

Analysis of Economic Structure Effect of Informatization in China Based on Time Series

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Abstract: The 21st century is the era of knowledge economy and information economy. As a developing country, in the process of seeking economic development, China must shorten the distance with developed countries and achieve leapfrog development. Information becomes a factor of production, which is an important feature of changing the mode of economic growth. Informatization has promoted the transformation of the economic development mode from extensive to intensive, and gave birth to the emerging technology industry and information service industry. Informatization improves the efficiency and quality of economic operation by improving the application of information technology in the economic field and the level of information resource development, thereby providing high-quality and fast products and services for the entire society. Informatization affects short-term economic fluctuations by affecting the job market, price fluctuations, short-term investment, consumption, and macroeconomic policies; secondly, informatization promotes long-term stable economic growth by providing new production factors, improving production efficiency, and promoting technological innovation. According to the comprehensive index model of informatization, the development level of informatization in my country in the past ten years is calculated, and on this basis, the driving degree of informatization on my country's national economy and the differential impact on the three industries are estimated. The most important thing is that the Chinese government should actively see the hidden problems, and then put forward strategies to solve and improve the problems, so that my country's procurement model can be more transparent and stable, and the system can be more standardized and unified in content.

1. Introduction

The application of information technology is an important means to improve the efficiency of economic operation. The rapid development and application of information technology has made information acquisition more convenient and timely. While promoting the further deepening of the social division of labor, it is conducive to supporting decision-making, capturing business opportunities, expanding the market, reducing transaction costs and improving economic efficiency [1]. In fact, informatization is not only manifested in the development of information technology and the construction of information infrastructure, but also reflects the major transformation of modern social production methods and lifestyles from traditional models to network-based survival models. important, and conversely, financial development is also very important to the macroeconomy. With the extensive application of information technology in the economic and financial fields, informationization is transforming the traditional economic and financial structure. Informatization is built on the basis of industrialization, industrialization is the material basis of informatization, industrialization is the only way for economic development and social progress, and is an important symbol of the development of social productive forces to a certain stage [2]. Then, informatization is subdivided into two aspects: the development of the information industry itself and the penetration of the information industry into other sectors of the national economy, and further discusses the contribution rate of these two aspects to industrial growth. The problem of driving the industry. The government's procurement behavior is developed in accordance with the

development law of the market, and it also adapts to the development and changes of the market. The development of China's socialist market economy has entered a new stage of benign development, and the concept and content of government procurement has gradually been regulated by the international market with the opening of China's door, in order to enhance international competitiveness [3].

2. The Important Role in the Transformation of Development Mode

2.1 The Concept of Informatization

Informatization, as an important policy content in China, has been paid attention to in the following three decades. The concept was put forward and put into practice based on the basic judgments of the Chinese academic and industrial circles on the stage of economic development and social problems in China at that time. Showing the trend of economic cyclical fluctuations and abnormal fluctuations, my country is currently in the middle stage of industrialization, and is transitioning from a dominant position in agriculture to an industrial economy, and from a rural society to an urban society [4]. my country's industrialization process is relatively slow. Attempts not only to avoid the difficulties of data collection and calculation by the input-output method, but also to overcome the roughness of pure aggregate analysis, and strive to systematically examine the differential impact of informatization on economic growth and industrial structure, in order to comprehensively understand the meaning and meaning of informatization. It is helpful to formulate corresponding policy measures [5]. my country has established a special government procurement department, with full-time personnel to improve and manage procurement. Under the continuous development and changes, procurement has gradually become an international fashion trend, and it has been continuously developed and improved. A country creates value and meaning. At this stage, liberal capitalist countries mainly rely on supply and demand to adjust market demand. The government basically does not interfere with national economic activities. Therefore, the scope of government procurement is relatively limited and the scale is small, which has a significant impact on economic and social development. The impact is small. The scale of China's information industrialization in 2015-2020 is shown in Figure 1.

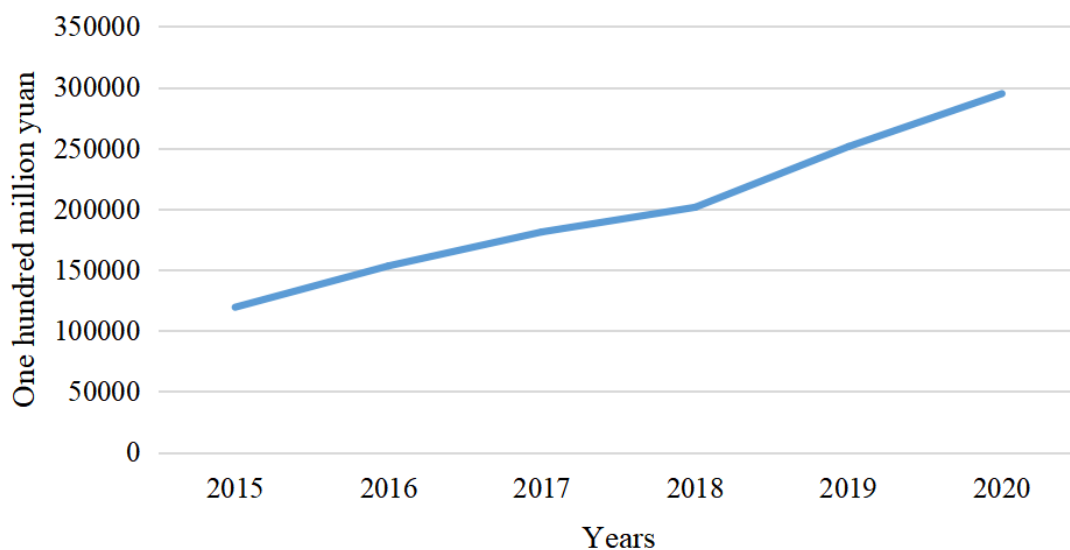


Fig.1 The Scale of China's Information Industrialization

2.2 A Multi-Dimensional Analysis of Informatization on Promoting Economic Growth

With the acceleration of economic globalization, the organization of economic activities is more dependent on obtaining rich, real and timely information. From a long-term perspective, the characteristics of macroeconomic growth are mainly reflected in the long-term expansion of

macroeconomic aggregates through changes in the total amount of factor input, improvement in factor utilization efficiency, and technological innovation. At this stage, the industrial production capacity and technological level were unprecedentedly improved, which effectively promoted the development of China's economy [6]. The extensive penetration of informatization into all social and economic fields is manifested in the large and widespread use of modern information technology, gradually improving the overall labor productivity, work efficiency, learning efficiency and innovation ability of the economy and society, so that the entire national economy can develop substantially and stably. the process of. The government has its own principles in procurement, which are also the guidelines that countries should follow in the activities of government procurement. Government procurement is restricted by international procurement laws. The government of each country should strictly implement this principle. First, government procurement It has the principle of transparency, and government procurement, as an institutionalized means of financial expenditure, can urge the government's procurement behavior to follow the requirements of the law of value, achieve a certain goal of the government in a market-oriented way, and avoid excessive administrative intervention by the government, which can make up for the “failure” of the market and contribute to the development and improvement of the market economic system [7]. At the same time, the application of information technology to transform and upgrade traditional industries and change their design, production and distribution methods is conducive to promoting enterprise process reengineering and organizational structure adjustment, improving the technological content of traditional products, reducing resource consumption, and improving production efficiency. Informatization has become an important aspect to ensure the quality and efficiency of the high-speed operation of the national economy, and has increasingly become the main symbol of the country's comprehensive strength and international competitiveness.

3. Analysis by Economic Growth Theory

3.1 Impact on Long-Term Economic Growth

According to the description of modern economic growth theory, national economic growth mainly depends on factor input, efficiency improvement and technological progress. At present, the world has entered the era of knowledge economy and information economy. The characteristics of the era no longer allow China to take the traditional road of industrialization, but must comply with the requirements of the times, blaze a new road of industrialization, and achieve leapfrog development [8]. In this process, only from an economic point of view, informatization contains at least two meanings, the development of the information industry itself and the penetration of the information industry into other national economic sectors. The latter can be understood as the information products in the national economic industrial chain. use in all stages of production and use by final consumers. Corresponding information industry capability is just used as an indicator of the development of information industry itself, and its fixed base index can also be calculated in the same way. The specific data calculation is shown in Table 1.

Table 1 the Penetration Index and Capability Index of China's Information Industry from 2010 to 2020

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Information industry penetration index 1	2.00	1.48	1.94	1.55	1.56	1.77	2.11	3.65	5.48	4.32	5.21
Information industry penetration index 2	2.00	1.45	1.54	2.54	2.98	3.48	3.56	3.79	5.84	8.48	11.32

On the other hand, this driving role of informatization seems to correspond to the development stage of my country's industrialization. Although the textile industry and food industry are still industries with comparative advantages in my country, because China's industrialization process has entered the stage of heavy industrialization as a whole. Industry-centric stage.

3.2 Take the New Road of Industrialization and Develop by Leaps and Bounds

The report of the 16th National Congress of the Communist Party of China clearly pointed out in the goal of building a moderately prosperous society in an all-round way that we should strive to basically realize industrialization in another 20 years, thus determining the timetable for realizing industrialization in our country. On the one hand, information provides an important basic guarantee for long-term economic growth by promoting labor and capital efficiency, guiding technological innovation and promoting institutional innovation. Industrial informatization is manifested in the process of widely applying information technology in the production, management and design of traditional industries, that is, the all-round and multi-level promotion and application of electronic technology to transform traditional industries, so that traditional industries can reduce costs and improve efficiency [9]. At the same time, the low degree of informatization in the service industry will seriously affect and restrict the future upgrading direction of my country's industrial structure. Therefore, practical policy measures must be taken to accelerate the penetration of the information industry into agriculture and service industries, and attach great importance to the use of information technology to Transform the primary industry and the tertiary industry, and form a trend of interaction and mutual promotion and coordinated development of the information industry and the three industries in the overall national economy as soon as possible. To a certain extent, it is the national fiscal policy and the government's performance of the government's social and economic intervention in the government procurement system, which can play a positive role in promoting the government's macro-control. Government procurement can achieve the optimal allocation of public resources in my country The development of the national economy, therefore, the principle of value for money should be based on economic benefits, taking into account social benefits. The organic unity of the two interprets the true meaning of the value for money principle [10]. Give full play to the significantly enhanced information processing capabilities under the conditions of informatization, clearly and completely grasp the dynamic information of economic structure adjustment, scientifically and deeply analyze the internal relationship between economic structure adjustment and development mode transformation, so as to promote high energy consumption, high material consumption, high pollution, etc. Transform and transform traditional industries, and support the development of new industries such as high technology, high employment, and high profits. Industrial informatization can accelerate the speed of industrialization. As a form of information progress, it will inevitably lead to the outward shift of the production possibility curve, thereby realizing economic growth.

4. Conclusions

Informatization has brought about the popularization of computers, the emergence of global networks, the rapid development of the communication industry, and the digital trend of exchanges and cooperation in various industries and professional fields of the national economy. The wave of informatization provides us with a new historical opportunity, allowing us to combine industrialization with informatization. The construction of the informatization index model has a great impact on the results of the measurement model, so it is necessary to further study the informatization index model. The design of indicators, the arrangement of indicator weights and the adjustment of parameters, etc. are crucial to the accuracy of empirical research, and the recognition of producers and taxpayers can more effectively play the role of government procurement in regulating the economy. Positive effects in the implementation of independent intellectual property rights and standardization strategies. Accelerate the development and industrialization of high-performance computing, trusted computing, ubiquitous networks and their trust systems.

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