

Research on the internationalization path of China's automobile industry under the background of "made in China 2025" strategy

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Abstract: With the rapid development of China's automobile market, it has achieved a stable position of No. 1 in production and sales in the world for ten consecutive years. However, the negative growth of China's automobile market for the first time in 2018 shows that the domestic market has become saturated, and China's automobile industry urgently needs to "go global". In the context of the "made in China 2025" strategy, the internationalization of China's automotive industry can no longer be confined to primary forms such as export trade and overseas factory assembly. It should focus on the improvement of the international comprehensive competitiveness of China's automotive industry, realize the supply side reform, transformation and upgrading of the original industry, accelerate the layout of emerging industries such as intelligent manufacturing and new energy, and seize the strategic commanding height of international competition.

Key words: Blockchain; Cold chain logistics; Rural constructions

Introduction

Following the "industrial Internet" strategy of the United States and the "industry 4.0" strategy of Germany, China has put forward the "made in China 2025" strategy, which is based on the actual development of the country and contributes to the rapid upgrading and transformation of China's manufacturing industry. In recent years, China's automobile manufacturing industry has achieved rapid development results. The market scale has ranked first in the world, and the frequency and scale of foreign direct investment have also increased significantly. However, compared with developed countries, China's automobile manufacturing industry still has a large gap in terms of technology level, informatization degree and international brand influence. In the case of China's existing automotive industry foundation, we must fully learn from the key technologies and development experience of foreign automotive manufacturing industry and related industries, focus on the new trend of the development of automotive manufacturing industry under the background of "made in China 2025" strategy, make layout and planning in advance, and make a good choice of the internationalization path of China's automotive industry, so as to win strategic space for rapid upgrading and catching up.

1. the significance of "made in China 2025" for the international development of China's automobile industry

1.1 "made in China 2025" needs to cultivate advanced automobile manufacturing industry with international competitiveness

Under the complex situation of increasing competition in the international manufacturing industry, the gradual weakening of the traditional comparative advantage in China, and the rise of a new round of industrial revolution, and based on the key position of China's manufacturing industry and the reality that it is large but not strong, the State Council issued the "made in China 2025" strategy to deploy and comprehensively promote the implementation

of the strategic task of building a manufacturing power around key links such as innovation driven, intelligent transformation, green development, and structural optimization, Clarify the tasks and policies for the development of manufacturing industry at this stage. In this period of historical opportunity, China's manufacturing industry has actively responded to the challenges, made efforts to realize the transformation and upgrading from "manufacturing" to "intelligent manufacturing", and built China from a large manufacturing country into a manufacturing power with consolidated status and advanced comprehensive strength. As one of the largest industries in China's manufacturing industry, the automotive manufacturing industry is an industry with a high degree of integrated technology and intelligence. It is most closely connected with the upstream and downstream networks of related industries. As the engine of a new round of rapid development of China's manufacturing industry, its level of development has become an important symbol to measure the development of the manufacturing industry around the world. The internationalization of the automobile industry is conducive to introducing and learning advanced experience, cultivating China's automobile manufacturing industry with international competitiveness and influence, increasing investment in R & D resources, achieving breakthroughs in core technologies, implementing intelligent, automated and networked transformation of the original production technology and production mode, reshaping the automobile manufacturing industry chain, supply chain and value chain of new formats, and accelerating the butterfly change of the local automobile industry.

1.2 the international development of China's automotive industry is conducive to adapting to the global automotive industry competition pattern

With the development of the world economy, the traditional "6+3" pattern of the global automotive industry has been significantly adjusted, but the core position of large automotive groups, mainly from developed countries such as Germany, the United States, Japan, France and South Korea, has not changed substantially. These international automotive groups control the

core technology of the traditional automotive industry, occupy the high-end position of the global automotive industry value chain and obtain high profits, It controls the core voice of the international division of labor layout of the automotive industry. Although China's automobile industry has experienced rapid growth since China's entry into WTO, there is still a big gap compared with the world's developed automobile industry in terms of core technology, brand premium and internationalization. According to the strategic guidance of "made in China 2025", the development mode of China's automobile industry should accelerate the transition from "introducing" to "going out", promote the internationalization of trade, capital and production, actively integrate into the international division of labor layout of the global automobile industry, seize the opportunity to speed up the international M & A and integration of the automobile industry and emerging technology industries, and seize the intelligence The strategic commanding point of new energy and other key technologies, establish a competitive international automotive industry supply chain system, and effectively use global resources to promote the high-quality development of China's automotive industry.

1.3 the international development of China's automobile industry is the objective need to resolve domestic overcapacity

At present, China's automobile manufacturing industry has formed a relatively complete production supporting system. The sales volume of automobiles has increased from 2.37 million in 2001 to 28.08 million in 2018, ranking first in the world for ten consecutive years. However, in 2018, China's automobile sales fell by 18.9% year-on-year, showing the first negative annual sales growth of China's automobile industry in 28 years. According to the data of "national industrial capacity utilization rate" of the National Bureau of statistics, the capacity utilization rate of China's automobile manufacturing industry in the first half of 2019 was 77.2%, which was 79% to 83% of the normal range of capacity utilization rate, indicating that there was overcapacity, while the capacity reserves under construction and planned by domestic mainstream automobile manufacturers will reach 58million units in 2021, which is far greater than the demand of the domestic automobile market, and the overcapacity of automobiles will further expand. In the case of limited domestic transportation carrying resources and the downturn of the domestic automobile market, with the help of international development, accelerate the transfer and release of domestic surplus low value-added production capacity to surrounding countries. While enhancing international cooperation and improving the economic status of surrounding countries, make full use of existing resources to maximize economic benefits and promote the renewal and iteration of China's automobile industry and the benign development of automobile enterprises.

Table 1 production capacity of 12 mainstream automobile manufacturers in China (unit: 10000 vehicles / year)

Automobile manufacturers	Current capacity (as of the first half of 2019)	Capacity under construction and planning (by the end of 2021)
SAIC Group	717.05	1036.5
BAIC group	556.15	967.9
dongfeng motor	558.9	799.9
FAW Group	566.15	654.65

Automobile manufacturers	Current capacity (as of the first half of 2019)	Capacity under construction and planning (by the end of 2021)
Chang'an Automobile	495	592
Geely Auto	327.575	452.5
GAC group	230.3	374.8
Chery Automobile	233.21	277.21
Great Wall Automobile	115	257
Brilliance Auto	142.5	204.5
Jac motors	136	146
BYD Auto	69.05	74.4
Total capacity	4146.885	5844.56

Note: the data comes from the data released by various automobile manufacturers.

2. achievements and problems in the international development of China's automobile industry

2.1 achievements in the international development of China's automobile industry

2.1.1 the export scale of China's automobile industry has grown

The export of Chinese automobile enterprises mainly started in the 1990s and maintained at the scale of 20000 vehicles in early 2001, accounting for only 1% of the sales volume of the domestic automobile market. Since 2005, it has exceeded 100000 vehicles and entered a period of sustained growth. In 2012, it achieved a breakthrough growth. The number of finished vehicle exports reached 1.02 million, with an average annual growth rate of 38.7% over the past 12 years. Since then, affected by the world economic downturn, although it once fell to the level of 700000 vehicles in 2016, under the influence of China's "belt and road" initiative, with the gradual improvement of China's foreign trade and business environment and the emergence of the role of various foreign trade policies to stabilize growth and adjust the structure, it began to recover gradually in 2017. In 2018, the export of finished vehicles reached 1.15 million, a record high in export scale. In terms of the regional scope of export trade, it has gradually expanded from emerging markets and less developed countries such as Africa, Southeast Asia and South America to developed countries and regions such as Europe and North America.

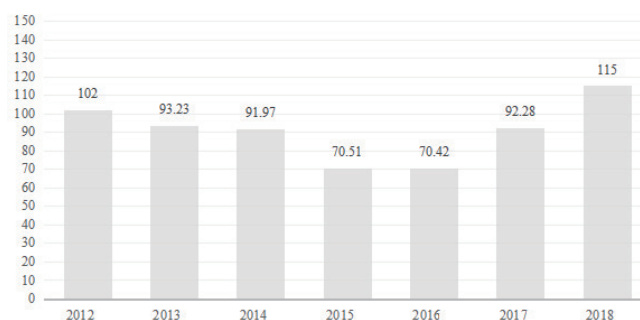


Figure 1 export quantity of complete vehicles in China (unit: 10000 vehicles)

2.1.2 improvement of overseas investment level of China's automobile industry

Chinese automobile enterprises have experienced the accumulation of rapid development in the past three decades. Guided by national policies and driven by their own development needs, they have explored overseas markets and carried out foreign direct investment. They have accumulated more overseas investment experience and achieved good overseas investment performance. The means of overseas investment are gradually enriched, covering various forms such as green land investment and plant building, overseas mergers and acquisitions. According to Deloitte's 2017 report on foreign investment in the automotive industry, the amount of Chinese automotive enterprises' foreign direct investment has shown a steady growth trend year by year since 2005. After the 2008 financial crisis, with the increase of the bankruptcy and reorganization of international automotive enterprises and the stripping of core assets, Chinese automotive enterprises' overseas mergers and acquisitions entered a rapid growth period, with explosive growth in 2014 and 2015, and the average annual growth rate of foreign direct investment reached 24%. The overall number of direct investment also showed a steady upward trend, with a record high of 69 foreign direct investment projects in 2016. In terms of the level of overseas investment, from the failure of SAIC Group's acquisition of Ssangyong in 2004 to the overseas investment and merger represented by Geely's acquisition and integration of Volvo cars in recent years, it shows that the overseas investment, merger and integration ability of China's automotive industry has gradually improved.

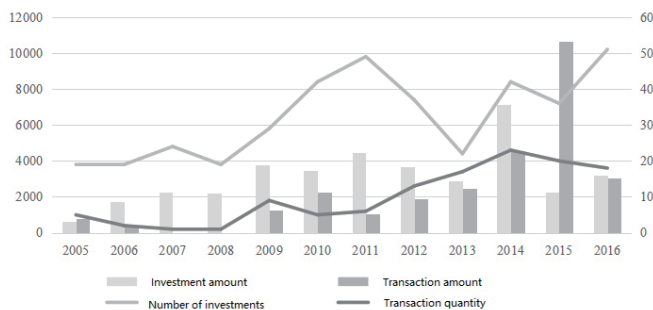


Figure 2 number and scale of overseas green space investment and overseas M & A of Chinese automobile enterprises

2.1.3 the international brand influence of China's automobile industry continues to improve

With the increase of export volume and the expansion of scope, Chinese automobile enterprises have gradually learned about the international market, but also established relatively stable trade channels, upgraded from pure export trade to brand marketing, and expanded the influence of their brands in the international market. In addition, through foreign direct investment, Chinese automobile enterprises have acquired and controlled overseas excellent enterprises in the form of capital, acquired advanced technology in the industry, broke the technological monopoly of multinational automobile enterprises in developed countries, coordinated the allocation of global resources, accumulated more international automobile professionals, and strengthened the core competitiveness of enterprises. Countries along the "belt and road" have invested in the establishment of factories to realize the transfer of automobile

production capacity, which has driven the construction of local infrastructure and supported the growth of local economy. By the end of 2018, the number of factories established and cooperated by Chinese automobile enterprises overseas had reached 140, and the number of overseas marketing networks had reached more than 9200. The brand influence of China's automobile industry in the international market had significantly improved.

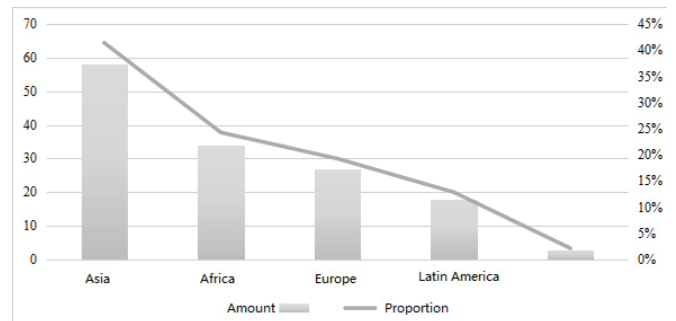


Figure 3 major regions and proportions of Chinese automobile enterprises' overseas investment in setting up factories

2.2 problems in the international development of China's automobile industry

2.2.1 China's automobile industry lacks core technology and comprehensive international competitiveness is not strong

Compared with the well-known automobile enterprises in developed countries, the development time of China's automobile industry is shorter, the core technology is less, and the R & D investment is insufficient, and the R & D ability is relatively weak, which has become the main obstacle restricting the development of China's automobile industry. In particular, there is still a big gap between the technology of China's auto parts industry and that of developed countries. The market share of China's auto parts industry is far less than that of foreign auto parts manufacturers both at home and abroad, and the market share of China's auto parts industry in the field of high-tech core parts such as engines is less than 10%. Automobile enterprises in developed countries such as Europe, America, Japan and South Korea have always been in the upstream link of industrial R & D and design and core technology. Through their own automobile brands and high value-added technical services, they occupy most of the world automobile market share. However, few automobile enterprises in China's automobile industry have international influence and can compete with them, and they are still in the middle and downstream production stage of low technology content and low value-added. The core competitiveness of China's automotive industry is insufficient, and its participation in the division of labor in the global automotive industry's value chain is not deep, resulting in a low starting point for international development.

2.2.2 the internationalization development mode of China's automobile industry is relatively primary, and the growth of development performance is slow

After the reform and opening up, China's automobile industry has initially established a market-oriented enterprise layout and product production, and started to integrate with the international automobile industry. After China's accession to the WTO, China's auto industry began to integrate with the international

market. However, in the past two decades, due to the lack of core technology in China's auto industry, the internationalization development mode of China's auto industry is mostly at the primary stage, mainly in the form of export trade, or in the form of CKD, SKD, etc., and is assembled and produced in the assembly plant of the host country, Some automobile enterprises will expand the overseas automobile market by establishing overseas joint venture factories or overseas wholly-owned factories, but at present, only a few automobile enterprises can use the implementation of overseas mergers and acquisitions to obtain high-quality assets, equipment, technology, channels, personnel and management methods of the invested enterprises, so as to achieve more effective internal integration and international operation within the enterprise.

2.2.3 the international strategic positioning of China's automobile industry is not high, and there is a lack of top-level strategic design

In the process of development, China's major automobile enterprises have also formulated different international development strategies according to their own needs for international development. However, most automobile enterprises are mainly oriented by expanding overseas bases and occupying market share, and take overseas automobile export trade as the main content of international strategy. Insufficient understanding of the important strategic position of the automotive industry in the construction of a manufacturing power and economic transformation and upgrading, and lack of clear, systematic and sustainable industrial development strategy and top-level design.

Some automobile enterprises, mainly state-owned automobile enterprises, have proposed to integrate the utilization of overseas resources and the capacity-building of international system, as well as the shift from general export sales to overseas technology and resource mergers and acquisitions into the internationalization strategy in combination with the national strategy. Some automobile enterprises, mainly private automobile enterprises, have put forward the development direction of international development and new energy technology investment, However, most automobile enterprises have not made strategic consideration and layout of key contents such as intelligent manufacturing and new energy technology, and lack of systematic implementation strategy of automobile power.

3. challenges faced by the international development of China's automobile industry

3.1 severe challenges

3.1.1 the overall sales volume of the world automobile market declined, and the emerging automobile market maintained growth

Affected by the global economic downturn, Sino US trade frictions and other factors, the world auto market, dominated by China and Europe, saw a decline in sales. In 2018, the world auto sales were 95.6 million, a year-on-year decrease of 1.24%. Although the automotive markets in the United States and Japan have increased slightly, the trend is not obvious. Emerging markets such as India, Brazil and Russia have increased by 10%, and continue to maintain the growth momentum. Under the trend that the traditional

automobile market is gradually saturated, the emerging automobile market will become a new battlefield for the centralized product delivery of global automobile enterprises in the future.

3.1.2 sustained trade protection policies hinder the export-oriented development of China's automobile industry

The trade protection policy based on Sino US trade frictions, through measures such as tariff increases and investment restrictions, has affected the export trade of China's complete vehicles and parts, reduced the scale of long-term export trade, and reduced the profit level of relevant enterprises, especially the internationalization strategy of China's new energy vehicles and parts export to the United States. On the other hand, the increased investment review and investment restrictions on China's automobile industry have hindered Chinese enterprises' investment and merger and acquisition of enterprises with emerging intelligent manufacturing, robotics, new energy and other technologies in developed countries, mainly the United States, and limited the internationalization of China's automobile industry to a certain extent.

4. suggestions on the path of internationalization development of China's automobile industry at this stage

Under the background of the "made in China 2025" strategy, China's automobile industry should adhere to the development of internationalization, but not blindly internationalize, and not engage in minor internationalizations. Instead, it should adhere to systematic thinking and promote the internationalization process as a whole.

4.1 optimize the industrial structure and promote the high-quality development of China's automobile industry under the guidance of transformation and upgrading

Although China's automobile industry has developed rapidly for many years, there are still some problems such as unbalanced development, insufficient development, and large but not strong development.

We should promote the transformation and upgrading from high-speed growth to high-quality development. In this process, government agencies should strengthen macro policy guidance and service support, organize the formulation and decomposition of the development strategy of the automotive industry, cultivate pilot and demonstration automotive enterprises of new technologies such as intelligent manufacturing and new energy, encourage the establishment of high-end technology R & D centers and industrial clusters, and promote the integration of advanced production technology, software and hardware equipment and application technology, materials and new energy technologies in automotive manufacturing, Cultivate new driving forces for the development of the automotive industry.

Automobile enterprises should establish technology upgrading and international development strategies, concentrate the investment of superior resources, actively increase the efforts to tackle key problems of important core technologies and key resources, actively seize the global strategic commanding heights of intelligent manufacturing and new energy technologies, and promote the upgrading of the entire industrial technology level and the continuous optimization of the industrial structure.

4.2 take international cooperation as an opportunity to resolve excess capacity and promote the healthy development of China's automobile industry

Seize the "belt and road" strategic opportunity, strengthen international cooperation with countries along the belt and road, actively expand automobile exports, realize the transfer and release of low-end excess capacity in the original automobile industry, improve the share and influence in the local market, and timely localize investment in the construction of factories to carry out the production layout of new energy vehicles, expand new growth space, so as to further obtain market and profits, and accumulate capital to feed the upgrading and optimization of the domestic industrial chain. In addition, in the domestic automobile industry, we should strengthen the implementation of backward means to eliminate backward production capacity through strict market access mechanism, differential price leverage mechanism, differential tax adjustment mechanism, credit control mechanism, supervision and regulation mechanism, and effectively promote the healthy development of China's automobile industry.

4.3 with the concept of mutual benefit and win-win results, carry out collaborative sailing to build the overall competitive advantage of China's automobile industry

In the process of international development of China's automobile industry, we should maintain the concept of openness and cooperation, mutual benefit and win-win results, strengthen the mutual integration with all links in the industrial value chain,

and create a business community of collaborative operation and benefit sharing. First of all, with industry associations and other institutions as the leading role, establish a platform for international information sharing and enterprise cooperation of Chinese automobile enterprises, reasonably carry out market layout, allocate input resources, reduce repetitive cost input or internal competition, and realize the synergy effect of "1+1>2" by means of internal communication and collaborative cooperation. Secondly, build a new type of integration cooperation between Chinese vehicle enterprises and parts enterprises, establish an international development mode of joint going to sea, resource sharing, synchronous development and interdependence, and jointly invest in R & D and carry out technical cooperation in the process of upgrading the intelligent and green automobile industry, so as to form a stable and win-win strategic cooperation relationship. Finally, we should deepen the collaborative cooperation between China's automotive industry and the financial industry, explore innovative cooperation concepts and modes, deepen understanding through the payment and settlement of daily operations, trade financing, asset custody and other cooperation methods, jointly carry out the financial investigation of M & A targets, asset and technology value evaluation, M & a financial solutions and other cooperation, and cooperate through credit, bonds, securities and other financing channels, Promote strong financial capital to support the international development of capital and technology intensive automobile industry.

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