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THE IMPACT OF DIGITAL ECONOMY ON INDUSTRIAL UPGRADING OF THE LOGISTICS INDUSTRY

As a new economic growth point in modern society, the logistics industry is one of the most potential and dynamic industries. The digital revolution is driving the digital transformation of social production methods around the world, penetrating and restructuring the global economic system. Under this situation, the optimization of the logistics industry should be integrated with the development of the digital economy and develop in the same direction, taking advantage of the key opportunities of technological change to accelerate the high-quality construction of the logistics industry.

Keywords: *digital economy; logistics; industrial upgrading; digital technology*

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ВЛИЯНИЕ ЦИФРОВОЙ ЭКОНОМИКИ НА ПРОМЫШЛЕННУЮ МОДЕРНИЗАЦИЮ ЛОГИСТИЧЕСКОЙ ОТРАСЛИ

Логистическая отрасль, как новая точка экономического роста современного общества, является одной из наиболее перспективных и динамично развивающихся. Цифровая революция стимулирует цифровую трансформацию методов общественного производства во всем мире, проникая в глобальную экономическую систему и реструктурируя ее. В этой ситуации оптимизация логистической отрасли должна быть тесно взаимосвязана с развитием цифровой экономики. Ключевые возможности технологических изменений должны быть использованы для ускорения качественного роста логистической отрасли.

Ключевые слова: *цифровая экономика, логистика, модернизация промышленности; цифровая технология*

Digital economy refers to a series of economic activities carried out by leveraging the positive role of digital information technology to improve production efficiency and optimize economic structure. In 1995, Don Tapscott formally introduced the concept of digital economy in his book "Digital Economy".

In 2016, the "G20 Digital Economy Development and Cooperation Initiative" released by the G20 Hangzhou Summit mentioned that the digital economy has core characteristics represented by data-driven, technology clusters, and cross-field innovation. The rapid development of the digital economy using digital information technology as a technical means has not only changed residents' daily life and made it more convenient, but also provided new ideas and new challenges for the country's economic development. Academic circles divide the digital economy into two categories: digital economy in a narrow sense and digital economy in a broad sense. The digital economy in a narrow sense mainly refers to the transformation of traditional business models by digital information technology; while the digital economy in a broad sense covers almost all economic activities in social operations, and its applications are more extensive, including various economic activities centered on digital information technology. Chinese scholars define the digital economy as a new economic and social form, and believe that in this form, digital information elements can diffuse through digital infrastructure and be deeply integrated with economic activities, thereby driving the economy

to achieve high-quality development [2, p. 87-94]. In recent years, the scale of China's digital economy has maintained rapid growth, we can see from following figure.

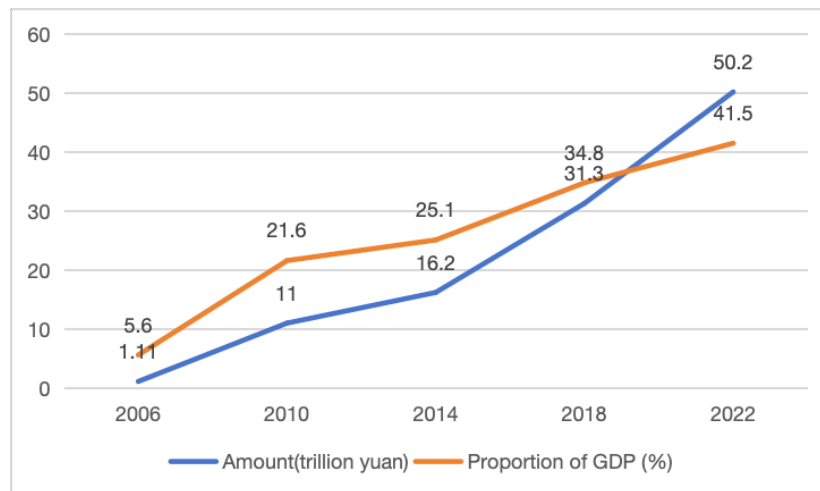


Fig. 1. China's digital economy size and percentage of GDP from 2006 to 2022

The current development status of the logistics industry. China's economy has maintained steady and rapid growth, creating favorable conditions for the rapid development of the modern logistics industry (Table).

Table

China's total social logistics volume and total logistics revenue from 2018 to 2022

	2018	2019	2020	2021	2022
Total social logistics (trillion yuan)	283.1	298.0	300.1	335.2	347.6
Logistics industry total revenue (trillion yuan)	10.1	10.3	10.5	11.9	12.7

The digital economy has optimized the original resource allocation of the logistics industry. Investing in digital technology can promote the rational flow and allocation of resources between different logistics departments. Relying on technological progress can promote the transformation and upgrading of enterprises, improve their production efficiency, and thereby promote overall industry optimization. Through the rational allocation of resources and the flow of resources between different departments, we can promote the transformation of profit growth methods from labor-intensive to knowledge-intensive, and use innovation to drive the economy to achieve high-quality development. The digital economy can make use of emerging technologies such as the Internet, big data, and artificial intelligence to provide necessary technical support for the upgrading and transformation of the logistics industry structure. In every aspect of packaging, transportation, and turnover, the intervention of digital technology can ultimately transform services from low added value to high added value, guiding the logistics industry to develop in the direction of digitization and intelligence [3, p. 35-37]. Secondly, using digital technology to connect different industries can eliminate information asymmetry as much as possible, thereby better integrating various industries with each other. In the past, industrial production was mostly independent of each other. However, with the development of the digital economy, especially the application of big data, some barriers that hindered industrial exchanges have been eliminated, and the industrial chain has been gradually improved. In addition, the openness and fairness of digital platforms allow various industries to compete in an orderly manner in the market, thereby continuously improving their internal structures to ensure an advantage in competition. Finally, under the new dual-cycle development pattern, the digital

economy can promote the upgrading of the industrial structure and give birth to new industrial forms by changing the demand side of logistics services [4, p. 119-121].

The digital economy can promote the optimization of logistics industry models. The intervention of digital technology can control the uncontrolled natural factors in the logistics process to the minimum impact. On the one hand, the delivery of logistics information can be optimized to improve the accuracy and timeliness of information; on the other hand, the integration of online digital technology into the logistics process can simplify the docking process between merchants and customers. The digital economy promotes the optimization of the logistics industry model, which is mainly reflected in the following two aspects: First, digital economy technology is used in logistics and transportation, which improves traditional methods, saves production costs, and effectively increases the turnover rate. Second, the integration of digital economy technology into the logistics industry can effectively improve its management level. The digital logistics management and control platform built using digital technology can not only help practitioners grasp market trends and obtain the latest policies and regulations in a timely manner, but also help enterprises promote their own image, improve the business capabilities of managers and expand the company's reputation.

The digital economy can promote the optimization of logistics service quality. From a technical perspective, the application of digital technology has optimized the service model of the logistics industry. Today, the integrated online service process in the logistics industry not only brings a more comfortable experience to users, but also caters to the different needs of various customers. Compared with traditional logistics business methods, logistics services in the new era of digital economy are more personalized. The service industry relies on various digital economic technologies such as online Internet technology to realize resource sharing between the service industry and customers, improve the service quality of the service industry, and innovate service models. Second, reshape product features. Through the continuous integration of various digital technologies such as the Internet and 5G networks, workers in the service industry have obtained more abundant resources with the help of technological power, and improved product features, so that products have more features and satisfy more customers demand, the supply capacity of the service industry has been effectively improved. At the same time, the new service production model can better adapt to the trend of industrial structure optimization under new business formats and promote the further development of the service industry.

The digital economy can meet the consumer demand and investment demand in the upgrading process of the logistics industry. For the consumer demand in the logistics industry, the development of the digital economy has greatly affected the changes in the behavior of its target consumers. Digital technology can make better use of big data, making it easier for consumers to compare similar services, which indirectly affects consumers' psychological needs. For logistics service providers, big data can also analyze consumers' personal consumption tendencies, provide targeted personalized services, and bring a better experience to consumers to meet people's needs. For investment needs, the development of digital technology has greatly improved the convenience of investment. The investment field will therefore involve new industrial forms, making investment needs more diversified and financial products more diversified, indirectly stimulating new vitality for the financial market.

The rapid development of the digital economy not only allows residents to enjoy the convenience of life, but also puts China's high-quality economic development on a new journey. The digital economy has changed the traditional industrial model and accelerated the transformation and upgrading of the traditional industrial structure. In the future, China still needs to make good use of the positive effects of the digital economy on upgrading its industrial structure to promote national economic construction.

Use the digital economy to promote the coordinated development of the logistics industry in different regions and make up for the shortcomings in rural areas. With the help of the digital economy, the inherent deficiencies in the natural geographical conditions of remote areas can be made up, helping logistics companies break through the information barriers that exist in traditional logistics, and deeply benefiting residents at all levels. The deepening of the logistics industry can further radiate its linkage influence and drive economic development in remote areas. Policies that are conducive to rural logistics operations should be introduced and implemented [5, p. 77-84]. The first is to increase the construction of cold chain logistics infrastructure for agricultural products in remote areas and provide financial support and tax incentives to related construction and operating enterprises. The second is to make comprehensive use of existing rural logistics resources, accelerate the construction of smart logistics networks adapted to rural areas, and enhance the coverage of rural logistics. The third is to effectively promote the two-way information of rural logistics, establish a rural logistics data service information database, and promote direct matching of agricultural product supply and demand information.

Pay attention to the cultivation of innovative talents and promote the upgrading of industrial structure driven by innovation. As digital technology penetrates deeply into the optimization of the logistics industry, more attention should be paid to the investment in high-quality human resources. First, a training system that combines logistics and digital talent education should be built to promote the integration of industry and schools. Secondly, in the context of the new era where new and old industries blend with each other, we must pay attention to the cultivation of composite talents to promote industrial optimization. Thirdly, the government should provide supporting policies and financial support for the introduction of talents in the logistics industry and implement them. We should introduce global talents with an open and inclusive attitude and create an innovative and open development environment for the optimization of the logistics industry.

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