

Research on Digital Trade Rules Impact on the High-Quality Development of Service Trade

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Abstract: *Enhancing services trade quality constitutes a vital component to establish a new dual-circulation development paradigm and achieve industrial restructuring and upgrading. Promoting high-quality services trade is an imperative response to the trend of digital technology integration within the trade competitive landscape, a key factor in elevating the digital sophistication and positioning of manufacturing, and a crucial measure for addressing new world economic circumstances. The current global services trade exhibits the significant characteristic of digital empowerment. International digital trade rules will exert substantial influence on services trade costs, trade liberalization, and digital economy governance. By analyzing current status of digital trade rules, this study proposes countermeasures to advance the digitization and high-quality development of services trade within the new world economic circumstance.*

Keywords: *services trade; digitization; digital trade rules; high-quality development*

1. Introduction

On 2 September 2021, China stated that services trade serves as a vital pillar for deepening international economic cooperation and building a trade powerhouse at the Global Services Trade Summit of the China International Fair for Services Trade, playing a significant role in establishing a new development paradigm featuring dual circulation in domestic and international markets^[1]. With the continuous advancement of digital technologies such as big data and cloud computing, and the increasing cross-border integration of digital factors within global production networks, the digital transformation in services trade has progressively become a defining feature and trend in the new era trade development. Digital services trade emerge as strategic high ground in future competition, making it a crucial lever for enhancing new competitive advantages in international trade. Under this background, major countries and economies are actively introducing supportive policies related to digital trade, participating in international digital trade rules formulation, and striving to secure the high ground in shaping the discourse of digital economy. What implications will digital trade rules have for the high-quality service trade development? How China seize the critical opportunities presented by digital factors Exploring these key issues holds significant theoretical and practical importance for advancing China's development in shaping digital trade rules and trade powerhouse^[2].

2. The Imperative for High-Quality Development of Services Trade

The 14th Five-Year Development Plan in Services Trade states that establishing a high-quality development framework is an inevitable choice for responding to intensified international competition and leveraging the pivotal role in building a trade powerhouse.

2.1 Service Trade High-Quality Development Aligns with the Inherent Requirement of Integrating Digital Technology into Trade Competition

The digital technology has given rise to digital production and services. As a new production factor, data profoundly influences numerous aspects of traditional trade, including business models, content structures, and transaction methods. As data elements such as the Internet, big data, and artificial intelligence, alongside digital industries, become increasingly integrated into the production and trade process, the boundaries of traditional trade models have been significantly expanded and extended.^[3] Their real-time nature, rapid processing capabilities, and boundless reach provide robust technological support for broadening transaction scope and enhancing efficiency. It reduces transaction costs and

information asymmetry while increasing value-added trade scope. Compared to traditional trade models, digital technology can be integrated throughout the entire cross-border process, from demand matching and transaction negotiations to international settlements and logistics, facilitating goods trade transform to high-value-added services and technology trade. Digital elements is becoming a pivotal force in restructuring global resource allocation and reshaping the competitive landscape. Accelerating the digital technology integration will cultivate new advantages and global trade leadership in international competition.^[4]

2.2 Service Trade High-Quality Development Is a Key Factor in Advancing the Manufacturing Digitization and Upgrading the Value Chain Status

New trade division have altered the distribution of economic benefits and environmental impacts in international trade. While China's participation in global value chains has significantly boosted economic growth through exports, it has also entailed profound environmental consequences. From the value-added perspective, China's manufacturing sector remains predominantly positioned at both ends of the 'smiling curve'. Regarding trade-embedded carbon emissions, China continues to be a net importer of pollution emissions. Under the background of carbon goals and sustainable development, fully leveraging service-oriented manufacturing and increasing digital factors input will improve the services trade quality. This approach reduces the proportion of traditional factors like labour and natural resources in value creation, while increasing the value-added share of knowledge-based and digital services in global production networks. Such measures will facilitate the digital and high-end transformation of manufacturing, optimize the benefits distribution in international division of labour, and thereby avoiding the predicament of "low-end lock-in". Consequently, the deep integration with high-end service trade is a key factor in enhancing the high-quality exports, and accelerating trade powerhouse development.^[5]

2.3 Service Trade High-Quality Development Constitutes a Vital Measure in Responding to New International Dynamics

Since the reform and opening-up, China's export-oriented economic development has played a vital role in driving economic growth and enhancing advantage strengths, serving as a crucial component of the "three engines". In recent years, the COVID-19 pandemic, international conflicts and instability, and global economic recovery have precipitated significant changes in international market and environment. The anti-globalization sentiments, trade barriers and protectionism are gradually rising. These new situations urgently require China to reduce its excessive reliance on international markets. In the new era, the export-oriented economy should shift its focus from scale expansion to quality enhancement, increasing investment in digital and knowledge-based elements. Therefore, optimizing the factor inputs structure, enhancing the value-added contribution of products and services, improving service trade and strengthening comprehensive trade competitiveness are crucial measures to navigate complex global changes.^[6]

3. Digitization Emerges as New Trend and Defining Feature in Services Trade Development

Digital elements and internet have transcended the geographical boundaries of traditional trade production and supply. Under the Internet backdrop, global trade and economic data increasingly highlight the distinct advantages and competitiveness of digitally products and services. This will reshape traditional service trade patterns, accelerated the digital empowerment of service trade, emerged as new trend and defining characteristic of its development.

3.1 Current Status and International Comparison of Digital Services Trade

In terms of global scale and structural composition, digital services trade currently dominates worldwide in services, primarily concentrated in developed economies. Simultaneously, digital services trade exhibits a pronounced driving force for trade growth, manifested in both scale and growth rates of international trade. As illustrated in Table 1, global digital services trade exports have exhibited a consistent upward trajectory in recent years, rising from US\$2,149.3 billion in 2011 to US\$3,811.3 billion in 2021. The share of digital services trade within total services trade has steadily increased, rising from 48.04% in 2011 to 62.77% in 2021, establishing itself as the backbone of world services trade. These demonstrate the unique advantages of digital services trade in new era, characterized by pronounced growth resilience and robust momentum driven by digital technology advancement. The digital and

intelligent transformation of services trade will remain a pivotal factor in trade competitiveness.

Table 1 The development of world digital service trade

Year	Digital Services Trade Volume and Growth Rate	Service Trade Volume and Growth Rate	Share of Digital Services Trade
2011	21,493 (14.39%)	44,745 (12.5%)	48.04%
2012	22,215 (3.35%)	46,031 (2.9%)	48.26%
2013	23,876 (7.48%)	48,916 (6.3%)	48.81%
2014	26,107 (9.34%)	52,482 (7.3%)	49.76%
2015	25,296 (-3.11%)	50,108 (-4.5%)	50.48%
2016	26,181 (3.49%)	50,906 (1.6%)	51.43%
2017	28,315 (8.15%)	55,390 (8.8%)	51.12%
2018	31,366 (10.77%)	61,048 (10.2%)	51.38%
2019	32,877 (4.82%)	62,905 (3.0%)	52.27%
2020	33,385 (1.54%)	51,795 (-17.7%)	64.46%
2021	38,113 (14.16%)	60,716 (17.2%)	62.77%

Data source: (<http://www.unctad.org>).

From a regional perspective, the scale and growth of digital services trade exhibit divergent characteristics across different global regions. Developed economies demonstrate greater scale advantages compared to developing nations. The export volume and share of digital services trade within regions formed by developed economies are markedly higher than those of developing country groups. Between 2017 and 2021, the export scale of developing countries group accounted for approximately one-third of that of developed countries group. This indicates that developed countries have seized the initiative in digital services trade through their technological advantages and economies of scale, and will remain the primary drivers of global competition in this sector.

From country comparison perspective, the United States leads the world in digital services trade volume. In 2021, its total digital services trade reached US\$963.3 billion, with exports amounting to US\$613 billion. This represented 16% of global digital services trade exports, growing at a rate of 10.73% – an increase of nearly 9 points compared to 2020. China's digital services exports reached US\$194.8 billion in 2021, accounting for 5.11% of global digital services exports. This represented an increase of 0.5 points from its 4.6% share in 2020, with a growth rate of 26.22% – an increase of nearly 19 points compared to the 7.54% growth rate in 2020. China's digital services trade has demonstrated a marked upward trajectory. The pronounced disparity in growth rates between China and the United States indicates that developing nations have progressively strengthened their presence in digital trade in recent years. They are actively narrowing the competitive gap with developed economies in this sector, gradually emerging as new growth drivers and blue-ocean development opportunities within global digital trade landscape.^[7]

3.2 Pathways for Digital Empowerment to Service Trade High-Quality Development

Digital inputs have injected new vitality into enhancing competitiveness and services trade development. The technology revolution has accelerated the deep integration and widespread of digital elements into trade products and services. The pathways for digitization to empower services trade encompass the following three aspects: (1) Digitization broadens the scope while reducing traditional trade costs. The digital technologies significantly reduces traditional information and transaction costs. This effectively expands demand space and extends the boundaries of cross-border services trade possibilities, fostering trade expansion and enabling economies of scale. In 2021, China's digital penetration rate in services trade reached 34.7%, an increase of 5.7 percentage points compared to 2020 (29%). (2) Digital innovation reshapes service trade models, diversifying trade formats. Traditional service trade primarily relied on commercial presence, whereas digital technology have created new channels for innovative service. For instance, e-commerce live streaming facilitates the integration of multiple business formats, offering alternatives to cross-border individuals' movement. (3) Digitization accelerates inter-sector convergence, fostering trade structure upgrading. The inherent pervasiveness of digital technologies enhances the integration between manufacturing goods trade and service factors. By driving the intelligent transformation, it increases their share in trade value-added, and elevates the high-end value creation in traded products.^[8]

4. Impact of Digital Trade Rules on Services Trade High-Quality Development

Digital trade rules significantly shape the future development of digital services trade, thereby influencing the overall quality of services trade.

4.1 Differences in Digital Trade Rules Affect Digital Services Trade Costs

Digital technology has elevated data and information to a critical production factor. They inject new impetus into trade competitiveness. Unlike traditional factors, data encounter challenges such as defining property rights and ensuring security during cross-border transactions and flows. As digital trade rules are closely intertwined with national digital infrastructure, digital trade levels, and governance capabilities, significant disparities exist in digital trade liberalization among nations. Moreover, a unified international digital trade rules framework has yet to be established. Countries with higher digital trade liberalization incur lower costs in digital services trade. They will gain greater advantages in future competitiveness and investment attractiveness, thereby better facilitating high-quality development in services trade.^[9]

4.2 High-Standard Regional Cooperation Imposes Greater Demands on Trade Openness

Digital services trade needs data free flow and high-standard trade cooperation as its foundation, thereby imposing greater demands on economies' openness and expanding global cooperation scope in digital trade domain. Currently, compared to goods trade, services trade openness remains relatively limited. Regional and multilateral negotiations concerning services trade liberalization involve areas such as education, healthcare, and financial regulation, which need deeper cooperation and stronger policy convergence, increasing the complexity of services trade liberalization negotiations. Simultaneously, most nations set high barriers to foreign investment in key productive service sectors, which partially constrains the input, flow, and upgrading of digital factors in international services trade, hindering high-value-added production factors expansion and trade competitiveness enhancement. We should further deepen and explore international cooperation mechanisms and potential in digital services trade, thereby facilitating broadly applicable cooperation and widely accepted digital trade rules into bilateral, regional, and multilateral economic and trade agreements.^[10]

4.3 Digital Trade Rule Governance Impact Institutional Barriers to Digital Services Trade

As the digitization of services trade intensifies, global digital governance deficit has inadvertently heightened barriers to digital services trade. Currently, the situation of geopolitical competition, digital protectionism, and multilateral trade rules absence is not benefit to digital services trade development, it is necessary to establish widely applicable rules for services trade digitization to reduce barriers. Developed nations, possessing more advanced digital ecosystems and legal systems than developing countries, tend to advocate for open markets, reduced institutional barriers, and less government oversight in digital trade policies. Conversely, nations with slower digital development prioritize gradual opening policies to minimize disruption to domestic digital industries. Moreover, distinct value standards across nations—such as data restrictions, code protection, and digital platform competition—have exacerbated friction in international cooperation and digital economy governance. This has created a fragmented digital governance dilemma, imposing pressures and challenges on international cooperation and governance in digital trade.

5. Recommendations for Promoting Services Trade High-Quality Development

Service trade integrated with digital elements can fully stimulate domestic internal circulation of production factors across multiple industries and the potential of external circulation across multiple regions internationally. This will bolster digital trade powerhouse construction and a new development paradigm formation. Focusing on new requirements and practical challenges posed by current digital trade rules to service trade, we propose following recommendations to advance high-level service trade development in digital economy era.

5.1 Domestic Circulation

5.1.1 Optimizing Digital Development Environment

The domestic digital environment and infrastructure form a crucial foundation for service sector intelligent and high-end development. Improving and strengthening digital infrastructure construction is an essential path to promoting and consolidating service trade development. The digital environment encompasses both infrastructure construction and high-level digital technology human capital cultivation. We should accelerate information infrastructure construction such as 5G networks, digital platforms, cloud computing, artificial intelligence and block chain, encourage emerging digital industries and digital technologies application in service sector. And we also need maximize the benefits of digital technologies to enhance integration between services and other sectors, boosting service industry productivity and high-value-added exports. The society need cultivate more skilled digital professionals, improve public digital literacy and adaptability, increase digital resources availability and learning platforms nationwide.^[11]

5.1.2 Enhancing Digital Economy Governance and Accelerating Service Digitization

The digital services trade advancement necessitates a sound and robust digital environment. Future efforts should proactively enhance domestic digital economy governance and explore trade rules innovation. One hand, capabilities for researching applicable digital trade regulations should be strengthened, alongside reinforcing digital governance systems and legal frameworks. This includes improving security legislation concerning data storage, intellectual property protection and circulation. We need leverage the demonstration effect of national digital service export bases to explore cross-departmental and cross-regional collaborative mechanisms. Also, we use free trade zones as pilot platforms for digital trade innovation, like advancing negative lists and service reforms related to digital service trade and so on. Such efforts will lay the groundwork for articulating a clear multilateral trade stance and advancing persuasive proposals.^[12]

5.2 External Circulation

5.2.1 Expanse Service Trade Openness and Optimize Business Environment

Enhancing services trade openness constitutes a vital component of world economy. We should seize the critical window period for restructuring trade rules in the digital era. Drawing on the requirements of Regional Comprehensive Economic Partnership (RCEP) and Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), we will formulate and implement a more liberal negative list in service trade. We will accelerate international certifications and standards in key service sectors such as healthcare, finance, and e-commerce, while elevating the regulatory systems and standards internationalization. And we continuously enhance the business environment to create a highly internationalized, regulated, and transparent investment destination, advancing trade liberalization and facilitation, expanding regional collaboration, and gradually establishing a broad, multi-level, and comprehensive services trade cooperation network.^[13]

5.2.2 Participate in International Digital Governance and Strengthen Trade Cooperation

Participating in international digital governance presents a crucial opportunity to secure a leading position in digital services trade. We should actively monitor and thoroughly research current trends and developments in international digital trade rules and proactively establish a digital trade rules framework with Chinese characteristics under the recognition for diverse data governance system, which will promote balanced development of digital economies and facilitate the cross-border flow of key production factors for enterprises, thereby deepen global value chains extension and advance industries towards higher value-added segments. We should effectively leverage platforms such as Regional Comprehensive Economic Partnership (RCEP), G20, and APEC to articulate China's perspective and ideas on international data governance, exploring a dual-circulation institutional framework featuring multi-party coordination, effective fairness and value recognition. This will unleash new momentum through digital elements and provide a powerful synergy and key engine for services trade high-quality development.

6. Conclusion

Against the current backdrop of China's services trade entering a critical leapfrog stage featuring

steady growth in scale and continuous optimization of structure, promoting its high-quality development should adhere to the driving forces of institutional opening-up and innovation-driven development, comprehensively enhance competitiveness of service exports, and provide core support for building a new development paradigm and turning China into a trader of quality.

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