RESEARCH ON INTERNATIONALIZATION DOCKING OF CHINA'S DIGITAL TRADE RULES

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ABSTRACT: *This article looks at the digital economy and digital trade. The article then looks at how the global and Chinese digital economies are developing. It also points out that digital trade is helping the global economy to grow. The article then looks at the differences between China's digital trade rules and global standards. The article suggests ways to improve digital trade in China. These include making domestic laws and regulations better, joining international digital trade agreements, building digital trade in the "Belt and Road" initiative, and joining high-standard free trade areas. These recommendations are designed to bring Chinese practices closer to international standards.*

Key Word: *Digital economy, Digital trade rules, Gaps, International docking*

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1. Introduction

The global economy is currently experiencing a period of decelerating growth, accompanied by historically high inflation and an increase in trade protectionism. These problems are having a significant impact on major traditional industries, which are facing challenges and exhibiting signs of weakness. However, with the continuous development of the global economy and technology, especially the development of big data technology, the digital economy has gained widespread attention. In the contemporary era, data has emerged as a novel factor of production, dedicated to propelling the global economy towards a state of enhanced quality. This is achieved through a combination of factors, including the accelerated transformation of factors, the acceleration of foundation reconstruction, the optimisation and upgrading of dynamics, and the integration of improving quality and innovation. Furthermore, digital trade has emerged as a new growth pole and a new driving force for global economic growth and high-quality development.

2. Connotation and relationship between the digital economy and digital trade

The digital economy is a border concept that encompasses a multitude of elements, including but not limited to big data, cloud computing, artificial intelligence, blockchain, and so forth. The original definition of the digital economy was proposed by Don Tapscott in 1996. In his seminal work, he outlined the defining characteristics of this new economic paradigm, which include knowledge-based, digitisation, virtualisation, molecularisation, integration/networking, disintermediation, convergence, innovation, production, consumption, immediacy, globalisation, incoherence and more. The National Bureau of Statistics of China defines the digital economy as a novel economic form that employs data as the primary production factor, digital technology as the principal driving force, and modern information networks as the essential conduit. Through the comprehensive integration of digital technology with the tangible economy, it fosters continuous advancement in the domains of digitisation, networking, and intelligence within the economic society, thereby accelerating the restructuring of economic development and governance models.

The digital economy has led to a broader understanding of digital trade. There is no agreement

among the experts on what digital trade is. There are two main views. The WTO says digital trade is when goods and services are made, sold or delivered online. This view is more comprehensive and reflects how digital technologies affect international trade. The other view is to define digital trade as only digital products and services(Ya, 2024).

The definition shows that digital economy and digital trade are related. The digital economy is the foundation of digital trade. Improvements in cloud storage, computing services, digital service platforms, artificial intelligence, 5G networks and blockchain have made digital trade easier. Digital trade is a key part of the digital economy. The digital economy has seen major changes as a result of digital industrialisation and industrial digitisation. This has had a big impact on the existing industrial structure and promoted the transformation and upgrading of digital trade. The development of digital trade also helps integrate the digital economy and the real economy and speeds up industrial digital transformation.

3. Current status of the development of the digital economy globally and in China

3.1 Current status of global digital economy development

The global digital economy can currently be analysed by specifically dividing it into developed and developing economies. As a whole, the world is currently in a phase of rapid development of the digital economy. And countries are actively integrating themselves into the world's digital economic torrent, continuously launching digital policies and promoting the reshaping of the world's economic structure.

Naturally, the most effective method of gauging the progress of the digital economy is through the analysis of digital trade. Table 1 shows that the ten countries had more digital trade in 2022 than in 2015. Digital trade is becoming more important for the economy. It is a key part of global trade competition. Developed economies lead in digital trade, while developing economies are catching up. Table 1 shows that developed economies, led by the United States, account for most of the global digital trade. They are competitive in digital technology and digital services, and have a strong global influence. China is also expanding its digital trade. China's digital trade has grown significantly, from US$187.608 billion in 2015 to US$373.106 billion in 2022.

Table 1 Size of digital trade in ten countries, 2015-2022 (in billions of US dollars)

Country	2015	2016	2017	2018	2019	2020	2021	2022
China	1876.08	1992.88	2138.37	2634.46	2740.08	2943.41	3613.19	3731.06
France	2562.18	2638.04	2626.64	2923.39	2797.97	2595.41	2921.77	2898.81
Germany	2867.39	3051.42	3311.06	3643.13	3669.56	3658.23	4332.18	4180.19
India	1611.17	1699.49	1824.08	1975.44	2180.84	2278.82	2654.79	3251.98
Ireland	3479.79	4120.50	4483.92	4994.99	6726.79	7131.66	7734.87	7932.93
Japan	1915.13	2114.17	2207.00	2343.80	2628.53	2670.60	2790.27	2704.76
Netherlands	2986.98	2935.34	3435.38	3997.51	4258.93	3304.14	3549.14	3565.59
Singapore	1722.42	1701.32	1942.65	2212.66	2299.43	2493.50	2894.22	2958.81
UK	3811.41	3787.60	4015.82	4659.74	4591.55	4768.84	5553.59	5463.10
US	6739.11	7134.89	7708.03	7740.35	8181.99	8441.42	9338.41	9910.00

Source: WTO database, United Nations UNCTAD database.

Furthermore, the contemporary state of global digital trade reveals a multi-polar competitive landscape, particularly evident in the formulation of digital trade regulations. The current global digital trade rules are primarily shaped by a select group of developed countries, particularly in the context of the rule system championed and advanced by the United States, the European Union, and Singapore. As follows.

The United States digital trade rules (the American template) are currently the most representative. The United States advocates the unrestricted flow of cross-border data, opposes the imposition of data localisation requirements and emphasises the importance of barrier-free, cross-border international data flows. Furthermore, it advocates for the non-discriminatory treatment of digital products and the provision of support for tariff-free electronic transmission products. Additionally, it seeks to reinforce legislation pertaining to personal information and personal privacy. The present U.S.-Canada-Mexico Agreement

(USMCA), based on the Trans-Pacific Partnership (TPP), represents a further deepening and broadening of established rules and has become the current exemplar of the American template for the highest level of U.S. digital trade rules.

The EU's digital trade rules are well defined. They promote cultural diversity and want to digitise the EU's internal market and make it easier for digital goods and services to move around. The European template also looks at digital taxation. The EU has proposed a digital service tax. This would be a turnover tax on digital services, paid by users. The main rules for the European template are the GDPR, the DSA and the DMA.

The Singapore-Chile-New Zealand Digital Economy Partnership Agreement is the world's first multilateral agreement focused on cooperation in the digital economy. Its main goals are to make it easier to do business online, to make trade paperless, to protect data and ensure security, to recognise digital identities and electronic signatures to make digital transactions safer, and to work together on financial technology and artificial intelligence(Jones et al., 2024).

3.2 Current status of China's digital economy

In the context of intensifying global competition in digital trade and the ongoing evolution of regulatory frameworks, characterised by the emergence of ‘American-style template’ and ‘European-style template', high-level 'new-style template' have emerged. As a major player in digital trade, China has been actively engaged in the modernisation of its domestic regulatory framework through bilateral and multilateral agreements. It active participation in and promotion of the RCEP agreement, and the exploration of a distinctive ‘Chinese-style template’.

The Chinese-style template has the following main features. China is a global leader in e-commerce and cross-border e-commerce. Its policies and regulations are relatively sound. However, it is still developing its approach to cross-border data flows and intellectual property protection. China's data flow is focused on security. The Cybersecurity Law, the Data Security Law, and the Personal Information Protection Law restrict the free flow of data. China also pays more attention to protecting its own security when it comes to international

rules(Wang, 2023). For example, when China joined the RECP, it made sure that everyone knew about the rules on things like sharing information and storing data.

China is strengthening its control over digital trade and joining global rules for digital trade. China has set up a system with four main laws and several other rules. China has also introduced a number of new laws and regulations to strengthen its digital trade market. Internally, China has established a framework that includes the Data Security Law, the Personal Information Protection Law, the Cybersecurity Law, the Measures for Security Assessment of Data Exit, the Measures for Standardising Personal Information, and the Provisions for Promoting and Regulating Cross-Border Flow of Data. Externally, China's digital trade advocacy is largely consistent with WTO rules.

China has included paperless trade in bilateral FTAs and made specific commitments on personal information protection, customs clearance, etc. in multilateral agreements. It has also advocated the adoption of domestic regulatory frameworks only in compliance with United Nations e-commerce law. China has also suggested a temporary tariff exemption for electronic transactions. China also encourages the use of digital signatures and other forms of electronic authentication in bilateral and multilateral agreements. China is also looking at ways to introduce digital massage chair rules. For example, Beijing has a Digital Trade Pilot Zone and a database system pilot zone. Shanghai is creating an international hub port of digital trade.

4. Gaps between China and the world's high-level rules on digital trade rules

China has made progress on digital trade rules, but there are still gaps compared to developed economies like Europe and the United States. This is shown in three ways: rules on how digital products are treated, how data flows and is stored, and rules on protecting rights and interests in the world.

4.1 Non-discriminatory treatment of digital products

Most high-standard digital trade agreements follow the CPTPP framework for non-discriminatory treatment of digital products. The RCEP is not explicit in this regard. The CPTPP and DEPA both guarantee that digital products from each country will be treated

equally. However, they do not apply to intellectual property rights, subsidies, grants, or broadcasting.

The United States has narrowed the scope of the exception in the USMCA to include intellectual property and broadcasting in the non-discriminatory treatment of digital products. The RCEP doesn't make any commitments about digital products. It only says that parties should consider how they treat digital products. China has also censored and controlled culture-related digital products for national security and ideological reasons. It has not committed to the principle of non-discriminatory treatment of digital products, which is different from the CPTPP.

4.2 Cross-border flow of data and localised storage

RCEP, CPTPP and DEPA have similar rules about data flows. Each country must regulate data flows, but the United States makes these rules more binding. It removes the requirement for each country to regulate data flows. CPTPP and DEPA are more strict. They regulate that data can be sent across borders and that any information from each country can be sent. RCEP does not regulate if information sent electronically is personal information(Chen et al., 2022). China may be face the risk of data security issues because the CPTPP and DEPA allow data to flow freely across borders, unlike the RCEP. This could lead to more telecoms fraud, cyber-attacks and other illegal activities.

China's strategy is different. It is based on data sovereignty and security. China still limits cross-border data flows. It regulates that data can only flow freely if it meets certain legal conditions. It is still difficult to meet international trade and economic standards because the data classification and security assessment systems are not yet effective.

The CPTPP and DEPA allow data storage for legitimate public policy objectives, while the RCEP allows it for essential national security interests. The RCEP allows more exceptions for security reasons than the other two. However, high-standard rules such as the CPTPP and DEPA allow for localised data storage in the financial services sector, but prohibit the localisation of computer facilities in financial services. China has not made a commitment to this(Herman & Oliver, 2023).

4.3 Rules for digital rights and interests

RCEP, CPTPP and DEPA all have different approaches to personal information protection. RCEP and CPTPP set out specific requirements, while DEPA sets out principles for a legal framework(BOWN & MAVROIDIS, 2019). China is behind other countries in this area. The United States, Singapore and other countries believe that the CBPR should be used as an international guideline for the protection of personal information. China has not yet reached the CBPR standard.

Secondly, source code is the core of software and is protected by intellectual property rights. Both CPTPP and DEPA prohibit transferring source code, and DEPA's rules are more detailed and easier to adapt. RCEP has not provide source code, but parties may discuss it in e-commerce talks. The CPTPP source code rules protect software products(Wu et al., 2023). When software is sold in another country, the buyer does not have to give the source code. However, this does not apply to software for critical infrastructure. DEPA explains that the source code rule does not apply to 'manufacture, sale, distribution, importation, and use by or for the government of a Contracting Party', and excludes metal tools. China's law does not require companies to share their source code. But foreign companies must work with Chinese companies to protect national security.

All three agreements set out rules to protect consumers. DEPA has the most stringent requirements. CPTPP regulates that countries should protect consumers from fraud and make sure they have good consumer protection laws. The CPTPP also protects consumers from unsolicited commercial emails. DEPA lists the types of misleading or deceptive conduct that consumers can be subjected to(Suh & Roh, 2023). China nearly has no laws protecting online consumers. The right to information and the right to privacy are not well protected. China's digital trade rules are not as high as international standards.

In conclusion, it can be observed that the digital trade regulations in China are not sufficiently compatible, resulting in a high compliance cost. Furthermore, in comparison to the CPTPP and DEPA, China also faces significant challenges in the form of non-uniform digital technology standards, incompatibility of data formats and information barriers between

digital systems.

5. China's implementation measures to dock the international rules on digital trade in major areas

This section will concentrate on the implementation of effective measures to proactively dock China's digital trade regulations with internationally recognised standards. The objective is to narrow the gap and enhance China's status and influence in the global digital trade landscape through a series of concrete and pragmatic initiatives.

5.1 Docking with the high standards of the pilot free trade zone

As the vanguard of China's reform and opening-up, Pilot Free Trade Zones (PFTZs) occupy a pivotal position in aligning with international norms pertaining to digital trade. It is imperative that the advantages of the Pilot Free Trade Zone, namely its status as an early adopter and pilot implementation, be leveraged to their fullest extent. Benchmarking against the world's highest standards, coupled with the implementation of rigorous stress tests and the evolution of digital economy regulations, is a necessity. By exploring the establishment of a 'regulatory sandbox' mechanism and strengthening the coordination and classification of multi-departmental regulation, we can better balance the relationship between data security and flow, and find the best path to expand opening and integrate into high-standard digital trade rules such as DEPA.

Firstly, the data classification and grading system provides an essential foundation for China to reinforce cross-border data flow guidelines and data storage localisation requirements. For this reason, the Pilot Free Trade Zone should be regarded as an experimental zone for system innovation, accelerating the exploration of the in-depth integration of cross-border data flow rules, data storage localisation requirements and China's data classification and grading system. At the same time, China will continue to proactively and gradually construct a data exit assessment mechanism comprising the restricted circulation of high-risk data subject to security assessment and review, and the unrestricted circulation of low-risk data under standard contractual and authentication mechanisms. This will be done in accordance with the Cybersecurity Law, the Measures for Security Assessment of Data Exit, and other pertinent legislation.

Secondly, with regard to the source code provisions for docking high-standard digital trade rules, the Pilot Free Trade Zone in China can draw on the concept of the data classification and grading system to accelerate the establishment of an assessment mechanism to evaluate the expected benefits of the results of the early and pilot implementation. Concurrently, the state should adhere to the tenet of balanced emphasis between economic and security considerations, and initiate the formulation of legislation pertaining to source code protection. This should entail a delineation of the precise scope and exceptions to the mandatory disclosure prohibition of source code. In addition, the construction of a public service platform for copyright export should be actively explored in order to strengthen copyright protection in the field of digital culture.

5.2 Improve domestic digital trade laws and regulations

China has already joined the RCEP. However, compared to the CPTPP、DEPA , the degree of free flow of data、data privacy protection in the RCEP agreement is far less than in the above two agreements. At the same time, in China, the position on the disclosure and transfer of data source code is unclear, and data localisation is required. Therefore, in order to converge with international digital trade rules, China must first address its domestic environment, improve its domestic digital trade laws and regulations, and gradually converge with the world's high-specification and high-standard trade rules. In particular, at present, China's existing digital trade laws mainly include the E-Commerce Law and the Foreign Trade Law of the People's Republic of China, etc. China's digital trade activities are predominantly concentrated in cross-border e-commerce and trade in goods, with relatively limited engagement in digital services and trade related to intellectual property rights. Therefore, the protection of digital intellectual property rights is weaker. It is thus imperative that the Chinese government and relevant legislative bodies provide further elaboration of the laws and regulations pertaining to business practices, logistics services and payment services in the future. With regard to the free flow of data, restrictions should be gradually liberalised, provided that relative security is guaranteed, with a view to gradually realising the de-localisation of data(Zhang & Wang, 2022). At the same time, the market for digital products should be opened up in an orderly manner through the negative list system, while key areas and sensitive technologies should be protected and market access restrictions should be

gradually reduced, on the understanding that this will not violate core national security and public morality.

5.3 Accelerate the process of participating in international agreements on high-standard rules and regulations for digital trade

China should keep pushing to take part in the CPTPP and DEPA because they are important for global security. This is to achieve high-standard digital trade rules on data, data flows and intellectual property rights in the services chapter. At the same time, we should speed up the improvement of existing Regional Trade Agreements (RTAs) to cover more digital trade rules and make it easier for China to take part in the Asia-Pacific digital economy. China has also proposed ways to address the different rules in e-commerce negotiations. This shows China is taking a more active role in setting global digital rules. This paper sets out how China's digital trade is docked with international high-standard rules. It does so by examining three aspects: alignment subject, alignment direction and alignment order.

Firstly, in terms of the alignment subject, China should make full use of the enthusiasm of the central and local governments. As information serves as the foundation for decision-making, it is essential that the central government conducts comprehensive assessments and planning, taking into account all pertinent factors. The local government, for its part, must engage in active cooperation and furnish timely feedback on relevant information. To illustrate, the central government could concentrate on the experimental conditions of the more advanced FTZs (Shanghai Pilot Free Trade Zone, Hainan Pilot Free Trade Zone, Dalian Pilot Free Trade Zone, etc.), in particular, the Hainan Pilot Free Trade Zone, Given the geographical separation of Hainan from the mainland, it could serve as a testing ground for high-standard digital trade rules, capitalising on its inherent geographic advantage and better managing the potential risks of proliferation and spread. Furthermore, the pilot programme is intended to facilitate the alignment process, with the objective of establishing a pilot experience that can then be replicated.

China should move from a passive to an active stance on alignment, forming a Chinese template. This strategy is reflected in digital products, data, data IP rights and rules on using new technologies. China should get a temporary exemption from tariffs on electronic

transmissions and fair treatment of digital products. It should also try to keep some taxes and fees after the border and make policies fairer. China should keep legitimate exceptions for public policy in areas like the free flow of data across borders, the non-compulsory localisation of computing facilities, and the opening up of government data. There should also be a gradual approach to the rules on the non-compulsory localisation of computing facilities for financial services(Suh et al., 2024). China should make rules about data intellectual property rights that fit its situation. These should include source codes, ICT products with encryption, and interactive computer services. The rules should also allow for reasonable exceptions. China should also work with other countries on new technologies like digital identity, financial technology, and artificial intelligence.

Finally, in terms of the alignment order, China should integrate high-standard digital trade rules in a gradual manner, commencing with those that are relatively straightforward and subsequently progressing to those that are more intricate and contentious. It would be prudent to prioritise rule provisions that are more closely docked with existing commitments, and subsequently address those that are more complex and controversial.

5.4 Accelerate the construction of Belt and Road digital trade

In order to deepen two-way investment cooperation with countries along the Belt and Road, China should collaborate with countries along the route to establish economic and trade cooperation zones. This could be the start of a new trade and investment platform for the Belt and Road, with the aim of increasing digital trade. We want top companies and organisations from around the world to take part in this event. We also invite leading scholars and industry leaders to discuss digital trade regulations and market developments. This can be done through events like the China International Digital Economy Expo and the Digital Trade Forum. To build a better "Invest in China" brand, we are making changes to outbound investment, improving investment with other countries, and meeting international economic and trade standards. The Silk Road E-commerce Cooperation Demonstration Zone has been set up to use China's strengths in e-commerce to help countries along the Belt and Road. It also wants to improve communication and dialogue on digital trade rules and speed up the process of aligning international standards, regulations and rules. As we develop the Belt and Road, we want to combine blockchain, big data, the Internet of Things and other new

technologies to create a new business ecosystem based on blockchain and digital trade. This approach will help the countries involved to grow their digital economies much faster.

6. Conclusion

By actively benchmarking international high-standard economic and trade rules, China can assist in resolving the current issues of fragmentation and uncertainty pertaining to digital trade regulations, thereby facilitating the deep integration and synergistic development of the global digital economy. China's vast market size and consumer base will serve as a significant market opportunity for global digital products and services. Concurrently, the rapid advancement and innovation of China's digital technology will offer substantial technical support for global digital trade. This alignment process represents a pivotal step in docking with the global digital economy and enhancing China's digital trade competitiveness. It plays a crucial role in advancing the integration of the global economy and fostering an open, interconnected world economy. Consequently, as China docks its digital trade regulations with international best practices, it must address identified gaps to enhance the regulatory system, stimulate domestic economic and trade growth, and expedite the digitalization process in China's Pilot Free Trade Zone.

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