

**THE DUAL CIRCULATION PROMOTES THE HIGH QUALITY DEVELOPMENT  
OF CHINA'S DIGITAL TRADE BASED ON THE PERSPECTIVE  
OF ENTERPRISE INNOVATION CAPABILITY**

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Promoting high-quality development of digital trade is an important part of China's 14th Five-Year Plan, and it is also an inevitable requirement to steadily promote a high level of opening up to the outside world and adapt to the new development pattern of China. We try to explore the impact of the «dual circulation» pattern on the high quality development of China's digital trade, and try to construct a practical enterprise innovation capacity variables, so as to explore the mediating effect of enterprise innovation capacity in the process of the dual circulation pattern on the high quality development of China's digital trade.

**Keywords:** dual circulation; enterprise innovation capability; digital trade; high quality development; mediating effect.

**ДВОЙНАЯ ЦИРКУЛЯЦИЯ ДЛЯ ВЫСОКОКАЧЕСТВЕННОГО РАЗВИТИЯ  
ЦИФРОВОЙ ТОРГОВЛИ В КИТАЕ НА ОСНОВЕ ПЕРСПЕКТИВЫ  
ИННОВАЦИОННОЙ СПОСОБНОСТИ ФИРМ**

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Продвижение высококачественного развития цифровой торговли является важной частью 14-го пятилетнего плана Китая, а также неизбежным требованием для неуклонного продвижения высокого уровня открытости внешнему миру и адаптации к новой модели развития Китая. Мы пытаемся исследовать влияние модели «двойной циркуляции» на высококачественное развитие цифровой торговли Китая, а также

пытаемся построить практические переменные инновационного потенциала предприятия, чтобы исследовать посредническое влияние инновационного потенциала предприятия в процессе двойной циркуляции на высококачественное развитие цифровой торговли Китая.

**Ключевые слова:** двойная циркуляция; инновационный потенциал предприятия; цифровая торговля; высококачественное развитие; опосредующий эффект.

Along with the fourth industrial revolution and technological advances, the economic development model has changed dramatically worldwide. Many countries around the world have emphasized the importance of digital economy and conceived the development strategy of digital economy in order to have a competitive advantage in the digital era. Digital trade has become the main form of trade in the digital economy and has significantly changed the traditional relationships between individuals, businesses and society [1]. By 2020, in the US, Germany and the UK, the digital economy accounts for more than 60 % of GDP in national economic development. In the past 40 years of reform and opening up, China's sustained growth in foreign trade has become a huge engine of rapid economic development, in which digital trade plays an increasingly important role. 2021, China's digital economy reached 45.5 trillion yuan, a nominal growth of 16.2 % year-on-year, accounting for 39.8 % of GDP, a new breakthrough in the development of the digital economy [2]. The report of the 19th National Congress of the Communist Party of China specifically states that, to «accelerate the development of advanced manufacturing, promote the Internet, big data, artificial intelligence and the deep integration of the real economy» [3].

However, the development of digital trade in China still faces many challenges. The average annual growth rate of imported digital services is 1 % higher than the global growth rate of imported digital services; the «export-oriented» development model has not significantly improved the quality of China's digital trade. How to find an economic development model that can adapt to China's economic development and the current world economic situation in the context of counter-globalization? It becomes the top priority of China's digital trade development at present. The Central Committee of the Communist Party of China (CPC) has proposed to accelerate the construction of a new development pattern with the domestic circulation as the main body and the domestic and international circulation promoting each other. The internal circulation refers to the construction of infrastructure, including 5G network services, AR services, digital platform services, cloud storage and computing services, etc. The outer circulation refers to the construction of digital trade pilot zones, promoting the development of digital trade and digital infrastructure in countries along the Belt and Road, and opening up a new situation of economic and trade cooperation.

In this way, how does the domestic and international double cycle affect the development of China's digital trade and what is the mechanism of influence? What exactly is the role of corporate innovation capacity in the process of the dual cycle pattern and the role of high-quality development of digital trade? We use the value added trade to separate the domestic and international circular value. We further construct the variables of enterprise innovation capability: imitation innovation capability and independent innovation capability. The backward imitative research and development indicator (IRD<sub>b</sub>), which measures the backward technological spillover effect of digital trade firms' backward embedding in GVC on upstream firms, is the product of the backward participation in GVC (GVC<sub>b</sub>) and the first-stage innovation efficiency (IRD) in the two-stage DEA, i. e.

$$IRD_{bij} = GVC_{bij} * IRD_{ij}, \quad (1)$$

$$GVC_{bij} = FV_{ij}E_{ij}. \quad (2)$$

Meanwhile, the forward autonomous innovation capability index (AIC<sub>f</sub>) is constructed to measure the forward technology spillover effect of digital trade enterprises forward

embedded in the global value chain to downstream enterprises. It is the product of forward GVC participation and the second-stage innovation efficiency (AIC) in the two-stage DEA, i. e.

$$AIC\_f_{ij} = GVC_{ij} * AIC_{ij}, \quad (3)$$

$$GVC_{ij} = IV_{ij}E_{ij}. \quad (4)$$

$FV_{ij}$ ,  $E_{ij}$ , and  $IV_{ij}$  refer to the sum of foreign value added, total exports, and indirect value added, respectively. Then enterprise innovation capability is the sum of equations (1) and (3). The pattern of dual circulation is the key to realize the high-quality development of China's digital trade. This paper constructs the domestic and international dual circulation value added, and further constructs the innovation capability of enterprises to explore the impact of the domestic and international double-loop on digital trade, and the mediating role of the innovation capability of enterprises, and enriches the role of the double-loop pattern on the high-quality development of digital trade. The promotion role of the dual-loop pattern on the high-quality development of digital trade.

## References

1. Quintanilla G. «Exploring the M-Government» in Encyclopedia of Information Science and Technology, ed. M. Khosrow-Pour, Western Kentucky University. – 2015 – P. 2726–2734.
2. Digital Trade: Development and Cooperation, Development Research Center of the State Council & China Academy of Information and Communication Technology (CAICT) / CAICT reports. – Beijing, 2021. – URL: [http://www.gov.cn/guowuyuan/2020/11/25/content\\_5563986.htm](http://www.gov.cn/guowuyuan/2020/11/25/content_5563986.htm) (date of access: 10.12.2022).