

Research on Industrial Competition and Public Policy Based on Mega Data

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Keywords: Industrial policy, Competition policy, Mega data

Abstract: With the coming of mega data era, public policy evaluation is also facing new opportunities and challenges. In order to meet challenges and overcome difficulties, the era of mega data needs to change thinking, update ideas and upgrade technology, so as to do a good job in public policy evaluation and improve the quality of public policies. Opportunities brought by the era of mega data include diversification of evaluation subjects, indirectness of evaluation methods, invisibility of evaluation behaviors and comprehensiveness of evaluation contents. Under the influence of “internet plus” technology wave, how to realize “Internet+government service” through the deep integration of Internet and government governance, and how to reshape the public policy model with the help of technical means represented by mega data, have gradually become important issues in government reform. This paper discusses the influence of the rise of mega data on public policy on the basis of combing the connotation and extension of mega data in detail, and analyzes the basis and specific coordination mechanism of the coordination between industrial policy and competition policy on the premise of giving priority to competition policy.

1. Introduction

Under the condition of market economy, industrial policy and competition policy constitute two kinds of public policies for the government to optimize the allocation of resources and promote economic development. Competition policy is the sum of action measures, laws and regulations and implementing agencies established to protect and promote market competition [1]. From the perspective of economics, industrial policy and competition policy ultimately involve the relationship and positioning between the government and the market. From the perspective of China's public policy practice, the disadvantages of authority promotion, closed one-way, qualitative analysis and feedback lag under the traditional public policy model are becoming more and more obvious, which has been difficult to meet the needs of Modern Public Administration [2]. To adapt to the new stage of China's current and future economic development, the relationship between industrial policy and competition policy should be adjusted from the original industrial policy to a strong policy to a public policy system that gives priority to competition policy and is

compatible and complementary with industrial policy and competition policy [3]. The transformation of public policy driven by mega data is actually to optimize and reengineer the value concept, value ranking, value objectives and policy schemes of public policy with mega data thinking, enrich public policy tools with mega data technology, and serve the whole life cycle of public policy with mega data means, Form a public policy model based on mega data that can create new public value [4].

Competition policy and industrial policy are two kinds of public policies in China's economic field. With the realization of phased economic growth, the status and role of industrial policy and competition policy in the government's public policy system have changed greatly [5]. The essential significance of mega data lies in the collection, mining, storage and analysis of massive data to extract the value and regularity characteristics behind the data, so as to improve the scientific, normative and accurate level of decision-making [6]. The essence of the relationship between competition policy and industrial policy is the relationship between market and government. Market plays a decisive role in resource allocation, which inevitably requires the establishment of the basic position of competition policy in economic policy [7]. Based on foreign experience and the reality of China's market-oriented reform, industrial policy should be considered under the framework of competition policy in the future [8]. Based on the detailed combing of the connotation and extension of mega data, this paper discusses the impact of the rise of mega data on public policy, and analyzes the basis and specific coordination mechanism of the coordination between industrial policy and competition policy on the premise of giving priority to competition policy.

2. The Shift of Industrial Policy and the Adjustment of Public Policy

2.1 Main Characteristics of Industrial Policy Shift

Competition policy can regulate monopolistic behavior, eliminate barriers to market competition, establish and maintain a free and fair market competition order, promote the full play of market mechanism, maintain a fair and orderly market competition environment, and achieve the goal of healthy economic development. The design and implementation of industrial policies have played an important role in promoting the industrial growth and national economic development of many countries and regions in East Asia. Among them, Japan can be said to be the birthplace of selective industrial policies, while South Korea and Taiwan Province have followed Japan's example and created the miracle of economic catch-up through the industrial policies implemented by the government. Industrial policy directly intervenes an industry or enterprise by promoting, protecting, supporting and restricting measures, and promotes the sustained, stable and coordinated development of the national economy [9]. Competition policy and industrial policy have different ways to intervene in economy, but they all focus on influencing and regulating the market, and they all intervene in the economic field through state public power to promote healthy and sustainable economic development. As a technical means, mega data technology, if used properly, will provide a new tool for the Chinese government's public policy evaluation, which will give wings to the development of public policy evaluation. Industrial policy not only plays the basic role of market mechanism in allocating resources, but also makes necessary adjustments and supplements to market mechanism through policies, which cannot guarantee and avoid related enterprises from taking anti-competitive measures. The function of competition policy is precisely to regulate monopolistic behavior and ensure the market mechanism to play its due role.

2.2 Opportunities for Public Policy Evaluation Brought by Mega Data

Generally speaking, selective industrial policy is more suitable for labor-intensive and capital-

intensive industries. The reason is that early-developing countries have taken the lead in accumulating rich experiences and lessons in the development of these industries in the process of industrialization, which can be conveniently used by late-developing countries. Public policy evaluation needs a certain amount of space, which provides space conditions for the evaluation work. However, the office conditions of local governments at all levels are limited, and the space that can be provided is also limited. Public policy evaluation needs a certain cost, and the more participants, the higher the evaluation cost. This cost includes not only tangible material cost, but also intangible time cost. Mega data, as a technology to achieve public policy goals, can obtain and display policy information that cannot be obtained by traditional policy technology at any stage of public policy. In the era of mega data, it is no longer necessary to organize the evaluation directly, but to realize the evaluation of public policies by analyzing the relevant data collected.

The evaluation of public policy is carried out by collecting the data of public policy output directly, or by investigating the target groups of public policy to obtain the data of subjective evaluation. In the market competition environment, manufacturers must survive by the fierce competition of survival of the fittest, relying on their own innovation and technological advantages, which makes these manufacturers maintain a very strong competitive ability for a long time. However, manufacturers who grow up under the support and protection of selective industrial policies often do not have the corresponding innovation ability. After the industrial development and economic growth reach a certain stage, especially after the initial completion of the industrialization process, the late-developing advantages that the late-developing countries can obtain through introduction, imitation and learning will be gradually exhausted, and innovation and technological progress will play the same important role as the developed countries in the economic growth of the late-developing countries. Policy implementation and public services will also get more information and knowledge with the support of mega data, thus providing personalized public services for the public and improving public satisfaction.

3. Coordination Mechanism of Industrial Policy and Competition Policy

On the premise that the design and implementation of industrial policies are subject to competition policy arrangements, the specific systems that need competition policy design can be compatible with industrial policies, and the main designs include applicable exceptions, applicable exemptions, prior consultation and conditional consent, etc. In the evaluation of public policy, we should explore the correlation and make prediction and evaluation according to the correlation. Not only the formulation of public policy evaluation scheme needs to implement mega data thinking and awareness, but also the implementation of public policy evaluation should reflect mega data thinking and awareness. In order to ensure the scientific rationality of public policy-making, and to solve the problem of data deviation in China's current data statistics, we must work closely around the Party and the national center, and speed up the construction of a data system with perfect system, scientific method and high degree of informationization in accordance with the requirements of standardization and unity, reasonable division of labor and cooperation and sharing. Under the situation that competition policy is in the priority policy position, if the government plans to realize certain interest demands through industrial policy without causing Big bounce, it can establish a prior consultation system to coordinate industrial policy and competition policy. Prior consultation can be carried out when the industrial policy is drafted or before the implementation of the industrial policy. In data statistics, decision-makers need to make overall consideration, adhere to the idea of playing chess in the whole country, and set up a clear statistical index.

Mega data technology includes mega data storage technology, mega data mining technology, mega data real-time processing technology, mega data transmission technology, mega data analysis

technology, etc. [10]. The significance of setting up statistical indicators is not only to solve the problem of data, but also to determine the data of different places more scientifically and accurately according to a unified caliber, analyze the position of different places in the whole country as well as their relations and influences, and judge and recognize the trends, characteristics and problems in the development process of different places. In a certain sense, only by continuously developing and innovating mega data technology can we occupy the commanding heights of the times. One is problem perception. Problem perception is the initial stage of constructing policy issues. Through the systematic understanding of the problem situation, we can find out the existence of problems and judge and perceive them. As far as China is concerned, the prior consultation system has not been fully applied in the process of industrial policy design and implementation. However, with the strengthening of the position and role of competition policy, prior consultation can be used as an institutional arrangement for reference. In the process of competition policy implementation, the reconciliation system is no longer just a private agreement, but begins to evolve into a certain goal of national economic policy. In this sense, the reconciliation system should not only meet the goal of industrial policy, but also meet the goal of anti-monopoly. In essence, the reconciliation system means that competition policy enforcement agencies relax the implementation scale and adapt to the requirements of industrial policy. The orientation of strategic adjustment of industrial structure is shown in Figure 1.

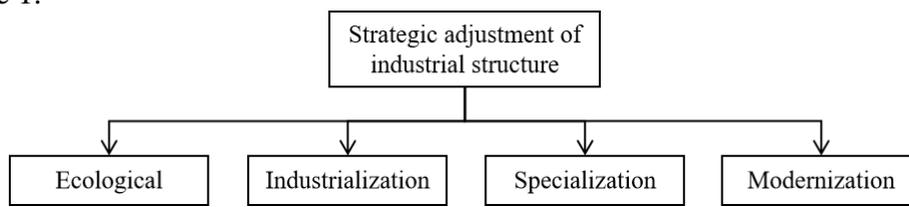


Fig.1 Guidance of Strategic Adjustment of Industrial Structure

The combination of public policy evaluation and mega data technology needs new technological achievements. Problems such as data distortion and over-fitting in public policy evaluation all depend on the development and innovation of these mega data technologies. While improving data processing technology, we should also realize that the development of human society is full of uncertain events. It is these uncertainties that make up a colorful world. In addition, the development of contemporary network and economic progress have brought about material prosperity and ideological liberation, and deepened this uncertainty. With the powerful data capture ability of mega data, decision makers can find the information flow that could not be noticed in the past from the captured structured data, semi-structured data and unstructured data, and dig out the root cause of the problem through the appearance of public problems. On the premise that random data and sample data are transformed into full-scale data, we can make use of mega data visual technologies such as network map, tag cloud and real-time rendering of data to analyze the linear and non-linear relevance and induce regularity of large-scale full-scale sample data, and provide effective methods and technical support for accurate identification of meta-problems through more accurate and intuitive visual presentation.

4. Conclusions

Mega data means everything can be quantified, it means massive and comprehensive data, it means advanced information mining, processing and analysis technology, and it also represents a new thinking, a new way and a new understanding. Whether people can acquire knowledge from mega data or not, mega data itself is an objective existence. Its influence on public policy has already appeared at different levels and in different fields. Under the guidance of all quantifiable

mega data thinking, the ruling party and government can make policy decisions based on diversified evidence by using massive data resources, gradually abandon the traditional model of relying on intuitive judgment and subjective experience, and rely on the idea of evidence-based data to realize the rationalization of public policies. It is necessary to plan how to cultivate and use professionals of mega data public policy evaluation, arrange organizational strength of applying mega data technology in public policy evaluation, and guarantee financial support for applying mega data technology in public policy evaluation. To realize the coordination between competition policy and industrial policy, we must make overall consideration in the formulation and implementation of relevant policies, and do a good job in overall design, so that the two policies can coordinate and promote each other.

References

- [1] Lu Yahui, Zhou Jin, Zhao Yao, et al. *Research on the Concentration of my country's Veterinary Drug Industry and Improvement Policies*. *Heilongjiang Animal Husbandry and Veterinary*, vol. 12, no. 505, pp. 35-38, 2016.
- [2] Mingfeng. *Logic analysis of industrial policy and competition policy, priority application and realistic choice path*. *Development Research*, vol. 388, no. 2, pp. 50-53, 2018.
- [3] Lv Tie, He Jun. *Looking at the dynamic effectiveness of industrial policies and sectoral innovation systems from China's high-speed rail experience*. *Learning and Exploration*, vol. 270, no. 1, pp. 92-98, 2018.
- [4] Sun Jin, Yin Qiang. *The policy transformation of the sustainable development of my country's photovoltaic industry: from industrial policy to competition policy*. *Journal of Wuhan University of Science and Technology (Social Science Edition)*, vol. 103, no. 3, pp. 33-38, 2018.
- [5] *Research on the coordination of the relationship between competition policy and industrial policy*. *Economist*, vol. 324, no. 2, pp. 35-37, 2016.
- [6] Yu Liangchun. *China's competition policy and industrial policy: role, relationship and coordination mechanism*. *Economics and Management Research*, vol. 39, no. 10, pp. 57-64, 2018.
- [7] Feng Xingyuan. *Competition policy is the best industrial policy*. *Enterprise Observer*, vol. 83, no. 8, pp. 26-27, 2018.
- [8] Wang Xiaoyu, Dai Yongwu. *Analysis of China's Honey Industry International Competitiveness Improvement Strategy Based on the "Diamond Model"*. *China Forestry Economics*, vol. 165, no. 6, pp. 44-48, 2020.
- [9] Yu Jinping, Hua Haoxiang. *Policy Discussion on Effectively Promoting the Development of Strategic Emerging Industries*. *Journal of Jiangsu Administration Institute*, vol. 86, no. 2, pp. 49-55, 2016.
- [10] Wang Jue. *The application dilemma and countermeasures of anti-monopoly law in my country's agricultural genetically modified industry*. *Journal of Zhengzhou University of Light Industry (Social Science Edition)*, vol. 20, no. 5, pp. 66-74, 2019.