

# Analysis on the Legal Guarantee for the Development of Digital Economy in Hebei Province

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**Abstract:** The digital economy is becoming a key force in restructuring global factor resources, reshaping the global economic structure and changing the global competition pattern. In the process of promoting the high-quality and orderly development of the digital economy, the means of economic governance have played an important role in ensuring that the digital economy has become the internal driving force of China's economic and social development. However, in the context of the continuous popularization and maturity of Internet technology and digital technology, the traditional economic governance means and the current legal system have been unable to adapt to the practical needs of the development of the digital economy. In order to ensure the sustainable and healthy development of the digital economy, it is necessary to constantly improve the legal governance of the digital economy. At present, Hebei Province has issued the Action Plan for Accelerating the Construction of Digital Hebei (2023-2027). Hebei Province has made active exploration in promoting and standardizing the development of "digital economy" and the legal guarantee, but there is still room for improvement compared with other provinces with developed digital economy. Hebei Province should focus on top-level design, law enforcement, supervision and regulation principles.

**Keywords:** digital economy, digital Hebei, legal guarantee

## 1. Introduction

With the transformation of regional economic growth mode from factor and investment-driven to innovation-driven, the pattern of regional innovation has also been evolving. In order to promote the growth of regional innovation and drive the coordinated development of regions with innovation, the regional policy systems of various countries have been continuously reformed, aiming at providing good institutional support for local innovation[1]. However, in recent years, emerging economies such as China and developed countries such as Europe and the USA are experiencing the expansion of regional development imbalances, especially the expansion of regional innovation gap. The existing regional development system and policy strategy cannot provide effective support for innovation-driven regional coordinated development. Digital economy is not equal to virtual economy. The popular saying about digital economy is "digital industrialization"+"industrial digitalization". The development of digital inclusive finance can directly and significantly improve the innovation level of the real economy; By further subdividing the digital inclusive finance index, the coverage and use depth of digital finance have a more significant role in promoting the innovation of the real economy; The impact of digital finance on the innovation of the real economy has regional heterogeneity, and the promotion effect on economically developed provinces and cities located in the Yangtze River Economic Belt with high degree of digital informatization, large investment and relatively sound infrastructure is more significant [2].

There are close and diverse network connections among cities in the urban agglomeration of Hebei Province. Compared with a single city, the quality of its economic development has particularity. A correct understanding of the role of multi-dimensional networks is of great significance to further understand the connotation of the quality of economic development of urban agglomeration and to play a leading role in the growth of urban agglomeration under the new development pattern of "double circulation". The paper first puts forward the concept of the quality of economic development of urban agglomeration under multi-dimensional network, defines its connotation based on the perspective of multi-dimensional network, and constructs the corresponding indicator system from four aspects of

network connectivity, clustering, convenience of network connection, and network balance. Next, taking the urban agglomeration in Hebei Province with close economic ties as an example, it evaluates the quality of economic development and analyzes the influencing factors behind it.

The digital economy has gradually become an important strategic tool for Hebei to gain new advantages in economic development and cultivate new drivers of economic growth. In 2021, the scale of the digital economy in Hebei will reach 1.39 trillion yuan, with a year-on-year increase of 15.1%, accounting for 34.4% of GDP, and the revenue of the electronic information industry will increase by 22.4%. While achieving the above results, we should also see that compared with other provinces and cities with relatively developed digital economy, there are still gaps such as the low level of development of digital economy, the uneven development space of digital economy industry, and the weak contribution of digital economy to high-quality economic development.

The next few decades will be a critical period for the development of digital reform to upgrade the old driving force and cultivate and expand the new driving force, and a strategic opportunity period for the overall prosperity of the digital economy. The development opportunity is fleeting. Whoever can seize the opportunity will win the development opportunity.

## **2. Research background**

### ***2.1 The legal guarantee of the digital economy is the need to implement the major decisions and arrangements for the development of the digital economy***

In the speech of "Promoting the Construction of the Socialist Legal System with Chinese Characteristics in an All-round Way", it was pointed out that "we should strengthen the legislation in such important fields as national security, scientific and technological innovation, public health, etc., accelerate the pace of legislation in such fields as the digital economy, Internet finance, artificial intelligence, and strive to improve the legal system that is urgently needed for national governance and meets the growing needs of the people for a better life [3]." It can be seen that strengthening the legal guarantee for the development of the digital economy.

### ***2.2 The legal guarantee of digital economy is the need to promote the innovative development of digital economy in Hebei Province***

The report of the 20th NCCPC of China proposes to build a modern industrial system, adhere to the focus of economic development on the real economy, promote new industrialization, and accelerate the construction of a manufacturing power, a quality power, a aerospace power, a transportation power, a network power, and a digital China.

At present, the development of number economy in Hebei also faces many challenges, such as lack of talents, technological breakthroughs, and value realization. Therefore, Hebei needs to further improve the legal guarantee of the number economy, upgrade the effective experience and practice into the legal system, enhance the authority and stability, provide institutional guarantee for solving the problems of the development of the number economy, and better promote the innovative development of the number economy in Hebei Province.

### ***2.3 The guarantee of the rule of law in the digital economy is the practical need for building a higher level of rule of law in Hebei***

The China Construction Plan for the Rule of Law (2020 - 2025) pointed out that "strengthen the legislation in the field of information technology, timely follow up and study the relevant legal systems such as the digital economy, Internet finance, artificial intelligence, big data, cloud computing and so on, and make up for the shortcomings."

It can be seen that improving the legal protection of digital economy in Hebei can not only boost the high-quality development of Hebei, but also is the due meaning of building a higher level of legal Hebei.

### **3. Overview of digital economy development in Hebei**

#### ***3.1 The digital economy is developing well and gradually strengthening***

The newly-added registered capital of Hebei digital economy industry increased from 10.591 billion yuan in 2011 to 71.228 billion yuan in 2020, with an average annual growth rate of 23.59%. The contribution of digital economy to economic growth has steadily increased. In 2020, the added value of Hebei digital economy industry accounted for 33.4% of GDP. The numerical control rate of key processes has increased from 49.2% in 2015 to 55.3% in 2020, more than 3.5 percentage points higher than the national average for five consecutive years, ranking fifth in the country. At present, Zhangjiakou, Chengde and other big data demonstration zones have been initially built, and big data storage and other industries have developed rapidly in the park. More than 30 electronic information products, including Hebei satellite mobile communication terminal chips, fill the domestic gap. The construction level of digital infrastructure is improving day by day. In 2020, the number of broadband Internet access ports in Hebei will be 45.982 million, and the length of optical cable lines will be 2.2301 million kilometers; the main urban areas of 11 cities divided into districts, Xiong'an New Area and Zhangjiakou competition area of the Beijing Winter Olympics have all achieved full coverage of 5G network[4].

#### ***3.2 The pace of industrial digitalization has been significantly accelerated, the structure has been continuously optimized, and new models of digitalization have been emerging***

In 2021, 19 projects of Hebei Tangshan Jidong Cement Co., Ltd., including "supply chain management and control capability based on cloud platform", were included in the list of pilot demonstration projects for the in-depth integration of new generation information technology and manufacturing industry of the Ministry of Industry and Information Technology; Hebei has added more than 20000 cloud enterprises. During the "13th Five-Year Plan" period, a total of more than 300 enterprises in Hebei were listed in the industrial Internet key project database of the Ministry of Industry and Information Technology, and the number of inbound enterprises ranked third in the country. In 2021, CRRC Shijiazhuang Rolling Stock Co., Ltd. "Innovative application of railway train manufacturing and repair industrial Internet platform" and other 9 application cases in Hebei were selected by the Ministry of Industry and Information Technology; List of innovative pilot application cases of industrial Internet platform in 2021. The proportion of employees in information transmission, software and computer services in the total employment of Hebei Province has increased from 1.06% in 2011 to 1.85% in 2020. In 2020, the electronic rate of public resources transactions in Hebei Province has exceeded 80%, and 170 provincial, municipal and county three-level trading platforms have been built in the province [4].

#### ***3.3 Scientific and technological innovation investment continues to increase***

In 2011, the full-time equivalent of R&D personnel in the core industries of Hebei digital economy, such as electronic computer and office equipment manufacturing and electronic and communication equipment manufacturing, was 987 persons/year. By 2020, it will increase to 5735 persons/year, an increase of 4.81 times. The environment for scientific and technological innovation continued to be optimized. In 2020, the number of enterprises in the core industries of digital economy, including the manufacturing of electronic computers and office equipment and the manufacturing of electronic and communication equipment, is 246, while the number of enterprises with R&D activities is 122. The level of scientific and technological innovation has been continuously improved. In 2020, the number of utility model patents and computer software in Hebei's digital economy industry was 3977 and 29585, respectively, an increase of 18.59 and 37.47 times compared with 2011 [4].

### **4. Current situation of legal protection of Hebei digital economy**

#### ***4.1 Main laws, regulations and policies related to digital economy that have been issued in Hebei***

The relevant policy documents issued by Hebei Province in recent years mainly include three categories:

First, local laws and regulations. On May 27, 2022, the Regulations of Hebei Province on the Promotion of Digital Economy was adopted at the 30th meeting of the Standing Committee of the 13th

National People's Congress of Hebei Province, and came into force on July 1, 2022. The Regulations have nine chapters and 81 articles. We will make regulations around the construction of digital infrastructure, development and utilization of data resources, digital industrialization, industrial digitization, digital governance, coordinated development of Beijing-Tianjin-Hebei digital economy, security and supervision. This is the fourth provincial-level digital economy promotion regulation in China, which is of great significance for implementing the major decisions and arrangements of the CPC Central Committee and the Provincial Party Committee on the development of the digital economy, standardizing the management functions of relevant departments, accelerating the promotion of digital industrialization and industry digitization, creating new advantages of Hebei's digital economy, and promoting high-quality economic and social development.

Second, government regulations. On November 3, 2022, the People's Government of Hebei Province announced the Administrative Measures for the Sharing and Application of Government Data in Hebei Province. There are 7 chapters and 32 articles in the Measures, which mainly regulate the following contents: it is clear that the provincial government service management organization is the competent department of the provincial government data sharing work, and the scope of the government data sharing application is the sharing application of non-secretary government data between government departments, and it is made provisions on strengthening cooperation with Beijing and Tianjin, and improving the level of collaborative development of the government data sharing application in Beijing, Tianjin and Hebei. Overall planning and construction of the provincial integrated government big data system will provide unified basic support for the development of government data sharing applications. The application for government data sharing should be submitted to the competent department of government data sharing through the provincial integrated government big data system. It is stipulated that government data should be shared as the principle and not shared as an exception. To clarify the security responsibilities of the administrative department in charge of government data sharing and the administrative department in the application of government data sharing.

Third, policies. Including Several Policies on Breaking the Bottlenecks and Promoting the Healthy Development of the Digital Economy and Several Policies on Supporting the Accelerated Development of the Digital Economy. These policies cover the guarantee of data center energy and other elements in the planning layout, reduce the operation cost of 5G base stations, data centers and other digital infrastructure, strengthen the service guarantee of industrial digital transformation, cultivate and develop the data element market, and strengthen the construction of regulatory mechanism and governance system. These policies have increased support from the aspects of factor guarantee, subject cultivation, platform construction, and ecological construction, helping Hebei Province to seize the opportunities given by industrial digitization and digital industrialization, accelerate the development and expansion of the digital economy, and form a new driving force for development.

Fourth, planning. It includes the Hebei Digital Economy Development Plan (2020-2025), the Hebei "Fourteenth Five-Year Plan" for Informatization, and the Action Plan for Accelerating the Construction of Digital Hebei (2023-2027). The Plan aims to promote the integrated development of the real economy and the digital economy, promote the comprehensive and deep integration of the new generation of information technology and economic and social development, comprehensively promote the development of information technology, strengthen the innovation drive and digital empowerment, and strengthen the development and utilization of data resources, Accelerate the transformation and upgrading of Hebei's economy, speed up the construction of a modern and economically strong province, and provide strong information support for beautiful Hebei.

Fourth, other documents. It mainly refers to the relevant digital economy policy objectives and principles in the documents of the government and working departments.

#### ***4.2 Overview of laws, regulations and policies related to digital economy in other regions of the country***

The quality of economic development theory provides a good theoretical basis for the innovative development of the digital economy in the new era. Only by ensuring that the quality of economic development theory is applied at a high level can it better meet the development needs of the digital economy in the new era [5]. Under the guidance of national policies, local governments at all levels will vigorously develop the numbers economy as an important measure to promote high-quality economic development and accelerate the implementation of the digital economy policy. Sub-provinces and cities specifically designated in the state plan have issued laws, regulations and policies related to

the digital economy.

## 5. Conclusion

Through the above comparative analysis, we can see that compared with Zhejiang, Guangdong, Guizhou and other places, Hebei still has room for improvement in the legal protection of the development of digital economy, and the stability and authority of relevant systems need to be further improved.

Due to the influence of economic foundation, technical talents, geographical location and other factors, we should not only see the advantages of Hebei itself, but also see the gap between Hebei Province and developed regions in the field of digital economy. "Law is the most important tool for governing the country, good law is the prerequisite for good governance", "promoting development and ensuring good governance with good law" have become the conceptual consensus and action guide in the process of rule of law in contemporary China 5) Only with the protection of the rule of law can the digital economy go further and become stronger. In this context, it is necessary to further accelerate the high-quality development of digital economy in Hebei Province by strengthening the legal guarantee for the development of digital economy in Hebei Province and promoting the comprehensive utilization of relevant resources.

### ***5.1 Strengthen top-level design, actively layout, and strive to promote and improve the opening and protection of relevant data as soon as possible***

At present, 24 provinces and cities have issued local regulations or government regulations related to the opening and utilization of "data". Hebei Province has also issued government regulations recently, and the legislative guarantee at the regulatory level is still blank. The development of digital economy cannot be separated from data, but "data islands" and "information chimneys" are prevalent in Hebei Province at present. Through the construction of legal system and policy innovation, we should constantly emancipate and develop the digital productivity of Hebei Province, and make up for the weaknesses of the relevant legal system of "data" as soon as possible.

### ***5.2 Strengthen the ability of law enforcement and supervision in relevant fields where the upper law has been issued***

The Network Security Law, the Electronic Commerce Law, the Personal Information Protection Law and the Data Security Law, which are closely related to the "digital economy", have been implemented. We should effectively supplement the law enforcement forces in the "digital economy" field, strengthen the law enforcement training, and constantly improve the law enforcement ability and supervision level. It should focus on the classified support and supervision of the cultivation of e-commerce, online car hailing, social network sinking platforms and local platforms such as Alibaba, JD, Didi, Meituan, Tiktok, Kwai, etc. in combination with the cultivation and support policies of Hebei Province for digital economy platforms.

### ***5.3 Several principles that must be adhered to in order to improve the legal guarantee of "digital economy" in Hebei Province***

#### ***5.3.1 Adhere to the principle of green development based on the objective and actual situation of Hebei digital economic environment***

On the whole, the geographical environment, natural conditions, social, economic and cultural conditions in Hebei Province vary greatly, which determines that Hebei Province cannot simply copy the development and governance experience of digital economy in developed regions.

It is necessary to give due consideration to the necessary foresight of the system and avoid the system as a whole being divorced from the current local reality. The landing and operability of the system is the top priority. In order to realize the green development of the digital economy and ensure the realization of the carbon peak and carbon neutral goals, the development of the data economy must solve the problem of high energy consumption, and the development of urban digital transformation requires comprehensive laws and regulations.

In the social environment of the rapid development of the socialist market economy, the urban

exhibition industry and exhibition economy have made more gratifying achievements. This paper conducts in-depth and effective research and analysis on the urban convention and exhibition economy. When conducting research on the urban convention and exhibition economy, it is necessary to build a corresponding urban convention and exhibition economic competitiveness index system, so as to ensure the scientific and objective nature of the research and analysis under the support of the relevant index system. In this process, it is necessary to ensure the scientificity, rationality and hierarchy of the selection of various indicators, so as to enable the research related to the urban exhibition economy. Therefore, how to more scientifically and reasonably understand the basis needed to build the urban exhibition economic competitiveness index system, and how to effectively build the urban exhibition economic competitiveness index system in line with the relevant research needs, has gradually become the core issue that must be solved in the research and analysis process of domestic urban exhibition economy [6].

***5.3.2 We should respect the law guarantee law of Hebei digital economy in the reappearance stage. Take the development of digital productivity and the guarantee of social security and stability as important legislative purposes***

The development of number economy needs to attach great importance to government support and incentive policies. In particular, the digital economy in backward areas needs government support and incentive policies at the early stage of cultivation and development. Undoubtedly, the "visible hand" of the government is a major support for the early development of digital economy in Hebei Province, and plays an irreplaceable role in the coordinated development of Beijing-Tianjin-Hebei. We should take the development of digital productivity and the guarantee of social security and stability as an important legislative purpose.

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