

Intelligent Platform Research System for the Highly Integrated Development of My Country's Electronics Manufacturing Industry and Service Industry

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Abstract: With the help of normative analysis, empirical analysis and comparative analysis, this article combines the characteristic facts and empirical data of the development of China's producer service industry and electronic manufacturing industry to deeply analyze the internal and dynamic factors of the development of the producer service industry and the factors affecting the development of China's producer service industry. On the basis of theoretical and empirical analysis, to explore the underlying reasons for the low level of development and development quality of China's producer service industry and the low level of interaction and integration with the electronics manufacturing industry, an intelligent platform for integrated development based on deep learning has been established, enabling both parties fusion efficiency increased by 7.3%.

Keywords: Highly Integrated Development, Electronics Manufacturing Industry, Service Industry, Intelligent Platform

1. INTRODUCTION

The equipment manufacturing industry is the foundation of the manufacturing industry. As a necessary foundation for realizing the modernization of a country, it also serves as an important task for the development of social productive forces, and it is a fundamental manifestation of a country's international competitiveness. Since the founding of New China, especially after the reform and opening up, the design and manufacturing level of my country's equipment manufacturing industry has improved significantly, and it is developing towards the direction of the world's largest equipment manufacturing country [1-6].

At present, my country's equipment manufacturing industry is basically at the low end of the global value chain. Overall, the competitiveness of my country's equipment manufacturing industry is still very weak. The producer service industry is an emerging industry in my country. It is also the key to embedding knowledge capital and human capital into the equipment manufacturing industry value chain, and can significantly improve the level of R&D and innovation in the equipment manufacturing industry. However, at present, my country's producer service industry is in the early stage of development. Due to the impact of its development stage, it has shown a limited role in promoting the development of the equipment manufacturing industry. Looking at the rise and fall of various industries in the development of human society, the interaction between industries is the driving force for industrial development. All stages of the development of the service industry are closely related to the manufacturing industry [7-13].

Industrial linkage refers to the extensive, complex and close technical and economic linkages between industries in economic activities. The relationship between service industry and manufacturing refers to the complex interactive relationship between the service industry and the manufacturing industry through the connection of products, labor, technology, and capital. The two industries are not

simply a causal relationship, but a two-way interactive relationship of mutual cause and effect that is dependent on each other. After the manufacturing industry has developed to a certain level, in order to reduce costs, pursue higher product added value, and increase total factor productivity, manufacturing companies need more support from the service industry, and the economy and society will enter the manufacturing industry as the mainstay, accompanied by the service industry. The period of development. The experience and lessons of foreign industrialization development demonstrate the importance of handling and coordinating the relationship between the manufacturing industry and the producer service industry from both positive and negative aspects. Many foreign scholars have analyzed this economic phenomenon from a theoretical and empirical perspective. Domestic scholars have also done relevant research and expansion on the relationship between the two from the theoretical and empirical aspects. However, due to the many changes in the development situation of the manufacturing industry and the actual environment, the producer service industry itself contains many sub-categories. Service content and service forms are complex and diverse, and overall system research in this area needs to be further deepened [14-19].

On the basis of drawing on international experience, it is necessary to analyze the importance, urgency and arduousness of the transition from "quantitative expansion" to "intensive development" in the manufacturing industry based on China's basic national conditions and the staged characteristics of economic development. The development of the producer service industry has important practical significance for the orderly promotion of the transformation of the manufacturing industry and the healthy and stable development of the national economy. Therefore, on the basis of sorting out the many difficulties faced by China's producer service industry and manufacturing industry, this article further analyzes and discusses the internal mechanism and realization that will help realize and promote the interaction and integration of China's

producer service industry and manufacturing industry. Mechanism, and put forward corresponding policy recommendations on the basis of experience analysis. Actively promote the interactive and integrated development of the producer service industry and the manufacturing industry. Since the mid-1990s, with the rapid economic development, the new content and new forms of integration that have emerged due to industrial growth have not only broken through the boundaries of the development of traditional industries, but have also made the linkages between industries closer, and even become a driving force. The driving force for the development of traditional industries has made it a growth point for the development of the new industrial economy itself [20-24].

2. THE PROPOSED METHODOLOGY

2.1 The Electronics Manufacturing

Academician Wang Yingluo (2010) pointed out that "the electronics manufacturing industry undertakes the important task of providing technical equipment for various industries of the national economy and national defense construction, determines the strength of industrial competitiveness, and is related to the quality of the entire national economy 2-5. "According to the division of equipment functions, the electronics manufacturing industry mainly includes important basic machinery, important mechanical and electronic components, and major complete sets of technical equipment. Important basic machinery covers flexible manufacturing units, flexible manufacturing systems, industrial robots, and large-scale integrated circuits; important mechanical and electronic components include advanced hydraulics, start-ups, props, microelectronics and automation control systems, etc.; important complete sets of technical equipment include Complete sets of equipment required by various sectors of the national economy, science and technology, and military industry, such as complete chemical equipment, advanced transportation equipment, large-scale environmental protection equipment, and so on.

The electronics manufacturing industry has the ability to transform science and technology and knowledge into productivity. Technical equipment is an important way to transform the potential value of scientific research results into actual value. The added value of products and the huge benefits of export trade have become the leading commodities in world trade. The electronics manufacturing industry is the core component of the manufacturing industry and the foundation for the development of the national economy. When talking about the production organization system in the post-Ford era, he pointed out that the service industry as an intermediate input will continue to deepen the forward and backward connection with the manufacturing industry, and then promote the related development of the two major industries. With the rise and continuous development of the service industry, its role in promoting economic development and synergy with various industries has become more prominent, and the parallel transfer-type association model has been bred in this context.

2.2 The Service Industry

The concept of service can be traced back to the definition of the young physiocrats: service is all activities other than agricultural production. Although service has a long history, it was not regarded as an independent industrial concept until the beginning of the century. Ellen Fisher proposed in the "Conflict between Security and Progress" in 1988 that the "tertiary industry" used for the division of national industrial

structure is considered to be the origin of the service industry's original concept. They can be divided into construction industry, commercial and financial industry, public administration, transportation, professional service industry and personal service industry. We believe that since the reform and opening up, China's economy has maintained steady and rapid development, and the scale of various industries has continued to grow and production efficiency Steady improvement, the added value of the industry and the service industry both show a rapid growth trend, and at the same time they change simultaneously with the impact of the international and domestic macro-environment, so in terms of industrial added value, it shows a high correlation. And the annual value added the change in the amount of increase can better reflect the different reflections of the two industries on the changes in the macro environment. Overall, the changes in the annual value added of the two have a high correlation. The gap with industry first widened and then narrowed, so the synchronization between the two changes was low, and the correlation coefficient during this period was also low. Browning & Singelman pointed out that from the perspective of the functional classification of the producer service industry, the activities of this industry include knowledge-intensive finance, insurance, industrial and commercial legal services, brokerage, and industries.

2.3 The Integrated Development of Electronics Manufacturing and Service Industries

With the deepening and expansion of the social division of labor, the division of labor and collaboration among industries, within industries, and between enterprises and even within enterprises has become more and more common, forming a new pattern of interaction between different industries and departments. With the increasing complexity of the economic environment, the wide application of information and communication technology and the adjustment of various economic systems, changes in the economic development environment have not only made the boundaries of industries or enterprises more and more blurred, but also made the interactive externalities between industries more prominent.

Based on the deepening of the division of labor and the increase in the degree of specialization, the development of information technology and its extensive penetration in various industries and departments, the trend of interaction and integration between industries or between enterprises has become more obvious and the degree has been further deepened, and the manufacturing industry and the producer service industry Industrialization has become the new normal of industrial development for a long time to come. The increasingly obvious trend of integration between the manufacturing industry and the producer service industry is not only the result of the adjustment and upgrading of the global industrial structure, but also the only way for my country to promote and realize the rationalization and advancement of the industrial structure. The parallel transfer model of the service industry and the manufacturing industry is based on the relatively independent cooperation between the manufacturing industry and the service industry. It is an earlier relationship model that formed the two major industries. It is mainly used in the traditional service industry and the manufacturing industry. In between, one powerful industry drives the linked development of another industry, and then analogizes to the step-by-step development of the next industry and the extension of the related industry chain.

The model mainly includes the following four links. In fact, the performance of the service industry is also affected by many other factors, so some other influencing variables are added in the modeling. In the existing research, in addition to the impact of industrial integration on the performance of the service industry, the level of economic development has a certain effect on the performance of the industry. In addition, the performance of the service industry is also affected by the export value of the service industry.

3. CONCLUSIONS

Based on the current theoretical research trends and social reality needs, combined with social division of labor theory, transaction cost theory, value chain theory, ecological community theory, industrial association theory and other theoretical methods, this article conducts a theoretical study on the service industry and manufacturing industry related mechanisms and models. First of all, explain the concept, classification and characteristics of the service industry. Explains the service industry concept involved in the research, and discusses the classification characteristics of the service industry based on the perspective of technology level, production factors and service content. Finally, on the basis of comparing the advantages and disadvantages of the quantitative evaluation methods.

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