

Research on Regional Development and its Operating Mechanism under the Background of Information: Take China as an Example

Jiayan Fu, Zhu Wang, Jiaojiao Sun

(Dr. Jiayan Fu, College of Civil Engineering and Architecture, Zhejiang University, No. 866, Yuhangtang Road, Hangzhou, China, fujiayan513@qq.com)

(Prof. Zhu Wang, College of Civil Engineering and Architecture, Zhejiang University, No. 866, Yuhangtang Road, Hangzhou, China, wlb-art@163.com)

(M. S. Jiaojiao Sun, College of Civil Engineering and Architecture, Zhejiang University, No. 866, Yuhangtang Road, Hangzhou, China, 3947087@qq.com)

1 ABSTRACT

The information society, as a main circumstantial background of modern regional development, is the era cradle of region's deepening core connotation and evolving layout form. This article analyses the chief influenced factors of information society, and considers that the regional development under the background of information breaks through the limitation of time and space. Meanwhile, according to the industrial organization promotion, spatial structural optimization, basic information infrastructure and other fields of region, authors elaborate the present situation and characteristics of the regional development. Therefore, this article puts forward the innovative operating mechanism of regional development.

2 INTRODUCTION

In the 1950s, John von Neumann invented the computer. In the 1990s, the number of Chinese computer users increased exponentially. The computer popularization and rapid Internet development changed human beings' production and life way, what made their work, education, shopping and hospitalization break through the limitation of time and space. Computer and Internet reconstruct the function distribution within the region, what's more, push Chinese society into a completely new information age. The concept traditional region which is relying on time, place and space have already changed. Human activities are no longer limited to specially appointed locations.

3 PRESENT SITUATION OF THE REGIONAL DEVELOPMENT UNDER THE BACKGROUND OF INFORMATION

At the age of informatization, various aspects of region will change and development as well. From three aspects, which is spatial structural optimization, industrial organization promotion and basic information infrastructure, authors elaborates the Chinese present situation of regional development.

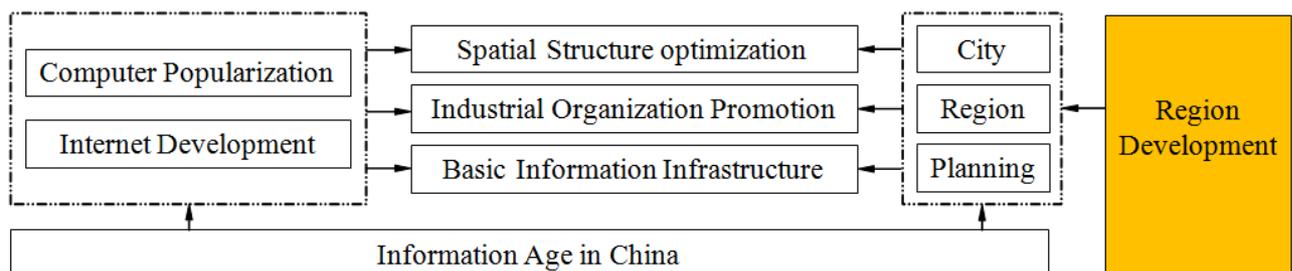


Fig. 1: The relationship between information background and regional development

3.1 Spatial Structural Optimization

City is belonged to region. And it has four basic functions, which is living, working, transportation and rest.¹ Because of the permeation into every aspect of living and working, however, the concept of region or city under the background of information may be different from the past. Therefore, spatial construction could be mixed. On the one side, Living room can not only be used for living, but also for working or activity space. On the other side, working room will no longer be districted in a traditional office.² It can be replaced in the house or on the car. For example, Beijing Wangjing Small office and Home Office (Designer: Zaha Hadid).

¹ Athens Charter. C.I.A.M., 1933.

² Yang Zhangxian. Study on regional development and response of urban planning in the information age, Northeast Normal University, PhD thesis, 2011.

So, it liberates the spatial limitation and realizes the separation of production and management. What's more, due to the breakthrough of time and space, the burden of traditional and physical transportation will be released by electronic transmission way invisibly.

3.2 Industrial Organization Promotion

Information has the great permeability through each traditional industries. For instance, Chinese traditional architectural industry is always in the evolution. In the view of its exploit, design, production, management, sales and other links, informational method can make a higher productive efficiency and a more reasonable resource distribution come true. Then, it injects new vitality into the traditional industries.

The experience of the developed countries showed that informatization can promote industrialization, improve product quality, better production environment and reduce energy consumption. Even if it will increase 30% of the cost of investment, but can get 85% of the economic returns. Therefore, China, as a developing country, following the pace of the information age, the traditional industry is also slowly transformed.

3.3 Basic Information Infrastructure

Actually, in the early 1970s, China has already started a comprehensive construction of basic information facilities. With more than forty years passing by, China completed some achievements. Different from some countries, Chinese rural area reached 95% of the whole land area. And rural area always in a development of backward. However, the permeation of informatization has promoted the integration of city and rural construction, as a major breakthrough. In addition, in educational and scientific areas, it achieves a great progress in resource sharing. The number of academic Internet users from research institutions, educational organization or universities is very large.

4 RESEARCH AND IMPROVEMENT OF OPERATING MECHANISM IN CHINESES REGIONAL DEVELOPMENT

The operation mechanism of Chinese regional development is quite complex which contains a variety of contradictions. As each kind of contradiction is on a high or low position, it will make different influences. Therefore, we need to grasp main problem before coping with secondary problem, step by step. (Fig. 2)

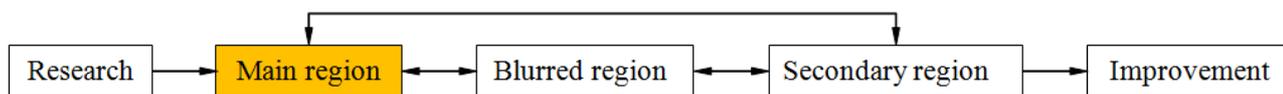


Fig. 2: The relationship between primary and secondary regional development

4.1 Chief Planning on main region

According to the environment bearing capacity, exploit density and development potention in different region, we should plan patterns of population distribution, economy and land towards the main region in the future comprehensively. And then, we will make the function orientation and development direction of the main region clear. The intensity and order of development should be under macroeconomic regulation. Gradually, it will form a sustainable spatial patter which population, economy and environment could coordinate with each other.

4.2 Coordinating Planning on secondary region

China has vast territory and abundant resource, which make its various regions be in unbalanced development with significant differences. Thus, a macro program is only a direction. It is unable to suit everyone's requirement and implementation in different local conditions. It is needful to create some secondary region planning, whose standard is lower than the national level, which is prepared due to each regional characteristics. We are looking the influence of secondary region in the province rather than in nation.

4.3 Comprehensive Planning on each region

When each region is in its personal development, at the same time, it is necessary to balance the overall planning in national level. However, through the exchange and cooperation between A region and B region.

What's more, it would promote common development and "1+1>2" effect could be achieved. For example, In order to coordinate the region spatial structure, industrial organization and basic infrastructure, China has approved the implementation of the northeast region revitalization planning, the central region rise planning, the Yangtze River Delta regional development planning successively. (Table. 1)

Time	Name	Region	Contents
2007	Northeast Region Revitalization Planning	Liaoning Province, Jilin Province, Heilongjiang Province, East Menggu Region	(1) Development foundation and overall goal. (2) Urban development and urban-rural integration. (3) Independent innovation and innovation Region Planning. (4) Social undertakings and public service.
2009	Central Region Rise Planning	Shanxi Province, Anhui Province, Jiangxi Province, Hubei Province, Hunan Province	(1) Planning background and great meaning. (2) Overall purposes. (3) Energy materials and base construction. (4) Complex transportation center construction. (5) Resource utilization and environmental protection. (6) Social undertakings development.
2010	Yangtze River Delta Region Development planning	Shanghai, Jiangsu Province, Zhejiang Province	(1) Development basis and background. (2) Strategy direction and development goal. (3) Regional construction and coordinating development. (4) Resource utilization and environmental protection.

Table 1: Examples of comprehensive planning on each region

5 CONCLUSION

The regional development under the background of information make a great influence on the cities and human beings. Mutual integration and penetration between city and region is more and more strong, which are all towards the diversification direction. Therefore, city becomes a real "region's city". Informatization brings the regionalization and globalization, what's more, it makes a spatial structure optimization, upgrading industrial organization and closing social relations. At the information age, the desalination of center and periphery can participate into the competition in different levels and enhance the operability of planning.

6 REFERENCES

- Athens Charter. C.I.A.M., 1933.
 Yang Zhangxian. Study on regional development and response of urban planning in the information age, Northeast Normal University, PhD thesis, 2011.
 Liu Weidong, Jin Fengjun, Zhang Wenzhong, He Shanfei, Liu Zhigao. Research Progress and Prospect of Chinese Economic Geography. Progress in Geography, 2011.