

The Path and Countermeasures of Regional Industrial Promotion and Restructuring by “Internet Plus”

Changhua Lin

Fujian Academy of Social Sciences
Fuzhou, China 350001
Marxism School
Chinese Academy of Social Sciences
Beijing, China 102401

Abstract—In the new normal of economic development, The country implemented the "Internet plus" action plan relying on the foundation of industrial development advantages, promote the innovation of the Internet and the integration of the three major industries, it become the effective way to promote the upgrading of industrial transformation and crack development dilemma. Based on Regional industry development status and conditions, to find ways of promoting industrial restructuring and ideas through the "Internet plus", and put forward the corresponding countermeasures to solve the integration of Internet and industrial development in depth, and found the future industrial development direction.

Keywords—*Internet plus; industrial transformation and upgrading; regional economy*

I. INTRODUCTION

At present, the global economy is pregnant with a new round of technological revolution and industrial innovation. In particular, the innovative application of information technology represented by Internet technology has gradually become a new source of power to lead the development and succession of industry. [1] At the Third Session of the 12th National People’s Congress on March 5, 2015, Premier Li Keqiang first proposed the “Internet plus” action plan in the government work report, which rapidly triggered a new trend of Internet development in China. Provinces and cities across the country have responded quickly, and released local version of the “Internet plus regional economy” development plan in succession. It can be said that this action plan has successfully opened a new era of China’s “Internet plus”, and strategically indicated the direction and important force of future industrial transformation and development. [2] Currently, under the background of the new normal of economic development across the country, the bottleneck of industrial development mode in the past, which relied on simple expansion of investment and foreign export, has gradually emerged. In the efforts to seek new sources of power, the development of the Internet economy has gradually entered the decision-making perspective and chosen to fully explore the endogenous driving forces of the industry, which has injected a steady stream of vitality into the regional industrial transformation. With the vigorous promotion of the provincial and municipal Party committees and governments, remarkable results have been

achieved in the application and development of industrial transformation in Internet field. In particular, in recent years, we have paid great attention to the close integration of the Internet and industrial development, vigorously implemented the “Internet plus” strategy, explored and solved the structural problems that constrain regional industrial development, and devoted ourselves to finding a new development path based on “Internet plus” to promote supply-side structural reform, so as to boost the gorgeous transformation of the industry and lay a more solid foundation for the realization of industrial transformation and upgrading.

II. THE STATUS QUO AND ADVANTAGES OF IMPLEMENTING “INTERNET PLUS” DEVELOPMENT STRATEGY IN THE REGION

In recent years, the Internet has gradually changed from a simple technology application tool to a development stage that fully penetrates the industrial ecology and even leads the value reconstruction. In other words, the gorgeous transformation of industrial ecological construction from “plus Internet” to “Internet plus” has rapidly become a powerful catalyst for leading the industrial transformation and upgrading and value creation. All provinces and cities in China have the inherent advantage of seizing the development opportunity of “Internet plus” both on the basis of the development of the Internet and the condition of implementing the Internet economy. This has determined that the development of the Internet economy has become the only way to break through the industrial transformation. It is mainly shown in the following two aspects.

A. *From the Basic Conditions of Internet Supporting Facilities, the Social Popularity of Regional Network Development Has Reached a High Level*

As for Zhejiang Province, according to the statistics of 2017 Zhejiang Internet Development Report, the number of netizens in Zhejiang Province reached 39.56 million as of 2017, and the Internet penetration rate was 70.8%, 15% higher than the national average. Among them, mobile phone users accounted for 98.7% of the total number of netizens in the province. The number of netizens in Hangzhou ranked first among all the cities, reaching 7.956 million. Centering on the first national information economy demonstration zone, Hangzhou national independent innovation demonstration

zone, China (Hangzhou) cross-border e-commerce comprehensive experimental zone, etc., Zhejiang vigorously develops a new economy with the digital economy as its core. Statistics show that in 2017, the added value of the “Three New Economy” in Zhejiang Province reached 1.25 trillion yuan, an increase of 15.5% over the previous year, accounting for 24.1% of the total production value, and its contribution rate to the GDP reached 37.1%. In 2017, online retail sales in Zhejiang province exceeded 1.33 trillion yuan, a year-on-year increase of 29.4%, and it became a trillion-level industry. “Cloud” banks and unmanned supermarkets have emerged in Zhejiang. The number of national top 100 e-commerce counties and Taobao villages in Zhejiang are more than any provinces, and the number of specialized e-commerce villages accounted for one third of the country. Like everywhere in the country, all provinces and cities have enhanced and improved their network infrastructure and popularity to a considerable extent, which creates favorable conditions for the in-deep integration of “Internet plus” into development of regional economy. The network application capabilities and service levels have significantly increased. [5]

B. From the Perspective of the Development Potential of Internet Economy, the Application Fields of Network Industries in All Provinces and Cities Have Been Gradually Expanded in an All-round Way

In recent years, based on promoting “Digital China” across the country, we have strengthened the “Internet plus” action plan, supported the cultivation and development of new industries, new forms of industry, and new sources of economic growth, injected strong impetus into the development of major industrial sectors, and actively upgraded regional industries. In terms of agriculture, we use the Internet to actively build a provincial agricultural information platform, expand the idea of integrated development of agricultural production, supply and marketing, and effectively speed up the process of agricultural modernization. As for industry, by promoting the in-depth integration of informatization and industrialization, we focus on the development strategy of “industry 4.0”, exert ourselves to develop intelligent manufacturing, accelerate the collaborative production and synthetic integration in the whole process based on the Internet, and initially build a number of collaborative platforms for industrial Internet industry. According to the Evaluation Report on the Development Level of China’s Integration of Informatization and Industrialization issued by China Center for Information Industry Development of Ministry of Industry and Information Technology of the People’s Republic of China, in recent years, the development index of the integration of informatization and industrialization in all parts of the country has been continuously rising, and the basic environment for integration of informatization and industrialization has been further improved, and the information systems of important industrial enterprises have been popularized rapidly, and the benefits of application of informatization have been significantly enhanced. [6] In the service industry, we rely on the carrier role of the Internet platform to strengthen the policy measures of consumption promotion, which greatly broadens the consumption potential of the Internet platform.

III. PATH OF IMPLEMENTING “INTERNET PLUS” IN THE REGION TO PROMOTE INDUSTRIAL RESTRUCTURING

Under the background of the rapid rise of Internet technology innovation and its related value chain, all regions across the country must firmly hold the trends of industrial innovation, promote the in-depth integration of industrial development transformation with Internet technology and Internet thinking, speed up the integration of the industrial chain, value chain and technology chain, strive to break through the boundaries of industrial development, break the dependence of industrial development on the traditional path, actively seek the mechanism and motivation for industrial breakthrough, effectively speed up the pace of industrial transformation and upgrading and improving quality and efficiency in the whole province, and give full play to the huge role of “Internet plus” in technological innovation, integration and interaction, and reformative development in industrial transformation and upgrading.

A. We Will Accelerate the Deep Integration of the Internet and Traditional Competitive Industries, and Facilitate the Transformation and Upgrading of Regional Traditional Industries

The traditional industries, such as textiles and shoes and dresses, electronic appliances, plumbing and building ceramics, agriculture and forestry food, metallurgy and bleaching and dyeing, and luggage and papermaking, and so on, own advantages in their development filed where they have a certain scale formed over the years in provinces or even have national influence. In recent years, due to sluggish global market and declining domestic demand, there has been a certain degree of development bottleneck, and the growth rate of industry has slowed down. Therefore, under the background of technological innovation, we must take the initiative to accelerate the transformation of traditional industries and guide the regional traditional competitive industries into a new round of virtuous circle. The active fusion and penetration with the Internet have become an inevitable choice. First, we must actively play the role of information integration on Internet platform, and promote the construction of a new model of traditional industry development which gears production to demand based on Internet. We must promote the industry to actively cater to the needs of market and adapt to the changes and characteristics of Internet consumption, create flexible production methods in industry, try to explore large-scale customized production process restructuring, and maximize the response speed of regional traditional competitive industries to the market. Based on the development mode of C2B driven by demand fostered by the Internet, we must encourage traditional competitive industries to dock with Internet trading platforms, strengthen the real-time perception and changing trend of market demand relying on big data, and adjust and optimize the matching of organization and source in the process of production and manufacturing, to cultivate a new “Internet plus” for the development of traditional industries. Second, we must guide the transformation from traditional industries to e-commerce development, and broaden traditional enterprises’ thinking and channel on market extension. Focusing on key traditional industrial areas and development basis, we actively support enterprises to build e-

commerce platforms that are suitable for their own industry characteristics, accelerate the integration of industrial online and offline channels, form a joint force in marketing, and occupy the commanding heights of modern professional markets, so as to open up a new situation for expanding diversified consumption channels and promote the transformation of Internet channels in traditional regional advantageous industries. Third, on the basis of information resources and policy advantages of each pilot free trade zone, we will support enterprises to vigorously exploit cross-border e-commerce market, and make full use of the comprehensive advantages including customs clearance and logistics in the free trade zone to expand the online foreign trade market. Moreover, we will transform the foreign trade model based on Internet, expand international market share, and enhance competitiveness in foreign markets. Finally, we also must attach great importance on the integration and penetration of "Internet plus" with agriculture, forestry and fishery, boost the innovation in circulation mode of agricultural, forest, and marine products, give full play to the important intermediary role of e-commerce in the circulation of various agricultural products and foods, and strengthen the connection between supply and demand. We will encourage all key enterprises to establish e-commerce demonstration sites, strengthen the construction of development mode integrating production, supply and marketing in agriculture, forestry, fishery and food industries, guide and help e-commerce operators in representative industries, put forth effort to improve product assurance service system integrating inspection, sales, packaging, transportation and cold chain, to form numerous unique agricultural e-commerce brands and advantages.

B. We Will Help to Construct an Innovative High-end Industry Led by Internet Technology, Accelerate the Development of High-tech Industries to a High Level of Internationalization, and Promote the Continuous Rise of Value Chain

All provinces and cities across the country have already laid a solid foundation for development in the field of high and new technology. In particular, some notable results have been made in the frontier areas of the Internet of Things, high-end equipment, intelligent communications, new generation of information technology, bio-medicine, etc. A number of representative leading enterprises, such as Huawei, Tencent and Jingdong, have been cultivated, which has laid a good industrial development foundation for entering the high-end market. In the context of fierce competition in the field of technological innovation, what we should do now is to cultivate the derivative high-end innovative industry by relying on the advanced network technology, dock with the forefront of international industries, and enhance the competitiveness of high-end industries. First, we must give full attention to the leading role of the development of the Internet of things, expand industries' application and demonstration effect, and strive to enhance the industrial chain of the Internet of Things. Depending on the good foundations for the development of the Internet of Things in various regions, centering on the construction of innovative provinces, "Digital China" and "smart cities", we must strive to make breakthrough in relevant sensor and key technologies and develop the supporting

software, develop more advanced applicable product systems, expand the demonstration sites in key areas such as business services, eco-environmental protection, public safety, integrated transportation, disaster prevention and mitigation, and make great efforts to widen the application field of the Internet of Things, to promote the rapid development and growth of the industry through demonstration applications and gradually build an Internet of Things industry cluster led by independent innovation demonstration. Second, we must focus on supporting the additive manufacturing industry. Based on the development of all regions in new energy and new material, we will strengthen and integrate R&D capabilities, aim at the development trend of 3D printing technology, focus on the development and cultivation of industry alliance in additive manufacturing, lay emphasis on tackling key problems and applications of mold manufacturing, industrial design and medical devices, to create a new industrial value chain integrating R&D, production and application. Third, we must attach importance to cultivating the cloud computing, big data and additional service industry chain. In light of the foundations and conditions of regional economic and social development, we will focus on public decision-making, social governance and industrial promotion, actively explore the application scope of cloud computing and big data-related technologies, make more efforts to innovate the application mode and format of cloud service and large data service, actively create a service chain for cloud computing and large data, fully tap the potential for industrial development, and form scale benefits. Finally, we must pay attention to the development and cultivation of the mobile network market. Centering on the function expansion and value-added services of mobile intelligent terminals, we will comprehensively exploit the development potential in network video, real-time positioning and mobile payment, support the promotion and innovation of new business models of mobile media, promote the mass entrepreneurship and innovation, exert ourselves to cultivate the mobile network market focusing on mobile terminals, software development, network marketing and information business, and create a value depression in mobile Internet and related value-added services.

C. By Leveraging the "Internet Plus", We Will Promote Cross-border Integration and Innovation of Industries, Stimulate Vitality in the Energetic Development of New Formats, Accelerate the Formation of Characteristic Industrial Clusters in Emerging Industries, and Inject Strong Development Momentum for Industrial Restructuring

First of all, we must focus on the pioneering competition, stimulate the vitality in innovation and entrepreneurship, and mainly support the construction of a cross-border integration industry based on the new platform. In recent years, the network consumer groups in various provinces and cities have continued to grow, and the number of small and medium-sized enterprises is considerable. In the industrial restructuring, we must make a full use and integrate it, and actively build a new carrier platform conducive to cross-border integration through a correct guidance, thus promoting the development of new industries. Combining with the development advantages of regional industries, it is necessary to focus on cultivating

highly viscous business carriers such as regional professional trading platforms, e-commerce network platforms, and mobile terminal trading platforms, promote the connection of SMEs' industrial links and consumer markets, and achieve full integration and re-engineering of production and manufacture, product distribution and consumer services, to build emerging industries and value chain. Second, we must comprehensively promote the progress of integration of three networks, and further enhance the network bearing capacity and technological innovation ability, so as to adapt and match the fast development of network industry and the rapid growth of information consumption. Relying on the "Internet plus" development means, we will constantly enrich information consumption content, products and services, and actively develop a personalized customized product system that is integrated into life consumption. Taking handicrafts, clothing, shoes and hats, household supplies, building materials and decoration as a breakthrough, we will expand the network service circle for family life consumption, develop fashionable digital industrial ecology with innovation, and assist the construction of diversified brands. Moreover, we also must lay emphasis on the integration of network terminals, accelerate the development of digital health service formats, promote the scale expansion of mobile real-time comprehensive diagnosis and treatment, and expand the benefits of network financing and medical care.

IV. COUNTERMEASURES TO PROMOTE INDUSTRIAL RESTRUCTURING IN THE REGION BY MEANS OF "INTERNET PLUS"

All parts of the country are currently working to lead the transformation and upgrading of the industry by promoting supply-side structural reform. We must firmly grasp the new development trends of the times, seize the opportunity of "Internet plus" development, smoothly promote the rational reconstruction of the three main industries, so as to fundamentally guarantee the sustained and healthy development of economy and further enhance the comprehensive competitiveness of the province.

A. *Fostering the Institutionalized Arrangement of Internet to Promote Industrial Reconstruction*

At the regional level, only when we have a consensus on the significance of "Internet plus" can we build a synergy for industrial transformation. To this end, we must strengthen the leading role of the organization, explore the integration and coordination mechanism for the development of "Internet plus" industry, establish a strong industrial organization management mechanism, and fully implement the Guiding Opinions on Actively Promoting the "Internet plus" Action by the State Council (GuoFa [2015] No. 40), so as to promote the deep integration of the Internet and industry, enhance the practical application of Internet collaborative innovation in different regions, different institutions, different industries and different fields, improve the circulation of information and resource elements in administrative regions, industry sectors, market operations, and comprehensively guide the innovation of production mode and development mode and reconstruct the Internet economic development system.

B. *Strengthening the Financial Foundation Support for the In-depth Integration of the Internet and Industry*

Industrial and technological innovation is inseparable from the support of financial services. To promote Internet innovation, we must build a strong financial service system, especially the innovation of financial service content that is in line with industrial innovation and development, and promote the smooth integration of industrial capital, social capital and external capital into the development process of "Internet plus" industry, covering the fund factors in the whole process of innovation and integration. Therefore, we must put priority on the development of Internet-based funds to stimulate the vitality of financial capital. For example, we must cultivate more diversified and richer financial services contents and products such as Angel Fund, Venture Capital Fund, Seed Fund, government investments, guaranteed investments, etc. We will encourage the innovation of Internet finance, improve the financing service mode of online credit platform, promote credit financing methods, so as to solve the financing problems for the healthy development of new Internet formats, eliminate enterprises' worries in their development, and provide the best financial environment for deep integration of "Internet plus" industry.

C. *Actively Building a Platform for Internet Plus Industry Integration and Innovation Service*

The application of Internet technology innovation must be linked to the needs of industrial transformation, which should face the key areas of industrial development, build a public platform for cloud computing and cloud services, form a data center for integrated industrial development, provide development guidelines for large, medium and small enterprises, and broaden the development ideas and space of enterprises. It is necessary to strengthen the forward-looking layout of key areas, enhance key technological breakthroughs that restrict the application of Internet technology, and provide solid guarantees for traditional industry transformation, intelligent manufacturing promotion, and online and offline integration. It is necessary to strengthen the role of exemplary model of integration and innovation by establishing pilot enterprises and pilot areas for Internet demonstration applications, so as to bring the popularization and promotion of Internet technology services by expanding from a point to a plane, promote the comprehensive integration and application of "Internet plus" in the three major industries, and expand the influence of network transformation and innovation.

D. *Accelerating the Improvement of the Network Supporting Infrastructures and Optimization of Entrepreneurship and Innovation Environment*

Vigorously promote the construction progress of "Digital China", strengthen the hardware facilities of network development and innovation, comprehensively expand the popularization of Internet fiber-to-the-home, improve the pipe network facilities by tapping potential transformation, further improve network transmission capacity, and accelerate the supporting and upgrade of information and communication facilities of development carriers in key areas, key parks and key enterprises, and support the construction of supporting facility and network platform based on cloud computing and

big data; Adopt multiple measures to promote the Internet to speed up and reduce fees, enhance the continuous improvement of urban and rural network access rates, and improve the Internet use level of agriculture, village and farmers; encourage the key urban and rural areas to popularize and promote free wireless broadband services, and promote the Internet supporting facility system of covering urban and rural areas, sound agglomeration and convenient use, so as to lay solid hardware formation for Internet innovation and application and provide reliable guarantee for promoting the transformation and upgrading of the industry based on “Internet plus”.

E. Putting Emphasis on Cultivating an All-round Talent Team with a Vision of Modern Network Development

Based on the characteristics of regional industrial development, we must strengthen the cooperation with universities and research institutes in talent training and cultivating, attach importance to fostering key interdisciplinary talents with Internet thinking, and strive to build a global “Internet plus” echelon talent bank, so as to provide talent guarantee for the integration of the Internet and industry. The first is to lay emphasis on the introduction of leading talents in Internet, and guide high integration between the development direction of industry transformation and Internet thinking. The second is to strengthen the cultivation of Internet team, stimulate the vitality in entrepreneurial innovation, and improve the incubation success rate of technology application and transfer. The third is to advance the construction of an applicable small and medium-sized entrepreneur team that is familiar with Internet operations, encourage the development of new modes, formats and modes of Internet operations that are in line with regional realities, and expand the role of the Internet platform as an amplifier for optimizing factor allocation.

V. CONCLUSION

In a word, under the background of innovation driven strategy, the network economy has a great influence on the social production through the various layers of productive forces, production relations and production mode. The development of regional economy should conform to the trend of “Internet plus”, and strengthen the infiltration of the Internet and traditional industries through the great impetus of the digital economy. We should speed up the development of advanced intelligent industries derived from the frontier network technology through the integration, and pay attention to the development of new forms of cross-border integration, promote the restructuring of regional industries, build up the modern economic system, and lay a solid foundation for the promotion of regional comprehensive competitiveness.

REFERENCES

- [1] Peng Haijing, Li Li, Jiang Min. Research on New Urbanization Construction in Rural Areas of Northern Jiangsu Based on “Internet plus” [J]. *China Management Informationization*, 2016 (1).
- [2] Li Wei, Sun Faming. The Enlightenment of German “Industry 4” to China’s “Internet plus” [J]. *China Management Informationization*, 2016 (1).

- [3] Wu Qiaoyikang. Analysis of Development Situation of Rural E-commerce Industry in Fujian [J]. *Logistics Technology*, 2015 (1).
- [4] Journalist: Li Ke, Correspondent: Wu Jiangbo. Opinions on Promoting the Development of the Internet Economy Issued by Our Province [N]. *Fujian Daily*, 2015-04-06.
- [5] Journalist: Li Ke. Netizens Spend 27.2 Hours on the Internet Per Person in One Week [N]. *Fujian Daily*, 2015-07-18.
- [6] Tianjin Economics Research Group: Zhang Liheng, Cui Yin, Yu Dongqing, Meng Li, Qu Ning, Zhong Chengchun. Research and Judgement of “Internet plus” Breakthrough [J]. *Tianjin Economy*, 2015 (8).
- [7] Lin Changhua. Path and Countermeasures of Fujian Industrial Promotion and Restructuring by “Internet plus” [J]. *China Development*, 2016 (3).