# Deep Integration of Real Economy and Digital Economy: Research on the Path and Strategy of Promoting Chinese Path to Modernization

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**Abstract:** The study found that the deep integration of the real economy and the digital economy is an important engine to promote high-quality economic development and achieve Chinese path to modernization. This article analyzes the current situation and challenges of deep integration, proposes strategies such as optimizing policy environment, strengthening technological innovation, improving talent cultivation, and promoting industrial synergy, aiming to provide theoretical support and practical guidance for comprehensively deepening reform and national rejuvenation.

*Keywords*: Real economy; Digital economy; Deep integration; Chinese modernization high quality development; Industrial upgrading

## 1. Introduction

In this context, promoting the deep integration of the real economy and the digital economy has become an important strategic choice for achieving high-quality economic development. The real economy is the foundation of the national economy, and the digital economy is the new engine for future economic development. The deep integration of the two can not only enhance the competitiveness of traditional industries, but also stimulate new formats and models, injecting new momentum into the economy.

This paper aims to analyze the current situation and challenges of the deep integration of the real economy and the digital economy, explore the paths and strategies to promote their integration, and provide theoretical support and practical guidance for the realization of Chinese path to modernization and the comprehensive deepening of reform.

## 2. The background and significance of the deep integration of the real economy and the digital economy

The real economy is the foundation of the national economy, covering traditional industries such as manufacturing, agriculture, and construction. It is an important field for creating social wealth and providing employment opportunities. The digital economy relies on data as the key production factor and information technology as the core driving force, promoting comprehensive economic and social transformation through digitization, networking, and intelligent means. The deep integration of the real economy and the digital economy is not only a combination of technology, but also a profound transformation of industrial forms, business models, and organizational structures.

Promoting the deep integration of the real economy and the digital economy has important practical significance. Firstly, deep integration can enhance the efficiency and competitiveness of traditional industries. Through the application of digital technology, traditional enterprises can achieve intelligent production processes, scientific management decisions, and agile market responses, thereby improving production efficiency and product quality. Secondly, deep integration helps cultivate new business formats and models. The innovative application of digital technology has given birth to new business models such as sharing economy and platform economy, injecting new momentum into economic development. Finally, deep integration is an important way to promote high-quality economic development. Through digital empowerment, the real economy can achieve green and intelligent transformation, promote industrial structure optimization and upgrading, and achieve sustainable development. [1]

## 3. The current situation and challenges of deep integration between the real economy and the digital economy

In recent years, China has made significant progress in promoting the deep integration of the real economy and the digital economy. At the policy level, the country has introduced a series of support policies, such as the Outline of the Digital Economy Development Strategy, the Guiding Opinions on Deepening the Development of Industrial Internet by "Internet

plus Advanced Manufacturing", etc., which provide policy guarantees for deep integration. At the practical level, many enterprises actively explore digital transformation and have emerged a number of successful cases. For example, smart factories in the manufacturing sector, smart agriculture in the agricultural sector, and digital platforms in the service sector have all demonstrated the enormous potential of deep integration.

However, the deep integration of the real economy and the digital economy still faces many challenges. Firstly, technological bottlenecks have hindered the process of deep integration. Although China has made significant breakthroughs in areas such as 5G, artificial intelligence, and big data, there are still shortcomings in core technologies and key equipment, which restrict the widespread application of digital technology. Secondly, the problem of talent shortage is prominent. Digital transformation requires a large number of versatile talents who understand both traditional industries and digital technologies, and there is a significant gap between current talent supply and demand. In addition, data security and privacy protection issues cannot be ignored. As data becomes an important factor of production, ensuring data security and protecting user privacy have become essential issues that must be addressed in the process of deep integration. [2]

## 4. The path to promote the deep integration of the real economy and the digital economy

To effectively promote the deep integration of the real economy and the digital economy, efforts need to be made from the following aspects:

Firstly, optimize the policy environment and strengthen top-level design. The government should further improve relevant policies and regulations to provide institutional guarantees for deep integration. At the same time, strengthen top-level design, formulate medium - and long-term development plans, clarify the goals, key areas, and promotion paths for deep integration. In addition, financial support for digital transformation should be increased, and enterprises should be encouraged to undergo digital transformation through tax incentives, subsidies, and other means.

Secondly, strengthen technological innovation and break through key core technologies. We need to increase research and development investment in cutting-edge technologies such as 5G, artificial intelligence, big data, and blockchain, and break through key core technology bottlenecks. At the same time, encourage enterprises to increase their technological innovation efforts and promote the deep integration of digital technology with traditional industries. In addition, it is necessary to strengthen industry university research cooperation, establish collaborative innovation mechanisms, and promote the transformation of scientific and technological achievements.

Thirdly, improve the talent cultivation system and solve the problem of talent shortage. We should strengthen the cultivation of composite talents, encourage universities to offer interdisciplinary courses, and cultivate talents who understand both traditional industries and digital technologies. At the same time, strengthen vocational training and enhance the digital skills of existing practitioners. In addition, talent introduction policies should be improved to attract high-level overseas talents to return to China for entrepreneurship and employment.

Finally, promote industrial synergy and build an integrated development ecosystem. We should encourage collaborative innovation among upstream and downstream enterprises in the industrial chain and build a digital ecosystem. At the same time, promote cross industry and cross domain cooperation, facilitate resource sharing and complementary advantages. In addition, we should strengthen international cooperation, actively participate in global digital economy governance, and enhance China's international discourse power in the field of digital economy.

## 5. Strategies for promoting the deep integration of the real economy and the digital economy

To effectively promote the deep integration of the real economy and the digital economy, the following strategies need to be adopted:

Firstly, strengthen policy guidance and improve the support system. The government should formulate more precise industrial policies, clarify the key areas and priority directions for deep integration. At the same time, we will improve fiscal and financial support policies and establish special funds to support the digital transformation of enterprises. In addition, intellectual property protection should be strengthened to provide a favorable environment for innovation.

Secondly, promote technological innovation and enhance core competitiveness. We need to increase investment in basic research and break through key core technological bottlenecks. At the same time, encourage enterprises to increase their R&D investment and establish a technological innovation system. In addition, it is necessary to strengthen the cooperation between industry, academia and research, and promote the transformation of scientific and technological achievements.

Thirdly, improve the talent cultivation mechanism and solve the problem of talent shortage. We should strengthen the cultivation of versatile talents and encourage universities to offer interdisciplinary courses. At the same time, strengthen vocational training and enhance the digital skills of existing practitioners. In addition, talent introduction policies should be improved to attract high-level overseas talents.

Finally, promote industrial synergy and build an integrated development ecosystem. We should encourage collaborative innovation among upstream and downstream enterprises in the industrial chain and build a digital ecosystem. At the same time, promote cross industry and cross domain cooperation, facilitate resource sharing and complementary advantages. In addition, international cooperation should be strengthened to enhance China's international discourse power in the field of digital economy. [3]

# 6. Conclusion

The deep integration of real economy and digital economy is an important engine to promote high-quality economic development and realize Chinese path to modernization. This article analyzes the current situation and challenges of deep integration, and proposes strategies such as optimizing policy environment, strengthening technological innovation, improving talent cultivation, and promoting industrial synergy. In the future, with the continuous improvement of policies, the continuous innovation of technology and the continuous emergence of talents, the deep integration of the real economy and the digital economy will inject new momentum into the high-quality development of China's economy and provide strong support for the realization of Chinese path to modernization and the great cause of national rejuvenation.

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