Digital Trade of China -- Current Development Situation, Problems and Countermeasures

Zhiyuan Liu

Beijing Language and Culture University, Beijing, China

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Abstract: Digital trade has developed fast recent years and has significantly influenced the world trade development. This work starts with definition of digital trade and world digital trade development situation, which shows that developed countries has taken the absolutely control position of world digital trade development. Then this paper focuses on China's trade development status and major challenges, and finally it summarizes the countermeasures of future development of China's digital trade.

1. General Instructions

Digital trade is the product of the integration, development and evolution of digital technology and economic society. With the popularization of the Internet and the rapid progress of technology, human society is entering the fourth wave of globalization with digital trade as the core. The continuous progress of digital technology has provided a solid technical foundation for the development of digital trade.

The outbreak of COVID-19 has hit the global real economy and trade in goods hard. Digital trade is becoming an important pillar for the recovery of the world economy, showing strong development resilience to shocks on a global scale, and becoming a powerful force bucking the trend of COVID-19. What's more, in recent years, with the rising voices of "anti-globalization" such as unilateralism and trade protectionism, digital trade has also demonstrated its strong power to fight against "anti-globalization". The development of digital trade has brought countries around the world closer and closer to enhance international trade and cooperation, becoming main forces of resistance against the tide of anti-globalization.

Since the reform and opening-up, China's foreign trade has witnessed rapid development. In 2021, China's total import and export volume exceeded 6 trillion US dollars, reaching 6.05 trillion US dollars, making China the world's largest trading country. At the same time, with the Chinese economy entering the new normal, and proposed to build a new pattern of dual-cycle development, China's foreign trade is facing increasing pressure of transformation and upgrading. Digital trade is a new key area of global trade development in recent years, and it is also the commanding heights of international trade competition in the future. China always attaches great importance to the digital trade development.[1] In 2020 and 2021, China's leaders delivered speeches at the international service trade fair global trade summit for 2 years, pointing out that digital trade will become important growth engine to promote the development of trade in high quality.

2. Definition of digital trade

Digital trade shall refer to the digital trade listed under trade in services and the digitization of trade. Digital trade refers to a new form of trade that uses digital technologies for research and development, design, production, and delivery of products and services to users through information and communication technologies such as the Internet for trade objects such as physical goods, data, digital products and digital services.[1] Specifically, digital trade includes the digitalization of trade methods and trade objects. The digitalization of trade mode is a process of integration and penetration of information and communication technology, modern information network and traditional trade, which has realized the optimization of foreign trade information

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transmission, the transformation of foreign trade comprehensive service and the innovation of foreign trade supervision mode. The digitalization of trade objects makes the data and the products and services in the form of data become the subject matter of international trade, which makes the services can be stored, copied and easily delivered remotely.

3. Development status of world digital trade

3.1. World digital trade general development situation

The global digital economy is booming, and digital trade has become the main body of international trade, following trade in manufactured goods and intermediate goods. According to UNCTAD report, the proportion of global trade in digital services increased from 48% in 2011 to 63.6% in 2020.Trade in digital services is expected to account for more than a quarter of global trade by 2030.In 2020, global trade in digital services reached US $3.17 trillion, and global cross-border e-commerce transactions exceeded US $1 trillion.

3.2. Development pattern of world digital trade

The top five countries in terms of global digital services trade in 2020 were the United States, Ireland, the United Kingdom, Germany and China. The US is home to a large number of multinational information and communications companies, and many large Internet companies have their European headquarters in Ireland, with China ranking fifth.

The complete digital industry system of the United States, coupled with its developed network infrastructure and strong scientific and technological innovation ability, has promoted it to become the largest country in digital trade in the world. According to UNCTAD, from 2010 to 2020, the US export of services that can be delivered in digital form increased from US $337.94 billion to US $533.09 billion, accounting for nearly one fifth of the world's total, with an average annual growth rate of 4.66 percent, lower than the global average annual growth rate. Digitally-deliverable services accounted for more than 50 percent of US service exports. In 2020, it accounted for more than 70 percent of US service exports for the first time, reaching 76 percent, reflecting the dominant role of digital trade in US service trade.

Digital trade in the EU has been growing rapidly in recent years, accounting for an increasing proportion of trade in services. According to UNCTAD, from 2010 to 2020, the EU's exports of services that can be delivered in digital form increased from US $696.82 billion to US $1,241.19 billion, with an average annual growth rate of 5.94%. Digitally-deliverable services accounted for 64.15 percent of the EU's service trade exports in 2020, up from 47.88 percent in 2010.

The volume of UK exports of services that can be delivered in digital form grew relatively steadily between 2010 and 2020, from $213.357 billion in 2010 to $286.710 billion in 2020, with an average annual growth rate of 3%. In the UK, digitally-deliverable services accounted for a relatively high proportion of the UK's service trade exports, which remained above 70%. In 2020, the proportion of the UK's service trade exports exceeded 80% for the first time, reaching 83.72%.

According to UNCTAD, between 2010 and 2020, Japan's exports of services that can be delivered in digital form increased from $65.106 billion in 2010 to $114.741 billion in 2020, with an average annual growth rate of 5.83%, outpacing the global average annual growth rate. [2] The proportion of Japan's digitally-deliverable service exports in service trade also increased significantly, from 48.44% in 2010 to 71.58% in 2020.

4. Development status and problems of digital trade in China

4.1. Development status of digital trade in China

Recently, China's digital trade has emerged strongly and developed rapidly. The scale of China's digital trade increased from US $126.62 billion in 2010 to US $293.99 billion in 2020, an increase of 132% compared with 2010, with an average annual growth rate of 8.79%. [1] The digital trade is in an accelerating period of growth. In 2020, China's digitally-deliverable service exports accounted

for 55% of the total export volume of service trade, which was lower than the 63.55% of the global total in the current year. There is still a large space for development.

4.2. Major problems in the development of China's digital trade

In recent years, there have been frequent trade frictions between China and the US. In the fight for the right to speak on the digital economy, the US has issued a series of policies to suppress Chinese Internet high-tech enterprises. In August 2020, US government announced that in order to restrain potential risks to national security, further restrictions on Chinese cloud service provider in the United States to collect, store and process data will be brought forward. And at the same time, seven Chinese technology companies, including China mobile, Baidu, Alibaba, will face various kinds of restrictions when they operate in US as well. The US government then issued an injunction against ByteDance and Tencent. The US's containment of Chinese Internet companies has added to the instability of China's digital trade development.

China is subject to the core technologies of others and lack high-end talents. At present, the growth driver of China's digital trade mainly relies on industrial digitalization. It can improve the total factor productivity with the help of information technology, promote the optimization and upgrading of industrial structure, and promote economic growth. However, the progress of basic scientific research on information technology in China is relatively slow, and there are still big shortcomings in core information technology and high-end chip technology. In 2019, China's chip imports amounted to US $304 billion, far exceeding the second ranking of crude oil. At present, China's chip self-sufficiency rate is only 30%, and there is still a big gap between the production level of domestic manufacturers and the actual market demand in high-end chip manufacturing. Meanwhile, in the field of core technology innovation, and management and application of digital trade, new talent has become a scarce resource. According to the data of the Ministry of Human Resources and Social Security, the ratio of supply and demand of artificial intelligence talent in China is only 1:10 at present, which is a serious imbalance between supply and demand. For digital enterprises, in addition to product research and development, their talent needs in digital operation, data analysis, international business, digital media and other fields have not been met, the lack of compound talents has become a constraint to the development of enterprises.

The relevant legal system and regulatory measures are not perfect enough as well. The products, services and data flow provided by digital trade are invisible, and it is difficult for customs to confirm trade based on physical products. Relevant tax measures have also become a new discussion topic. At present, countries have not formed a unified consensus on data circulation, and relevant international rules are still in the game. The United States holds the standard of Internet transmission protocol and data transmission technology and advocates the free flow of data, while the European Union advocates the autonomy of data transmission. [3] Because data flow is related to national information security, the contradiction between the two makes digital trade still comply with the relevant national laws before the relevant international rules are perfect, which leads to the restriction of cross-border data flow and a series of strict access rules become new trade barriers. From the domestic point of view, China in the digital security and intellectual property protection related law construction is insufficient, the development of information security industry is more scattered, on the data collection, transmission, production and use of digital products and other links of regulatory measures and user privacy protection issues are to be further followed up.

5. Suggestions on promoting the development of digital trade in China

5.1. Deepen the transformation of the digital economy and expand the advantages of trade in digital services

In view of the current situation that digitalization is superficial in some service industries. China should promote the deep integration of digitalization and high-end service industry in terms of industrial structure. It should give full play to the role of market resource allocation, while cooperating with policy guidance and incentives to stimulate the vitality of market players, realize

enterprise transformation, and improve the efficiency of production and service. To address the imbalance in the export trade structure, the export of digital services should be expended while strengthening the development advantages of China's cross-border e-commerce. The integration of traditional manufacturing and service industries should be further improved and focusing on service outsourcing for productive enterprises. Explore new service models such as cloud outsourcing and platform outsourcing. Moreover, improving the service level and digital integration ratio in financial insurance, business consulting, online education and other fields to achieve efficient and high-quality services also needs further attention. China also needs to enhance the export competitiveness of its digital cultural service trade and encourage cultural independent cultural innovation. Pay attention to the development of information security industry, so that it can adapt to the scale of cloud service development.

5.2. Improve supporting laws and regulations to strike a balance between openness and regulation

First of all, acceleration the improvement and implementation of the digital intellectual Property Protection law is needed. Relevant laws and policies should be introduced to regulate the secure flow of data, reasonable supervision and privacy protection, and improve the business environment for digital trade, in order to keep the market open and transparent, improve the confidence of consumers and enterprises, and radiate the vitality of digital trade market. Second, China should give priority to implementing "Chinese rules" with Chinese e-commerce characteristics in regional trade agreements, so as to bring China's advanced and mature e-commerce development experience to developing countries, and accumulate experience and strength for participating in more discussions on digital trade rules. On the one hand, the free trade zone should give full play to its own advantages. China can strengthen the development of cross-border e-commerce through expanding cross-border cooperation with other developing countries, and contribute Chinese wisdom to the formulation of rules of digital trade. On the other hand, China should actively participate in the exploration and standard construction of international rules for cross-border e-commerce by cooperation with other developing countries, and gain a first chance for China to participate in the formulation of international rules.

5.3. Establish a sound talent training system and incentive mechanism

In the aspect of talent training system, it is necessary to realize the combination of basic frontier and practical application, and improve the education system of digital technology. In the construction of basic disciplines, it is necessary to cultivate professionals in the digital field, increase investment in research and development, optimize the performance evaluation mechanism of scientific research in colleges and universities, encourage the exploration of basic disciplines, help break technical bottlenecks, and realize independent research and development of core technologies as soon as possible. On the other hand, China also needs practical talents who can transform scientific and technological achievements into economic and social achievements. Colleges and universities should break the barriers of traditional disciplines, lay out the integration and innovation of interdisciplinary majors related to digital economy, cultivate compound talents who can adapt to the process of industrial digitalization, grasp the development opportunities, and walk in the forefront of the integration of digitalization and industry. The government should encourage the deepening of the integration of industry and education, realize the university-enterprise connection, integrate the high-quality resources of digital development, enhance the practical experience of university talents, and form a digital talent highland. In the aspect of talent incentive mechanism, the policy attraction of high-end talents should be improved. Different incentive mechanisms should be set for different talents. Policies on personnel registration and preferential tax policies for enterprises have been put in place to drive technological innovation in China.

5.4. Actively participate in multilateral trade negotiations and have a say in international negotiations

Study the existing digital trade related part of the international trade rules, strengthen international cooperation. Start with “One Belt One Road” countries to negotiate relevant issues regarding digital trade, looking for the consensus and jointly explore the digital trade disputes dispute settlement mechanism. Then when the rules formed gradually, China can expand the scope of countries that participate in consultations, in order to unite the strength of developing countries and strengthen their voice in international negotiations. In addition, China should grasp the interests and concerns of developed economies regarding cross-border data flow and data security, actively seek a development model for win-win cooperation with developed countries, promote consensus, and clarify the basic principles of digital trade. For the differences in the negotiations, China can promote the construction of a fair, open and inclusive digital trade environment on the basis of adhering to the bottom-line principle and safeguarding national information security.

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