

Research on the Effect and Mechanism of Digital Economy Promoting High Quality Economic Development

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[**Abstract**] In recent years, digital economy has become an important driving force to promote economic growth and high-quality development. This paper aims to explore the effect and mechanism of digital economy in promoting high-quality economic development. First of all, this paper analyzes the current situation and trend of the development of China's digital economy. Second, this paper examines the theoretical basis of digital economy in promoting high-quality economic development. Third, this paper analyzes the specific effects and mechanisms of digital economy in promoting high-quality economic development, including improving labor productivity, promoting industrial upgrading, optimizing resource allocation, increasing employment opportunities, etc. Finally, this paper puts forward some suggestions for the digital economy to promote high-quality economic development in the future, including strengthening the construction of digital infrastructure, improving the level of digital technology, promoting digital transformation, and strengthening the cultivation of digital talents.

[**Key words**] digital economy; high-quality development; effect; mechanism; proposal

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Digital economy is an economic activity based on digital technology and the Internet, with information and data as the main production factors and network transactions and services as the main form. In recent years, with the rapid development of the Internet, mobile communications, big data, artificial intelligence and other new generation information technologies, the digital economy has gradually become an important driving force to promote economic growth and high-quality development. The development of digital economy has not only brought new opportunities and challenges to traditional industries, but also spawned new industries and formats, injecting new impetus into economic transformation and upgrading and innovative development. Therefore, the study of the effect and mechanism of digital economy in promoting high-quality economic development is of great significance for promoting the transformation and upgrading of China's economy and achieving high-quality development.

1 Current situation and trend of digital economy development

The development of digital economy has shown a rapid growth trend in the world. According to statistics, the total volume of the global digital economy in 2019 reached US \$4.4 trillion, accounting for 15.5% of the global GDP. Among them, China's total digital economy has reached 11.1 trillion *yuan*, accounting for more than 25% of the global total digital economy, and has become the leader of the global digital economy. The development of China's digital economy has also shown a rapid growth trend in recent years. According to statistics, the scale of China's digital economy reached 31.3 trillion *yuan* in 2019, with a year-on-year increase of 17.6%, accounting for 34.8% of GDP. At the same time, the contribution rate of digital economy to GDP growth is also increasing year by year. The contribution rate of digital economy to GDP growth in 2019 is 58.8%.

The position and role of digital economy in China's economy are increasingly prominent. The digital economy has penetrated into various fields and industries, and has had a far-reaching impact on the transformation and upgrading of traditional industries. At the same time, the digital economy has also bred a number of emerging industries and formats, which has injected new impetus into economic growth and innovative development. For

example, emerging business forms such as mobile payment, online shopping, sharing economy and internet medical care are giving birth to new consumption scenarios and business models, driving consumption and industrial upgrading.

2 Problems and challenges in the development of digital economy

With the rapid development of digital technology, digital economy is becoming a new engine of economic growth, but also faces a series of problems and challenges.

2.1 Digital divide

Digital divide refers to the gap and inequality between different social groups, regions and countries in the use and access of digital technology and information resources. The digital divide exists not only between developing and developed countries, but also between different regions and social groups in the same country. The existence of digital divide makes some regions and social groups unable to make full use of the advantages of digital technology, affecting the development of digital economy and the process of digital transformation.

2.2 Data security and privacy protection

With the popularization and application of digital technology, a large number of personal and sensitive data are stored and transmitted digitally. Data security and privacy protection become more and more important. Data leakage, data abuse, network attacks and other problems occur frequently, which has brought huge losses and risks to individuals and enterprises. How to ensure the security and privacy of data has become an important challenge for the development of digital economy.

2.3 Shortage of digital technology talents

The rapid development of digital technology has brought a huge demand for digital technology talents, but the shortage of digital technology talents has become the bottleneck of the development of digital economy. The training of digital technology talents requires a certain amount of time and cost, and the development speed of digital technology is far faster than the training speed of digital technology talents, leading to the shortage of digital technology talents supply. The lack of digital technology talents will affect the innovation and development of digital economy.

2.4 Digital transformation and insufficient innovation capacity

Digital transformation requires enterprises to have certain digital capabilities, including digital technology application, digital organization, digital culture, etc. However, many enterprises still have defects and deficiencies in digital transformation and innovation ability, resulting in a slow process of digital transformation and insufficient innovation ability. The problem of digital transformation and insufficient innovation ability is an important challenge for the development of digital economy.

2.5 Digital economy regulation

The rapid development of digital economy has brought new regulatory issues. There are great differences between the development mode and business model of digital economy and traditional economy. The traditional supervision mode and rules cannot fully meet the needs of the development of digital economy. The regulation of digital economy needs to take into account the rapid development of digital technology and the change of business model, protect the rights and interests of consumers, maintain fair competition in the market, and support the innovation and development of digital economy.

2.6 Digital culture cognition and literacy

The development of digital economy requires all sectors of society to have certain digital culture cognition and literacy, which include the application ability of digital technology, the recognition and discrimination ability of digital information, and the protection ability of network security. However, at present, there is a widespread problem of insufficient awareness and literacy of digital culture in society, which has brought some obstacles to the development of digital economy.

2.7 Sustainable development of digital economy

The development of digital economy needs to consider the requirements of sustainable development. While digital economy brings economic growth and social welfare improvement, it will also bring environmental pollution, resource consumption and other problems. It is necessary to take certain measures to realize the sustainable development of digital economy.

3 Significance of developing digital economy

The development of digital economy has become one of the important trends of economic development in various countries. It is of great significance to the development of economic society. First, the digital economy is an important force to promote economic innovation. The continuous development and application of digital technology has provided sufficient conditions for the birth of new formats and models, and promoted the transformation and upgrading of economic forms. The development of digital economy can greatly promote enterprise innovation, create new growth points and employment opportunities. Second, digital economy is the key to improve economic efficiency and quality. The application of digital technology can improve the efficiency of production, operation and management, as well as service quality and customer satisfaction. The development of digital economy can promote the upgrading of traditional industries, improve the core competitiveness of enterprises, and achieve better resource allocation and industrial structure optimization. Third, the digital economy is an important means to improve people's lives. The application of digital technology can provide people with more convenient and efficient services, and improve people's quality of life and happiness. The development of digital economy can provide people with more diversified and personalized consumption choices and better meet their various needs. Fourth, the digital economy is a new engine to promote the development of the global economy. The development of digital economy not only brings new opportunities and challenges to domestic economic development, but also injects new impetus into the development of global economy. The application of digital technology has accelerated the process of global economic integration and promoted the in-depth development of international trade, investment and cooperation. Fifth, digital economy is a necessary condition for sustainable development. The development of digital economy can promote the conservation and utilization of resources, improve the ability of ecological environment protection and governance, and promote the sustainability of economic development. The development of digital economy helps to realize the harmonious coexistence between man and nature and build a green and low-carbon ecological civilization.

4 Theoretical basis of digital economy promoting high-quality economic development

Digital economy has a certain theoretical basis in promoting high-quality economic development.

4.1 Digital economy can improve labor productivity

The application of digital technology can realize the digitization, intelligence and automation of the production process. In the process of digital production, sensor, data acquisition, cloud computing and other technologies can realize the real-time monitoring and control of the production process, and then realize the refinement and efficiency of the production process. Intelligent production refers to the optimization and adjustment of the production process through artificial intelligence and other technologies on the basis of digitization. Automatic production is to realize the automation of production process through robot, automatic equipment and other technologies on the basis of intelligence. The application of these digital technologies can greatly improve production efficiency, and then improve labor productivity. In addition, the application of digital technology can help enterprises realize innovation. Through the application of digital technology, enterprises can obtain more data and information, better understand the demand of market and customer, and quickly respond to market changes. At the same time, digital technology can also help enterprises simulate, predict, and quickly assess the potential market demand and income of new products or services. The application of these digital technologies can greatly improve the innovation ability of enterprises, and then promote high-quality economic development.

4.2 Digital economy can promote industrial upgrading

The development of digital economy is of great significance to promote industrial upgrading. With the rapid development and wide application of digital technology, traditional industries are facing great changes and challenges. Digital economy can promote industrial upgrading by improving the level of industrial technology, optimizing production processes, enhancing product competitiveness and other aspects, so as to promote high-quality economic development. First, improve the level of industrial technology. The development of digital economy has brought a variety of new technologies and tools, such as artificial intelligence, cloud computing, big data and so on. The application of these new technologies can improve the level of industrial technology and realize the intellectualization and automation of the production process. For example, intelligent manufacturing can realize intelligent production, flexible production and personalized customization through digital technology, so as to improve production efficiency and product quality. Second, optimize the production process. Digital technology can help enterprises optimize production processes, and improve production efficiency and product quality. For example, equipment networking and information sharing through Internet of Things enable the intelligent control and management of the production process, so as to improve production efficiency and reduce production costs. In addition, digital technology can also realize the intelligent management of the supply chain and optimize the efficiency and quality of the supply chain. Third, enhance product competitiveness. The development of digital economy can promote product innovation and upgrading, and enhance product competitiveness. For example, digital technology can help enterprises realize personalized customization of products, meet the needs of different customers, and improve product added value and market competitiveness. In addition, the development of digital economy can also promote the interaction and communication between enterprises and customers, improve customer satisfaction and brand awareness, and enhance product competitiveness.

4.3 Digital economy can optimize the allocation of resources

The development of digital economy can effectively optimize resource allocation, improve resource utilization efficiency, and promote high-quality economic development. First of all, the development of digital economy makes information acquisition and analysis more convenient. Enterprises can use big data analysis to identify market demand, consumer behavior, etc., and then carry out more accurate product design, marketing and production planning. At the same time, the application of digital technology can also optimize the internal process of enterprises, and improve the efficiency of production and resource utilization. Second, the development of digital economy can also promote the optimization of resource allocation. With the rapid development of the digital economy, the acquisition and exchange of information has become more efficient and comprehensive, the information barriers between different regions and industries have been gradually broken, and the allocation of resources has become more flexible and efficient. For example, through digital transformation, some traditional industries can use digital technologies such as the Internet to promote products and services to the national and even global markets, so as to achieve a more rational allocation of resources. Third, the development of digital economy can also promote the recycling of resources. Digital technology can effectively monitor and manage waste, energy and other resources, and promote the recovery and reuse of resources. For example, through Internet of Things, waste can be finely managed and classified for recycling, which completes the recycling of resources, and reduces resource waste and environmental pollution.

4.4 Digital economy can increase employment opportunities

As a new trend of economic development, digital economy has a huge impact on the job market. The digital economy provides new opportunities and challenges for innovation, entrepreneurship and employment, and helps to promote more people to enter the job market. First, the development of new industries increases employment opportunities. The development of digital economy has promoted the rise of new industries. With the development of digital economy, more and more enterprises begin to innovate in the digital field. Emerging industries not only bring

more services and products to the society, but also bring more employment opportunities. For example, the emerging e-commerce, sharing economy, Internet finance and other new industries in the field of digital economy have driven the corresponding employment growth. According to relevant research, innovative enterprises in the field of digital economy have created more than 20 jobs on average. Second, the transformation and upgrading of traditional industries have brought new opportunities. Digital economy is also promoting the transformation and upgrading of traditional industries. With the application of digital technology, traditional industries can better realize intelligence, automation and efficiency, so as to improve productivity and product quality, which will bring new opportunities for the job market. For example, in the field of manufacturing, digital and intelligent production methods can not only improve the output and quality, but also shorten the production cycle, reduce costs, and provide more employment opportunities for enterprises. Third, the digital economy provides new forms of employment. The digital economy is also creating new forms of employment. The application of digital technology has brought more new forms of employment for the job market, such as freelancers, telecommuting, network entrepreneurship and so on. These new forms of employment can provide more flexible, independent and diversified employment opportunities for more people, and attract more young people and high-quality talents to enter the employment market. According to relevant data, the proportion of freelancers in the field of digital economy has exceeded 20% , and the proportion of telecommuting is also rising.

5 Specific effects and mechanisms of digital economy promoting high-quality economic development

Digital economy has many specific effects and mechanisms in promoting high-quality economic development.

5.1 Improve labor productivity

The application of digital technology can improve labor productivity. Digital technology can achieve efficient acquisition and transmission of information and data, improve production efficiency and management efficiency, and then improve labor productivity. For example, digital technology can realize the automation and intelligence of the production process, reduce labor costs and improve production efficiency. Through digital technology, information sharing and collaborative office can be realized, and the efficiency of work and management can be improved. In addition, digital technology can also realize flexible employment and remote office, and improve the efficiency of employment and production.

5.2 Promote industrial upgrading

The application of digital technology can promote industrial upgrading. Digital technology can bring the upgrading and optimization of industrial structure, promote the transformation and upgrading of traditional industries and the cultivation and development of emerging industries. For example, digital technology can realize the synergy and innovation of the industrial chain, and promote the optimization and upgrading of the industrial chain. Digital technology can also promote the development of emerging industries, such as artificial intelligence, big data, and cloud computing, which are becoming the new driving force of the digital economy.

5.3 Optimize resource allocation

The application of digital technology can optimize the allocation of resources. Digital technology can realize the refined management and optimal allocation of resources, and improve the efficiency of resource utilization. For example, digital technology can realize intelligent management and economical utilization of energy, and reduce energy waste and environmental pollution. Digital technology can also realize the intelligent management and optimal planning of the city, and improve the efficiency of urban operation and the quality of life for residents.

5.4 Increase employment opportunities

The application of digital technology can increase employment opportunities. Digital technology can create new jobs and employment opportunities, promote employment growth and optimize the employment structure. For example, digital technology can realize the development of new business forms such as e-commerce and sharing

economy, and create new jobs and employment opportunities. Digital technology can also realize flexible employment and remote office, and expand employment channels and forms.

6 Policy suggestions on digital economy promoting high-quality economic development

In order to further promote the contribution of digital economy to high-quality economic development, a series of policies and measures need to be taken. First of all, formulate the development plan of digital economy, clarify the strategic objectives and policy measures of digital economy development, and promote the transformation and upgrading of digital economy to the direction of high-quality development. Second, strengthen the construction of digital infrastructure. Strengthen the construction of digital infrastructure and improve the basic supporting capacity and development space of the digital economy. We should strengthen the construction of digital infrastructure, including network infrastructure, data center and cloud computing infrastructure, and promote the high-quality development of the digital economy. Third, promote the integration of digital economy and traditional industries. Promote the integration of digital economy and traditional industries, promote the application and promotion of digital technology in traditional industries, and realize the transformation, upgrading and digital transformation of traditional industries. Fourth, strengthen the cultivation of talents and innovation ability. Strengthen the cultivation of talents and innovation ability, build a talent team and innovation platform in the field of digital economy, and promote the innovative development and high-quality development of the digital economy. Fifth, strengthen policy support and supervision. Strengthen policy support and supervision, create a good environment for policy and market, and promote the healthy and sustainable development of the digital economy.

Conclusion

Digital economy is a new power in the new era and a new engine to promote high-quality economic development. This paper makes an in-depth analysis and research on the effect and mechanism of digital economy promoting high-quality economic development from the concept, characteristics, impact, mechanism and policy of digital economy. Digital economy has played an important role in promoting innovation-driven development, production efficiency, industrial upgrading, resource allocation, and employment opportunities, which provides new ideas, models, and impetus for high-quality economic development. At the same time, the digital economy is also facing some challenges, such as the digital divide, data security and privacy protection. The government and enterprises need to work together to strengthen policy support and market supervision, and promote the transformation and upgrading of the digital economy in the direction of high-quality development. I hope this paper can provide some reference for the research and practice of digital economy to promote high-quality economic development.

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