

# STUDY ON THE DEVELOPMENTAL STRATEGY OF COUNTY REGION ECONOMY INFORMATIONIZATION IN CHINA

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**Abstract:** The concept of county region economy and its informationization were limited. The characteristics and functions of county region economy informationization were pointed out. On the basis of analyzing the present situation and the existent problems, the developmental strategy of county region economy informationization in China were put forward from guiding ideology, basic principles, system frame and the way of implementation.

**Key words:** county region economy, informationization, strategy

## 1. INTRODUCTION

As one of important contents of region informationization, the county region economy informationization is an efficient path to reduce “the digital gap” between urban and rural areas. At present, Japan, the US, Singapore, Canada, France, Germany and so on are in leading position in region economy informationization in the world. The informationization accelerates the development of traditional industries and distinctive industries, improves the management level and the grade of service through information technology, and provides fair and convenient information services for the

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*Please use the following format when citing this chapter:*

Sun, G. and Wang, H., 2009, in IFIP International Federation for Information Processing, Volume 295, *Computer and Computing Technologies in Agriculture II, Volume 3*, eds. D. Li, Z. Chunjiang, (Boston: Springer), pp. 1929–1938.

resident through sharing the information in these countries. The informationization expanded the open degree and propelled the regional economy development (Tian Ye et al., 2001; Liu Guicai et al., 2006; Zong Yu et al., 2006). On the basis of the successful experiences of other countries and the reality of our country, it is the inevitable choice to realize county region economy informationization in China.

## **2. OUTLINE OF COUNTY REGION ECONOMY INFORMATIONIZATION**

### **2.1 Concept of county region economy informationization**

County region economy, the most basic regional economy unit of the national economy, is a kind of regional economy with bright regional features and complete functions. It is divided into the geography space by county level administrative area, takes market as guidance and takes county level political power as the important impetus. It is the intersection of economy not only urban and rural areas but also industry and agriculture.

County region economy informationization is an entire process of using information technology in industry and agriculture, the government affairs and the village affairs and public services and so on. Through gathering, transmitting and processing the information, developing and applying the information resources in breadth and depth, it can reduce the consumption and the pollution to enhance the efficiency of industry and agriculture, the government affairs and the village affairs and public services unceasingly, and make them intercoordination and fusion to enhance the competitive power of county region economy.

### **2.2 Features of county region economy informationization**

#### **2.2.1 Multiplication of main body**

County region economy informationization involves many main body, such as each kind of enterprise, the individual engaged in commerce, the family dealing with industry or agriculture, the township government and the related department in government affairs or village affairs and all kinds of intermediary organizations in public services and so on.

### **2.2.2 Diversification of content and form**

County region economy informationization involves many operational systems in industry and agriculture, government affairs and village affairs or public services, multiple message transmission networks (eg, broadcasting network, telecom network, internet, etc) and multiple message terminals (eg, computer, telephone, television, newspaper, etc).

### **2.2.3 Integration of each kind of service**

County region economy informationization is a process to promote intercoordination and fusion among the production or operation management of industry and agriculture, government affairs and village affairs and public services. The integration enables the society to become an organic whole.

## **2.3 Highly county region economy informationization's form**

The informationization makes information resources as an important resources and power of social development and brings the following changes.

### **2.3.1 Agricultural production of precision**

Farmers can promptly gain information about agricultural science and technology, technical advisory work, meteorology, agricultural product demand and so on. They applicate technological production in agriculture to raise the land productivity, the yield rate and the availability of resources, and realize the sustainable development of agriculture.

### **2.3.2 Industrial production of specialization**

Information technology was widely applicated in industrial enterprise. It causes the digitization and network in product design, manufacturing, operation and management. With the infinite information network and the strong message resources, the low consumption of energy and pollution, the specialized and characteristic production in industry will have stronger competitive power and higher benefit in the world.

### **2.3.3 Service process of digitization**

Based on the information network and the strong message resources, the omni-directional and the three-dimensional modern service structure will be

formed. It includes the foundation service industry such as communication services and information services, production and market service industry such as e-procurement, online sale and e-logistics, online individual consumption service industry such as education, healthcare, accommodation, catering, cultural entertainment and traveling and public service industry such as government public administration and public health and so on.

### **2.3.4 Service function of government**

The flattening structure will become the basic construction of county township government and village committee. The interactive and open administration according to the law will be the basic way of government operation. The comprehension services will be the core responsibility of county township government or village committee.

## **3. SITUATION AND PROBLEMS OF COUNTY REGION ECONOMY INFORMATIONIZATION**

In order to do well county region economy informationization, the State Council Informationization Office of China selected six state-level county regions as the experiment site, which are respectively Anping county in Hebei province, Fangshan district in Beijing, Cixi city in Zhejiang province, Wuyuan county in Inner Mongolia, Ningguo and Shucheng county in Anhui province. County region informationization has made great progress.

### **3.1 Present situation**

#### **3.1.1 Facilities of information infrastructure**

In China, during the 10<sup>th</sup> Five-Year-Plan period (2001-2005) the synthesis communication ability obviously strengthened in county region and county-wide information communication network was formed basically. Each county laid down the fiber optics. The communication network has covered all villages or small towns in plain area. "The wide band from village to village" was basically realized in developed areas. The user of cable TV and computer increased. Many technologies such as fiber optic communication, data communication, satellite communication, mobile communication and multimedia correspondence were widely used in communication network.

### **3.1.2 Development and application of information resources**

In China, the county region has mostly established special agricultural message center, e-government local area network and government website. In view of the local distinctive industry, some characteristic data systems such as industrial policy, market supply and demand and suitable technology of animal husbandry have been established. The media of network, publication, magazine, broadcast and television has unified mutually. Based on these, intermediary organizations and leading enterprises were built and became the first to share the information resources. Many kinds of service modes and agricultural information added farmers' receiving and promoted the agricultural industrialization.

### **3.1.3 Popularization and application of information technology**

The popularization and application situation of information technology is different for the differences of counties. In enterprise informationization, the difference is very big. Generally speaking, the county with the characteristic industry developments quickly, otherwise is relatively slow. For example, Anping county with famous silk screen industry is a clear example of the aspect. In e-government aspect, the development in various samples is very uneven. For example, more than 80% institution at Ningguo county has implemented government online project. In the slow pace of development of the counties, e-government is building and developing.

## **3.2 Main problems**

### **3.2.1 The weak information infrastructure**

For the lower computer penetration rate, the bigger investment of network infrastructure and the higher price or cost of online in rural, the ability to gain information by network is insufficient and the channel to disseminate information is not unimpeded. In the existent agricultural information service system of rural areas, the backward means of gathering, processing, distributing and issuing information, non-uniform standard and non-standard method of information and so on cause the obsolete or the distortive information and the serious information asymmetry.

### **3.2.2 The low exploitation and application of information resources**

The information resources construction in different departments of county government is relative backwardness. The technical methods and operation patterns of information dissemination exists flaw and the technology appears the insufficiency in the depth and breadth to await improvement in the usability, serviceability, visualization and dynamic. In agricultural information, many are macro, outdated and inapplicable so as not to truly instruct the farmer's decision-making. At present the information resources in different departments cannot be shared.

### **3.2.3 The poor qualities of information recipients**

The informationization requests the information personnel or recipients have high qualities. However, the existent information service personnel with uneven qualities, mostly without specialized training, are not familiar with the information service business. Most of them engaged in several jobs at the same time. These have affected the quality of information service.

The farmers, as the recipients of information, have a lower quality. According to the census results, among the rural labor forces at Wuyuan county, there is 87.91% person with junior middle school education, 10.07% with high school education, 1.63% with specialized middle school education, and only 0.39% with college education. The reality has directly limited the farmers to learn information technology and network knowledge and lead to a lower level of information application.

### **3.2.4 Unsound policy environment of informationization**

Informationization policy environment is weak and unsound, especially in informationization management, investing system, operation mechanism, informationization standard and the legal environment etc. The overall frame of informationization does not yet constitute.

### **3.2.5 Expanding information difference between urban and rural areas**

Since the 1990s, the establishment and deepening of marketability led to the essential factors of production such as rural labor force, fund, land, etc flowing out from the rural massively. Therefore, the difference between urban and rural areas unceasingly expanded. Taking the computer penetration rate at Anping county as an example, 59.09% families from urban residents have the computer, but only 2.68% farmer families. The low

income of the farmer directly influences the obtaining information and rural informationization.

## **4. DEVELOPMENTAL STRATEGY OF COUNTY REGION ECONOMY INFORMATIONIZATION**

### **4.1 The guiding ideology**

Under the strategy and policy of the national informationization, county region economy informationization should closely regard economy and society development as the central task, take the promotion of education, agriculture and government from informationization as the goal, take the exploitation and application of information resources as the core, take the use of information technology as the method, and display the booster function and the multiplier effect of informationization.

### **4.2 The basic principles**

#### **4.2.1 Overall conforming information resources**

County region economy informationization must take the scientific development concept as a command, use the existent each kind of channel and information resources fully, eliminate the redundant building project and the unshared information and realize the sharing and the optimization disposition of information resources.

#### **4.2.2 Prominent application of information**

According to local condition and the demand among enterprises, farmers, middle organizations and county township government departments, county region economy informationization must stress on the application of informationization to solve the key questions related the overall situation and manifest the multiplier effect of informationization.

#### **4.2.3 Foothold in system innovations**

County region economy informationization must unify informationization and institutional innovations, consummate gradually policies and regulations,

the management and the coordination mechanism of informationization, study the low cost and the high benefit development model and be sure to seek the actual application effect of informationization.

#### **4.2.4 General services of informationization**

County region economy informationization must insist on the principle of general services to advance the informationization application in different groups of people or industries, reduce “the digital gap” gradually, and make full use of informationization to enhance county region economy.

### **4.3 The system frame**

In view of the present situation and problems, the system frame of county region economy informationization should involve the following six aspects.

#### **4.3.1 The main body of services**

In county region economy informationization, the public, enterprises, middle organizations, county township government and its departments are all the main body and the object. It is noteworthy that the public include farmers, enterprises include the rural enterprises, middle organizations mainly refer to the agricultural association and the rural service station of science and technology.

#### **4.3.2 Using platform**

In generally, the using platform of informationization, including the using platform of government affairs information, the enterprise information and the public services, provides the application services for the county township government, the village committee, each kind of enterprise, the public, and the agricultural association and so on.

#### **4.3.3 The application and the service system**

Without the universal available criterion, the application and the service system should be according to the local actual conditon to operate and share the resources of different provinces or cities to avoid the redundant informationization construction.

#### 4.3.4 Information resources

The information of enterprises, government affairs, geography, population, agriculture, etc are all the information resources of informationization. The development and application of it is important content of informationization. Without it, the main body cannot obtain the information to make decisions.

#### 4.3.5 Information infrastructure

Information network infrastructure is the foundation of informationization. In informationization, the network operator's enthusiasm should be aroused. The resources of hardware and software should be conformed, and the principle of "the resource sharing, mutually for uses" should be insisted on.

#### 4.3.6 Regulations and standards of management

As a key to standard and impetus the development of county region economy informationization, the policies and the laws and regulations are the safeguard of the informationization. Various county (city) areas must profit from the valuable experiences which accumulates in the policies and regulations aspect of the experimental sites to serve informationization.

### 4.4 The implementating way

The informationization must take the significant demonstration projects informationization as a breakthrough point, take the leading strategy of mainstay industry as an engine and the promoting strategy of the environment and personnel as a safeguard. Thus lead to the key and related industrial informationization. The way is shown in Figure 1.

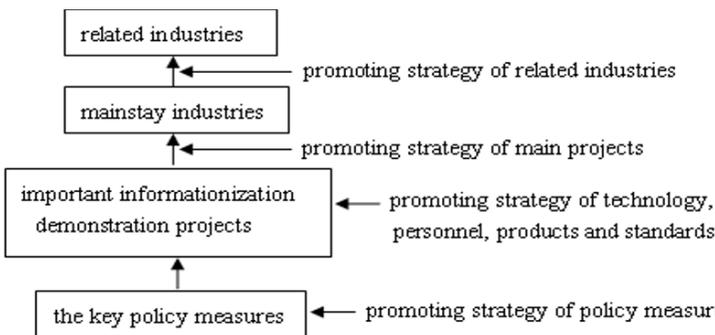


Figure 4. The implementating way of county region economy informationization

## **5. CONCLUSION**

The county region economy informationization, an important component of the region informationization in China, is an efficient path to reduce “the digital gap” between urban and rural areas. The article has limited the concept of county economy informationization and analyzed its characteristics. On the basis of the present situation and main problems of informationization, the developmental strategy of county region economy informationization in China was discussed from the guiding ideology, the basic principle, the system frame and the implementing way.

## **ACKNOWLEDGEMENTS**

Funding for this research was provided by Informationization Office of the State Council of China. The authors are grateful to the Hebei Agricultural University and the Hebei Academy of Agricultural and Forestry Sciences for providing them with help in the research.

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