

# The connotation and path of deep integration of digital economy and real economy

Zhuosang Xian

Guangzhou College of Technology and Business, Guangzhou 510800, China

**Abstract:** Digital economy is one of the hot topics in today's social and economic development, while the real economy is an important subject that has been supporting the national economy. The deep integration of digital economy and real economy is an inevitable trend of today's economic development, and also an important way to achieve high-quality development of China's economy. In view of this, this paper discusses the connotation, current situation and path of the deep integration of digital economy and real economy, hoping to provide certain inspiration and reference for the current economic and social development.

**Key words:** digital economy; Real economy; Deep integration; Connotation and path

## Introduction

With the continuous innovation of digital technology, digital economy has become an important driving force for global economic development. Featuring informatization, intelligence and high efficiency, the digital economy can provide more accurate and convenient services for the real economy, and at the same time empower the real economy and promote its transformation and upgrading. The deep integration of the digital economy and the real economy has attracted much attention in the current context, but how can the digital economy and the real economy be deeply integrated? What is the path of integration? These questions still need to be further explored and studied.

## 1. The deep integration of the digital economy and the real economy

Digital economy has changed the composition of elements of the real economy

It is obvious that the digital economy is reshaping the factors of production. Through the application of digital technology, traditional factors of production such as capital, labor and land are being changed, and new factors of production such as data, algorithms and smart assets are constantly emerging. At the same time, the development of the digital economy has brought more opportunities for change to the market, such as huge and complex data information, increased transparency of information, and promoted the precise matching of supply and demand, as well as more efficient trading and collaboration models. In the future, the digital economy will further restructure the factors of enterprises, encourage innovation and flexibility, and enable enterprises to pay more attention to research and development, brand and service in the development process, so as to improve their competitiveness and market share. To sum up, the digital economy is profoundly changing the composition of elements of the real economy and bringing new development opportunities to the real economy.

### 1. The digital economy is reshaping the source of value for the real economy

The traditional real economy mainly relies on material production, capital investment and operation and management, while the digital economy adds new sources of value to the real economy through the application of information technology. Services such as data insight, intelligent decision-making, precision marketing and collaborative innovation brought about by the digital economy provide new power sources for the development of the real economy, and enable enterprises to better understand the market and consumer demand, improve management and production efficiency, reduce costs and risks, create new business models and broaden the space for growth. To sum up, the digital economy has reconstructed the source of value of the real economy, transformed the core of enterprise operation from the traditional resource-intensive to the digital technology-driven, and injected new vitality into the future development of the real economy.

### 2. The digital economy creates the development mode of the real economy

The technologies and services covered by the digital economy, such as cloud computing, big data, artificial intelligence and the Internet of Things, have laid a solid foundation for the transformation and upgrading of the real economy. Among them, the application of digital technologies has enabled all links of the industrial chain to collaborate and interact more efficiently, thus deepening the internal integration and external collaboration of the real economy. New business models and innovative formats supported by digital technologies have brought more opportunities and challenges to the real economy, such as the rapid development of the sharing economy, e-commerce, online education and other industries, providing a new direction for the transformation and upgrading of the real economy. To sum up, the development mode of the real economy created by the digital economy has transformed the traditional real economy into a more intelligent, service-oriented and sustainable direction.

## 2. The deep integration of digital economy and real economy

### 1. The depth of fusion is insufficient

At present, the digital economy is not sufficiently integrated with the real economy. On the one hand, the application of digital technologies in the real economy is still relatively limited, and many traditional industries and enterprises have yet to make full use of digital technologies to promote transformation and upgrading. On the other hand, the capacity and foundation of the real economy in the field of digitalization still need to be developed, and many enterprises are faced with many technical, human resources and cultural challenges in the process of digital transformation. In addition, the integration of the digital economy and the real economy also faces new and difficult

problems in data security, privacy protection, laws and regulations, which require further supervision and regulation. Therefore, the depth of integration between the digital economy and the real economy needs to be improved, and all parties of the government, enterprises and society need to work together to promote the close integration of the digital economy and the real economy, so as to achieve sound development of mutual promotion and integration.

#### 2. The quality of integration is low

At present, the integration of the digital economy and the real economy is still not of high quality and level. Although digital technology has been widely used in the real economy, there are still problems such as information silos and data barriers in the actual integration process. Many enterprises are still unable to make full use of digital technology for innovation and upgrading, and lack comprehensive digital transformation strategies and capabilities, which also makes it difficult for corresponding products or services to meet the expected standards and fail to meet the actual needs of consumers. At the same time, problems in data sharing, trust building, and cooperation models are constantly emerging, and the exploration of win-win mechanisms still needs to be improved. Limitations in technical standards, security risks and personnel training also limit the development and progress of emerging industries, and are worthy of in-depth study and practice. To sum up, the quality of integration between the digital economy and the real economy needs to be improved urgently, and it is necessary to strengthen policy support, strengthen cooperation and joint construction, and strengthen talent training to promote the high-quality integrated development of the digital economy and the real economy.

### 3. The path of deep integration of digital economy and real economy

#### 1. Digital technologies enable industrial transformation and upgrading

The application of digital technology can not only improve the production efficiency of enterprises, but also realize the intelligent, automated and digital production of enterprises, and further promote the industrial transformation and upgrading. Under the background of the new era, in order to promote the deep integration of the digital economy and the real economy, it is necessary to make full use of various advanced technologies to enable the modern and comprehensive development of the real industry. The application and practice of big data technology enables enterprises to better understand the needs of users, and at the same time, based on data integration, analysis and collation, they are better able to predict market trends and optimize their own production processes and marketing strategies. Through data analysis, we can further understand the market sales situation, product feedback, customer demand and other information, so as to provide support for enterprises to make better decisions and adapt to market development and changes. At the same time, the application and practice of the Internet of Things technology help enterprises realize real-time collection and transmission of information, and further implement the intelligence of production, transportation and other links. In this way, enterprises can connect production equipment and products, monitor the production and transportation process in real time, and detect abnormal situations early, so as to improve efficiency and reduce costs. In addition, the application of updated technologies such as cloud computing and artificial intelligence enables the centralized storage and management of enterprise data, providing excellent support for enterprise operation and development. The latter is to expand the space of simulation and optimization algorithms, bringing more possibilities for the development of the real economy. In short, the application of digital technology promotes industrial transformation and upgrading, and is an important support for the modernization and comprehensive development of the real economy. In the future, we should deeply explore the application path of digital technology, in order to grasp the market demand and technology application, and provide a steady stream of power for industrial reform and sustainable development of enterprises.

#### 2. Promote modernization and information construction at the enterprise level

At present, promoting modernization and informatization at the enterprise level has become an inevitable trend of development. In order to gain a larger market space and maintain a competitive edge in the digital era, enterprises must work hard in modernization and information construction, improve the ability and quality in all aspects, and meet the new challenges brought by the new era. To promote modernization at the enterprise level, it is first necessary to establish an advanced corporate culture and business philosophy, and must regard the enterprise as a whole, clarify the strategic planning and development direction of the enterprise, and realize the integrated management of the enterprise. At the same time, enterprises should have their own uniqueness, characteristics, to maintain market competitiveness, but also to strengthen cooperation with other enterprises, to achieve win-win results in all aspects. Secondly, enterprises should continuously improve the technical level and build a digital production process and supply chain management system. At the same time, improve the supply chain management system, effectively monitor and manage the information flow, logistics and capital flow of the entire supply chain, improve the efficiency of enterprise resource allocation, reduce resource waste and save costs. Finally, enterprises should pay attention to the recruitment, training and promotion of talents. The digital era needs outstanding talents with various skills. Enterprises should pass strict selection criteria to ensure that the talents matched with the enterprise plan and concept are selected, further train them and exercise them, develop modern human resource system, and further improve the overall strength and market competitiveness of enterprises. To sum up, promoting modernization and information construction at the enterprise level is the only way for enterprises to survive and develop in the digital era. Enterprises need to establish advanced corporate culture and business philosophy, establish digital production process and supply chain management system, strengthen talent training and innovation ability improvement, so as to achieve leap-forward development of enterprises.

#### 3. Product development and design tend to be intelligent and agile

The deep integration of the product layer is the basis for the deep integration of the digital economy and the real economy. It mainly

considers how to achieve the deep integration of the digital economy and the real economy at the relatively micro product level, including enabling product innovation, promoting product innovation iteration, and rapid product development, so as to realize the transformation from lean production to agile manufacturing. With the application of advanced technologies such as big data, Internet of Things and artificial intelligence, enterprises can use these technologies to develop products with humanized characteristics, such as logistics handling cars, hotel food delivery robots, etc., which not only meet the diversified and specialized needs of customers, but also save a lot of time costs for human production and life. The application of this kind of technology is by no means a single field, the data analysis and processing supported by big data, applied in customer research, customer relationship maintenance, market analysis, marketing, etc., remote sensing, GIS and other applications in logistics and transportation, automotive systems, etc., but also to create more possibilities for intelligent products. To sum up, the development of digital economy makes product development and design tend to be intelligent and agile.

#### 4. Suggestions on deep integration of digital economy and real economy

The deep integration of the digital economy and the real economy has brought better productivity and economic growth, and also provided a new direction for China's social and economic development. In the future, we must actively explore the policies and laws for the integration of the digital economy and the real economy, promote industrial transformation with government support, create a better development environment and market order, and further enhance their synergistic effect and contribution. At the same time, it is necessary to deepen advanced technology research and development, digital talent training and other aspects, solid digital economy construction foundation, promote the modernization of all walks of life transformation and upgrading, the real development of high-quality business models, promote the steady growth of the country, social economy. We firmly believe that the deep integration of the digital economy and the real economy can better promote each other's development and build a competitive and innovative future economic ecosystem.

#### Concluding Remarks

All in all, the deep integration of digital economy and real economy has become an inevitable trend of today's economic development. Through the application and innovation of digital technology, the element composition of the real economy has been redefined, the source of value has been reconstructed, and the development mode has been created. However, at present, the problems of insufficient depth and low quality of integration between digital economy and real economy still exist. Therefore, it is necessary to promote modernization and information construction at the enterprise level, promote the transformation and upgrading of industries enabled by digital technology, and make efforts to become more intelligent and agile in product development and design. It is believed that the deepening integration of the digital economy and the real economy will inject new vitality into the high-quality development of China's economy.

#### References:

[1] Chaoyu Liu. Digital technology innovation enables the deep integration model of digital economy and real economy: Based on the perspective of production-consumption network [J]. Shanghai Economic Research, 2023(08):55-69.

**About the author:** Zhuosang Xian, born in April 1989. Female, born in Luoding, Guangdong Province, graduated from Guangxi University with a master degree in communication studies. She is a lecturer. Her research direction is advertising, Marketing.  
project: Promoting the Deep Integration of Digital Economy and Real Economy in Foshan: Driving Factors and Practical Paths  
Subject No: 2023-GJ135