

Research on the Path and Policy Countermeasures of Digital Economy Development to Promote Modern Industry Integration

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Abstract: With the sudden outbreak of COVID-19 in 2020, the world economic situation has become grim and complicated. In this context, China has also introduced many policies to promote the deep integration of digital economy and real economy. This paper first introduces the connotation, characteristics and future development of digital economy. Then, taking Mianyang City of Sichuan Province as an example, it analyzes the advantages, disadvantages, opportunities and some threats of developing digital economy based on SWOT model. By referring to relevant materials and literature, this paper investigates the current situation of digital economy development in Chengdu and Mianyang and some difficulties they are facing as well as the current situation of modern industry integration in Mianyang. Finally, according to the above analysis, the paper puts forward some countermeasures for Mianyang digital economy development to promote the integration of modern industry, which provides important theoretical guidance and practical guidance for Mianyang enterprises to promote the integration of digital economy.

1. Chapter 1 Introduction

1.1. Research Background and Significance

1.1.1. Research Background

The essence of economy lies in digitization, and it takes digitization information as the key resource. The digital economy will account for half of the global economy by 2025, according to the 2016 Accenture Strategy research report, digital Disruption: Achieving Multiplier Growth. China's digital economy totaled 31 trillion yuan in 2018, becoming an important support for high-quality economic development. According to the report, the 19th congress to promote the Internet, data fusion, artificial intelligence and the depth of the real economy, the fifth plenary session of the party's 19th through "the central committee of the communist party of China to develop the national economy and social development of 14 five-year plan and 2035 vision", clearly put forward to accelerate the development of digital development of digital economy. We will promote digital industrialization and digitalization of industries, and promote deep integration of the digital

economy with the real economy.

Mianyang city in 2020 issued "about accelerating Mianyang digital economy and the real economy development of the implementation opinions" depth fusion, Mianyang, accelerate the digital economy and real economy integration development, the development of digital economy to promote digital industry, speed up the development of the real economy, promote the development of Internet industry, advance the "cloud on thousands of enterprises" plan of action. Guide and support enterprise design, manufacturing, operation and maintenance to move to the cloud. Mianyang city development of digital economy, without solid foundation support, among them, the Mianyang science and technology innovation zone with a total investment of 2.799 billion yuan of listed company city industrial park, science and technology innovation base in the construction of project is nervous, after completion will provide physical carrier for the development of digital economy, thanks in large part to speed up the digital economy integration development of modern industry.

1.1.2. Research Significance

It is particularly important to study the path and policy countermeasures of digital economy development to promote the integration of modern industry, which is of great guiding significance for enterprises to use digital economy concepts and methods to drive enterprise innovation and development.

1.2. Research Contents and Ideas

1.2.1. Research Contents

This study will combine the current situation of digital economy development in Mianyang city and make a comparison with the digital economy situation in Chengdu city, comprehensively and systematically analyze the path and countermeasures of digital economy to promote the integration of modern industry, and put forward relevant measures and suggestions based on Mianyang city's own situation.

1.2.2. Research Ideas

This paper follows the ideas of putting forward problems, analyzing problems and solving problems and divides the research into three closely connected parts. In the context of digital economy in the new era, the paper discusses the path and policy countermeasures of modern industrial integration.

2. Chapter 2 Overview of Digital Economy

2.1. The Connotation of Digital Economy

Digital economy is based on digital as a key factor of knowledge and information, digital technology as the core driving force, with modern information network as the important carrier, through the depth of the digital technology and the real economy, continuously improve the level of economic and social of digital, networked, intelligent, accelerate restructuring economic development and governance model of the new economic form.

This study holds that the connotation essence of digital economy lies in that the iterative updating of digital technology determines that digital economy is not a static economic form, but a dynamic economic form that continuously enriches the scope and characteristics of industries with

the progress of The Times and social development. It is an ongoing economic revolution driven by digital technology. Digital economy is also a new form and trend of economic and social development following the development of agricultural economy and industrial economy.

2.2. Characteristics of Digital Economy

2.2.1. Data Information is Increasingly Becoming the Key Factor to Promote Economic Growth

With the improvement of human science and technology, big data technology and cloud computing technology have realized the organic integration, and the change brought to the human society is the vigorous development of the Internet of Things. With the assistance and promotion of the Internet of Things technology, the amount of data has achieved an astonishing leap growth compared to the previous. In order to deal with massive data information and realize efficient processing of massive data information, the concept of "big data" arises at the right moment, and data information has become a strategic asset that cannot be ignored. The US government sees big data as "the new oil of the future" and calls it an indispensable key asset for a nation.

2.2.2. Need digital infrastructure and physical infrastructure together

In the digital economy, digital infrastructure is very important. To put it simply, digital infrastructure refers to the infrastructure that contains at least one part of information technology, generally including two types: hybrid type and specialized type. Only with both of these two infrastructures can digital economy develop.

2.2.3. Digital economy puts forward higher requirements for workers and consumers

Most countries in the world are facing the problem of insufficient professional digital talent pool. In this way, if a worker not only has solid professional skills, but also shows certain advantages in the mastery and application of digital technology, it will ensure that he is favored and valued by employers in the talent market.

For consumers, if they do not have basic digital literacy, they will not be able to correctly use information and digital products and services, and become "illiterate" in the digital era. Therefore, improving digital literacy is conducive to both digital consumption and digital production, and is one of the key elements and important foundations for the development of digital economy.

2.3. The future of digital Economy

2.3.1. National competition in the digital age

The digital age creates virtual space and expands the spatial level of human society. Competition among great powers will shift from physical space, which is finite, to digital space, which is infinite. The expansion of digital space is just like the discovery of a new continent in those days, which changes the balance of global power. The scramble for digital space will surely change the forces of all parties and reshape the current political and economic pattern of the world, posing both risks and opportunities for all countries.

2.3.2. Law in the Digital Era

The emergence of digital space will bring new subjects of legal relations in the future, which will bring great challenges to the existing legal system established on the physical level. This kind of challenge permeates all sectors and industries, which makes it impossible to enact various laws for

the digital age in a short time. Therefore, it is necessary to focus on the study of the digital era, promote the adjustment and reform of the legal system step by step, and focus on clarifying which legal rules can be used in the previous laws, which legal rules need to be partially adjusted, and which legal rules need to be comprehensively revised.

2.3.3. Governance in the Digital Era

To promote the rapid development of digital economy, governance in the digital era should be strengthened. The principles of innovation, fairness and equity should be upheld. Should promote the change of government governance mode. We should promote the application of digital technology in governance, improve the level of government governance, promote the modernization of government governance, and realize the socialization, law-based, intelligent and professional governance in the era of digital economy.

3. Chapter 3 SWOT Analysis of Mianyang's Development of Digital Economy

3.1. Advantage analysis

Mianyang has the advantages of geographical location center: Mianyang is located in the west Triangle of Chengdu, Chongqing and Xi 'an, 150 kilometers away from the core area of Tianfu New Area in the south, more than 300 kilometers away from Chongqing in the east and 700 kilometers away from Xi 'an in the north. It is at the intersection of the two national strategies of "One Belt, One Road" and Yangtze River Economic Belt. Located on the northbound main passage connecting The Beijing-Tianjin-Hebei region, connecting the "Belt and Road" China-Mongolia-Russia and China-Europe international economic Corridor, Sichuan is the main transportation corridor opening to the northwest, and an important part of the Chengdu Plain urban agglomeration.

Integration into the "backbone" development advantages: Chengdu, Deyang, Mianyang are the leading and demonstration area of manufacturing industry and technological innovation cluster and integrated development in Chengdu-Chongqing region. Sichuan province proposes to build a comprehensive national science center, a comprehensive national industrial innovation center and an innovation-driven development talent demonstration zone with Chengdu, Deyang, Mianyang as the core area.

Advantages of attracting population: Mianyang has a large population base and has entered the accelerated stage of urbanization, which has prominent impetus and potential for urbanization. In the past five years, the increase of the city's permanent resident population has reached 150,000, ranking among the top in the province, higher than Deyang, Nanchong and other neighboring cities with the same echelon.

Advantages of coordinated development of urban areas: Mianyang focuses on promoting the development of metropolitan areas. Based on the pattern of "Mianyang Anbei". Mianyang further builds a development pattern of "one core, two wings and three districts in coordination", leads and drives the whole city through "one core, two wings", and builds a basic framework for the construction of Mianyang metropolis in the future.

3.2. Disadvantage analysis

Deviate from "main axis" and face the crisis of "marginalization" of location. From the perspective of spatial location, Mianyang deviates from the regional spindle linking chengdu-Chongqing dual core, and it is difficult to benefit directly from the dual core in the future, especially in the function distribution and infrastructure corridor construction up the spindle.

Attached to Chengdu, radiation and siphon effect coexist. Geographical position close to provincial capital Chengdu, Mianyang distance to contact Chengdu of stream of people, logistics, and accept the service function of Chengdu high-end radiation, but also it is because of the geographical position near, city level gap is big and reasons leading industry coincidence degree is relatively higher, and rapid industrialization and urbanization process of Chengdu has more obvious on the Mianyang siphon resources.

Energy level is insufficient, hinterland is small, the function of regional center needs to be promoted. At present, Chengdu-Chongqing twin cities economic circle is still in the stage of "the two poles are dominant", and the sub-center city in the middle pole lags behind in overall development. As the third largest economy in Chengdu-Chongqing Economic circle. Mianyang has a permanent population of about 1.5 million, and its scale is not enough to support regional industrial clusters. The function layout of production and life service center and the agglomeration effect of city need to be improved.

The construction of transportation channels lags behind, and the support for integration into regional development is weak. The layout of major Sichuan-Chongqing cooperation projects, especially the high-speed railway and other major external corridor projects, is mainly planned in the south direction, and less in the north.

3.3. Opportunity Analysis

Strengthening Mianyang to bear the national mission of building a science and technology city: The national promotion of the development of Chengdu-Chongqing twin cities economic circle will certainly promote a new round of scientific and technological innovation and achievement transfer and transformation upsurge. To serve the national strategy of military-civilian integration, the advantages and potential of China's only science and technology city will be further released by virtue of the advantages of scientific research resources and high-tech industrial foundation of Chongqing and Chengdu, as well as the high-end elements gathering platform of Liangjiang New Area and Tianfu New Area, and the pace of scientific and technological innovation, institutional innovation and industrial innovation will be faster.

3.4. Threat Analysis

The economic contribution rate of human capital in Mianyang is low, lower than that in Chengdu, Deyang and Meishan in the same period. As a science and technology city, Mianyang's contribution rate of scientific and technological progress has exceeded 50% since 2007, second only to Chengdu, but its contribution rate of human capital is relatively low. As the second city in Sichuan province, Mianyang's GDP exceeded 170 billion yuan in 2015, surpassing other cities in the Chengdu city cluster. However, its comprehensive competitiveness was lower than Chengdu, Deyang and Panzhihua and ranked fourth, slightly higher than Leshan. The low comprehensive competitiveness of Mianyang is due to the weak development of the tertiary industry in Mianyang, especially the service industry and tourism compared with the previous cities.

4. Chapter 4 Research on Current Situation of Digital Economy Development and Industrial Integration

4.1. Current situation and predicament of Digital economy in Chengdu

4.1.1. Current situation of digital economy in Chengdu

Chengdu has clear planning and regional characteristics in developing digital economy. In February 2018, the Implementation Plan of Chengdu To Promote the Development of Digital Economy proposed that by 2022, Chengdu will realize the deep integration of digital technology and real economy, and the industrial scale of key areas of digital economy will exceed 300 billion yuan. Chengdu has also made great achievements in digital economy development, scoring 87.0 points in the latest White Paper on China's Urban Digital Economy Index (2019) by Xinhua Digital Economy Research Institute, ranking fourth.

Also introduced many of the leading enterprises in the digital economy in Chengdu, Chengdu local predominantly digital economic high growth companies, also gradually become the domestic industry leader segment or contender, key industry in the digital economy, 5 g industry development, Chengdu in 2018 built the first 5 g blocks and the country's most large-scale demonstration 5 g application demonstration network. In the fields of microwave communication, optical communication, mobile communication and private network communication, it has formed a leading edge in the 5G industry chain. In terms of big data industry, Chengdu big Data Industry Development Plan (2017-2025) issued in 2018 shows that Chengdu has laid a solid foundation for the development of big data industry.

Digital economy injected new momentum for economic development in Chengdu, with the rapid development of information and communication technology (ICT), "moving cloud network wisdom," the emergence of new technology, and gradually and the integration of traditional industries, the total factor productivity (TFP), which indirectly affect economic growth, inject new momentum for economic development.

4.1.2. Predicament of digital economy development in Chengdu

In the development of digital economy, Chengdu city is faced with the following problems: lack of digital transformation methodology, insufficient integration of digital economy and real economy, challenges of digital security, insufficient supervision of digital economy, shortage of talents and so on.

4.2. Development status and difficulties of Digital economy in Mianyang

4.2.1. Development status of digital economy in Mianyang

At the beginning of the new century, The State Council approved the construction of "China Science and Technology City" resolution, which has become a great help for Mianyang to become a strong modern city. As an important part of the digital economy innovation force in Sichuan, Mianyang was selected as one of the first 5G commercial cities in China in October 2019, and it is also the only non-provincial capital city selected in the western region. As the big data center of China Science and Technology City, Mianyang takes "one center, two platforms and four clouds" as the main content, comprehensively utilizes new technologies such as big data, Internet of Things, cloud computing and artificial intelligence to realize resource sharing to the greatest extent, so as to meet the growing demand for information services from the government, enterprises and the masses.

Mianyang ranks 43rd in China, up 19 places from 2020, according to the 2021 China Top 100 Cities for Digital Economy Development. On January 1, 2021, the national Digital Economy Innovation and Development Pilot Zone (Sichuan) Construction work plan was released, in which Sichuan province set a target: strive to 2022 digital economy scale of the province more than 2 trillion, accounting for 40% of GDP. In recent years, the scale of Sichuan's digital economy has maintained a rapid upward trend. In 2020, the scale of Sichuan's digital economy reached 1.6 trillion yuan. It also means that the scale of Sichuan's digital economy needs to increase by 400 billion yuan in two years. According to the White Paper on Urban Digital Economy Index of Chengdu-Chongqing Twin Cities Economic Circle (2020), Mianyang's digital economy score ranks second to Chengdu's.

On August 5, 2019, since Mianyang City reached formal cooperation with Huawei, relying on Mianyang huawei Digital Economy Joint Innovation Center, Huawei has continuously expanded the depth and breadth of cooperation with Mianyang, injecting more innovative resources into the high-quality development of Mianyang digital economy. Entering the "14th Five-year Plan" period, centering on the new generation of information technology, the layout of emerging industries will become the key to the new round of competition and cooperation in Chinese cities. Under the new situation of urban competition, Mianyang is seeking a breakthrough from a high starting point to expand the space for industrial development with "intelligent" change and qualitative change. At the beginning of 2020, Mianyang City issued the Implementation Opinions on Accelerating the In-depth Integration Development of Digital Economy and real Economy in Mianyang City, making it clear that Mianyang city should accelerate the integration development of digital economy and real economy.

Under the industrial policy of "One core, two wings and coordination of the three regions", Mianyang is accelerating the upgrading of the real economy. Through the application of digital technology, the establishment of a systematic management system, and the enhancement of enterprise value creation ability, Mianyang can promote the comprehensive upgrading of the industrial chain to achieve the solid, complementary and strong chain. As an important partner of Mianyang's industrial upgrading, industrial cloud and government cloud will become an important magic weapon for Mianyang to achieve high quality development of digital economy.

Industry is the foundation of economy, and industrial system is the foundation and core of modern economic system. Through alignment with Mianyang industrial division of the twins economic circle in Chengdu-Chongqing region locating and overall goal, precision of Mianyang ShiCe, may lessen the force, develop the six key industries, speed up the development of six major innovation industry, accelerate building "6 + 6" advanced manufacturing industries, to speed up the construction of 11 advanced manufacturing industry function, cultivating advanced manufacturing enterprise groups. We will create a strong engine for high-quality development of the manufacturing industry.

4.2.2. Difficulties of digital economy development in Mianyang City

The development of digital economy in Mianyang city has many shortcomings as that in Chengdu. Digital infrastructure construction and large gap, the Internet industry, such as the Internet of things technology utility ratio is low, has yet to establish a good digital fuel to the industrial development of ecology. In order to solve these problems, Mianyang will speed up the new infrastructure construction and layout, promote the fifth generation of mobile communication technology (5G) and fiber ultra broadband "ShuangQian megabytes" deployment of large-scale networks. The commercial deployment of Internet Protocol Version 6 (IPv6) will be fully promoted. In developing the core industries of digital economy, Mianyang will expand and strengthen the whole industry chain of "core screen end soft intelligence network" and expand the digital industry

cluster.

4.3. Comparison of digital economy development between Chengdu and Mianyang

In Chengdu and Mianyang digital economy and real economy constantly fusion, deep inside the real economy, however, Chengdu has a good overall situation than Mianyang, Chengdu digital economy industry supporting policy, to promote digital technology and depth of fusion in the field of agriculture, industry and services, on the talent team construction, Chengdu emerge more a group of outstanding creative talents. At present, Mianyang is still facing the transformation and upgrading of traditional industries, the innovation mechanism is not perfect, and the integration level of digital economy and real economy is low.

4.4. Research on the current situation of modern industrial integration in Mianyang city

Compared with domestic and international advanced levels, Mianyang's industry has obvious characteristics of beginner and low-end, and it is in the middle and low end of the industrial chain and value chain as a whole. Mianyang first aims to promote the integration of innovation chain and industrial chain. In the manufacturing industry, the Mianyang Action plan of "reinforcing chain, strengthening chain and extending chain" has been implemented, and the panoramic map of key industrial chains such as electronic information, equipment manufacturing and advanced materials has been compiled. Mianyang will also promote the implementation of the industrial foundation project, improve the level of the industrial core foundation system, and focus on the 24 industrial measures. Another dilemma Mianyang faces is that traditional industries occupy half of the country, but scientific and technological innovation leads industrial development.

Mianyang will continue to promote the deep integration of digital economy and real economy. There are three main focuses: one is to upgrade the real economy and comprehensively promote the integration of digital technology into the industry. Second, accelerate the digital economy, independently develop digital industrialization, and ensure the sustainability and supply of technology. Third, change the mode of innovation and make innovation more open, aggregated and ecological.

Mianyang of digital economy development at the same time, around the block chain, big data, areas such as artificial intelligence, cloud computing and 5G, development platform, shared economy and experience economy, cultivating industrial Internet, Internet of things, big data, such as digital creative and digital content industry, on the implementation of enterprise cloud project, to promote the digital economy and the real economy.

5. Chapter 5 Countermeasures and Suggestions for Mianyang Digital Economy Development to Promote the Integration of Modern Industries

5.1. Take scientific methodology as guidance

In view of the cognitive problems and methods in the development of digital economy, a whole set of new methodology is needed as the foundation. Mianyang is home to many enterprises in various fields of digital economy, and local enterprises can actively learn and draw lessons from the advanced digital economy methodology of these enterprises. Local enterprises can make efforts to carry out all kinds of exchanges, learning and field trips with leading enterprises, and combine the advanced methodology with their own reality. The government can also organize various conferences to create opportunities for enterprises to learn from each other.

5.2. The government and enterprises jointly promote integrated development

In view of the low degree of integration between digital economy and real economy, the first problem is the government's guidance and support, as well as the top-level design, basic support, development environment construction and creation of integrated development. Mianyang already has some achievements in developing the digital economy, and on this basis, the government can further intensify efforts to hold various "Internet plus" forums and integrated development conferences. By supporting innovative and entrepreneurial enterprises, more enterprises can achieve sustainable development through the integration of digital economy and real economy. Mianyang city should also combine its own development characteristics and industrial advantages, actively undertake and expand national and provincial policy systems, formulate guidelines and policies suitable for Mianyang's economic development according to local conditions, highlight localization and characteristics, and do a good job in the top-level design of integrated development. We will increase investment in digital economy industries and improve the basic conditions for integrated development.

5.3. Scientific digital economy supervision

To solve the problems of data security and network security brought by the development of digital economy, on the one hand, depends on the development of computer security technology, on the other hand, depends on the government's supervision. We should not only ensure the development vitality of digital economy, but also prevent the occurrence of various risks, which poses new challenges to digital supervision. Mianyang city should, under the guidance of the above principles and according to the local development reality, improve the digital economy supervision system to escort the development of digital economy.

5.4. Strengthen talent introduction and education

Mianyang attaches great importance to the introduction of talents, but also to strengthen the training of talents. On the one hand, it will strengthen the policy of encouraging innovation and entrepreneurship, on the other hand, it will strengthen the training of local talents, encourage and support universities in Mianyang city to set up digital economy-related majors, and encourage digital economy enterprises and universities to jointly run schools for talent training. In addition, more support should be given to the construction of industry-university-research collaborative innovation platforms and subsidies should be given to technological innovation projects.

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