last date, etc. The cloud policy will also strengthen the Right to Information Act, as data can be instantly made available against all queries raised.³⁸

³² Source: <http://meity.gov.in/content/national-cyber-security-policy-2013-0> (accessed on January 30, 2018)

³³ Source: <http://egovstandards.gov.in/sites/default/files/Policy%20on%20Open%20Standards%20for%20e-Governance.pdf> (accessed on January 30, 2018)

³⁴ Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=99845> (accessed on January 31, 2018)

³⁵ Source: <https://www.dnis.org/National-Policy-on-Universal-Electronics.pdf> (accessed on January 31, 2018)

³⁶ Source: <http://meity.gov.in/content/gi-cloud-initiative-meghraj> (accessed on January 31, 2018)

³⁷ Source: http://meity.gov.in/writereaddata/files/Guidelines-Contractual_Terms.pdf (accessed on January 31, 2018)

³⁸ Source: <http://www.thehindu.com/news/cities/mumbai/public-cloud-policy-aims-to-give-free-access-to-government-data/article22458979.ece> (accessed on January 31, 2018)

The Indian government is in favour of developing domestic manufacturing capabilities and reducing import dependence for IT goods and consumer durables. The National Manufacturing Policy (NMP), which was announced in November 2011, aimed to enhance the share of manufacturing in Gross Domestic Product (GDP) by 25 per cent within a decade and to create 100 million jobs. The policy is based on the principle of industrial growth in partnership with states.³⁹ In June 2017, the government issued Public Procurement (Preference to Make in India) Order, 2017, to promote manufacturing, and production of goods and services in India to enhance income and employment. As per this Order, purchase preference will be given to local suppliers in all procurements undertaken by procuring entities. The minimum local content will ordinarily be 50 per cent. However, the nodal ministry may prescribe a higher or lower percentage in respect of any particular item and may also prescribe the manner of calculation of local content. The margin of purchase preference will be 20 per cent.⁴⁰

To make India a global player in the field of electronic manufacturing, the Electronics Manufacturing Clusters (EMC) scheme was notified in October 2012 to provide support for creation of infrastructure to attract investments in the Electronics Systems Design and Manufacturing (ESDM) sector.⁴¹ The MeitY also notified the Preferential Market Access (PMA) policy in February 2012 to provide preference to domestically manufactured electronic and telecom products in government procurement for its own use while ensuring that no commercial resale is involved.⁴² It was seen as a policy designed to encourage domestic manufacturing and favour domestic firms. In the WTO, India is not a signatory to the Agreement on Government Procurement, but an observer.⁴³

In May 2016, the Union Cabinet approved the National Intellectual Property Rights Policy, which aims to present a holistic and predictable IPR regime that stimulates creativity and innovation across sectors, and facilitates a stable, transparent and service-oriented IPR administration in the country. The National IPR Policy announced that the Department of Industrial Policy and Promotion (DIPP) would serve as the nodal agency for all IPR-related matters, including copyright issues.⁴⁴ Other notable developments in 2016 included the streamlining of patent and trademark rules to simplify filings,⁴⁵ increasing the number of patent and trademark examiners, and establishing India's first state-level IPR crime unit in Telangana.⁴⁶

As a member of the WTO, India is a signatory to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which is an international legal agreement that sets

³⁹ Source: <http://dipp.nic.in/sites/default/files/po-ann4.pdf> (accessed on February 2, 2018)

⁴⁰ Source: http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf (accessed on February 2, 2018)

⁴¹ Source: <http://meity.gov.in/writereaddata/files/Notification-EMC-Gazette.pdf> (accessed on February 2, 2018)

⁴² Source: <http://www.dot.gov.in/sites/default/files/5-10-12.PDF> (accessed on February 2, 2018)

⁴³ Source: http://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm (accessed on February 2, 2018)

⁴⁴ Source: <http://dipp.nic.in/policies-rules-and-acts/policies/national-ipr-policy> (accessed on February 2, 2018)

⁴⁵ Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=158879> (accessed on February 2, 2018)

⁴⁶ Source: <http://www.thehindu.com/news/cities/Hyderabad/telangana-intellectual-property-crime-unit-to-get-cracking-to-combat-film-piracy/article8609441.ece> (accessed on February 2, 2018)

down minimum standards for the regulation by national governments of various intellectual properties. TRIPS also specifies enforcement procedures, remedies, and dispute resolution procedures. India is also a signatory to the Information Technology Agreement (ITA)-1, which requires each member to eliminate and bind customs duties at zero for all products specified in the Agreement (including computers, telecommunication equipment, semiconductors, semiconductor manufacturing and testing equipment, software, scientific instruments, etc.). India has signed many comprehensive trade agreements such as the ASEAN-India Free Trade Area (AIFTA), India-Singapore Comprehensive Economic Co-operation Agreement (CECA), India-Malaysia CECA, India-Japan Comprehensive Economic Partnership Agreement (CEPA) and India-Korea CEPA, but e-commerce trade rules have not been discussed in such agreements. However, e-commerce trade rules will be discussed under the RCEP and other agreements, the negotiations of which are on-going.

In terms of the foreign direct investment (FDI) policy, 100 per cent FDI under the automatic route is permitted in the marketplace model of e-commerce, but FDI is not permitted in the inventory based model of e-commerce.⁴⁷ Moreover, 100 per cent FDI is permitted in B2B e-commerce under the automatic route, and FDI is permitted in B2C e-commerce only under the following circumstances -

- i. A manufacturer is permitted to sell its products manufactured in India through e-commerce retail.
- ii. A single brand retail trading entity operating through brick-and-mortar stores is permitted to undertake retail trading through e-commerce.
- iii. An Indian manufacturer is permitted to sell its own single brand products through e-commerce retail. The Indian manufacturer would be the investee company, which is the owner of the Indian brand and which manufactures in India, in terms of value, at least 70 per cent of its products in-house, and sources, at most 30 per cent from Indian manufacturers.

In the telecom sector, 100 per cent FDI is allowed in manufacturing of telecom equipment in India. In the case of telecom services (including telecom infrastructure providers), 100 per cent FDI is allowed – automatic up to 49 per cent and by government route beyond 49 per cent. The sector has been liberalised in a phased manner – for example, in 2013, the 74 per cent FDI cap was eliminated and 100 per cent investment in the sector was allowed.⁴⁸

One of the core issues in taxing e-commerce is how to characterise income and what approach a country takes towards taxation – resident-based taxation approach or source-based taxation approach. The characterisation of income revolved around whether income earned with respect to the use or sale of goods (such as software or electronic databases) and sale of advertising space, etc., is royalty, business income, or capital gains. In India, a resident-based taxation system is followed – persons/companies are taxed if they are residents or domiciled

⁴⁷ Source: http://dipp.nic.in/sites/default/files/pn3_2016_0.pdf (accessed on January 11, 2018)

⁴⁸ Source: http://dot.gov.in/sites/default/files/pn6_2013.pdf (accessed on February 2, 2018)

in the country, regardless of the source of income. If the company is registered in India or if its effective management is in India, it will be taxed in India, regardless of whether the income is earned in India or from other countries.⁴⁹ Some studies have shown that the characterisation of income by Indian tax authorities is not in consonance with international principles and best practices (Bhutani, 2011). In some cases such as royalty, the Indian definition is wider than the internationally accepted definition.

There are also issues related to the definition and classification of a permanent establishment (PE) in India. A PE is a fixed place of business that generally gives rise to income or value-added tax liability in a particular jurisdiction. According to the definition of a PE, in order to extract a business's tax from a particular jurisdiction, the business premise has to be physically present in the jurisdiction and business must be carried out from there. However, determination of jurisdiction is difficult when business is carried out electronically. The online servers in e-commerce transactions can be accessed by customers in any country, and, therefore, these servers cannot be said to constitute a PE (Panigrahi and Sarangi, 2016).

In terms of indirect taxes, in July 2017, India moved from a multilayered tax system to a single Goods and Services Tax (GST). The implementation of GST is expected to benefit the sector by removing multilayered and cascading taxes and by simplifying the tax structure. It is expected that GST will help e-commerce companies to move to the cost efficient, demand-based hub-and-spoke model used globally, and will lead to modernisation within the firm, especially in terms of IT-enabled management systems (for example, in warehousing, transportation, etc.). However, at present, there are some issues regarding state wise registration, multiple GST rates, small and mid-sized companies finding it difficult to register, etc. GST is still evolving and it is expected that some of the issues will be addressed in the near future (Sehrawat and Dhanda, 2015; Lourdunathan and Xavier, 2017).

Overall, India has a fairly robust regulatory framework that has supported the fast growth of e-commerce. There are some concerns and/or gaps in regulations and policies. For example, India does not allow FDI in the inventory-based model for e-commerce, which has compelled global e-commerce companies such as Amazon.com, Incorporated to change its business model in India. Further, some studies have highlighted that IPR issues (such as use of third party content on the website, use of hyperlinking, deep linking framing, and meta tagging), related to domain names, issues related to system security, junk mail, and spamming are not adequately addressed under the IT Act 2000 and the IT (Amendment) Act 2008 (PricewaterhouseCoopers, 2017).

2.2 Government Initiatives and Programmes to Promote E-commerce in India

As mentioned earlier, the growth of e-commerce in India is supported by the government's push towards digitisation of the economy, and the introduction of policies and initiatives to promote e-commerce growth. Some of the initiatives are mentioned in Box 1. Government support for digitisation has been of two kinds:

⁴⁹ Source: <https://www.oecd.org/tax/automatic-exchange/crs-implementation-and-assistance/tax-residency/India-Tax-residency.pdf> (accessed on January 31, 2018)

- a) Direct e-governance initiatives such as such as the universal biometric identification system (Aadhaar), various flagship initiatives under the Digital India campaign (to ensure that all government services are made available to citizens electronically), Startup India, and Make in India (for details, see Box 1).
- b) Other measures for financial inclusion, easier payment of taxes, and promotion of electronic payments, which would indirectly promote the growth of e-commerce (initiatives such as demonetisation, which led to an increase in the use of electronic modes of payment, Pradhan Mantri Jan Dhan Yojana for financial inclusion, and the introduction of GST to benefit the e-commerce sector by removing multilayered and cascading taxes and by simplifying the tax structure).

Box 1: Selected Government Initiatives to Promote E-commerce

1. Digital India

The Digital India programme is a flagship programme of the Government of India which was launched in July 2015 and aims to transform India into a digitally empowered society and knowledge economy. The Digital India programme is based on three key vision areas

- Digital infrastructure as a core utility to every citizen
- Governance and services on demand
- Digital empowerment of citizens

Under these visions, there are various programmes which have been undertaken such as the single window interface for trade (SWIFT), rapid assessment system to receive continuous feedback on e-services provided by the government, mobile seva app store to provide e-services through mobile devices, promoting a paperless economy through reserving e-tickets on mobile devices, UMANG application for facilitation of a single point of access to all government services, etc.⁵⁰ The government has taken initiatives to provide high speed internet as a utility to facilitate the delivery of many such online services.

2. Make in India

The Make in India initiative was launched in September 2014 by the Prime Minister of India to transform India into a global design and manufacturing hub and to reduce dependence on imports of goods such as electronic goods.⁵¹

3. Startup India

Startup India was launched in 2016, and was intended to build a strong eco-system for

⁵⁰ Source: <http://www.digitalindia.gov.in/rural> (accessed on January 10, 2018)

⁵¹ Source: www.makeinindia.com/about (accessed on January 10, 2018)

nurturing innovation and start-ups in the country to drive sustainable economic growth and generate large scale employment opportunities. In order to serve as a single platform for start-ups to interact with the government and regulatory bodies, a mobile application was introduced to provide on-the-go accessibility for registration with relevant agencies, filing for compliances, and obtaining information on various approvals required.

It also provides firms with access to high quality IPR services such as examination of patent applications and assistance in filing, and rebate in fees. In addition, investors in start-ups are provided with tax exemption on capital gains to encourage investments, and the start up in itself is provided with tax exemption on profits for a period of three years.⁵²

To attract investments in electronic manufacturing (both existing and new units), the Modified Special Incentive Package Scheme (M-SIPS) was notified in July 2012. The scheme provides a capital subsidy of 20 per cent in special economic zones (SEZs) (25 per cent in non-SEZs) for units engaged in electronics manufacturing for various electronic verticals, including nano-electronic products, semiconductor wafering, microprocessors, and chip components.⁵³ This scheme was amended in 2012, 2013 and 2017 to add more verticals under it.⁵⁴

The Indian government supports export of goods and services through e-commerce platforms. As per the Foreign Trade Policy (FTP) 2015-2020, there are incentives provided under the Merchandise Export from India Scheme (MEIS) to encourage e-commerce exports of handloom products, books, leather footwear, toys and fashion garments having free-on-board value up to INR25,000 per consignment and transacted through an e-commerce platform (and paid for through an international debit or credit card). For value of exports using an e-commerce platform exceeding INR25,000, the MEIS incentive would be limited to free-on-board value of INR25,000. The incentives are in the form of freely transferable duty credit scripts (that give duty benefits for imports of inputs/import of goods including capital goods/domestic procurement of inputs and goods including capital goods, etc.).⁵⁵

The Indian software and ITeS industry has benefited from two major schemes – the SEZ⁵⁶ and Software Technology Parks (STPs) schemes. The SEZ Act was enacted in 2005 to provide an internationally competitive and hassle free environment for exports along with income tax exemptions. As on February 16, 2017, out of 411 SEZs that were formally approved, 263 were in the IT/ITeS/electronic hardware/telecom equipment sector and, out of 206 operational SEZs, 117 were in the IT/ITeS/electronic hardware/telecom equipment sector. There are some IT/ITeS SEZs present in multi-product and multi-service SEZs, and

⁵² Source: https://startupindia.gov.in/pdf/file.php?title=Startup%20India%20Action%20Plan&type=Action&q=Action%20Plan.pdf&content_type=Action&submenupoint=action (accessed on January 10, 2018)

⁵³ Source: <http://meity.gov.in/writereaddata/files/MSIPS%20Notification.pdf> (accessed on February 2, 2018)

⁵⁴ Source: <http://meity.gov.in/esdm/incentive-schemes> (accessed on February 2, 2018)

⁵⁵ Source: <http://dgft.gov.in/Exim/2000/FTP-2017/ftp17-051217.pdf> (accessed on January 19, 2018)

⁵⁶ An SEZ is defined as a "specifically demarked duty-free enclave and shall deemed to be foreign territory (out of customs jurisdiction) for the purpose of trade operations and duties and tariffs".

recently, the country has begun to develop SEZs in the gaming and animation sector.⁵⁷ The STP scheme, which is a 100 per cent export-oriented scheme, has also been successful in fostering the growth of the software industry in India.⁵⁸

3. E-commerce and the WTO

The WTO is the exclusive forum for negotiating and enforcing global rules governing cross-border trade in goods and services. Studies have shown that the rule-based system covering goods, services, and IPRs can help ensure a predictable and transparent trade regime for e-commerce (Wunsch-Vincent and McIntosh, 2005), and that it is not easy for member countries to roll back from commitments undertaken in the WTO.

In September 1998, the work programme on electronic commerce was adopted by the General Council of the WTO. This work programme was largely exploratory in nature, focusing on examining all trade issues relating to global e-commerce, taking into account the economic, financial and development needs of developing countries. Since e-commerce is a cross-cutting issue covering goods, services, IPR, etc., the Council for Trade in Services was given the responsibility to examine and report on the treatment of e-commerce in the GATS legal framework. The Council of Trade in Goods looked into issues such as market access for products related to e-commerce, classification issues, rules of origin and custom duties and other charges as designed under Article II of GATT, 1994. The Council for Trade-Related Aspects of Intellectual Property Rights (TRIPS) was responsible for examining IPR issues such as protection and enforcement of copyright and related rights, protection and enforcement of trademarks, etc. The Committee for Trade and Development was given the responsibility to examine and report on the development implications of e-commerce, taking into account the economic, financial and development needs of developing countries. These covered issues such as the effects of e-commerce on SMEs, and the challenges to and ways of enhancing participation by developing countries in e-commerce.

Under the work programme on electronic commerce, WTO members agreed to continue their practice of not imposing custom duties on electronic transmissions.⁵⁹ The latter, also known as “moratorium on customs duties”, has since then been renewed regularly at each Ministerial Conference. This decision covers only electronic transmissions (i.e., goods ordered online but imported through normal trade channels are excluded) and hence, the bulk of the value of such e-commerce is likely to be services.

In the initial stages of the work programme on electronic commerce, the Council of Trade in Goods, Council of Trade in Services, Council for TRIPS, and the Committee for Trade and Development prepared background papers; WTO member countries also submitted papers.⁶⁰ They met several times to discuss different issues related to e-commerce trade. The areas in

⁵⁷ Source: [http://www.sezindia.nic.in/upload/uploadfiles/files/3StatewiseDistribution-SEZ\(1\).pdf](http://www.sezindia.nic.in/upload/uploadfiles/files/3StatewiseDistribution-SEZ(1).pdf) (accessed on March 6, 2018)

⁵⁸ Source: <http://meity.gov.in/content/export-promotion-schemes#tab2> (accessed on February 2, 2018)

⁵⁹ Source: https://www.wto.org/english/tratop_e/inftec_e/inftec_e.htm (accessed on January 19, 2018)

⁶⁰ Source: <https://docsonline.wto.org/dol2fe/Pages/FormerScriptedSearch/directdoc.aspx?DDFDocuments/t/WT/L/274.DOC> (accessed on January 19, 2018)

which WTO members could not reach a consensus included classification of digital products (such as music, e-books, etc.) as goods or services, and extension of the moratorium on custom duties on electronic transmission because of concerns related to revenue losses raised especially by developing countries.

It is worth noting that during the late 1990s, a number of WTO member countries had undertaken substantial reforms and liberalisation of telecommunication, financial services, and computer-related services sectors but may not have bound their regime in the Uruguay Round. Some countries such as India have even taken forward-looking commitments in the telecommunications sector. The WTO Reference Paper on the Regulatory Framework for Basic Telecommunication Services provided a framework to guarantee non-discriminatory access to telecommunication services and regulatory synergy across member countries.⁶¹ In December 1996, the ITA was concluded at the Singapore Ministerial Conference with 29 WTO member countries including India committing to eliminate tariffs on a number of IT products. Now the numbers of WTO ITA participants are over 80,⁶² and a number of newly acceding countries have joined the agreement.

Since 1997, the products covered under ITA did not increase in number despite the development of the IT sector. For this reason, six ITA members (EU, US, Japan, Korea, Taiwan and Costa Rica) entered into negotiations in 2012 for an ITA expansion (known as ITA II) in terms of product coverage. Subsequently, between 2012 and 2015, negotiations took place, which were concluded successfully and agreed upon at the 10th Ministerial Conference of the WTO in Nairobi in December 2015. The ITA expansion covered about 9-13 per cent of current world trade with around 90 per cent of trade in these products taking place among ITA members.⁶³ However, India did not sign ITA II.

In November 2001, when the Doha Development Agenda (the Doha Round) was launched, it provided a platform to make new commitments and draft new obligations to facilitate e-commerce trade. The agenda for the first discussion listed topics on classification of content of certain electronic transmissions, development related issues, fiscal implication of e-commerce, and jurisdiction.⁶⁴ However, between 2001 and 2003, the discussion did not move forward and the work programme stagnated. The WTO work programme during this period has been driven primarily by communications from a few developed countries such as the US, Australia, the European Commission (EC), and Japan. For example, the EC filed a proposal on classification of digital goods as services under GATS,⁶⁵ while the US proposed that the WTO members agree to adhere to an open and liberal trade environment on e-

⁶¹ Source: https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm (accessed on January 19, 2018)

⁶² Source: https://www.wto.org/english/tratop_e/inftec_e/inftec_e.htm (accessed on January 24, 2018)

⁶³ Source: https://www.wto.org/english/news_e/news16_e/ita_20apr16_e.htm (accessed on January 24, 2018)

⁶⁴ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/GC/W436.pdf> (accessed on January 19, 2018)

⁶⁵ Source: WT/GC/W/497. https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=93382,102538,56745,8056,6668,69256,40475,23411,19400,21093&CurrentCatalogueIdIndex=4&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 19, 2018)

commerce. It urged member countries to implement reforms in areas such as telecommunications, financial services, and distribution and delivery services to stimulate e-commerce; make commitments to greater market access and national treatment; ensure that domestic regulation is transparent and non-discriminatory; and accept as permanent on a most favoured nation (MFN) basis the moratorium on customs duties on electronic transmission. The US proposal recognised the need to provide technical assistance and capacity building to developing countries on e-commerce infrastructure and other requirements for e-commerce.⁶⁶

Some developing countries including Egypt, India, Cuba, Argentina and Venezuela made written submissions to the work programme, but on the whole, the participation of developing countries in terms of written submissions was moderate and of least developed countries, almost non-existent. The core concern of many developing countries was that they should have the policy space to promote national digital industrial development, give subsidies, offer tax benefits, protect infant industry, and have the right to use local content requirements.

Developed countries such as the US and EU have fairly robust consumer protection and data security regulations. Some of them are still working on taxation issues. However, in a number of developing countries, the growth of e-commerce has led to significant legal and regulatory challenges, and their existing laws may be outdated and/or they may not have new regulations to support new technologies such as cloud computing. E-commerce requires legal protection of and regulations on a wide range of issues including the legal validity of e-transactions, security, privacy and data protection, junk mail and spamming, content regulation, IPRs, validity of e-contracts and online payments, taxation of e-transactions, intermediary liability, and consumer protection which is often difficult for a single regulation to cover.⁶⁷ Developing countries have expressed concerns about their capabilities to implement new regulations at a pace fast enough to keep up with technological changes. A number of new services have evolved in the context of e-commerce, and there are differences among countries on whether electronically traded services should be classified under Mode 1 or Mode 2. Due to such differences in views across countries, discussions did not move ahead with respect to the creation of a liberal trade environment for e-commerce; however, there was general consensus that e-commerce falls under the scope of the existing WTO agreements and no new trade rules should be created for e-commerce (for details see Wunsch-Vincent and McIntosh, 2005).

Between 2000 and 2010, a number of countries unilaterally reduced tariffs and/or entered into trade agreements that led to a reduction in tariffs on IT products. However, at the same time, the number of non-tariff measures or trade barriers related to standards, certification, regulation, etc., started increasing. In services too, as countries removed market access

⁶⁶ Source: WT/GC/W/493/Rev.1. https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=93382,102538,56745,8056,6668,69256,40475,23411,19400,21093&CurrentCatalogueIdIndex=3&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 19, 2018)

⁶⁷ Source: Ministerial Conference, Eleventh Session, Statement by the African Group. <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/21.pdf> (accessed on January 19, 2018)

restrictions by liberalising the FDI regime, stringent domestic regulations and regulatory barriers made it difficult to trade. Consequently, discussions in the WTO started focusing on non-tariff measures, regulatory synergies, non-discriminatory access, and transparencies, along with market access.

The slow progress in the Doha Round led to the proliferation of bilateral and regional trade agreements and commitments under these agreements, which are much better than the Uruguay Round commitments. The new age free trade agreements (FTAs) encompassing goods, services, investment, IPRs, trade facilitation, and customs co-operation also started to include provisions on e-commerce (see Wunsch-Vincent and Hold, 2012; Weber, 2015). In addition to market access, duty-free moratorium for digital products and equal treatment, many FTAs addressed issues such as authentication and certification of electronic signatures, e-certification and paperless trading, and consumer online and personal data protection. The US, in particular, started to push for free trade in e-commerce through its bilateral trade agreements, which increasingly had comprehensive rules and stronger commitments in the chapter on e-commerce. There is also a comprehensive chapter on e-commerce in Canada's agreement with countries such as Peru and Colombia (see Huang, 2017 and Commonwealth Secretariat, 2017).

Countries such as Australia and regions such as the Association of Southeast Asian Nations (ASEAN) also started focusing on e-commerce rules in their trade agreements. ASEAN member states are in the process of harmonising their domestic legislation on e-commerce under the e-ASEAN Framework Agreement of November 24, 2000.⁶⁸ The ASEAN Coordinating Committee on Electronic Commerce was set up in November 2016 and ASEAN is working towards an ASEAN Agreement on E-commerce, which will be a priority in Singapore's ASEAN 2018 Chairmanship.⁶⁹ In the Economic Partnership Agreement between the European Commission and the Caribbean Forum of the African, Caribbean and Pacific Group of States (CARIFORUM), which was signed on October 15, 2008, both sides laid down certain principles on issues such as classification of deliveries by electronic means as services, on which the WTO work programme was yet to reach a consensus. This agreement also has a provision for a dialogue on regulatory issues raised by e-commerce. The mega regional agreements such as TPP and TTIP have comprehensive provisions to facilitate e-commerce trade, which has been beyond the scope of discussions in the WTO's work programme. Like the US, China is a major exporter of e-commerce. However, China started to use FTAs to regulate e-commerce only in 2006. In 2015, the China-Australia⁷⁰ and China-Korea⁷¹ FTAs contained chapters dedicated to e-commerce. Unlike the US, China's FTAs do not offer solutions to classification of digital products and their treatment, and they have weak protection for consumers and privacy, but Chinese domestic law has converged towards the US FTA requirements, according to some recent studies (for example, see Huang, 2017).

⁶⁸ Source: http://asean.org/?static_post=e-asean-framework-agreement (accessed on January 24, 2018)

⁶⁹ Source: http://unctad.org/meetings/es/Presentation/dtl_eWeek2017p45_ChanKahMei_en.pdf (accessed on January 29, 2018)

⁷⁰ Source: <https://www.austrade.gov.au/Australian/Export/Free-Trade-Agreements/chafta> (accessed on January 25, 2018)

⁷¹ Source: <http://fta.mofcom.gov.cn/topic/enkorea.shtml> (accessed on January 25, 2018)

While e-commerce received significant attention in bilateral and regional agreements, some studies have expressed concerns about the possible negative effect of the creation of an e-commerce “spaghetti bowl” that may in future undermine the prospect of WTO rulemaking in this area (see Herman, 2010). Indeed, a multilateral rule-based system is much simpler and can have better participation of developing countries than regional and bilateral agreements. Therefore, a number of studies highlighted that it is in the interest of developing countries to actively participate in the WTO e-commerce work programme and e-commerce related Doha negotiations (Commonwealth Secretariat, 2017).

Since 2011, WTO members such as the US have expressed concerns about the slow progress on the work programme on electronic commerce, while e-commerce trade has increased due to innovative technologies and business models.⁷² On July 13, 2011, the EU and the US jointly presented a set of trade-related principles designed to support the expansion of ICT networks and services, and enhance the development of e-commerce. This received support from countries such as Australia, which proposed three additional ICT principles including online consumer protection, online personal data protection and unsolicited commercial electronic message (SPAM) to enhance consumer and business confidence.⁷³ The US emphasised that trade rules should support innovative advancement in computer applications and platforms. Developing countries including Cuba, Ecuador and Nicaragua submitted communication on effective participation of developing countries in e-commerce as a means to combat poverty. The idea of having a Working Group was mooted by November 2011 but most members felt that the work programme was sufficient to address the issues raised.⁷⁴

In October 2013, a group of WTO member countries tabled a paper, which contained details of a framework agreed among the group for negotiating the Trade in Services Agreement (TiSA).⁷⁵ Subsequently, TiSA negotiations were launched. This agreement is GATS plus. India is not a part of this plurilateral negotiation, which includes 23 members including the US, the EU, Australia, Canada, Japan, Hong Kong (China), Mexico, Chile and Pakistan.⁷⁶

On February 14, 2013, the Committee for Trade and Development came up with a background note on “Electronic Commerce Development and Small and Medium-sized Enterprises” which discussed how SMEs can benefit from e-commerce, and what are the infrastructure and policy issues (for example, bottlenecks in broadband supply, slow internet penetration, security concerns, lack of technical skills, inadequate legal protection for online purchases, etc.) that restrict SMEs from fully using e-commerce. Following this, a workshop

⁷² Source: https://www.wto.org/english/tratop_e/serv_e/wkshop_june13_e/w339_usa_e.doc (accessed on January 24, 2018)

⁷³ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=233802,233488,232753,232460,132053,129292,128885,115469,77941,92922&CurrentCatalogueIdIndex=9&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 24, 2018)

⁷⁴ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=103110,99241&CurrentCatalogueIdIndex=0&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 24, 2018)

⁷⁵ Source: WTO Documents Online. JOB/SERV/164/Rev.1

⁷⁶ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=121045&CurrentCatalogueIdIndex=0&FullTextHash=371857150 (accessed on January 24, 2018)

on E-commerce development and SME was held on April 8 and 9, 2013, where different stakeholders including international organisations, business, civil societies and academia participated.⁷⁷

While the WTO work programme may not have moved forward as expected, e-commerce issues have been raised and partly covered in other WTO negotiations. In December 2013, the WTO Members concluded negotiations on a plurilateral Trade Facilitation Agreement (TFA) at the Bali Ministerial Conference. This Agreement has some provisions relevant to e-commerce (for example, TFA Article 7.8 on expedited shipments).

It is also important to note that since 2010, a number of the WTO member countries have been trying to streamline their domestic e-commerce regime, which will enable them to get ready for a trade agreement on the subject (see Box 2 for examples of how selected countries/regions have been changing their regulations).

Box 2: Selected Countries/Regions Changing and Implementing E-commerce Regulations

1. CHINA: Since 2015, China has been revising its laws on trademarks, patents and IPRs (USTR, 2017). In 2016, China began drafting its e-commerce law (Draft E-Commerce Law of the People's Republic of China) to promote the continuous development of e-commerce in the country, regulate market order, and safeguard the legitimate rights and interests of entities engaged in e-commerce.⁷⁸ During this period, China also came up with measures on its ICT policy, which included provisions for indigenous innovative preferences (USTR, 2017). In November 2017, a second draft of the law was put forward, which included provisions on abiding by China's cyber security law regarding collection and storage of personal data.

2. THE EU: As part of its digital single market strategy, the European Commission on September 14, 2016, issued a package of proposals to update and reform EU rules related to copyright, which will help address issues relating to legal uncertainty for right holders and users of certain copyright protected works in a digital environment. In January 2016, a new Trademark Directive (2015/2436) entered into force. On April 1, 2016, the EU enacted the General Data Protection regulation, which will be effective from May 2018. The EU's eIDAS Regulation [Regulation (EU) No. 910/2014] on electronic identification and trust services for electronic transactions in the internal market was adopted in July 2014 and created one set of rules applicable to all EU member states. Apart from providing legal certainty and supporting the use of electronic identification, this regulation also provided

⁷⁷ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/DDFDDocuments/117618/q/WT/COMTD/W198.pdf (accessed on January 24, 2018)

⁷⁸ Source: http://www.ictplus.gr/files/PDF%20FILES/Draft_E_Commerce_Law.pdf (accessed on January 29, 2018)

baseline requirements allowing mutually recognised credentials to be accepted across borders.⁷⁹

3. THE US: The Marketplace Fairness Bill of 2017 was introduced in the US Senate in April 2017. It mandates states to require sellers to collect sales tax, regardless of whether a business has a physical presence within those states or not. As on March 6, 2018, the Bill had not been passed in the Senate.⁸⁰

4. AUSTRALIA: Australia amended its Electronic Transactions Act 1999 in June 2011 to make electronic transaction facilitation easier, promote business and community confidence in the use of electronic transactions, and enable business and the community to use electronic communications in their dealings with government.⁸¹

5. HONG KONG: Hong Kong (China) enacted the Electronic Transactions Ordinance in 2000 (updated in 2004) to facilitate the use of electronic transactions for commercial and other purposes, to provide for matters arising from and related to such use, and to make connections via technology easier.⁸² Moreover, there is no requirement under the Hong Kong law for a company to first set up a presence in Hong Kong for its online business before its services and products can be provided to people or businesses in Hong Kong.

6. NEW ZEALAND: In New Zealand, the Electronic Transactions Act, 2002, was the governing legislation to facilitate the use of electronic technology by reducing uncertainty regarding the legal effect of information in electronic form or information communicated electronically. In 2017, this Act was repealed by the Contract and Commercial Law Act, 2017, which incorporated all the provisions of the Electronic Transactions Act, 2002.⁸³

7. TAIWAN, PENGHU, KINMEN AND MATSU: In 2010, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu began to promote the establishment of the Personal Information Protection and Administration System (PIPAS) as well as the certification mark for that system, “Data Privacy Protection Mark, DP Mark.” In October 2012, they amended the Computer Processing Personal Information Protection Act into the Personal Information Protection Act (PIPA), which regulates the collection, processing and use of personal information in order to prevent the violation of personal rights and to facilitate the proper use of personal information. This Act was formally implemented from 2013 onwards. The Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu also created the “E-Commerce Development Taskforce” in 2014. It consists of deputy ministers

⁷⁹ Source: REGULATION (EU) No 910/2014. Available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0910&from=EN> (accessed on January 24, 2018)

⁸⁰ Source: <https://www.congress.gov/bill/115th-congress/senate-bill/976> (accessed on January 24, 2018)

⁸¹ Source: <https://www.legislation.gov.au/Details/C2011C00445> (accessed on January 24, 2018)

⁸² Source: <https://www.elegislation.gov.hk/hk/cap553> (accessed on January 24, 2018)

⁸³ Source: <http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/communications/e-commerce> (accessed on January 24, 2018)

of 15 related ministries and engages in cross-ministerial co-ordination, resource integration, and legal and regulatory adjustments. In 2014, the committee endorsed the “Action Plan on the Development of E-commerce,” since this would help make them a hub for e-commerce innovation and crowd funding. The task force, by collecting industry opinions in advance of adjusting and setting out policies, has also been exploring new online services and nurturing businesses that could carve out a niche in the virtual world as well as the physical one.⁸⁴

In the WTO in May 2014, the US indicated that it would prepare a formal submission to the work programme on e-commerce. The submission addressed cross-border data flows and localisation requirements, their trade implications, privacy concerns, as well as cloud computing. The communication from the US on December 17, 2014, clearly specified what governments should do or should not do regarding cross border information flows, localisation requirements, privacy protection, etc.⁸⁵ It also mentioned that cloud computing is covered under computer and related services (CPC 84). It is in essence a computer and related service, which is delivered to customers using the telecommunication network.

On July 4, 2016, the discussions on e-commerce developed further when the US put forward a non-paper,⁸⁶ which did not present any specific negotiating proposal but concentrated on new, comprehensive rules to liberalise e-commerce to enable it to contribute positively to a flourishing digital economy.⁸⁷ It included the prohibition of custom duties on digital products such as music, video and software; securing national treatment and MFN for digital products; removal of barriers to free flow of information and data; promotion of free and open Internet; removal of localisation requirements; and removal of requirements of forced technology transfer. It also mentioned faster and more transparent customs procedures, thus linking it to the provisions of the WTO Trade Facilitation Agreement, and how it can contribute to digital trade. Similar suggestions were also given by a group of countries led by Canada and the EU (9 members in total including Chile, Colombia and Mexico),⁸⁸ and by Japan.⁸⁹ For example, the joint paper by a group of countries, including Canada and the EU, mapped the e-commerce issues at the WTO under different categories such as regulatory framework (for

⁸⁴ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=132053&CurrentCatalogueIdIndex=0&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 25, 2018)

⁸⁵ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=129292,128589,127204,126879,126078,124972,124185,119666,77941,92922&CurrentCatalogueIdIndex=0&FullTextSearch= (accessed on January 24, 2018)

⁸⁶ A non-paper is a negotiating text circulated within a committee for discussion without committing the originating country to its contents.

⁸⁷ Source: Non-paper from the United States. Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:JOBS/GC/94.pdf> (accessed on January 25, 2018)

⁸⁸ The countries are Canada, Chile, Colombia, Côte d'Ivoire, the European Union, the Republic of Korea, Mexico, Paraguay and Singapore. JOB/GC/97/Rev.1. Available at https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=230326,230236,230198,230146,230128,230135,230094,229993,229772,43755&CurrentCatalogueIdIndex=4&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 29, 2018)

⁸⁹ Source: Non-paper from Japan. JOB/GC/100. Available at https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=234444,230236,230146,230135,230094,229772,109368,106846,44007,43123&CurrentCatalogueIdIndex=2&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 25, 2018)

example, enhance transparency and consumer confidence); open market (for example, liberalisation commitments under Mode 1, and elimination of tariff on goods); trade facilitation (for example, open network/access to and use of Internet); and enhanced transparency of the multilateral trading system. The non-paper by Japan pointed out that many of the issues raised were already covered by mandatory provisions under the e-commerce chapters of different regional trade agreements/free trade agreements. The non-paper from Brazil, dated July 20, 2016, pointed out that the key task of WTO members is a scoping exercise that will enable the identification of elements members believe should be part of their exchange of views and future WTO disciplines on e-commerce.⁹⁰ The non-paper from 9 countries including Singapore, Colombia, Israel, and Hong Kong (China), dated February 14, 2017, points out that e-commerce has supported development, and that the future potential for e-commerce utilisation by developing countries is tremendous. Therefore, it is important to identify and discuss issues such as trade facilitation and e-commerce, access to payment solutions, online security, and infrastructure gaps to enable e-commerce.⁹¹

The communication from China and Pakistan on November 16, 2016, listed measures that can be adopted to create a sound trade policy environment to facilitate cross-border e-commerce. It referred to exchange of information on regulatory measures, procedures such as those related to supplying services directly supporting cross-border e-commerce transactions, and other policies relevant to cross-border e-commerce such as consumer protection and privacy, publication of laws, regulations, and administrative measures, and inform the WTO of such publication sites, make available and update regularly the procedures for import and export of goods under cross-border e-commerce, and set up enquiry points.⁹² Overall, if one examines the communication from WTO members between July and November 2016, it is clear that a number of developed countries and many developing countries opined that e-commerce will support development; members were keen on more dedicated discussions on e-commerce, and they would like to engage in a more structured manner.⁹³

In 2017, many WTO members such as the Russian Federation presented proposals on how e-commerce should be taken forward in the WTO. The communication from the Russian Federation lists certain gaps with regard to e-commerce regulation in WTO agreements. These include among others network access, recognition of e-signature, e-payments, privacy, and personal data protection.⁹⁴

⁹⁰ Source: JOB/GC/98. Available at https://docs.wto.org/dol2fe/Pages/FE_Search/ExportFile.aspx?id=230094&filename=q/Jobs/GC/98.pdf (accessed on January 30, 2018)

⁹¹ Source: JOB/GC/117, JOB/CTG/5, JOB/SERV/249, JOB/IP/22, JOB/DEV/43. Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q/JOBs/GC/117.pdf> (accessed on January 30, 2018)

⁹² Source: JOB/GC/110/Rev.1, JOB/CTG/2/Rev.1, JOB/SERV/243/Rev.1, JOB/DEV/39/Rev.1. Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=r:/Jobs/GC/110R1.pdf> (accessed on January 30, 2018)

⁹³ Source: WT/GC/W/721. Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/GC/W721.pdf> (accessed on January 30, 2018)

⁹⁴ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=238906,237890,237829,237783,237711,237609,237614,237615,237604,237591&CurrentCatalogueIdIndex=6&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 30, 2018)

In the recent WTO Ministerial Conference in Buenos Aires, December 10-13, 2017, it was decided that the work programme on electronic commerce will continue on the basis of the existing mandate, and members agreed to maintain the current practice of not imposing custom duties on electronic transmissions until the next session, which is due to be held in July 2019.⁹⁵ A number of WTO member countries including India submitted communications in December 2017 just before the Ministerial Conference. The proposals cover a range of positions, including maintaining the current work programme, formulating dedicated discussions under the current work programme, establishing a new working group to consolidate all discussions on e-commerce, and establishing a working party with a mandate of future negotiations in trade rules in e-commerce. The proposals also expressed the varied positions of WTO members with respect to questions of a moratorium on customs duties for e-commerce. India decided to continue with the work under the work programme based on the existing mandate and guidelines in relevant WTO bodies.⁹⁶ The African Group of countries supported India's stand on continuing under the 1998 WTO work programme; they also objected to going beyond the current structure or institutional arrangement of the work programme.⁹⁷ China and Bangladesh also took the stand that discussions and negotiations should continue under the work programme.⁹⁸

Communication from Costa Rica, Hong Kong (China), Nigeria, Switzerland, Japan, and the separate customs territory of Taiwan, Penghu, Kinmen and Matsu (6 members) proposed the establishment of a working group on electronic commerce. This working group could assess whether the clarification or strengthening of existing WTO rules is necessary, assess the priority needs of developing countries (particularly least developed countries) relating to the development of infrastructure for e-commerce, enable technical assistance and capacity building, etc.⁹⁹ The Russian Federation also proposed the establishment of a working group on electronic commerce under the General Council, which will provide a forum for discussions on e-commerce issues and its development, including the possibility of developing international rules.¹⁰⁰

Communications from Australia, Canada, Chile, Colombia, the EU, Israel, Republic of Korea, Mexico, Montenegro, New Zealand, Norway, Paraguay, Peru, Former Yugoslav Republic of Macedonia, Republic of Moldova, and Ukraine (16 members) pushed for a Working Party on Electronic Commerce to prepare for and carry out negotiations on trade

⁹⁵ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/W6.pdf> (accessed on January 19, 2018)

⁹⁶ Source: JOB/GC/153: Draft Ministerial Decision on Electronic Commerce – Communication from India. Available at https://docs.wto.org/dol2fe/Pages/FE_Search/DDFDocuments/240274/q/Jobs/GC/153.pdf (accessed on January 16, 2018)

⁹⁷ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/21.pdf> (accessed on January 19, 2018)

⁹⁸ Source: China - <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/34.pdf>; Bangladesh - <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/29.pdf> (accessed on January 19, 2018)

⁹⁹ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/26.pdf> (accessed on January 19, 2018)

¹⁰⁰ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/35.pdf> (accessed on January 19, 2018)

related aspects of proposals related to e-commerce by WTO members. It was proposed that the Working Party have its first meeting by March 31, 2018, establish its own procedures and report periodically to the General Council. This communication also supported the on-going practice of not imposing customs duties on electronic goods until the next meeting of the Working Party in 2019.¹⁰¹

On December 13, 2017, delegations representing Albania, Argentina, Australia, Bahrain, Brazil, Brunei Darussalam, Cambodia, Canada, Chile, Colombia, Costa Rica, the EU, Guatemala, Hong Kong (China), Iceland, Israel, Japan, Kazakhstan, Republic of Korea, Kuwait, Lao PDR, Liechtenstein, Former Yugoslav Republic of Macedonia, Malaysia, Mexico, Republic of Moldova, Montenegro, Myanmar, New Zealand, Nigeria, Norway, Panama, Paraguay, Peru, Qatar, Russian Federation, Singapore, Switzerland, separate customs territory of Taiwan, Penghu, Kinmen and Matsu, Turkey, Ukraine, the US, and Uruguay (43 members, 71 countries) issued a joint statement on e-commerce that reaffirmed the importance of global e-commerce and the opportunities it creates for inclusive growth. They share the goal of advancing the e-commerce work in the WTO in order to better harness these opportunities to promote an open, transparent, non-discriminatory and predictable regulatory environment to facilitate e-commerce. They, as a group, will carry out exploratory work together on future WTO negotiations on trade related aspects of e-commerce.¹⁰² While all WTO members can participate, India and China were not a part of this joint statement.

4. E-commerce and the WTO: India's Position

As a member of the WTO, India has been actively participating in the e-commerce work programme, although communications from the country has not been as much when compared to its inputs in other areas such as the Council for Trade in Services, or when compared to communications from other developing countries.

In June 2001, India expressed its position as a proponent of e-commerce in the WTO General Council Meeting. The representative from India stated that the rapid expansion of e-commerce constituted a major opportunity for trade and development by helping developing countries and their enterprises reach new levels of international competitiveness, and participate more actively in the emerging global information economy. She also noted that the issues of electronic delivery of services falling within the scope of GATS, technological neutrality of GATS, and the application of all GATS provisions had already been set out in paragraph 4 of the March 31, 1999 report, and paragraphs 4 and 24 to 26 of the July 27, 1999 report of the GATS Council. Recognising that internet and e-commerce integrated domestic and global markets, and blurred the borders between domestic and trade policies, the representative pointed out that in the areas of domestic regulation, protection of privacy and public morals, and prevention of fraud, a balance should be maintained between WTO members' right to regulate, the need to ensure that domestic regulatory measures did not

¹⁰¹ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/15R1.pdf> (accessed on January 19, 2018)

¹⁰² Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/60.pdf> (accessed on January 19, 2018)

constitute unnecessary barriers to trade, and that transparency in their application was maintained.¹⁰³ The Indian representative also highlighted that international standardisation should be relevant to e-commerce, and that measures and procedures for the establishment and application of standards should not become trade barriers or an impediment to the competitive development, transfer and dissemination of technologies related to global information infrastructure. The global information infrastructure should allow interconnectivity and interoperability of domestic information communications structures, as any mismatch would indirectly breed monopolies and cartels in the global markets, and would restrict participation of entities from developing countries. Although the share of developing countries in global e-commerce was relatively small, India believed that this form of trade promised considerable potential benefits to economic development in developing countries, and hoped that discussions in the WTO can help developing countries realise this potential. India also strongly supported the intensification of work on the issues identified by both the WTO Committee on Trade and Development in Section E of its July 15, 1999 report, and the General Council.¹⁰⁴

In 2002, during the General Council meeting, India's representative said that while dedicated discussions provided a good understanding on the cross-cutting issue of classification, no conclusions were reached. In this regard, India looked forward to further discussions on classification, as well as the subject of development, which were also important.¹⁰⁵ Subsequent to these communications, India's participation in e-commerce negotiations in the WTO is not known as there were no formal submissions made to the WTO which are available in the public domain through communications, meeting notes, etc.

In November 2014, during the meeting of the Council for Trade in Services, India noted that while the e-commerce work programme comprised the examination of all trade-related issues, it did not include a negotiating mandate. Therefore, all submissions had to be considered in that light.¹⁰⁶ In 2015, India along with Brazil, Egypt, South Africa and Turkey, presented two proposals (and one revision) on the electronic commerce work programme. However, access to these documents is restricted and these are not available on the WTO documents database.¹⁰⁷

¹⁰³ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=16320,20805,43530&CurrentCatalogueIdIndex=2&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 25, 2018)

¹⁰⁴ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=16320,20805,43530&CurrentCatalogueIdIndex=2&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed on January 25, 2018)

¹⁰⁵ Source: <https://docsonline.wto.org/dol2fe/Pages/SS/DirectDoc.aspx?filename=t%3A%2Fwt%2Fgc%2Fm74.doc&> (accessed on January 25, 2018)

¹⁰⁶ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/S/C/M120.pdf> (accessed on January 25, 2018)

¹⁰⁷ The documents are JOB/GC/86: General Council - Discussion draft decision for MC10 - Work Programme on Electronic Commerce - Proposal by Brazil, Egypt, India, South Africa and Turkey (dated 19/11/2015); JOB/GC/86/Rev.1: General Council - Discussion draft decision for MC10 - Work Programme on Electronic Commerce - Proposal by Brazil, Egypt, India, South Africa and Turkey – Revision (dated 24/11/2015); and

On October 6, 2016, India presented its proposal on the “Concept Note for an Initiative on Trade Facilitation in Services” at the Working Party on Domestic Regulation meeting. The purpose of the concept note was to propose an agreement to facilitate a reduction in the transactions cost associated with unnecessary regulation and the administrative burden on trade in services.¹⁰⁸ Subsequent to this, on November 25, 2016, India tabled a communication on Possible Elements of a Trade Facilitation in Services Agreement. The overall aim is to ensure that market access arising out of existing and future liberalisation commitments are effective and meaningful.¹⁰⁹ On February 23, 2017, India submitted a draft legal text on a “Trade Facilitation Agreement in Services” (TFS agreement) to the WTO.¹¹⁰ Based on the feedback received, India presented a revised text on July 27, 2017.¹¹¹ In the TFS proposal under Mode 1, the proposal asked WTO members to allow cross border transfer of information by electronic means, including personal data and information, where such activity is for the purpose of supplying services. This has a positive implication for e-commerce.

In November¹¹² and December 2017, before the Ministerial Conference in Buenos Aires, India sent a communication to the WTO regarding the e-commerce work programme. It decided to continue the work under the work programme, based on the existing mandate and guidelines in the relevant WTO bodies as set out in the work programme. It also instructed the General Council to hold periodic reviews in its sessions of July and December 2018 and July 2019 based on the reports that may be submitted by the WTO bodies entrusted with the implementation of the work programme, and report to the next session of the Ministerial Conference. With regard to the moratorium on custom duties on electronic transmissions, it was indecisive.¹¹³

JOB/GC/87: General Council - Discussion draft decision for MC10 - Work Programme on Electronic Commerce - Proposal by Brazil, Chile, Egypt, India, South Africa and Turkey (dated 25/11/2015)

¹⁰⁸ For details see the Communication from India to the Working Party on Domestic Regulations, Document S/WPDR/W/55 of the World Trade Organization titled Concept Note for an Initiative on Trade Facilitation in Services. Available at

<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/S/WPDR/W55.pdf> (accessed on January 25, 2018)

¹⁰⁹ For details see Communication from India on the Possible Elements of a Trade Facilitation in Services Agreement submitted on 14 November, 2016, Document No. S/WPDR/W/57. Available at

https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=232684 (accessed on January 25, 2018)

¹¹⁰ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Language=ENGLISH&SourcePage=FE_S_S002&Context=RD&PostingDateFrom=15%2f02%2f2017&PostingDateTo=28%2f02%2f2017&IsEnglishSelected=True&IsFrenchSelected=False&IsSpanishSelected=False&IsAllLanguageSelected=False&FullTextHash=371857150&languageUIChanged=true (accessed on October 11, 2017)

¹¹¹ Source: https://docs.wto.org/dol2fe/Pages/FE_Search/DDFDdocuments/237950/q/TN/S/W63R1.pdf (accessed on October 12, 2017)

¹¹² Source: https://docs.wto.org/dol2fe/Pages/FE_Search/DDFDdocuments/240274/q/Jobs/GC/153.pdf (accessed on January 25, 2018)

¹¹³ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/27.pdf> (accessed on January 25, 2018)

India is a signatory to the TFA of the WTO¹¹⁴ and ITA I, but has not signed ITA II. As mentioned earlier, it is not a member of the group negotiating TiSA.¹¹⁵

5. Concerns and the Way Forward

All WTO members recognise that e-commerce will be an integral part of business activities in the future; it will reduce the cost of doing business and connect SMEs to the global market. Governments of many developing countries including India are actively promoting e-commerce and digitisation, and a number of countries (both developed and developing) have changed their regulations or have implemented new regulations to support the growth of e-commerce. In a number of countries, certain regulations specifically focus on promoting domestic industry.

A number of trade agreements encompassing developed and developing countries have comprehensive chapters on e-commerce, and it is likely that future trade agreements will encompass e-commerce, with mandatory provisions. In this context, it is important to note that the exports of e-commerce are dominated by companies from countries such as the US and China, while countries such as India are fast growing markets. The WTO members are at different levels of development, and have a wide range of views on whether or not to strengthen WTO rules in order to create a clear and predictable regime for global e-commerce trade. There is hardly any progress in the WTO work programme on electronic commerce, and this has prompted a number of countries to look at alternate approaches to liberalise trade in e-commerce. There are hardly any studies on how trade rules in e-commerce would provide inclusive growth or lead to welfare gains for developing countries such as India, which has led to concerns and apprehensions about whether or not to negotiate trade rules in e-commerce. Further, a large volume of services trade is already carried out online and a number of WTO members have signed ITA-I and II. It is important for proponents of e-commerce to lend more clarity on the need for trade rules in e-commerce, highlighting how they can lead to inclusive growth in developing countries such as India.

India has developed as a global IT hub and a major exporter of IT/ITeS services. The country is a signatory to WTO's TFA and is a proponent of liberalisation of Modes 1 and 2. Recently, India submitted a proposal to the WTO on TFS. The country has signed ITA I but has not signed ITA II. The government's focus is on promoting digitisation, different online payment modes, and e-commerce. Export incentives are given to e-commerce companies under the Foreign Trade Policy (2015-2020) for the export of selected products. The government is also promoting domestic manufacturing of IT goods and consumer durables through various policy incentives. Given this scenario, one-on-one meetings were held with industry, policymakers, embassies/foreign governments, sector experts, and academicians to understand India's position on e-commerce negotiations, the likely gains and concerns of taking such a position and what India's strategy should be. In total, 30 meetings were held.

¹¹⁴ Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=159992> (accessed on January 30, 2018)

¹¹⁵ Source: <http://www.livemint.com/Politics/ziVm2VF9Q9dO9iwbyKuysM/Why-India-is-not-joining-trade-in-services-agreement.html> (accessed on January 30, 2018)

In the WTO, India has pointed out that it supports the WTO work programme and has not shown interest in being part of plurilateral negotiations on e-commerce rules at this stage. The Ministry of Commerce and Industry had interactive sessions with industry on this issue. For example, there was an interactive session on “E-Commerce, Digital Infrastructure, Trade Rules and WTO”, organised by the Federation of Indian Chambers of Commerce and Industry (FICCI) jointly with the Centre for WTO Studies, Indian Institute of Foreign Trade (IIFT), on November 1, 2017. In that event, it was pointed out that India is in favour of promoting e-commerce, rule making for domestic e-commerce, developing an ecosystem to support exports, and protecting consumers.¹¹⁶ While several countries want to negotiate multilateral rules to govern international trade through e-commerce, such rules stand to hurt the interests of most developing countries, including India, according to some participants. Subsequent to this, one-on-one meetings of the authors with industry underlined the fact that 90 per cent of them had either not seen the proposals submitted to the WTO and/or were not aware of trade rules in e-commerce.

Indian e-commerce companies are small compared to their global counterparts, and a majority of them are concentrated in the domestic market and, therefore, prefer to have a closed market. Experts pointed out that in the early 2000s, industry associations such as NASSCOM and companies in the IT/ITeS sector lobbied for Mode 1 liberalisation but now, home-grown e-commerce companies are lobbying for a closed market. In many cases, selective examples of countries such as China have been used to support the views.

The discussions with industry experts highlights the fact that global e-commerce companies such as Amazon.com, Incorporated or Alibaba Group Holding Limited want to establish global supply chains through global supply and demand hubs. The flow of data now contributes more to world GDP than the flow of physical goods but there are only a few companies, mostly based in the US, which control global data flows. Such companies would prefer to have a free data flow trade regime.¹¹⁷

Regarding SMEs’ ability to become a part of global value chains, survey participants pointed out that if Indian sellers have a good product at competitive prices, they can use these platforms to access local and international markets. However, if they do not, global e-commerce companies will source from elsewhere. India has a large consumer market, and if its manufacturing capabilities are not able to meet consumer demand at competitive prices, imports will rise, irrespective of the model that e-commerce companies follow (marketplace based versus inventory based) and irrespective of whether importers are domestic or foreign e-commerce companies.

A number of domestic companies and foreign companies are investing in e-commerce and allied services such as logistics, and the sector is attracting funding from venture capitalists and other sources. E-commerce companies are also diversifying their product offerings. Many e-commerce companies in India, especially new entrants, are allowing their clients to

¹¹⁶ Source: <http://ficci.in/past-event-page.asp?evid=23520> (accessed on February 1, 2018)

¹¹⁷ Also see: <https://www.theguardian.com/technology/2018/jan/31/data-laws-corporate-america-capitalism> (accessed on February 1, 2018)

have the flexibility of both inventory based and marketplace based models, although they do keep separate books of accounts for the two models. Hence, one needs to examine whether restricting FDI in the inventory based model is actually benefiting India in terms of restricting imports. On the contrary, it may have led to lower investments in infrastructure such as warehouses and adversely affected employment generation. Further, in a marketplace based model, the e-commerce company does not have control over quality. India needs lower logistics costs and supply chain efficiency, which a marketplace based model does not allow.

Some of the reasons why India has taken a defensive position in e-commerce negotiations include lack of data on e-commerce exports and imports, lack of information on how the business works, and lack of information on how WTO rules on e-commerce are going to affect Indian companies. In India, there is no data or information from official sources of how much trade is through e-commerce, and there is fear that any trade rule would adversely affect trade by increasing imports. The Indian government has not conducted any surveys or studies which highlight what proportion of business revenue is through e-commerce. Some consultancy organisations have tried to provide estimates, which vary but show similar trends. It is important for the Department of Commerce (under the Ministry of Commerce and Industry) to do an independent survey-based study on (a) what the different e-commerce business models in India are, and how they have evolved with technology and policy changes, (b) what proportion of e-commerce revenue is through trade, and what the key export and import items are, (c) what the impact of India's FTAs and trade agreements on e-commerce has been, (d) what the regulatory, taxation and other issues faced by e-commerce companies are, and (e) what the expectations of companies from the government are.

Preliminary discussions with industry show that the issues they face can vary across different business models of e-commerce transactions, such as B2C or B2B. In the case of B2C, there are issues related to shifting consumers from store to non-store formats, predatory pricing, providing heavy discounts to retain consumers, etc. In the case of B2B, clients are willing to pay for the services. However, there are challenges, which include high logistics costs, difficulties in establishing supply chains, stiff competition from the unorganised sector, high cost of credit, etc. Global players, especially in the B2C segment, have the financial resources to sustain business losses due to the discounts that they offer. Indian regulations related to predatory pricing are weak, and it is in fact difficult to prove predatory pricing. The discussions also showed that since India has a large consumer base, global players will increase their footprints and investments in India, and diversify their offerings. This has led to mergers and acquisitions, development of new business models, and tough competition between domestic players and global players.¹¹⁸ A number of e-commerce start-ups have already emerged, and will continue to come up in the future in this segment. However, the start-ups are facing several issues, which, if addressed, will enable them to scale up. The government needs to look into these issues.

¹¹⁸ See: <http://www.thehindubusinessline.com/companies/flipkart-vs-amazon-its-a-twohorse-race-in-india/article9811437.ece> (accessed on February 1, 2018)

Some of the Indian software companies are well-established in the global market, and had earlier lobbied through NASSCOM and other organisations for removal of barriers to exports through Modes 1 and 4. They can play a key role in discussions on trade rules in e-commerce, and help to shape the product and services standards in India in line with global best practices. The survey also showed that India has a unique position globally in terms of consumer data. As the country is going in for digitisation, consumers are required to share data with government and some pointed out that their data privacy is already compromised. India, therefore, needs to take a position on data privacy and consumer protection.

Regarding the “moratorium on customs duties” on electronic transformation of products such as online exports of films, the bulk of the value of such e-commerce is likely to be services through Mode 1. India is an exporter and has an offensive interest in Mode 1 exports. However, since there is no comprehensive data on exports and imports of electronic transformation of products, there is confusion as to what India’s position should be. This data has to be collected and collated to understand the trade, and India’s stance in international negotiations should be based on this.

Section 2.1 shows that India has a fairly robust regulatory regime for e-commerce and new regulations are being proposed with technological changes. There are some gaps in regulations and some implementation issues. However, apart from Gupta (2017), there are hardly any studies in India that try to map existing regulations with the non-paper submitted by the US and other communications by WTO member countries to identify the regulatory gaps in India, areas in which the country can take mandatory commitments, and the areas in which there are regulatory concerns, if there is a requirement for mandatory commitments. There should also be sound justification for such regulatory concerns. For example, the justification may not be that technology is evolving and hence India cannot take commitments. Technology can evolve in a number of sectors including computer services, telecommunications and financial services. That has, in the past, not deterred India from seeking commitments in trade in services.

The experiences of other countries show that they are changing their domestic regulations with changes in technology and business models. While a number of countries would like to have a fair, non-discriminatory, transparent trade regime for e-commerce, governments would still like to retain their flexibility and policy space, and a number of countries have implemented regulations that favour domestic players over foreign companies. Regulations are needed for consumer protection and national security. It is, therefore, important to have “smart” regulations to protect the domestic interest. The government should support domestic players through appropriate regulations. But such regulations should not counter WTO commitments. For example, while a subsidy contingent of export performance or on the use of domestic goods over imported goods can be prohibited under the WTO’s Agreement on Subsidies and Countervailing Measures, the government can give subsidies for additional employment creation or for technological upgradation in a smart way which can benefit the industry.

In the case of India, experts pointed out that it is important to (a) identify regulatory gaps, and (b) check if existing regulations adequately address consumer protection and national security concerns or if there is a need for a new regulation or amendment to the existing regulation to ensure adequate consumer protection and address national security concerns. It is also important to examine the trade restrictive measures that the country has imposed or is planning to impose and how it is likely to affect its negotiating position. This is not easy, as in some cases there is lack of clarity and ambiguity on policy. For example, the US non-paper proposed prevention of localisation barriers¹¹⁹ and the Office of the United States Trade Representative (USTR, 2017) report on foreign trade barriers lists a number of Indian policies which imposes or may impose localisation restrictions. For example, it refers to the 2015 National Telecom Machine to Machine (M2M) Roadmap¹²⁰ which requires all M2M gateways and application servers serving customers in India to be located within India. However, it also mentions that this has not been implemented. Gupta (2017) also mentions that India currently does not have data localisation. Therefore, while it is reflected as a barrier, it may not be a barrier in practice and may not have helped Indian industry by creating a closed market. It is also important to note that there is an economic cost to forced data localisation as shown in Table 4. However, data localisation may be put in place for security reasons or consumer protection requirements. The WTO does not prohibit member countries from implementing measures for security reasons. Countries can build this into their domestic regulation. For example, China's cyber security law (November, 2016) authorises Chinese agencies to restrict market access for cloud computing and related internet-enabled services, based on data and facilities localisation policies applicable to services deemed necessary. The US cannot question such regulations but says that it will closely monitor them (see USTR, 2017). It is true that relaxation of data localisation may allow increased monetisation of personal data without a consumer being aware of it or directly benefiting from it. Thus, such relaxations can be counterproductive to increased consumer privacy and protection. India can raise this issue along with national security issues only if it sits for the negotiations. It can also lobby with like-minded countries to ensure that the removal of localisation requirements can be a best endeavour clause rather than a mandatory clause. A number of countries including Vietnam demand that investors build local servers to store the data of their citizens and other physical data infrastructure (Macleod, 2017), while others such as Brazil are drafting comprehensive data protection and privacy legislations (USTR, 2017). India has interests similar to those in these countries and can lobby with them.

¹¹⁹ Source: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/JOBS/GC/94.pdf> (accessed on February 1, 2018)

¹²⁰ Source: <http://www.dot.gov.in/sites/default/files/National%20Telecom%20M2M%20Roadmap.pdf> (accessed on February 2, 2018)

Table 4: Summary of Estimated Growth and Investment Effects of Data Localisation

Country	Effect
Brazil	-0.2% GDP; -4.2% domestic investment
China	-1.1% GDP; -1.8% domestic investment; -1.7% exports
EU	-0.4% GDP; -3.9% domestic investment
India	-0.1% GDP; -1.4% domestic investment
Indonesia	-0.5% GDP; -2.3% domestic investment; -1.7% exports
Korea	-0.4% GDP; -0.5% domestic investment
Vietnam	-1.7% GDP; -3.1% domestic investment
Russia	-0.3% GDP; -1.4% domestic investment

Source: Bauer et al. (2014) and Bauer et al. (2015)

The broader question is to identify data localisation requirements in India, how they can be implemented, and how they are going to benefit the country. In this regard, it is important to have a look at the Staff Working Paper of the European Commission dated January 10, 2017, on free flow of data.¹²¹ The security of the data may not depend as much on the storage location as it does on the security of IT infrastructure and the strengthening of encryption techniques. There are ways to ensure secure data storage and processing in large, state-of-the-art data centres through cross-country collaborations and by ensuring a strong data protection regulation. India has the technical manpower and can be a preferred location for data centres because of its cost competitiveness. However, the data protection regime in India is weak and there is need for greater clarity on the encryption policy. India is currently working on a new draft encryption policy.

The US non-paper also refers to the protection of the critical source code. The non-paper mentions that innovators should not have to hand over their source code or proprietary algorithms to competitors or a regulator, who will then pass them along to a state-owned enterprise. This is driven by the concerns of US companies in China.¹²² The discussions with policymakers and companies show that there is no similar concern raised by US companies in India. In 2009 and 2010, India initiated a number of regulations related to telecommunication equipment technology transfer and source code, most of which have now been removed. The only concern raised by US companies is related to the requirement to test all security sensitive telecommunication equipment, even if the product has been certified by accredited international laboratories (USTR, 2017). There is a need to increase domestic testing capacity if this policy has to be implemented to reduce delays and procedural bottlenecks, and as of date, this has not been implemented. In fact, many issues raised in the US non-paper are against other countries with more restrictive e-commerce trade regimes such as China and not against India (for details see USTR, 2017). Despite these restrictions, the survey found that China and other countries are willing to sit for the negotiations on trade rules, unlike India.

¹²¹ Source: <https://ec.europa.eu/digital-single-market/en/news/staff-working-document-free-flow-data-and-emerging-issues-european-data-economy> (accessed on February 6, 2018)

¹²² Source: https://www.uschina.org/sites/default/files/uscbc_ict_recommendations_october_2016_eng.pdf (accessed on February 1, 2018)

In the above context, it is also important to examine domestic regulations, and understand the position and expectations of different countries and regions in their trade agreements and the WTO. Studies have shown that major e-commerce players such as the US and China have taken different positions in their trade agreements (Huang, 2017). The US and the EU have different positions with respect to data privacy and consumer data protection. The positions taken by the US, EU, China, ASEAN countries and Japan have to be analysed to understand what their expectations from their trading partners are. Even if India does not negotiate e-commerce in the WTO, it will be negotiated in other bilateral and regional trade agreements such as the RCEP. Hence, it is necessary to understand the political and economic requirements and the strategies of different countries and to draw up a strategy that best suits India's needs and requirements.

Focusing on the political repercussions of deciding to stay out of the negotiations, 71 countries want to conduct exploratory work towards future WTO negotiations on trade related aspects of e-commerce. These include many of India's allies and, except African countries, all key partners are in this group. If China and African countries also join in, which is likely, will India be isolated?¹²³ According to some experts, India can still partner with other WTO member countries that are not part of the group doing exploratory work on future WTO negotiations on trade related aspects of e-commerce. However, are these countries among India's key trading partners?

While India may not participate in the negotiations today, there is a likelihood that political pressures may compel the country to join the negotiations in the next two to three years. In such a situation, India may not be able to push forward its point of view since most countries would have reached a consensus. While some experts pointed out that WTO negotiations on e-commerce and TiSA will not move forward due to the protectionist policy of the US, others pointed out that both China and the US may agree to a liberal e-commerce market as it is in the interest of their companies. It is, therefore, important for Indian policymakers to study the subject more deeply, especially its political repercussions.

With Digital India and other policies, foreign companies and their policymakers have raised concerns with respect to government procurement. India lacks an overarching government procurement policy and, as a result, its government procurement practices and procedures vary across states, between the states and the central governments, and among different ministries within the central government. This leads to lack of transparency, accountability, incidence of corruption and can adversely affect competitiveness (for details, see USTR, 2017). India has not signed the WTO's plurilateral Government Procurement Agreement, but has an observer status. A new procurement bill was proposed but it got stalled in Parliament. Foreign companies and policymakers ask why, in spite of pushing for transparency in governance, the current government has not pushed the government procurement bill.

¹²³ Also see <http://www.financialexpress.com/opinion/why-india-must-review-its-position-and-gear-up-for-constructively-contributing-to-the-global-e-commerce-story/1038933/>(accessed on February 1, 2018)

On the economic impact of tariff liberalisation, India is a net importer of IT goods and consumer durables, and imports have increased over time. This is one of the reasons why India has not signed ITA II. While some experts are of the opinion that the zero duty on import of computers and other IT goods after ITA I has benefited India's software industry and has helped the country become an IT hub, others feel that it has made India a net importer and adversely affected the trade balance. The latter group is in favour of developing domestic manufacturing capability, and the government has been promoting this through the "Make in India" campaign and other initiatives. However, domestic manufacturing of electronic products and consumer durables have not happened as expected, despite these initiatives. The discussions also highlight that there are conflicting policies that counter each other and gaps in implementation. For example, an increase in tariffs on mobile phones under the Union Budget (2018-19) counters the policy on digitisation and online payments using smartphones. India does not have the capability to manufacture low cost smartphones that will match current demand. Further, with the push towards a digital economy after demonetisation, smartphones are treated as a necessity even for small businesses and farmers, and the demand for smartphones has increased. Companies have already imported and stocked inventories for products whose custom duties have increased, and will import more until March 2019. Thus, import substitution through high tariffs may not work. Survey participants specifically pointed out that the costs of products such as mobile phones are falling. If it was the government's intent to dampen imports of smartphones by imposing higher customs duties, it is unlikely to work in the context of increasing demand and the willingness of Indian consumers to pay. Other companies pointed out that global value chains have made rules of origin and local content requirements difficult to implement. Indian consumers have become globalised and they demand global quality products. Therefore, imports will continue to be high unless domestic industry is able to offer quality products at competitive prices.

Focusing on manufacturing, the meetings highlighted that incentives given to IT goods and the consumer durables manufacturing sector are far lower than those given to other sectors such as textiles and apparel, leather, and footwear. Indian manufacturers face difficulties in establishing domestic and global supply chains due to high tariffs on intermediaries, high logistics costs, delay in getting clearances from government, and poor quality of power supply, among others. India's custom tariffs and fee structure is complex and lacks transparency. Autonomous tariffs are higher than what is bound in the WTO, giving policymakers the flexibility to change them, which leads to an uncertain business environment. There are also issues related to customs valuation processes and procedures, which are non-transparent (also see USTR, 2017). Further, while countries such as China prohibit the importation of remanufactured products, which are typically classified as used goods, India allows it, subject to the requirement of import licences. This also increases imports. India also allows the import of second-hand capital goods by end users without an import licence, provided the goods have a residual life of five years. The logistics costs in India are high due to delays in ports, poor quality of infrastructure, lack of modern warehousing facilities, etc. The survey showed that if a country wants to develop domestic manufacturing capabilities in electronic and consumer durable goods, there is need for

investment in technology and in developing R&D facilities, which India currently lacks. The meetings also indicated that foreign companies have not brought in the approved investment in this sector. It is, therefore, important to conduct in-depth research on the reasons for the lack of investor interest in the Indian IT goods and consumer durables sectors or the reasons for delays in investment despite an improvement in the country's rank in ease of doing business indicators, and despite government support and push for investment.

The discussions also show that India can strengthen its domestic industry by having a consistent tax regime, lower taxes, smart and targeted subsidies, and reducing logistics costs. Giving the example of GST, an e-commerce start-up company pointed out that the rates have been changed several times, creating business uncertainties. It further pointed out that within food products, for example flour, there are differences in rates across branded and non-branded products, and across single grain and multigrain flour. Corporate taxes are high in India for large companies *vis-à-vis* small and mid-sized businesses. Electronic and consumer durable manufacturers need scale economies, and tax policy inhibits their ability to achieve economies of scale. Further, subsidies given under the SEZ scheme and policies such as the Foreign Trade Policy of the Ministry of Commerce and Industry can be actionable in the WTO, and therefore, such policies are not attractive to foreign and large domestic investors. The WTO is yet to develop a discipline on subsidies in services, and with increase in servicification of manufacturing, it is possible to give subsidies in services used by manufacturing units. Countries such as China and Taiwan have smartly changed their subsidies from WTO actionable to WTO non-actionable subsidies, which have supported the growth of the IT goods and consumer durables industries. India may learn from their best practices. It is possible to help and support domestic industry within the WTO framework and that possibility needs to be explored.

Another core issue with respect to the development of e-commerce goods and services is securing IPRs. The IPR regime is weak in India, and e-commerce companies face difficulties in protecting their innovations in processes. If they have an innovative business model or introduce a process modification in the logistics supply chain that improves business efficiency, it gets copied immediately and they are not able to gain from their IPR. The National IPR policy, released in 2016, is still in the draft format and there are issues related to the patentability of software-enabled inventions. There have been incidents of piracy and lack of enforcement of copyright (also see USTR, 2017).

Discussions with foreign policymakers and companies highlight that a number of countries are working closely with foreign policymakers, companies and domestic players, and experts in designing policies. This helps them align their domestic regime with international best practices on the one hand, and address country-specific issues and concerns on the other. For example, Brazil is working closely with the EU. The USTR (2017) reported that China has set up a technical committee for cyber security standards where foreign companies are allowed to vote and participate at the working group level. This enables the government to get inputs from foreign companies and understand their concerns as well as to get inputs on what is happening in policymaking in other markets. In India, apart from a consultation paper

by TRAI, a large part of the policymaking is confidential. Hence, there are apprehensions of lobbying.

Some experts opined that trade negotiations are based on reciprocity. If the country negotiates a plurilateral agreement in e-commerce, what will it gain in return? They think that India rightly raised the food security concerns before agreeing to the Trade Facilitation Agreement in goods. Assuming that India will be a net importer of e-commerce, they pointed out that the country should have some gains in return for accepting trade rules in e-commerce. While this is a valid point, these experts are not sure as to what India should demand in return for accepting the trade rules in e-commerce, especially since developed countries are not willing to negotiate Mode 4 or temporary movement of people. India has pushed for TFS, which encompasses Mode 1, and now India has to support its stand on TFS. If countries such as the US agree to take forward the TFS and ask India to join the negotiations on trade rules in e-commerce, India should be prepared to do so.

Even if India does not sit for the e-commerce negotiations in the WTO, the issue will be covered in all future trade agreements including RCEP. It is, therefore, important for India to have a clear policy on issues (such as localisation requirements or protection of critical source codes) that are being discussed in the WTO and in trade agreements, and to develop a negotiating strategy. If there is need for regulatory changes to protect consumer data and privacy, such regulations should be implemented. Regulations should be carefully designed to meet India's existing commitments in the WTO. Further, while multi-brand retailers are mandatorily required by FDI regulation to make back-end investment in logistics and supply chain, multi-brand e-commerce companies are prohibited from doing so through restrictions in e-commerce FDI policy. Such inconsistencies in policy between store and non-store retail formats should be addressed. Moreover, it is also important to look at how Indian companies can access the global markets in sectors such as handicrafts, apparel, leather, and footwear through e-commerce. The sector-specific export promotion bodies may explore the opportunities that e-commerce may provide as a platform for exporters.

The Prime Minister of India defended globalisation at the recent World Economic Forum in Davos, Switzerland (January, 2018), and experts pointed out that it will now be difficult for the country to implement protectionist policies and walk out from trade agreements. According to them, India should participate in discussions on e-commerce trade rules. India should also partner with like-minded countries, and subsequently push the plurilateral negotiations in e-commerce towards best endeavour or best practices rather than having mandatory provisions on the ground that the domestic regulatory regime is evolving. In other words, India should play a more active role in contributing to and driving e-commerce negotiations.

To conclude, e-commerce issues have been discussed in the WTO since 1998 under the work programme. However, there is hardly any progress under the work programme. While all WTO member countries recognise the need to have domestic policy space and many of them offer more incentives to domestic industry than India does and/or have implemented more

regulatory restrictions to support domestic industry than India, unlike India, they are willing to sit for the negotiations on trade rules.

The views of the members of the group that advocate e-commerce trade rules (for example, the views of the US, China and the EU) on policy issues are different. India has not been able to emerge as the leader of developing countries with respect to trade rules governing e-commerce, and the failure to secure consensus in TFS shows that India needs to rethink its position and negotiating strategies. The WTO negotiations are based on consensus and there are distinct disadvantages in being left alone or being forced to sign an agreement that the country had earlier objected to. It may be better for India to sit in on the negotiations, and work with like-minded countries to ensure that it preserves its domestic policy space in the WTO.

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