



# Research on the Influencing Factors of Digital Economy Development in Chinese Cities

Siqi Li

The University of Warwick, Coventry, United Kingdom

DOI: 10.32629/memf.v5i4.2537

---

**Abstract:** In today's context, digital economy has become a key engine of economic growth worldwide, and China, as a developing country with a high population density and a fast pace of technological development, has attracted global attention to the development process of digital economy. In the urban digital economy, the quality of its development is often affected by many factors, such as policy environment, market size, technological innovation and network security, etc. In this paper, we will take this as the background to elaborate, and hope to be able to provide reference for the relevant people.

**Keywords:** digital economy; urban development in China; influencing factors

---

## 1. Introduction

As a new form of economic development in the 21st century, the development of China's digital economy is related to the direction of the national economy, and is more closely related to the people's daily consumption behaviors and urban life. An in-depth discussion of the factors influencing the development of China's urban digital economy is of practical significance in guiding the direction of the development of China's digital economy, optimizing the layout of the digital economy, and enhancing the competitiveness of the cities.

## 2. Prerequisites for urban economic development

In the context of historical development, any change in economic form can be regarded as a breakthrough and innovation, therefore, the concept of "digital economy" itself is a kind of innovative economic situation, and its development process will inevitably lead to the change and development of the mode of production, organization and management, and the mode of resource allocation of human society.

First, compared with the process of innovation in the industrial era, digitalization and intelligence during the development of the digital economy will inevitably lead to a decline in the proportion of the more traditional factors of production, such as urban and rural labor and land resources in social production, and technology and data as a substitute for the gradual increase in the proportion of the scientific and technological innovation, which in turn affects the core factors of production.

Second, the development of digital technology can change the regional and time factors under the traditional model, break through the constraints, and drive the integration of factor resources into the new era characterized by free flow, and in the process of coordinating the dynamic matching between innovation subjects and resources such as colleges and universities, enterprises and scientific research units, there are new opportunities for the innovative development of the economy.

Objectively speaking, only by actively strengthening the proportion (contribution) of science and technology innovation in the economic development of the new era can we truly promote the economy to realize high-quality and steady development and progress; in other words, science and technology innovation and digital innovation are the key prerequisites for the stable and high-quality development of the city's economy, while the steady development of the economy will further pull digital and science and technology innovation to form a virtuous circle.

## 3. Analysis of factors influencing the development of digital economy in Chinese cities

The digital economy is capable of stimulating changes in the market structure, forms of operation and resource allocation in urban areas, and plays a key role in promoting the upgrading of industrial structure and the process of innovation. In the current social context, there are many influencing factors that will affect the process of change in the digital economy, which will be elaborated from a macroscopic point of view in the following.

### **3.1 Policy environment factors**

First, the Chinese Government attaches great importance to the development of the digital economy and has formulated a series of forward-looking and targeted policies and measures. First, the Government has vigorously promoted the "Internet Plus" action plan, which encourages traditional industries to actively embrace the Internet and accelerate their digital transformation[1]. The Government has provided substantial support for the transformation of traditional industries into a digital economy by offering tax incentives and financial support.

Second, the government's regulation of the digital economy is also becoming more and more perfect. While the digital economy is developing rapidly, some new problems and challenges also come up, such as data security, privacy protection, unfair competition, etc[2]. In order to guarantee the healthy development of the digital economy, the government has formulated a series of relevant laws and regulations, such as the Cybersecurity Law and the E-commerce Law, in order to regulate the market order and protect the rights and interests of consumers. These laws and regulations have provided a solid institutional guarantee and created a fair competition environment for consumers and enterprises.

Third, the Government also actively promotes international cooperation and exchanges in the digital economy. The digital economy is a global industry, and cooperation and exchanges among countries are of great significance in promoting the development of the digital economy. The Chinese Government actively participates in international cooperation on the digital economy, and has established close cooperative relationships with a number of countries and regions to jointly promote the prosperity and development of the digital economy.

### **3.2 Market size factor**

Among the factors influencing the development of digital economy in Chinese cities, the market scale factor occupies a pivotal position, which not only directly determines the potential development space of the digital economy, but also indirectly affects the layout and development speed of the digital economy-related industrial chain[3].

First, the size of the market directly determines the potential user base of the digital economy. In China, with the acceleration of urbanization and the improvement of people's living standards, the number of urban populations has been increasing, and the penetration rate of the Internet and mobile devices has continued to increase, which provides a huge potential user base for the digital economy, enabling all kinds of digital products and services to reach the market quickly and realize the effect of economies of scale.

Second, the expansion of market scale promotes the development of digital economy-related industry chain. In the field of digital economy, a successful digital product or service often requires the support of a complete industrial chain, including research and development, production, sales, operation and other links, and the expansion of the market scale means that there is more space for development and more market demand for all of these links, which attracts more enterprises and capital to enter the field of digital economy and promotes the prosperity of the whole industrial chain[4].

Third, market size affects the competitive landscape of the digital economy. In cities with larger market sizes, competition in the digital economy tends to be more intense, but it is also fairer and more open, and large-scale markets can attract the participation of many enterprises and innovators, making the market more diversified and inclusive; in addition, intense market competition also promotes cooperation and innovation among enterprises, and pushes forward the progress and development of the entire industry.

### **3.3 Technological innovation factor**

In recent years, China has made many remarkable innovations in the field of digital economy, such as artificial intelligence, big data, cloud computing, blockchain and other cutting-edge technologies, and these technological innovations have not only greatly enhanced the core competitiveness of China's digital economy, but also provided strong support for the transformation and upgrading of traditional industries.

First, take artificial intelligence as an example, with the rapid development of deep learning, natural language processing, image recognition and other technologies, the application of artificial intelligence in various fields is becoming more and more extensive. In the financial field, AI technology can achieve accurate risk control and improve the efficiency of financial services through the analysis of big data; in the field of medical care, AI technology can help doctors diagnose diseases and provide patients with a more personalized treatment plan. It not only improves the intelligence level of related industries, but also can win advantages for China's digital economy in global competition.

Second, it promotes the transformation and upgrading of traditional industries. Through the introduction of advanced technologies such as big data and cloud computing, enterprises can achieve accurate analysis of market trends, optimize production processes and improve the quality and efficiency of products and services. For example, manufacturing enterprises can use big data to analyze consumer demand and achieve personalized and customized production; agricultural enterprises

can use IoT technology to achieve smart agriculture and improve crop yield and quality. These changes not only promote the transformation and upgrading of traditional industries, but also inject new vitality into the development of the digital economy.

Third, it promotes the deep integration of the digital economy with the real economy. With the wide application of digital technology, the digital economy has penetrated into all areas of social life, forming a close interactive relationship with the real economy, and this integration not only promotes the optimization and upgrading of the industrial structure, but also provides a new impetus for economic growth.

### 3.4 Cybersecurity (network environment) factors

The development of the digital economy also faces cybersecurity risks, and this issue has become one of the factors restricting the development of the digital economy. Information leakage, cyberattacks and other security risks will not only affect consumer confidence and trust, but also pose a threat to the healthy development of the digital economy.

Cybersecurity hazards can affect consumer confidence and trust. In the era of the digital economy, consumers are increasingly concerned about personal privacy and data security, and if an enterprise's cybersecurity protection is ineffective, resulting in the leakage or misuse of consumer information, it will seriously damage consumer interests and trust, which in turn will affect the healthy development of the digital economy.

Cybersecurity risks also pose a threat to the stable operation of the digital economy. In the digital economy, various information systems and platforms are interrelated and interdependent, and once a security problem occurs in a certain link, it may trigger a chain reaction and have a serious impact on the entire digital economy system.

## 4. Conclusion

To summarize, the role of digital economy in promoting economic growth and quality and efficiency changes in urban areas has shown an increasingly obvious trend, and in the process of building a digital economy-driven urban economic growth, government departments and all sectors of society need to actively cooperate to seize the dynamic effects and spatial spillover effects of the digital economy, which will make a macro-contribution to the development of the society and the progress of the country, and enhance China's international competitiveness.

## References

---

- [1] Zhenjian Xu, Lachang Lv, Xiaohua Xin. Spatial differentiation of digital economy development in Chinese cities and its influencing factors[J]. *Economy Vertical*, 2023(8):71-79.
- [2] Zhonghai Cheng, Yimeng Wang, Zhuo Wang. Research on the impact of digital economy on urban economic disparity — an empirical test based on panel data of 280 prefecture-level cities in China[J]. *Urban Issues*, 2022(10):93-103.
- [3] Xiuyun Yang, Zhennan Cong, Yuehu Liu. Can the development of digital economy solve the mystery of lagging structural upgrading of service industry-Empirical evidence from panel data of Chinese cities[J]. *Journal of Shanxi University of Finance and Economics*, 2023(4):64-78.
- [4] Xuesi Zhong, Rui Zheng, Kaiwen Jiang. Research on the coupled and coordinated relationship between digital economy and urban resilience in Chinese city clusters[J]. *Resource Development and Market*, 2023(10):1320-1332.