Strategic Priorities on China's Informationization

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Abstract: With the rapid development of information technology, informatization has become an important method to improve the competitiveness of enterprises and the comprehensive capacity of a nation. This paper has designed three kinds of strategies-innovation strategy, integration strategy and differentiation strategy-for China's informationization, which occupies a strategic position in China's modernization. As these three strategies meet the need of informationization of the public, they can improve the core competitiveness of all industries.
Keywords: Informationization; Development strategy; Strategic priorities; Integration strategy

1 Introduction

With the rapid development of information technology, informatization has become an important method to improve the competitiveness of enterprises and the comprehensive capacity of a nation. According to the National Development Strategy on Informationization from 2006 to 2020, released by the General Offices of Central Committee of the CPC and the State Council, it's claimed that informationization is urgently needed for establishing an innovative country and it's very important to Chinese modernization construction as well. This document puts informationization to a strategic position in China. In terms of the significance, this paper designs three kinds of strategies for China's informationization, innovation strategy, integration strategy and differentiation strategy. With these three strategies, it can meet the need of informationization of the economic society, and improve the core competitiveness of all industries.

2 The Innovation Strategy for Rapid Development

Innovation strategy means that, in different stages of informationization, , it can make a big step in the development. Therefore, through the innovations of technologies, talents, funds, institutions and organization forms, it can achieve this advancement.

According to the Economic Stage Theory of informationization, information economy can be divided into four stages: traditional informationization economic stage, substandard informationization economic stage, standard informationization economic stage and modern informationization economic stage. The features and development levels of them are shown in following Table 1.

Table 1 Features of Four Informationization Economic Stages

Informationization Economic Stage	Features	Development Levels
Traditional Informationization Economic Stage	1 Information techniques are relatively primitive and backward; 2 Industries are less covered and mostly single; 3 Traditional industries are the leading roles on information.	Beginning
Substandard Informationization Economic Stage	1 Traditional features combined with modern features in the information society; 2 Traditional information society makes more contributions than modern information society to informationization.	Primary Level
Standard Informationization Economic Stage	1 Traditional features combined with modern features in the information society; 2 Modern information society makes more contributions than traditional information society to informationization.	Intermediate Level
Modern Informationization Economic Stage	1 Traditional way of information is disappeared; 2 Information industry covers more fields and more cross industries; 3 Comprehensive standard plays bigger role in informationization; 4 New and high-tech information industries make more contributions to this field.	Senior Level

Source: Song Ling. Theories and Methods of Informationization Evaluation. Beijing: Press of Economic Science, 2001

Table 1 shows that, the development economic stages of informationization is closely related to its traditional or modern level. Presently, the proportion of Chinese's traditional informatization is 52.04%, and the modern part is 47.96%, by a difference of -5.92%, which shows that China's informatization remains in the primary level—the substandard informatization economic stage. Comparatively, America's traditional informatization is 37.27%, and the modern part is 62.33%, by a difference of 25.06%, which suggests it has entered the modern informatization economic stage.

After analyzing the current situation of informationization in China, we have to consider whether it can realize the development from the substandard informationization economic stage to the modern stage. First of all, we have to testify the transition's feasibility. By attesting the funds, talents, technologies, systems and organization forms, it's certain that some developed areas in China have the abilities to make their informationization development a big step. The strategy is shown as Figure 1.

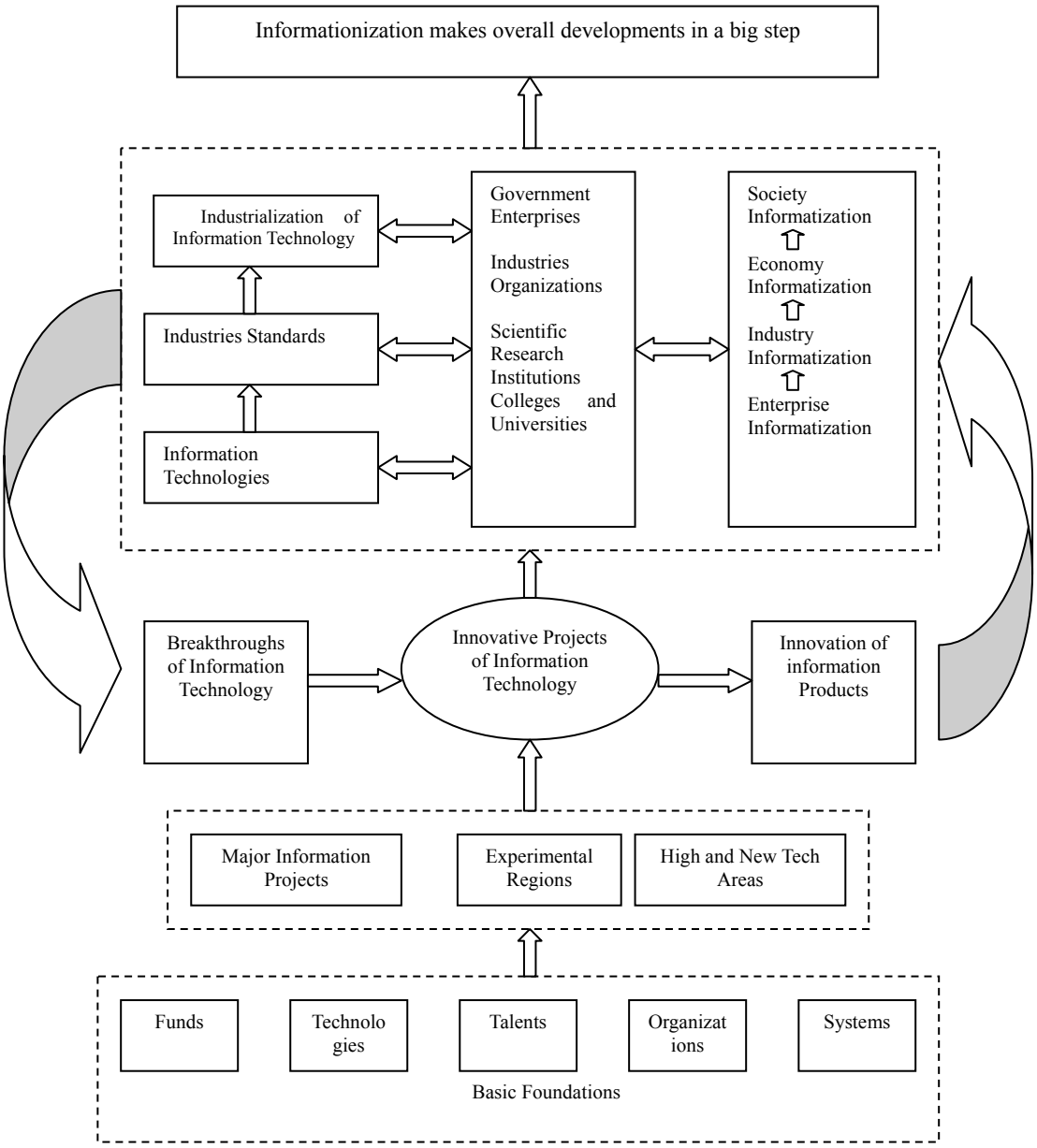

Figure 1 Informatization Strategy

Figure 1 shows the informatization leaping development needs the basic foundations of funds, technologies, talents, organizations and systems. It also needs the major information projects, experimental regions ， new and high tech areas as the carriers to focus on the development of IT

innovation projects. Meanwhile, , it can realize the IT industrialization, standardization and knowledge popularization by the efforts of government, enterprises, industries, scientific research institutions and colleges. Therefore, it can make breakthroughs in information technologies, and encourage the development of IT innovation projects. With the innovation of information products, it will lead to the enterprise informationization, and gradually cover an overall development in the industries, economy and society.

3 The Integration Strategy to Promote the Development

Integration Strategy means an all-round integrating development with all the industries' informatization. The strategy is based on the foundations of funds, technologies, talents, organizations and systems. With the integration of Three Network Convergence and the Internet of Things, this strategy combines the comprehensive effects of subjects integration, contents integration and mechanisms integration, therefore, it gradually achieves an all-round integration of Informatization. The integration covers many fields, such as technologies, products, industries, as well as the economy, society and culture etc. The subjects include government, enterprises, industries' organizations, institutions and colleges and universities. The content covers various integration forms, such as the technology and product, technology and industry and technology and economy. The integration of mechanisms means refer to, by unifying the government's orders and programming, avoid the divisions among the areas, and through the unified standards, laws and rules, as well as the projects alliance to break up the local protectionism which will appear in the development of integration. The integration strategy is shown as following Figure 2.

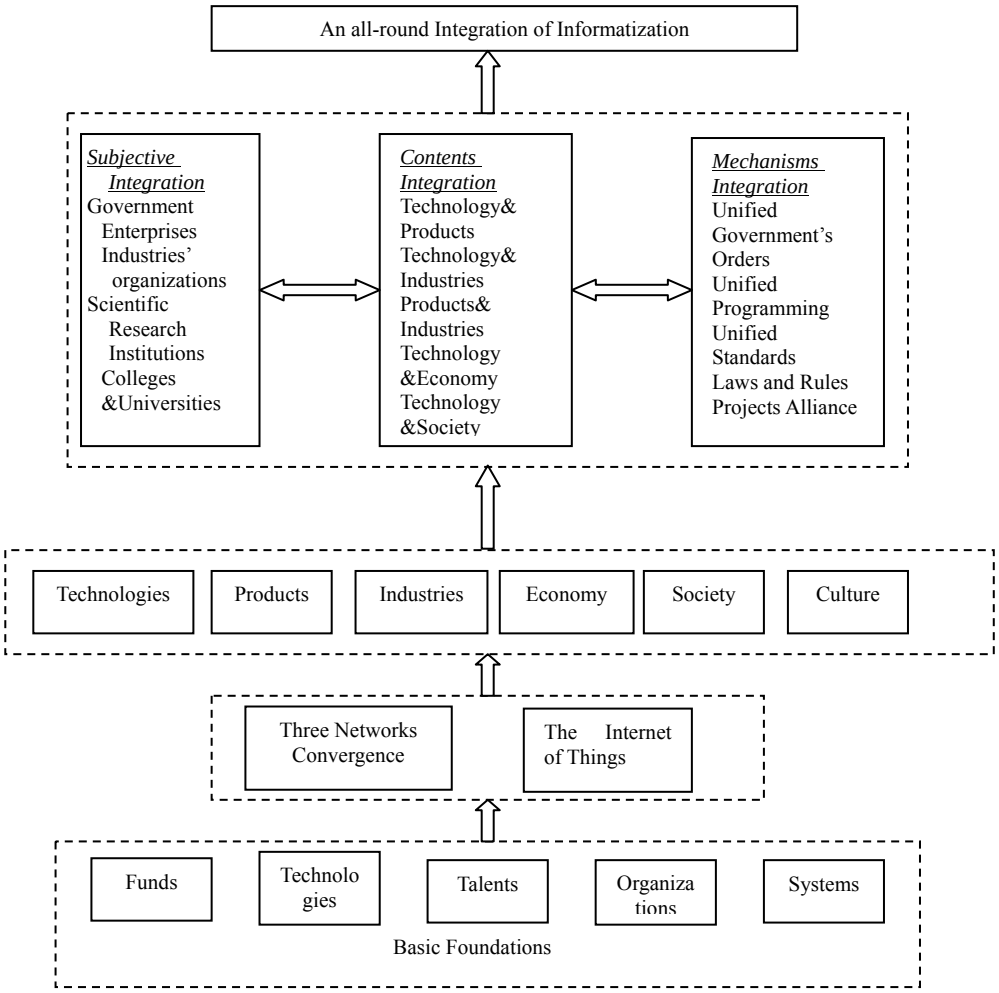

Figure 2 the Integration Strategy to Promote the Development

The Three Networks Convergence refers to the integration of the telecommunication network, broadcast television and internetwork. Recently, they are respectively transforming into broadband communication network (BCN), digital television and next generation internet. Gradually, they will have the same functions of technologies and the almost same scopes of business. Therefore, users can share information through interconnection of these three networks, and enjoy a high efficiency service, such as data transmission, voice communication and broadcast television etc[1]. The Three Networks Convergence is more like an integration of business applications than a physical combination of internet works, because business integration can provide customers an all-round experience. The integration of applications means, with the same terminal and the same IP Protocol, it can support every kind of business integrations, as well as their terminals. The management integration is the main factor throughout these three networks. It governs the business and manages the network intelligently. In other words, it integrates the charging, settlements, accountants, marketing and the management of networks. There are two phases in the practice of the Three Networks Convergence, experimental phase which mainly regards to the business integration，and the promotion phase which mainly regards to the integration of terminals and networks. In general, Three Networks Convergence means a convergence of technologies, an intercommunication of networks, the infiltration of businesses and a share of public resources.

The concept of The Internet of things was put forward in 1999, which was known as the internet by connections of things, which means, according to the agreed protocol, everything can connects to the internet, and the users can exchange information and communicate to each other. With the information sense devices such as RFID, Smart Sense, GPS, and Laser Scanner etc. it can make intelligent identification, locating, tracking, supervision or management[2]. The Internet of things has integrated the material world and the internet. It makes things can think, which has largely omitted the complex operations and simplified the working process. It makes the things' and things-to-people's communications more easily, and efficiently saves the time, funds and human resources. The Internet of things is an extension of internet which also is the center and basis. Its users can exchange information of materials and communicate to each other.

The Three Networks Convergence and the Internet of things are the foundations in the integration strategy, by which to support the free combinations among technology, product, industry, economy, society and culture etc. Here are some examples. As for the integration of technology and its product, because the existing numerical control machines and most mechanical products have absorbed the information technology, the machinery products are more intelligent. As for the integration of technology and the industry, taking information technology and logistics as example, it improves the efficiency and saves a lot of transportation costs to the whole society. The integration of technology and economy, for example, the extensive application of information technologies in agricultural, industry and service industry, promotes the modernization of these industries. The integration of technology and society also applied in the social public functions such as medical treatment、health、social security、residence management etc. It has improved the efficiency of the social public management and service qualities. In those integrations, they have the comprehensive effect of subjects integration, contents integration and mechanisms integration that informatization can be fully integrated.

4 The Differentiation Strategy to Promote the Development

The differentiation strategy focuses on the unbalanced development situations of informationization in different areas of China, which includes the differences in the four spaces, that are East, Northeast, Central area and West; it also includes the differences of industries and their objectives in particular stages. These differences mainly exist in the five respects: information resources, the application of information technology, the economic development of information industry, the sci-tech development of information technology and, the abilities of informationization's subjects. The differentiation strategy promotes the development by a gradient process with each level, which includes integrating systems, promoting key points and showing up the advantages. Therefore, it can realize an all-round development of China's informationization.

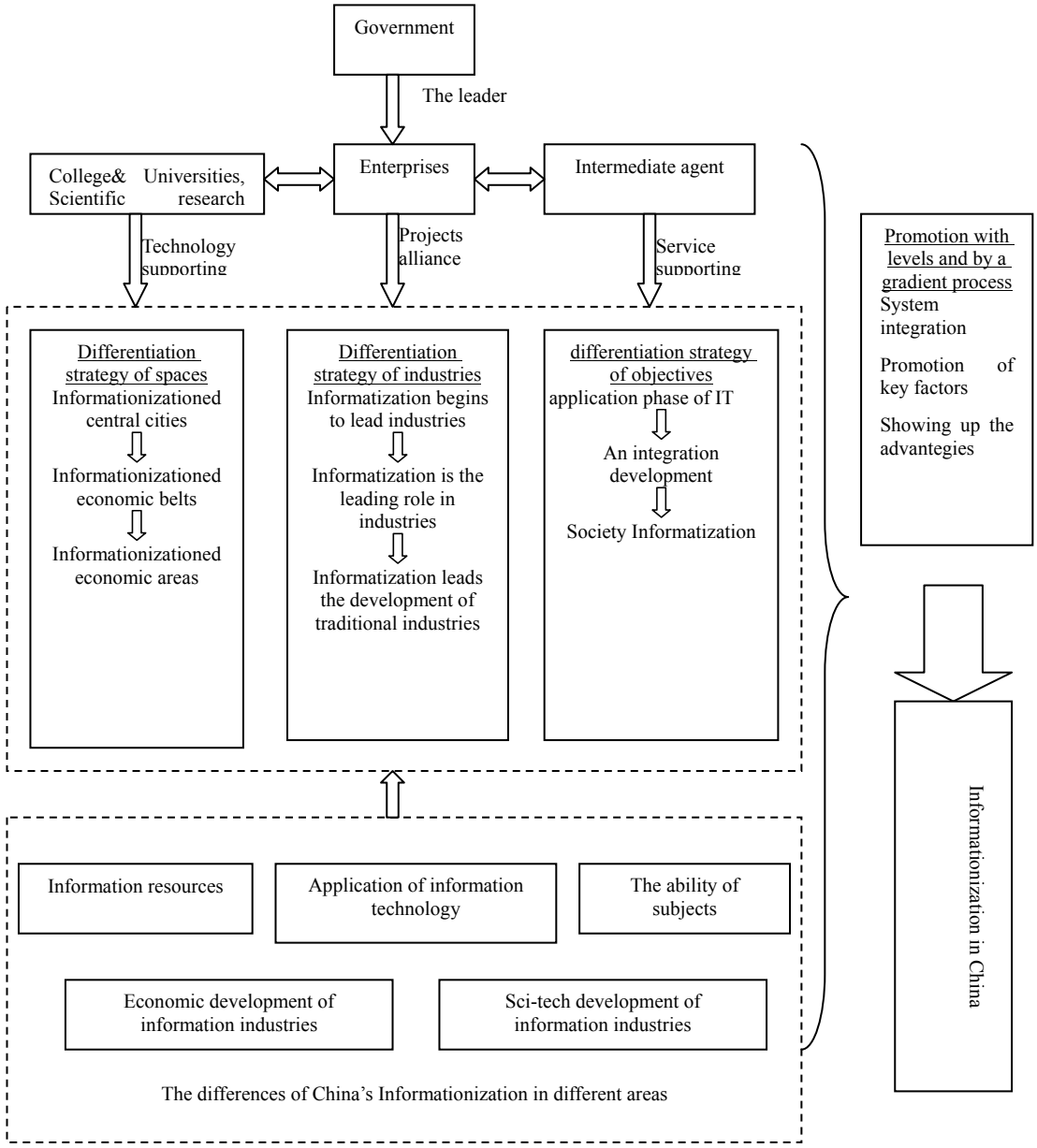

Figure 3 the Differentiation Strategy to Promote the Development

In this strategy, the main bodies still are the government, enterprises, college& universities, Scientific research institutions and intermediate agents, among which the government researches and drafts politics and rules to promote the informationizations of the different spaces, industries and their objectives. With the support of government, enterprises can take use of information technologies to research on innovations. Meanwhile, they can integrate the professional information technologies from college& universities and scientific research institutions. As for intermediate agents, they make standards and provide each kind of services.

The differentiation strategy on spaces focuses on developed cities and areas to maximize their benefits of information industries. The strategy suggests promoting more groups of information industries and building information infrastructures. So a group of cities can first develop and radiate to the around areas. Therefore, with the efforts of spreading and exchanging of more information technologies and knowledge, the different informationizations can be built in most areas.

The differentiation strategy on industries firstly analyzes the conditions and potentials of

informationization in different industries, and then focuses on some guide industries, such as automobile industry, machinery industry etc. and leads industries, which include medical treatment, security, catering and entertainment etc. Leading by these industries and service industries, it can be popularized in the traditional industries, such as agriculture, construction and chemical industries. Therefore, the informationization can be developed in the industries.

The differentiation strategy on objectives can be divided into three stages. First，the application and promotion stage, in which covers more industries ad underdeveloped areas. Second，the integration stage, by integrating the informationization and industrialization, in other words, the industrialization can support the informationization, and informationization can promote the industrialization. As a result, it can make the national economy prosperous. The third stage is an all-round informationization of the whole society. It means, information will be integrated into social production and life, and it will create more values for the society. A digital society is born.

5 Conclusions

In a certain stage, a nation may choose different strategies by single, or by organizing, to improve its informationization level and finally achieve the all-round informationization of the whole country. This paper suggests that, in some important researches on information technologies, there needs innovations in the whole society, while the applications of information technologies should take the differentiation strategies to promote the economic society. Meanwhile, every industry should take the integration strategy to improve their informationization abilities, and actively apply them to the information industries.

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