

Research on the Impact of Industry Organizations on Automobile Development and Development Countermeasures

-- Taking the China Automobile Center as an Example

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Abstract

A new round of scientific and technological revolution and industrial transformation is in the ascendant, and ICV has become a global industrial innovation hotspot and the commanding height of future development. This article introduces in detail the role of industry institutions in the industry leadership, focusing on the functions of the China Automobile Center in the industry, its influence in the industry and its role in promoting the development of the industry. China Automobile Center has always attached great importance to the development of the intelligent automobile industry. It always adheres to forward-looking technology as its strength, scientific research and innovation as its vitality, industry leadership as its driving force, has the courage to make breakthroughs, and is committed to becoming the most competitive automobile full value chain technology service organization in the world. In terms of overcoming difficulties and innovative research and development in the automotive industry in the future, the Center will bravely shoulder the important task entrusted by the country, seize the fundamental, strategic and overall issues of the automotive industry in the future, work hard and unswervingly, continue to lead the automotive industry to progress, gather the great power to forge ahead in the new era, and jointly draw a bright picture of China's automotive industry from the big to strong during the 14th Five Year Plan.

Keywords

Intelligent Connected Vehicle; Standardization; Countermeasure.

1. Introduction

The automobile industry is the pillar industry of the world's major industrial countries and an important symbol of a country's comprehensive strength and development. With the continuous improvement of the economic level, China's automobile industry has developed rapidly. According to the official data, in 2021, China will produce a total of 26.275 million cars and sell 26.082 million cars. China's automobile production and sales volume is close to 1/3 of the world's total. China has undoubtedly become the world's largest auto producer and auto consumer market. The scale effect of the automobile industry determines that labor advantage and consumer market are important conditions for the development of the automobile industry. With the development of economy and the continuous improvement of per capita income, automobile products have become one of the important products consumed by Chinese residents, and the automobile industry has gradually become the pillar industry in our national economy. In recent years, China's automobile industry has accounted for more than 10% of the country's total tax revenue and employment in urban employment. After more than ten years

of rapid development, China has become the world's largest automobile production and marketing country for many consecutive years, and the achievements in the development of the automobile industry have attracted worldwide attention. However, due to the rapid development and large-scale popularization of fuel vehicles around the world, a series of problems have been formed, such as urban traffic congestion, severe air pollution, and prominent dependence on oil, which have formed a huge resistance to the development of the traditional automobile industry, and the development of China's automobile industry has also encountered bottlenecks. With the advent of a new round of scientific and technological revolution and industrial transformation, the auto industry has emerged a trend of integration and system transformation of electrification, networking, intelligence and sharing under the new era background. The global auto industry is entering an era of great change that has not been seen in a century. The National Commission of Industry and Information Technology formulated Made in China 2025 to adapt to the new round of world industrial reform, promote the construction of an innovation network of the manufacturing industry, and make it the main starting point for China's industrial transformation and upgrading, build a manufacturing power, and lead the development of the world's manufacturing industry. As a pillar industry in China's manufacturing industry, how to improve the comprehensive competitiveness of the automotive industry and build a cross regional automotive industry cluster can enable China to accurately grasp the opportunities and challenges brought by entering the world's manufacturing power, which is also an urgent task given by history. How to play a functional role in the development and upgrading of the automobile industry cluster for macro-control, and how to plan and guide the transformation and upgrading of the automobile industry cluster is an important factor in the transformation of China's economy towards high-quality development.

2. Functions of China Automobile Center

As a strategic and pillar industry of the national economy, the automobile industry plays an irreplaceable role in accelerating the industrialization process, promoting the development of manufacturing industry, increasing employment and promoting consumption upgrading. The manufacturing level of the automobile industry is an indicator to measure the comprehensive strength of a country's manufacturing industry. China has become the world's largest automobile producer and consumer market. China's automobile industry has entered a transition period from rapid growth to high-quality development.

The China Auto Center will study and implement the important discussions on the reform and development of state-owned enterprises and the Party's construction, deeply grasp the historical positioning of state-owned enterprises to become the "six forces" in the new era, adhere to the "three benefits" policy, and be responsible for the preservation and increase of the value of state-owned assets.

2.1. Technological Innovation

China Auto Center continuously carries out the duty and mission of "National Team" in scientific and technological innovation. In the important fields of technology related to national security, we should tackle key problems around information security, basic simulation software and other fields, and be the origin of original technology. With the aim of "neck jam" key core technology, major scientific and technological specialties such as "China Automotive Product Test Conditions", "China Sign Collision Dummy" have made substantial breakthroughs and won the "National Science and Technology Progress Award" in the field of new energy automobile test technology. Speed up the construction of the "National Engineering Laboratory of Mobile Source Pollution Discharge Control Technology", and focus on building a first-class national collaborative innovation platform and result transformation base. Especially, under the

guidance of the SAC, 11 central enterprises have set up a collaborative innovation platform for automotive digitization transformation, leading a number of industry leaders to jointly set up a number of joint technology centers such as intelligent manufacturing collaborative innovation platform, high-end analysis and testing instrument innovation consortium, and explored a new mode of collaborative development of cross-industry and cross-domain superior resources. In the future, China Auto Center will continuously strengthen the dominant position of innovation, and strive to become the ideological driving highland leading the progress of the automotive industry, and the technical driving pivot supporting the construction of a strong automotive country.

2.2. Structural Reform

The Central Automotive Corporation is firmly focusing on strengthening, optimizing and expanding the country, making solid progress in the three-year reform of state-owned enterprises, accelerating the reform of internal system and mechanism, constantly breaking the ice-breaking situation in a larger scope and deeper level, and striving to become the "platoon leader" in the reform of state-owned enterprises. By improving the system of the board of directors and optimizing the decision-making mechanism, the Party's leadership can be integrated into corporate governance to achieve institutionalization, standardization and procedural. We have strengthened the leading role of strategic planning in an all-round way and constructed a systematic business layout of "six vertical, four horizontal and three platforms". Around the management objectives of "integration, informationization and leanness", systematically carry out management system construction and management promotion, which has made a useful exploration for the management innovation practice of scientific and technological central enterprises in the period of transformation and upgrade. Comb and improve the authorization list to scientifically match the control elements. Systematically build an integrated management system of risk internal control and compliance, optimize the allocation of resources, and promote lean body. "China Auto Stock Company" was successfully selected as the list of state-owned enterprise corporate governance model enterprises and listed on the Shenzhen Stock Exchange, and "China Auto Data" was successfully selected as the list of "Science and Technology Reform Model Enterprises" of the SAC.

2.3. New Development Patterns

With the greatness of the country in mind, the Central Automotive Corporation builds a "145" three-level planning system with high standards and quality, gives full play to its strengths, actively serves the major national strategies and strives to become a "pioneer" in building a new development pattern. Set up a major special project "Carbon neutral and target-oriented road map for the implementation of the automotive industry", to implement and support the industrial policy of green low-carbon transformation. We will deepen central-local cooperation, lay out a layout in areas such as Beijing-Tianjin-Jilin Cooperation, the integration of the Yangtze River Delta, Guangdong, Hong Kong, Macao, the Great Bay Area, the Revitalization of the Northeast, and Hainan Free Trade Port, and actively support local governments in developing the regional economy of the automobile industry.

3. Promoting Role for Industry

Centering around the three main business directions, CIC is committed to building a "global competitive automotive full value chain technology service organization".

At the level of government work, we aim to be the most recognized industry think tank by the government. The China Auto Center should be established in response to the need of the government to manage and develop the automotive industry. It has long provided significant policy support to the competent government departments such as the China Finance

Administration, the National Research Office, the Development and Reform Commission, the Ministry of Industry and Information, the Ministry of Commerce and other government departments. It has assisted the government in drafting more than 100 major industrial policy documents such as the automotive negotiation plan for China's entry into the WTO, the new energy automotive policy, and the auto In 2020, the China Automotive Strategy and Policy Research Center was specially established, dedicated to building the "first think tank" of the automotive industry. At the same time, since 1988, the China Automotive Standardization Center has been undertaking the work of the Secretariat of the National Automotive Standardization Technical Committee, actively promoting the process of internationalization of Chinese standards, launching the China Automotive Standards Internationalization Center in Geneva, and actively contributing China's wisdom and China's program to the formulation of global regulations.

At the industry level, we aim to be the most respected partner in the industry. With the development and progress of the service industry and service enterprises as its mission, CIC has built six national automotive quality control centers and the largest and most fully functional high-performance comprehensive test farm in Yancheng, covering technical services such as automotive product inspection and certification, product development and validation. Facing the positive layout in the field of hydrogen energy prospective technology, we are preparing the largest new energy automobile test base in China. In addition, it focuses on the integration of test resources in areas such as smart network connection, information security, industrial Internet, and so on, to create the core competence of one-stop service. At the same time, on the basis of large automobile data, with automobile domain model algorithm as the backbone, a "national automobile industry data center" is created.

At the consumer leadership level, we are committed to becoming the most trusted authority of the public. With its authoritative and trustworthy social influence, CIC Center has made positive contributions in promoting the development of national brands, guiding scientific consumption and building a better automobile life together. At the beginning of 2020, an automobile test and evaluation management center was set up by integrating internal superior resources. The global new car test and evaluation system and the evaluation system of vehicle consumption satisfaction were set up. The evaluation criteria conforming to China's actual conditions were continuously developed. Through independent, fair and open professional tests and public science popularization, China's automobile safety technology progress was promoted, and healthy and active automobile consumption was guided.

3.1. Diversification of Guiding Policies

China's support policies for the smart network automotive industry are mostly direct subsidies, and the use of incentive or restriction policies is less. In contrast, countries such as Europe and the United States have more diversified means of support, making progress in production, acquisition and infrastructure. This more general and direct quota subsidy is easy to breed the phenomenon of fraud and rent-seeking, which is why the fraud in 2016 occurred. Although sales in the short term are not as good as before, this mechanism eliminates a large number of inefficient enterprises and "zombie enterprises" and makes the operation of the whole industry more standardized. Future policy subsidies should learn from western developed countries to implement diversified means, incline more enterprises that actively invest in R&D and innovation, encourage manufacturers to reduce costs by completing technological breakthroughs, raise the threshold of support, strictly review and rationally supervise the operation of funds of enterprises supported by subsidies, and avoid the occurrence of speculative and clever events again.

3.2. Scientific Research and Innovation as the Main Line

Although the scale of China's automotive industry expands rapidly, there are still core technical problems. To create a world-class brand of new energy automobiles, it is not enough to occupy the market share only by the price advantage generated by government support. Hard technology and brand value are the key. Basic research is expensive and has strong external effects. The government should further increase its support in this area, encourage universities to set up new energy automotive technology research and development related disciplines, and promote the commercial application and popularization of research results by combining relevant research institutions and enterprises. The subsidy policy for smart networking automobiles can be further refined, tilting towards the core R&D fields such as "three power technologies" and chips. For enterprises that actively research and develop innovations, tax exemptions can be appropriately granted to increase the enthusiasm of enterprises, and reduce the pressure and cost of R&D.

In the past two years, in order to encourage foreign automotive enterprises to enter the Chinese market and increase the vitality of the smart network automotive market, the government has continuously lowered the threshold of market access and simplified the entry process. The joining of foreign auto enterprises has indeed played a certain reversing mechanism for domestic local auto enterprises, constantly innovating and growing in the crisis. Today, the strength of China's Intelligent Network United Automotive has been significantly improved, and it can be compared with other car companies in the global market. The government should create more opportunities for such domestic car companies to go abroad, promulgate relatively detailed and complete regulations to help Chinese automobiles jump into the world market, integrate into the global trend, and enjoy more global resources. In addition, as a leader, the government should build more communication bridges with developed countries such as Germany and the United States to provide local brand manufacturers with the opportunity to cooperate with more first-class foreign car companies.

3.3. Attention to Standards and Standards and Infrastructure

Perfect and perfect the automobile technical standard system. Further optimize the "145" technical standard system of the automotive industry, continuously improve the guidelines for the construction of standard system in key areas such as new energy automobiles and smart network automobiles, study and formulate the standard system for smart network automotive test equipment, and speed up the construction of automotive chip standard system.

Push forward the standardization of automobiles as a whole. We attach great importance to the cross-convergence of automotive standards, promote the establishment of cross-industry and cross-domain work collaboration mechanism, further strengthen industry collaboration and up-down linkage, vigorously promote the overall coordination of standards in key areas such as electric vehicle charging, automotive chips, smart networked automobiles, and continuously improve the openness and transparency of standard work.

Enhance standard life cycle management. Strengthen the research on the source and demand of standard technology, encourage industry organizations, enterprises and the public to put forward standard needs and suggestions. Continuously increase the breadth and depth of the standard publication, and do a good job in the implementation work through in-depth interpretation of the standard content and requirements support; To carry out a periodic evaluation of the implementation effect of key standards, and to continuously improve the standard quality level based on the management and industrial development trend of our government.

4. Conclusion

The rapid development of the automotive industry cannot be separated from the joint efforts of public enterprises, and the industry institutions play a leading role in the development of the industry. China Automotive Center will bravely shoulder the important tasks entrusted by the state, seize the fundamental, strategic and global issues of the future automotive industry, work hard and tirelessly to continuously lead the progress of the automotive industry, and gather the tremendous power to advance the new era. Jointly draw a bright picture of 145 China's automotive industry from big to strong.

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