

Evolution of Digital Trade Rules in Regional Trade Agreements

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Abstract

In the era of global digitization, various countries and organizations have actively promoted the development of regional trade agreements. As an important part of this, digital trade rules have evolved in recent years. Their evolution is mainly characterized by an increasing emphasis on intellectual property protection, data privacy and security, transparency and universality, in addition to their broader coverage and the growing possibilities for cross-regional cooperation.

Keywords

Regional trade agreements; Digital trade rules; Evolutionary trends.

1. THE CONCEPT OF DIGITAL TRADE

The evolution of the concept of digital trade is broadly categorized into three phases by Lan et al. In the first phase (1998-2012), the concept of digital trade has not yet been clearly put forward, and digital trade is expressed as e-commerce. In the second phase (2013-2014), the U.S. International Trade Commission (USITC) proposed the concept of "digital trade" for the first time, defining the scope as trade in digital products and services. In the third phase (2014 onwards), the scope of digital trade was further expanded to include physical goods, i.e. data flows that enable global value chains, services that enable smart manufacturing, and a myriad of other related platforms and applications[1].

2. EVOLUTION OF DIGITAL TRADE RULES

The development of digital trade rules can be traced back to a number of global agreements and organizations that have contributed to the advancement of digital trade[2]. For example, the WTO, in its Report of the Bilateral Trade Expansion Working Group on Digital Trade and Technical Cooperation, proposed digital trade rules that are highly liberal, open and transparent, which have promoted the development of digital trade in international trade. In addition, TPP and RCEP, etc. also play an important role in the formulation and promotion of digital trade rules[3]. Henrik Horn et al. (2010), when studying the Preferential Trade Agreement (PTA), targeted 14 U.S. agreements and 14 European Union agreements, and the 52 frequently occurring rules were divided into two categories, WTO+ and WTO-X, where WTO+ are trade policy rules that already exist under the WTO framework and only require deeper agreement by the RTA parties (Henrik Horn, 2008; Gabrielle Marceau, 2009; Claudia Hofmann et al. 2017), and WTO- X are trade policy rules that go beyond the WTO provisions and require a new agreement by the RTA parties (Henrik Horn, 2008; Claudia Hofmann et al., 2017). Sheng Bin and Chen Lixue (2023) divide the digital trade rules included in RTAs into two generations. The first generation of digital trade rules mainly emerged in the era of e-commerce, the main transaction mode is digital ordering, and the main trading objects are trade in goods and some traditional service trade. The second generation of digital trade rules mainly emerged in the era of

prevalent digital trade, the main transaction mode is digital delivery, and the main trading objects are new digital services trade and data information flow[4]. The evolution of the first and the second generation of digital trade rules are shown in Table 1 and Table 2 below.

Table 1. Evolution of the first generation of digital trade rules

Digital Trade Rules	Types	Connotations
Tariff-free electronic transmission	WTO+	Cross-border transactions of digital products and services in international e-commerce transactions are not subject to the payment of any customs duties.
Non-discriminatory treatment of digital products	WTO+	Digital products from different countries and regions must be treated equally in digital trade and not differently depending on their country or region of origin.
Electronic Transaction Framework	WTO-X	It is a set of rules and standards necessary for the establishment and development of e-commerce, including technical and regulatory provisions, to ensure that digital trade is conducted in a secure and efficient manner.
Electronic authentication and electronic signatures	WTO-X	Identity authentication, digital signature certificate authentication, sealing and other operations are carried out on various electronic documents and electronic data involved in digital trade to ensure that they are complete, legal, authentic and trustworthy.
Paperless trade	WTO-X	Based on the e-commerce platform and transaction system, adopt the transaction mode realized by electronic document and digital signature technology.
Online consumer protection	WTO-X	Protect the rights and interests of online consumers in digital trade and ensure the quality and security of digital products and services.
Unsolicited commercial electronic messages	WTO-X	Sending commercial electronic messages to recipients without their consent.

As can be seen from Table 1 and Table 2, WTO+, the digital trade rules that already exist under the WTO framework, have evolved from "duty-free electronic transmission" and "non-discriminatory treatment of digital products" in the first generation of rules to "location of financial services computing facilities", "cryptography-enabled ICT products" and "interactive Internet services" in the second generation of rules. WTO-X, the digital trade rules that go beyond the scope of the WTO, have evolved from "framework for electronic transactions", "electronic authentication and electronic signatures", "paperless trade", "online consumer protection", and "unsolicited commercial electronic messages" in the first generation of rules, to "open Internet", "open government data", "protection of personal information", "cybersecurity", "cross-border data flows", "location of computing facilities", and "source code" in the second generation of rules. It follows that the evolution of digital trade rules in RTAs has been characterized by the following aspects. First, as digital trade grows, digital trade rules are increasingly focused on intellectual property protection. Second, digital trade rules are increasingly focusing on data privacy and security to ensure the security of digital trade. Third, digital trade rules need to be increasingly transparent and universal so as to promote the popularization and application of digital trade rules. Finally, the coverage of digital trade rules is becoming broader and broader, encompassing trade rules in different directions, with increasing possibilities for cross-regional cooperation. In short, this is an evolutionary process

of continuous improvement, which is of great significance and importance to the future development of the digital economy.

Table 2. Evolution of the second generation of digital trade rules

Digital Trade Rules	Types	Connotations
Open Internet	WTO-X	In the area of digital trade, States should ensure the openness of the Internet and encourage and support the innovation and development of digital technologies.
Open Government Data	WTO-X	Governments should proactively open to the public the data they collect, manage and produce so that citizens, businesses and other social organizations can use them for economic, social and political purposes.
Personal Information Protection	WTO-X	Measures to protect private information such as an individual's identity, preferences, whereabouts, and social relationships.
Network Security	WTO-X	Rules for securing information in the course of digital trade through legal, technological and policy means.
Cross-border data flow	WTO-X	The unimpeded crossing and flow of digitized information, data, and content across national borders in international digital trade, including cross-border data transfer and processing in the areas of e-commerce, cloud computing, Internet of Things, artificial intelligence, and big data.
Location of Computing Facilities	WTO-X	Determine the rules for the place of storage, processing, and transmission of data in digital trade.
Financial Services Computing Facility Locations	WTO+	When conducting digital financial services, the relevant financial services computing facilities must meet specific security requirements and should be deployed in locations that meet the security requirements.
Source Code	WTO-X	In the field of digital trade, rules related to the use of source code in transactions are involved.
ICT products using cryptography	WTO+	The use of information communication products with cryptographic capabilities in digital trade.
Interactive Internet Services	WTO+	It covers regulations on the operation, transactions, privacy protection, intellectual property rights, and important data handling of various online services on the Internet, such as social networking, online shopping, and online gaming.

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