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Thoughts and Countermeasures on the Development of Digital Economy

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Abstract: With the rapid development of information technology and the deepening of globalization, big data technology and digital economy, as the most important form of technological and economic change, are having a far-reaching impact on China's economic and social development. In view of the problems faced by the development of digital economy in China under the current background of big data, such as lagging institutional construction, lack of human resources, inadequate core technology and unbalanced development of related industries caused by the digital divide, this paper puts forward measures to strengthen the relevant institutional construction, attach importance to the training and introduction of talents, and promote technological innovation. In the past, it provided strategic suggestions for the healthy and stable development of China's digital economy, and also provided some reference for the development of China's digital economy.

Keywords: Big Data; Digital Economy; Development Issues; Strategy Research

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Introduction

With the rapid development of science and technology and the advent of the information age, big data has become an important engine to promote social and economic

development, but also to shape a new economic form-digital economy. Digital economy is based on data, using information and communication technology to produce, trade and innovate, thus realizing the digitalization and networking[1]of economic activities. The emergence of this economic form has not only changed the operation mode of the traditional economy, but also has a far-reaching impact on the social and economic development of the country.

As the largest developing economy in the world, China is facing opportunities and challenges[2,3]in the face of this global digital transformation. On the one hand, the development of big data and digital economy has brought great opportunities for China's development, which will help to enhance the comprehensive strength of the country, build a new development pattern, and then build a modern economic system. On the other hand, the development of digital economy under the background of big data has also encountered a series of problems, such as the lag of institutional construction, the lack of digital talent resources, the backwardness of digital core technology and the digital divide, which need to be solved urgently.

The purpose of this paper is to discuss the problems and countermeasures of the development of digital economy in China under the background of big data, in order to provide strategic suggestions for the healthy and stable development of digital economy in China, and to provide certain reference and guidance for the development of China's digital economy.

1. The Necessity of the Development of Digital Economy in China

1.1 Inherent Requirements for Enhancing Comprehensive National Strength

As the largest developing economy in the world today, China is at an important stage of deepening reform in an all-round way and accelerating modernization. The trend of global technological change and industrial transformation and upgrading has provided China with unprecedented historical opportunities. The development of digital economy is undoubtedly an inherent requirement[4]for enhancing China's comprehensive national strength, improving social productivity and promoting high-

quality economic and social development.

On the one hand, the digital economy helps our country to tap new growth points in traditional industries, such as through the deep mining and analysis of big data, can better meet consumer demand, improve production efficiency, and promote industrial upgrading; On the other hand, the digital economy can also promote the rapid development of emerging industries, such as e-commerce, cloud computing, artificial intelligence and other fields, thus creating new employment opportunities and promoting social stability.

The development of digital economy is conducive to enhancing China's position in the global economic system and is a key step in realizing the great national rejuvenation of the Chinese nation.

1.2 The Only Way to Build a New Development Pattern

At present, China's economy has shifted from the stage of high-speed growth to the stage of high-quality development, and a new development pattern is taking shape. As an important part of the new economic form, the digital economy has become a new driving force for social and economic development. Whether at home or abroad, the digital economy is playing an increasingly important role[5].

Internally, digital economy can effectively promote the optimization and upgrading of industrial structure and change the mode of economic growth. For example, through digital technology, it can improve production efficiency, reduce production costs and enhance the competitiveness of enterprises; Externally, digital economy can enhance China's position in the global value chain and enhance China's international competitiveness. For example, through e-commerce, Chinese enterprises can sell their products to all parts of the world, increase exports, and then promote the development of foreign trade.

Developing digital economy is not only the inevitable choice to achieve high-quality development, but also the only way to build a new development pattern.

1.3 The Proper Meaning of Building a Modern Economic System

As China's economic development enters a new era, it must be guided by the construction of a modern economic system to promote the quality, efficiency and power changes of economic development. In this process, the digital economy plays a vital role[6].

First of all, the digital economy can provide scientific basis for economic decision-making by providing massive data. Through the analysis of big data, we can reveal the law of economic development and provide reference for policy formulation. Then, the digital economy can drive innovation in the economic system. Through the emerging cloud computing, artificial intelligence, block chain and other technologies, we can achieve the innovation of production mode and the improvement of production efficiency, and promote the transformation and upgrading of the economic system. Finally, the digital economy can promote the opening of the economic system. The development of digital technology makes cross-regional and cross-national exchanges easier, which plays an important role in promoting the opening of the economic system.

Developing digital economy is the proper meaning of building a modern economic system and an important means to achieve the goal of the new era of China's economic development.

2. Problems Faced by the Development of Digital Economy in China Under the Background of Big Data

2.1 The Institutional Construction of Digital Economy is Lagging Behind

In the tide of rapid development of global digital economy, although China has made remarkable achievements, there are still significant lagging problems in institutional construction, which greatly hinders the process[7]of in-depth development of China's digital economy under the background of big data.

First, the understanding and understanding of the digital economy is insufficient. Although China has realized the importance of digital economy, there is still a lack of

understanding of the nature, function and operation of digital economy in the process of policy formulation and implementation, which hinders the scientific formulation and effective implementation of relevant systems to a certain extent. Second, the relevant laws and regulations of the digital economy are not perfect. In the current system of laws and regulations, the provisions on digital economy are relatively scarce, and the existing laws and regulations can not cover the all-round needs of the development of digital economy, and many laws and regulations can not adapt to the new situation and new problems of the development of digital economy, which to some extent restricts the healthy development of Digital Economy. Third, the regulatory system of the digital economy is not perfect. Although China has begun to explore the establishment of a digital economy regulatory system, due to the particularity of the digital economy, the current regulatory system still has great shortcomings. On the one hand, regulators have insufficient professional knowledge of the digital economy, which makes it difficult to carry out effective regulation; on the other hand, the existing regulatory means and methods often fail to meet the needs of the development of the digital economy, and the regulatory effect is limited. Fourth, the standard system of digital economy is backward. Standards are an important tool to guide and standardize the development of the industry, but in the field of digital economy in China, the construction of relevant standards system is still in its infancy and has not yet formed a perfect standard system, which makes the development of digital economy lack of norms and further increases the risk of the development of digital economy.

2.2 Lack of Digital Talent Resources

Under the background of big data, the lack of digital talent resources has become one of the important problems facing the development of digital economy in China. This is mainly reflected in four aspects: the insufficient overall number of talents, the structural mismatch of talents, the uneven quality of talents and the imperfect mechanism of talent flow.

First of all, the overall number of digital talents is insufficient. The development of digital economy has a huge demand for talents, especially in the fields of data science,

cloud computing, artificial intelligence and so on, the demand for professionals is far greater than the supply. However, China's policies and mechanisms in education, training and talent introduction have not fully met this demand, resulting in a serious shortage of the overall number of digital talents.

Then, the structural mismatch of digital talents is prominent. Although China already has a certain number of digital talents, the supply and demand of talents in different fields are not balanced. The supply of talents in traditional industries exceeds the demand, while there is a serious lack of relevant talents in key fields such as big data analysis and artificial intelligence algorithm design.

Finally, the quality of digital talents is uneven. Due to the unequal distribution of educational resources and the difference of educational quality, there are great differences in the knowledge level, skill level and innovation ability of digital talents in China. Especially in the first-tier cities and developed areas, high-quality digital talents are gathered, while in the central and western regions and remote areas, there is a serious shortage of relevant talents.

2.3 Backward Digital Core Technology

Digital core technology is the foundation and engine to drive the development of digital economy, but under the background of big data, there are still significant backward problems[8]in digital core technology in China.

The ability of independent innovation of core technology is weak. Although China has made remarkable achievements in the application and promotion of digital technology, it is relatively backward in the independent research and development of core technology, which is mainly due to the deficiencies in basic scientific research, original innovation ability and scientific research environment, resulting in our dependence on the introduction of foreign technology in many key areas.

The speed of technological upgrading is slow. In the current era of digital economy, the speed of technological renewal is very fast, and China's response speed and ability in this regard are relatively weak. Due to various reasons such as capital, talent and system,

China's technological upgrading process is often unable to keep up with the pace of global development.

The R & D investment of core technology is insufficient and the industrialization ability of core technology is weak. On the one hand, the R & D of core technology needs a lot of financial support, but the related investment in China is relatively small, which is mainly due to the problems in the formulation of science and technology policy, the mechanism of scientific research investment and the allocation of scientific and technological resources. On the other hand, even after mastering some core technologies, there are obvious deficiencies in the ability to transform these technologies into real output value, which further limits the development of digital core technologies in China.

2.4 Digital Divide Leads to Unbalanced Development of Related Industries

Under the background of big data, the unbalanced development of related industries caused by the digital divide has become increasingly prominent, which has become a key factor[9]restricting the healthy development of China's digital economy. On the one hand, the digital divide between regions has increased the imbalance of industrial development. In China, the first-tier cities and developed areas have a high degree of digitalization, with abundant technology, talent, capital and data resources, while the central and western regions and remote areas have a relatively low degree of digitalization. This digital divide between regions makes the development trend of related industries show an obvious imbalance. On the other hand, the digital divide between industries leads to the imbalance of industrial structure. Some highly digitized industries, such as e-commerce and Internet finance, have benefited from the rapid development driven by digital technology, while the digitalization process of traditional industries is relatively slow and the momentum of development is relatively backward, which further widens the development gap between industries.

3. Countermeasures for the Development of China's Digital Economy Under the Background of Three Big Data

3.1 Strengthen the Institutional Construction Related to Digital Economy

With the rapid development of digital economy, it is particularly important to adapt to its characteristics and needs of the system construction. To solve the problem of lagging institutional construction of digital economy in China, we should start from legislation, policy, supervision and self-discipline, so as to comprehensively promote the healthy, orderly and sustainable development of digital economy in China.

Starting from the top-level design, we should establish and improve the laws and regulations of the digital economy. The formulation of laws and regulations related to digital economy is the premise to ensure the healthy development of digital economy. We should clarify the ownership of digital assets, standardize the collection, use, sharing and protection of data, and ensure network security. At the same time, we should also solve new problems such as e-commerce transactions, Internet finance and Internet copyright, so as to provide legal protection for the development of digital economy.

Strengthen policy guidance and create a good environment for development. Enterprises and individuals should be encouraged to invest in the development of digital economy through tax incentives, financial support and supporting policies. At the same time, the government should actively promote the application of digital technology, encourage the digital transformation of traditional industries, and promote the in-depth development of digital economy.

We should optimize the regulatory mechanism and protect the rights and interests of consumers and market order. We should establish and improve the regulatory mechanism of digital economy, ensure fair competition in the market, prevent monopoly and unfair competition, strengthen the protection of consumers'rights and interests, standardize online transactions, avoid fraud and fraud, and protect consumers' legitimate rights and interests.

3.2 Attaching Importance to the Training and Introduction of Talents in Big Data and Digital Economy

Talents are the core elements of the development of digital economy. Faced with the

current shortage of digital talent resources, we need to actively deal with the shortage of digital talent resources from the aspects of education and training, enterprise independent training, overseas talent introduction and incentive mechanism construction, so as to provide sufficient talent support for the sustainable development of China's digital economy.

First, strengthen education and training related to digital economy and big data. We can revise the education curriculum, increase investment in the education of cutting-edge technologies such as big data and artificial intelligence, and provide students with opportunities to understand and apply these technologies in depth. We also need to strengthen the continuing education and skills training of on-the-job personnel, improve their digital skills and literacy, and make them adapt to the needs of the digital economy.

Second, guide and support enterprises to train talents independently. Enterprises are the main body of the digital economy, and their demand for talents is more direct and urgent. The government can encourage enterprises to invest in personnel training by formulating preferential policies, such as tax incentives and financial subsidies, and cooperate with higher education institutions to form a good ecology of personnel training.

Third, we should make use of the international talent market and actively introduce overseas high-level talents. By providing competitive salaries, excellent working environment and development space, we can attract foreign talents to work and live in our country, so as to improve the overall level of our digital economy talent team.

Fourth, establish and improve the talent incentive mechanism. To ensure that talents can get due returns in the digital economy, including economic benefits, career development, recognition of innovative achievements, etc., a good incentive mechanism can stimulate the enthusiasm and creativity of talents and promote them to make greater contributions to the development of the digital economy.

3.3 Actively Promote Technological Innovation and Achieve Technological Breakthroughs

Under the background of backward digital core technology, it has become an important task to actively promote technological innovation and achieve technological breakthroughs, which requires efforts in building innovation system, increasing R & D investment, optimizing talent policy and deepening international cooperation, so as to promote the healthy and sustainable development of China's digital economy.

Establish and improve the scientific and technological innovation system. Scientific and technological innovation is the key to enhance the core competitiveness of China's digital economy, which requires the construction of an innovation chain with enterprises as the main body, market-oriented and close integration of production, education and research, encouraging enterprises to participate in technological innovation, and creating a good innovation environment by optimizing the management of scientific research projects and increasing intellectual property protection.

Increase investment in cutting-edge technology research and development. In view of the core technologies such as artificial intelligence, cloud computing, big data and block chains, the government should increase financial input, guide and encourage enterprises and social investment, and jointly promote breakthroughs in key areas and core technologies.

Optimize the talent incentive policy. In order to establish a people-oriented innovation system and enhance the enthusiasm and innovation of scientific researchers, we can encourage scientific researchers to explore and innovate by reforming the title evaluation system of scientific researchers and adding scientific research awards.

Raise the level of international cooperation. Under the background of globalization, international cooperation is of great significance for technological innovation and breakthrough. China should actively participate in global technological exchanges and cooperation, introduce foreign advanced technology, and at the same time promote our excellent technology to the world.

3.4 Attaching Importance to the Construction of Big Data and Related Information Infrastructure

In view of the unbalanced development of related industries caused by the digital divide, we must firmly attach importance to the construction of big data and related information infrastructure, and form an efficient and safe data circulation system covering the whole society.

On the one hand, we should continue to increase investment in information infrastructure construction to ensure hardware support for data circulation. It is necessary to strengthen the construction of information infrastructure such as data centers, broadband networks, mobile communications and satellite networks, improve network speed, optimize data processing capacity, and ensure efficient transmission and processing of data. Attention should also be paid to avoiding regional differences in infrastructure construction and reducing the digital divide between urban and rural areas and between the East and the West.

On the other hand, it is necessary to establish a sound standard and system for big data and build a software environment for data circulation. Unified standards for data classification, data processing and data security should be formulated as soon as possible to form an operable and efficient big data management framework, protect data rights and interests, and encourage compliant data circulation and application.

4. Conclusion

Under the background of global informatization, the development of big data and digital economy has become a key driving force. In order to cope with the challenges under the background of reform, China needs to strengthen the system construction, train and introduce relevant talents, promote technological innovation, and optimize big data and related information infrastructure, which will contribute to the healthy and sustainable development of China's digital economy, promote China to gain a favorable position in the global digital economy competition, and ultimately promote the overall prosperity of China's economy and society.

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