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Development of Automobile market in China. Current trends

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INTRODUCTION

The automotive industry is one of the most important industries in both developed and developing countries. The successes of developed countries achieved in recent decades in the global production and export of passenger cars are gradually «overshadowed» by increased competition from developing countries (primarily China, India, and Brazil), and this is typical not only for the automotive industry, but quite objectively for other manufacturing industries.

The object of the study is the Chinese automotive industry and the passenger car sales market.

The subject of the study is the factors and trends in the development of the automobile industry of the People's Republic of China, increasing the level of competitiveness of Chinese passenger cars in the domestic and global automobile markets.

In the study of the automobile markets of China and other foreign countries, economic and statistical methods, methods of ranking, grouping and systematization of data, a systematic approach and other methods of scientific analysis are used.

GENERAL DESCRIPTION

Key words：Development，Automobile，China, Current trends，Automotive Industry，Global financial and economic crisis，Market attractiveness，State regulation，Increase the competitiveness .

At the present stage, the automotive industry is one of the most important industries in both developed and developing countries. The significant role of this industry lies in the fact that, firstly, its development stimulates the development of a number of other related industries; secondly, it is capable of generating innovations, which is a powerful factor in the economic development of the country. The successes of developed countries achieved in recent decades in the global production and export of passenger cars are gradually «overshadowed» by increased competition from developing countries (primarily China, India, and Brazil), and this is typical not only for the automotive industry, but quite objectively for other manufacturing industries.

The purpose of the study is to assess the current state of the passenger car industry in China and to develop the main directions for its further development in the conditions of economic instability in the world.

In accordance with the purpose of the study, the following tasks were set:

– to analyze the structure and dynamics of the development of the automobile industry of the People's Republic of China and assess its role in the national economy;

– on the basis of a systematic analysis of the passenger car industry in China, identify the main factors that made it possible to achieve such significant results in the development of the industry;

– to study the foreign and Chinese experience of state support for the automotive industry, to assess its role in the development of the national automotive industry and increase its competitiveness;

– to analyze the features and stages of development of the production of Chinese passenger cars, as well as to characterize the modern system of their sales and trade and service networks of automobile companies;

– identify the main problems in the development of the Chinese passenger car industry and the nature of the modification of corporate strategies for its development in the context of the global financial and economic crisis;

– to assess the attractiveness of the Chinese passenger car market and the effectiveness of the levers of state regulation of the development of production and sales of passenger cars in China in the conditions of economic instability of the world market;

– to justify the main directions and trends in the development of the Chinese passenger car industry and the automotive market, to determine ways to increase the competitiveness of the Chinese automotive industry at the present stage.

The object of the study is the Chinese automotive industry and the passenger car sales market.

The subject of the study is the factors and trends in the development of the automobile industry of the People's Republic of China, increasing the level of competitiveness of Chinese passenger cars in the domestic and global automobile markets.

The theoretical and methodological basis of the research is the materials of the congresses and plenums of the Central Committee of the Communist Party and government bodies of the People's Republic of China, and the works of other Chinese and foreign economists on the current state of the automotive industry, on the impact of the processes of internationalization and globalization on the development of the country's automobile market.

The information base of the work consists of analytical reviews of leading consulting companies, research by Chinese and Russian authors, data from Internet information centers, official websites of the Ministry of Commerce of the People's Republic of China, as well as financial statements of the largest automobile companies in the People's Republic of China, scientific monographs and periodical articles, reports of scientific and practical conferences on the development of the automotive industry.

CHAPTER 1 THEORETICAL BASIS OF CHARACTERISTICS OF THE DEVELOPMENT OF THE AUTOMOTIVE INDUSTRY IN CHINA

1.1 The development of the automotive industry in China

The Chinese auto industry, by virtue of its desire to take all the valuable accumulated in the international automotive industry, gets a «window of opportunity» to solve the fundamental problems facing it. This applies, first of all, to the acceleration of the process of creating a modern automotive industry. According to the study, there are three options for the development of the national automobile industry for the implementation of the «window of opportunity» [4].

The first is connected with the withdrawal of the state from almost all spheres of economic activity in the automotive industry, its opening to the outside world. This scenario, according to the author, can lead to a significant economic growth in car production. But in this case, national enterprises will not be able to compete with foreign producers on equal terms with all the resulting negative consequences for the industry as a whole. This is due to the lack of sufficient experience of enterprises in independent business management.

The second option is to expand the direct participation of the state in regulating the activities of the industry, which will lead to a restriction of entrepreneurial activity. In this case, the state and enterprises will become hostages of inefficient management methods.

The third scenario is based on the release of private initiative and the strengthening of the role of the state only in providing favorable conditions for economic management. According to this scenario, the state is entrusted with the following main functions [17, p. 29]:

– maintaining the macroeconomic and structural balance to the extent that the market mechanism is unable to do so;

– development of a development strategy, formation of a favorable investment and business climate, as well as favorable social conditions for the functioning of the economy;

– support of national companies in the external world, coordination of their activities in order to maintain and increase the competitiveness of the national automotive industry in the context of the globalization of the world economy;

– ensuring the economic security of the country.

The third option for the development of the automotive industry, I believe, is the most optimal, as it allows you to create an effective link between business and the state.

The analysis shows that all the success in China is due to the skillful implementation of state policies, thanks to which the automotive industry suffered less than other industries during the general crisis [25, p. 61].

At the same time, working in close cooperation with many countries causes a number of problems. They relate, first of all, to the nature of the development of the national automobile industry. The positive development of this direction implies the need to consider the methodological aspects of such interaction.

The current competitive strategies of modern automotive corporations are determined by a number of strategic industry changes that significantly affect and shape their competitive advantages, which are the basis for ensuring their competitiveness. We will present these strategic changes in order of importance for consideration in modern competitive development strategies of automotive corporations:

1. Industry consolidation. The consolidation of the global automotive industry and the creation of strategic concerns (both passenger cars and trucks) is reflected in a decrease in the number of independent car manufacturers. In the 1980s, it was possible to identify up to 30 independent large companies, while at the moment there are 10 of them and it is projected to decrease to 6–7 in the future.

The decline in the number of independent companies is a natural process for many industries with a natural consequence of the gradual loss of independence and competitiveness by local players.

For example, the mastodons of Chinese automobile production are the corporations «Chery», «Great Wall», «Xin Kai» and FAW5, which have long overcome the limits of the domestic market and are large corporations formed as a result of the consolidation of the industry in the form of mergers and acquisitions with both domestic and external automakers. The 20 leading automakers account for almost 78 million units of car production in 2019 – this is 90% of the global car production [13, p. 60].

The histogram shows the 20 largest automakers in the world with an annual production of more than 1 million cars, with 100% localization only for Chinese brands. SAIC, Changan and Dongfeng are of little importance for global markets, as sales are mainly in China, but at a high rate. The total production of these automakers is more than 4.4 million units (100% are assembled in China) and 90% of which are sold in China. Among Japanese concerns, Mazda has the most national localization, and Honda has the least. French and Italian car companies produce cars mainly in other countries of the world and less than a quarter in their own countries. PSA (Peugeot, Citroën) has about a third of all cars produced in France.

But the total production is not so interesting, and it is very interesting to know the localization of car production in the countries of the world (Figure 1.1).

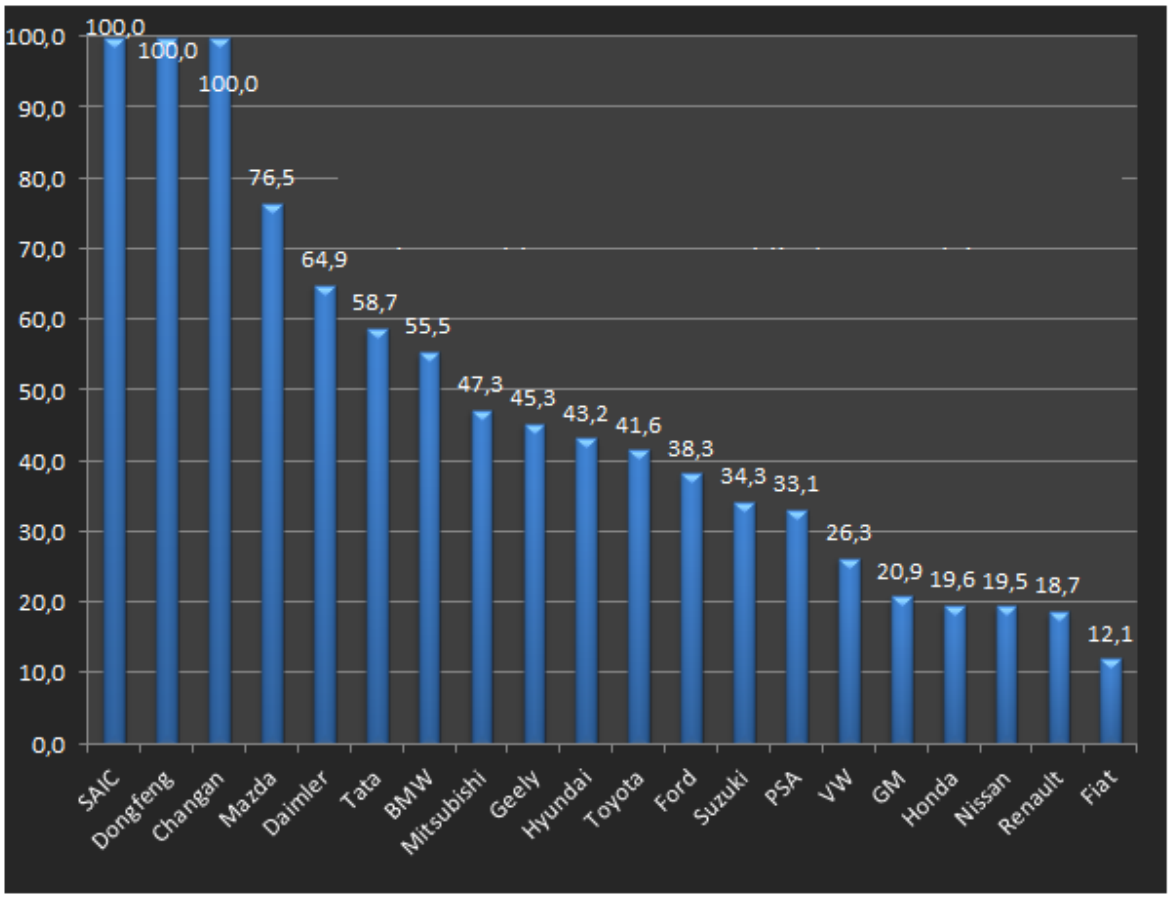

Figure 1.1. – The level of national localization of car production by country, 2019–2020, (%)

Note. Source: [41]

2. «Platform Strategy». In the 1990s, the “platform strategy « began to develop actively. Its essence lies in the production of several models based on a single platform (an assembly frame on which all components and parts are mounted). The examples of General Motors and Volkswagen are a vivid illustration of the “platform strategy”.1 Most often, the appearance of clone cars is the result of cooperation between two concerns, which in this way save on the development of new models, especially if they want to enter a new market segment. A recent example is the friendship of the French concern PSA (Peugeot and Citroen) with the Japanese manufacturer Mitsubishi. Cooperation with a competitor is a forced measure and is a response to the activity of competing companies, in particular, the Renault and Nissan alliance [15, p. 63].

A couple of years ago, the Renault Koleos model appeared on the market, which was developed by Nissan Qashqai. Before that, Renault did not produce SUVs. PSA did not have its own funds for the development of the SUV. The solution is the Peugeot 4007 and Citroen C–Crosser models, which are clones of the Mitsubishi Outlander XL. Naturally, by agreement–the Japanese were provided with a 2.2–liter diesel engine with a capacity of 160 hp of French design. The global auto business knows many examples when automakers produce not only similar cars (on the same platform), but also exact

copies of other people's models. A significant part of the cars from the Middle Kingdom is a degraded and cheaper copy of the popular Japanese cars.

For example, the Chery Tiggo suspiciously resembles a Toyota Rav 4, the Great Wall Hover is very similar to the ISUZU Axiom. Naturally, copies are usually plagiarism. Note that despite the similarity, owners who want to buy a Japanese car at a Chinese price quickly find out that the quality is very different from the original [4, p. 52].

3. The emergence of flexible manufacturing in the automotive industry. Building large car factories and achieving classic economies of scale has been an effective solution for the US or European market in the past, but the changing needs of car owners have led to the need for constant updating of the model range. The speed of the update has become a key factor of success in the market.

This direction is most actively implemented by Honda Corporation. Over the past 20 years, the number of Honda plants that use the principles of flexible production has grown 10 times and today this principle is implemented in all 100% of the corporation's plants. A similar picture can be observed in the factories of Chinese manufacturers, such as Geely, Lifan, Great Wall, Brilliance, BYD. Although the speed of updating the lines of these companies can not be called high compared to European and Japanese brands, however, as a result, companies with such flexibility form a technological and managerial base to quickly respond to changes in demand and the specifics of different markets [17, p. 29].

4. Modular assembly. It emerged as a development of the «platform strategy» in the context of new technological, raw material and information opportunities. Forming their competitive advantages, corporations share the business processes of manufacturing simple components and parts, module assembly and finished product assembly. For example, Volvo has reduced the number of parts and components used for the production of heavy–duty vehicles by 2 times.

The development of modular assembly in the automotive industry has increased the level of competition, which is associated with the use of new organizational principles. So, thanks to the modular assembly, the Volkswagen group began to develop assembly plants in different parts of the world, organized the world's first fleet of suppliers for the production of trucks on the principles of a modular consortium [18, p. 54].

All Chinese automakers are distinguished by 100% organization of modular assembly, in addition, as a separate strategy for the development and penetration of the automotive industry into foreign markets, without being able to directly compete with well–known global car brands, China uses the export of individual modules and spare parts for the assembly of the world's largest auto brands. BMW and Mercedes–Benz have long started joint purchases of automotive components in China. In the first four months of 2009, automotive component manufacturers in Germany filed about 30

bankruptcy filings. According to forecasts of the consulting company Roland Berger, by the end of the year, about a hundred German manufacturers of automotive components will go bankrupt. European and American parts are too expensive for car manufacturers, so they urgently have to look for an alternative in China, which they have been eyeing for a long time. From January to July 2013, China exported $1.4 billion worth of automotive engines. (the main recipients are Japan, Iran and Italy), brake systems–for $1.3 billion. (USA, UK, Canada), and steering system parts – for $5.2 billion (USA, UK) [32, p. 49].

5. Outsourcing of component manufacturing. Outsourcing refers to the transfer of the development, design and assembly of components and modules from car manufacturers to car component manufacturers. Outsourcing allows you to reduce overall costs, choose global suppliers that provide the highest quality and lowest prices for nodes and modules.

Chinese automakers use only 5–6% of the outsourcing of component production outside of their automakers. As a rule, large automakers have several shared enterprises for the production of components and components, which both supply domestic automakers and work for export, collaborating with major global brands, as described above [8, p. 33].

6. Innovations. Joint projects are a characteristic feature of the behavior of many automakers. Together, we will be able to reach a higher technological level much faster. In particular, until recently, Chinese automakers were engaged in borrowing and directly copying the technologies of Japanese and German automakers. This trend continued in 2020, but since 2021, the share of copied products and components has been steadily falling. The development of fundamentally new concept cars and technologies in China is only a matter of time. Thus, the modernization of the scientific and technical complex in China began in the late 80s and was closely linked to the restructuring of the public sector that was taking place at the same time. The next step was the creation of the technology market, which became the main platform for transactions between owners and buyers of know–how. Simultaneously with the opening of special economic zones in the coastal regions, China began to create a network of business incubators and technology parks, the first of which opened in 1988 in the Zhong Guan Qun district in Beijing. In just 5 years, there were already 53 technoparks in China, where 9687 high–tech enterprises were registered (today the number of such enterprises is more than 53600) [11, p. 27].

Thus, the share of investment in research and development in total GDP increased by 0.14 percentage points to 1.84%. Among the leaders of R & D in the automotive industry in China is Chery Automobile, which plans to build a research and development center (R & D) in China by 2017, which will become the largest such center in Asia. The Chery A3 hatchback has become a new step in the segment of sports hatchbacks, so popular now in the world.

7. Strategic changes at the government level. Adoption of strategic measures and implementation of measures that promote the creation and development of the automotive industry in individual states. Among such strategic changes and measures in the automotive industry in countries that determine its rapid development, the author refers to:

a) government support aimed at:

– the development of new ideas, in particular, the creation of cars running on alternative fuels, the creation of electric vehicles;

– formation of a professionally developed service network;

– increase in subsidies for the renewal of old cars;

– increase in the production of national car brands;

– priority purchase of national car brands for public needs;

b) the creation of fundamental foundations in the field of property rights for new energy sources, the creation of a complete integrated system of key components and components of equipment operating on new energy sources;

c) the adoption of measures to increase the number of highly qualified personnel for the automotive industry;

d) extensive use of foreign experience, this applies primarily to:

– using the advantages of internationalization of production as a factor in increasing consumer demand for cars (Volkswagen's successful experience in the Chinese market deserves attention);

– increased attention to the brand price (this is important because, in particular, China is expanding access to the foreign market of national brands);

– industrialization of all processes (especially common experience in the US automotive industry);

– paying attention to the high quality of technologies in the production of cars (this experience is borrowed from the functioning of US automobile companies in terms of cooperation between enterprises);

– attention to the observance of compactness, aesthetics and a small volume of engines (which is typical for the Japanese automotive industry);

– attention to the development of innovative technologies (this is also typical for Japan, for example: gasoline injection technology, environmental protection);

– search and development of new production methods (fundamentals of the development of the Japanese automotive industry) [19, p. 99].

According to Chinese researcher Li Xiangrong, when managing the competitiveness of automobile corporations and developing competitive development strategies, one should be guided by the main industry, structural and strategic features that are currently characteristic of automobile corporations, both in national and global markets, the main of which are the following:

1) reduction of production costs and, accordingly, the price of the car and at the same time the growing cost of new design developments and the introduction of new technologies in connection with the toughening legislation and consumer demands;

2) strengthening the competition for the creation of the car of the future in order to dominate the market, as well as the integration of car manufacturers and component suppliers;

3) engineering and computerization of the development process, which make it possible to create new models in a short time; specialization of research, development and production based on the international division of labor (at the main enterprise today, only 35–50% of parts, components and assemblies are produced, the rest goes to the assembly plant through cooperation) [23, p. 59].

The analysis of the current competitive strategies for the development of automobile corporations was carried out by the author using comparative matrices for evaluating the performance of competitors from different countries of the world.

For the analysis of competitive potentials, automobile corporations with approximately the same status and product were selected, which:

– offer customers approximately the same model range of cars with comparable quality;

– offer similar terms and conditions under sales and service contracts;

– they have one organizational and legal form;

– have the same position in the relevant field of activity;

– have the same: significance, nature, scale and scope of the organization's activities;

– have approximately the same authorized capital, which determines the minimum size of the property of a legal entity that guarantees the interests of its creditors;

– have the same main activities.

The main competing corporations in the automotive industry in the passenger car segment, from the author's point of view, are the following main competitors:

1. Japanese company Toyota Motor (Toyota, Lexus);

2. the largest American automobile corporation General Motors (Chevrolet, Cadillac, Saab);

3. German car manufacturer Volkswagen Group (Volkswagen, Audi, Seat, Škoda);

4. American Ford Motor (Ford, Volvo);

5. Japanese company Honda Motor;

6. South Korean Hyundai Motor;

7. Japanese automaker Nissan Motor;

8. The French company PSA Peugeot Citroen (Peugeot, Citroen);

9. German concern Adam Opel AG (Opel);

10. French automobile construction corporation Renault Group (Renault);

11. Japanese Automobile Construction Corporation Mazda Motor Corporation (Mazda);

12. Korean automobile manufacturer Kia Motors Corporation (KIA);

13. Japanese engineering company Suzuki Motor Corporation (Suzuki);

14. One of the largest South Korean chaebols (FPG) – Daewoo;

15. Japanese group of the company–Mitsubishi Group (Mitsubishi);

16. Chinese corporations (SAIC, BYD, Great Wall, Lifan, JAC, Haval, etc. Only 15 of the largest ones [39, p. 18].

In this list, the author deliberately did not include such large companies–competitors of the world market, as the German corporation –manufacturer of premium cars–Daimler concern and BMW Group, as well as some other American and British premium car manufacturers. This was due to the fact that even the 15 largest Chinese automakers, which are the main object of this study, are still outside the premium market, do not yet have similar characteristics of manufacturers in this segment, do not have market shares in this segment of the world market and cannot compete with them. In addition, the absolute majority of premium customers remain loyal to the existing global premium manufacturers and access to this market segment is characterized by high entry barriers [42, p. 116].

According to the results of international market research of the automotive market conducted by the agencies Autostat and LLC «Businessexpert», the consumer market shares of these companies and the 15 largest Chinese automakers in the passenger car segment are approximately the same and amount to 1.5–3%.

Thus, the selected companies are equivalent competitors for the 15 largest Chinese automakers in the passenger car segment. To assess the competitive positions of car manufacturers, the dissertation used data collected by external independent experts in the field of automotive industry, service maintenance and management of machine–building enterprises. Among the experts were specialists from MAMI and MSTU. Bauman, who graduated from the faculties of Mechanical Engineering and work in the field of automobile production, management and quality control of production in mechanical engineering. The data analysis carried out by the applicant made it possible to test the competence of experts at the first stage in order to obtain reliable assessment results [43, p. 88].

At the second stage, according to a wide range of open sources, the author evaluated the competitive development strategies of the largest automakers and the main competitors listed above. The assessment was carried out on a 10–point system. The highest score is 10. The author selected the following indicators of the competitive development strategy [9]:

– Strategic management: mission; basic strategies; long–term goals; competitive advantages and their use; strategic development planning.

– Pricing policy: the method of setting prices; pricing strategy; dynamics of price changes; price discounts; working with credit obligations.

– Marketing: marketing goals; marketing strategies; market conditions (methods of analysis); marketing research; marketing information base; marketing strategies; marketing budget; competitor research; consumer research; methods of analyzing marketing information.

– Organizational structure: type; quality of work of departments; business culture; image; brand; team–building characteristics.

– Sales promotion: availability of sales promotion programs; availability of discounts when selling products; participation in public events; PR programs; advertising budget; holding competitions, exhibitions, fairs; use of measures to «reinforce» their products; availability of product presentations; use of new means of information dissemination; product promotion budget.

In Figure 1.2, the author shows the comparative characteristics of the competitive development strategy of the largest automakers in the passenger car segment according to the indicator «Strategic Management».

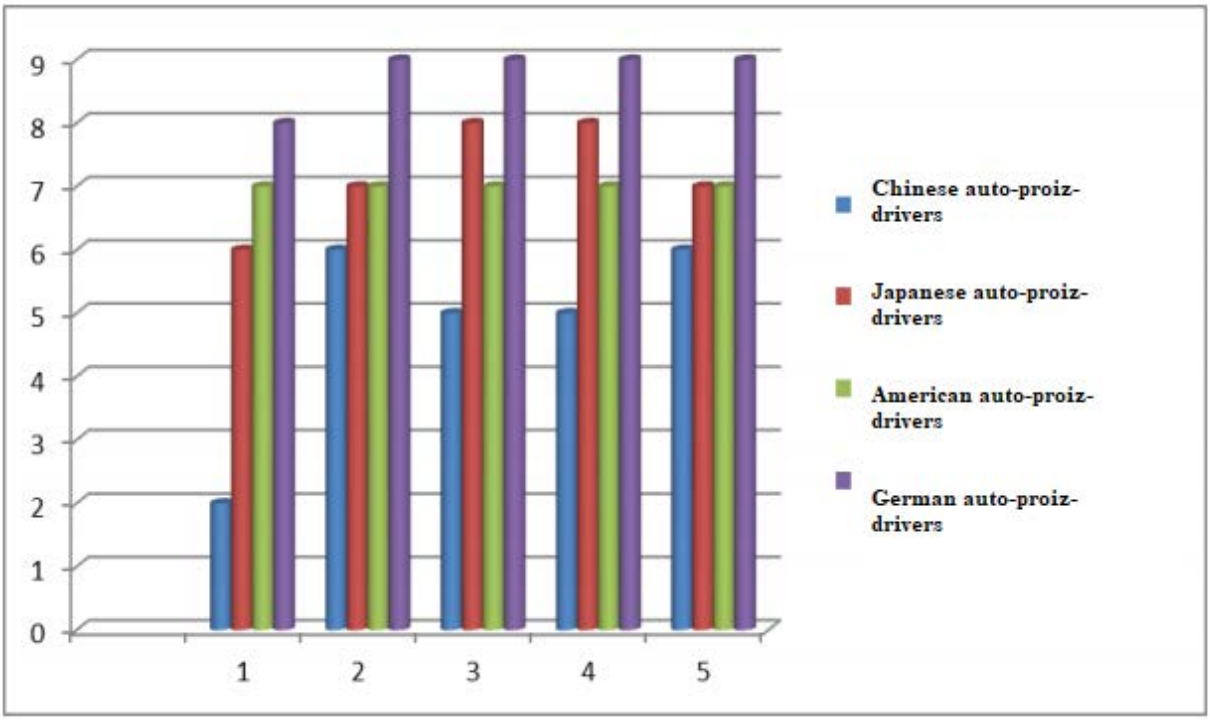

Figure 1.2 – Map of comparative characteristics of enterprises by indicators of strategic management of the competitive development strategy

Note. Source: [41]

On the figure 1.2 : 1–the company's mission; 2–basic strategies; 3–long–term goals; 4–competitive advantages; 5–strategic development planning

The analysis shows that the 15 largest Chinese automakers have the worst indicators of a competitive development strategy compared to the other 15 global competitors owned by foreign countries:

– basic strategies (Chinese enterprises do not form basic strategies for the most part or form them spontaneously);

– development strategies (the 15 largest Chinese automakers in the passenger car segment do not form competitive development strategies);

– the competitive advantages of the 15 largest Chinese automakers in the passenger car segment are either absent or rather weak and they are not given due attention;

– strategic development planning is carried out, but very poorly. For further research, competitive organizations with the best characteristics were selected.

Figure 1.3 shows the comparative characteristics of organizations in terms of the «Pricing policy» of the competitive development strategy.

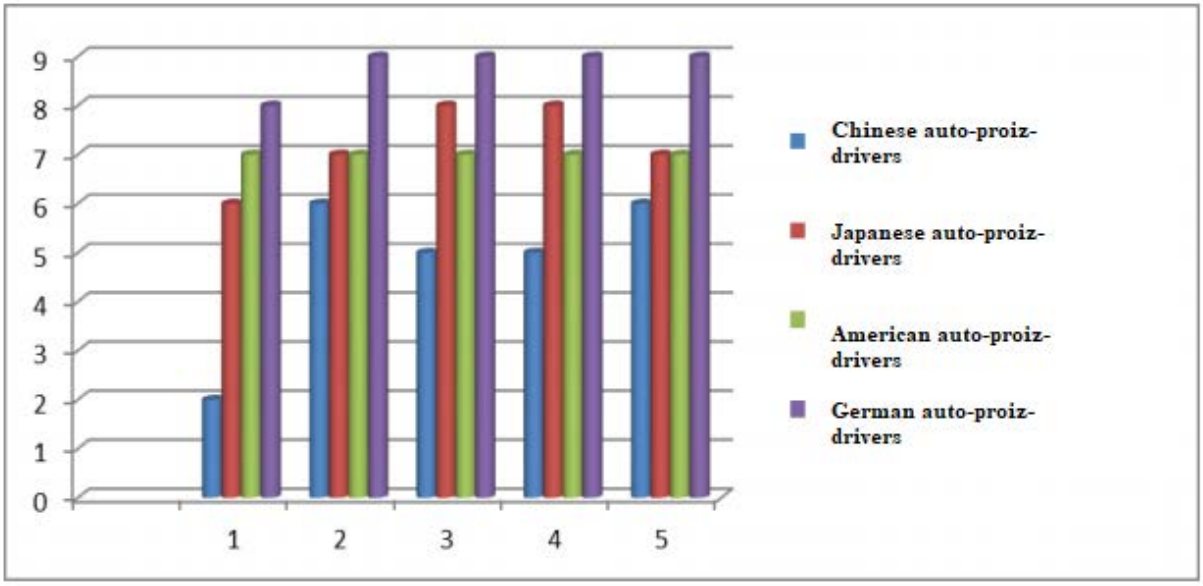

Figure 1.3 – Comparative characteristics of organizations in terms of «Pricing policy» of the competitive development strategy

Note. Source: [34]

On the figure 1.3: 1–the method of setting prices; 2–the pricing strategy; 3–price dynamics; 4–price discounts; 5–working with credit obligations

According to the analysis conducted by the author, the 15 largest Chinese automakers do not lag behind their competitors in terms of pricing policy, outstripping even many in terms of price attractiveness and payment terms.

In the drawing. 1.4 shows the comparative characteristics of organizations in terms of «Marketing» of the competitive development strategy.

The analysis of the data shows that the 15 largest Chinese automakers are significantly behind their competitors ' organizations in terms of such indicators of competitive development strategy as:

– marketing strategies;
– marketing research;
– marketing information base;
– methods of analyzing marketing information [51, p. 49].

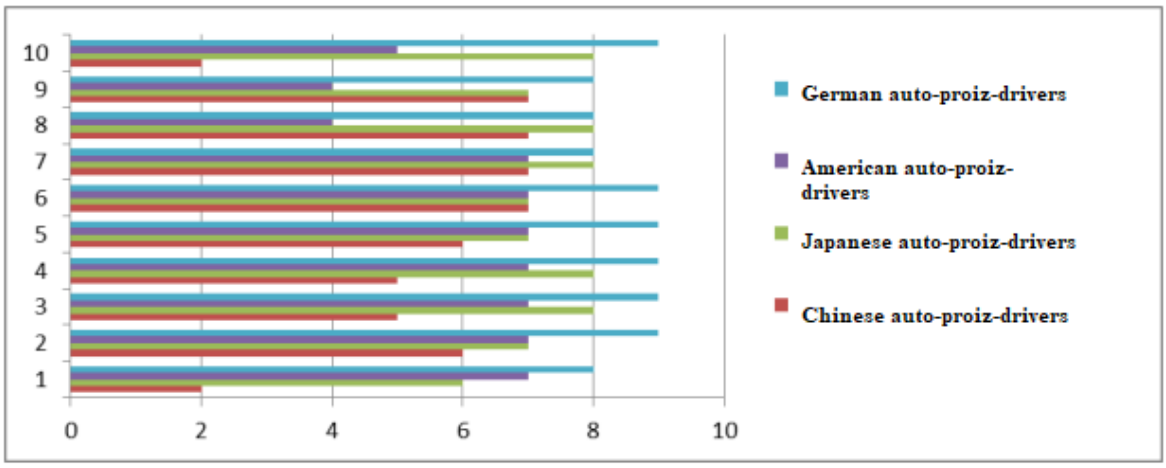

Figure 1.4 – Map of comparative characteristics of organizations in terms of «Marketing» indicators of the competitive development strategy

Note. Source: [13]

On the figure 1.4: 1–marketing goals; 2–marketing strategies; 3–market conditions (methods of analysis); 4–marketing research; 5–marketing information base; 6–marketing strategies; 7–marketing budget; 8–competitor research; 9–consumer research; 10–methods of analyzing marketing information

In Figure 1.5, the author shows the comparative characteristics of organizations according to the indicators «Organizational structure of management».

where: 1–autonomy of departments, 2–business culture, 3–image, 4–brand, 5–creation of «team spirit» Figure 1.6–Map of comparative characteristics of organizations according to the indicators «Organizational structure of management» of the competitive development strategy

The analysis shows that 15 major car manufacturers of the PRC are far behind their competitors 'organizations in terms of such indicators of competitive development strategy as: – creating» team–building characteristics «(the organization does not develop the team «spirit» of the staff); – brand (the organization does not have an established and recognizable brand).

In the drawing 1.5 shows the comparative characteristics of organizations in terms of «Sales promotion» of the competitive development strategy.

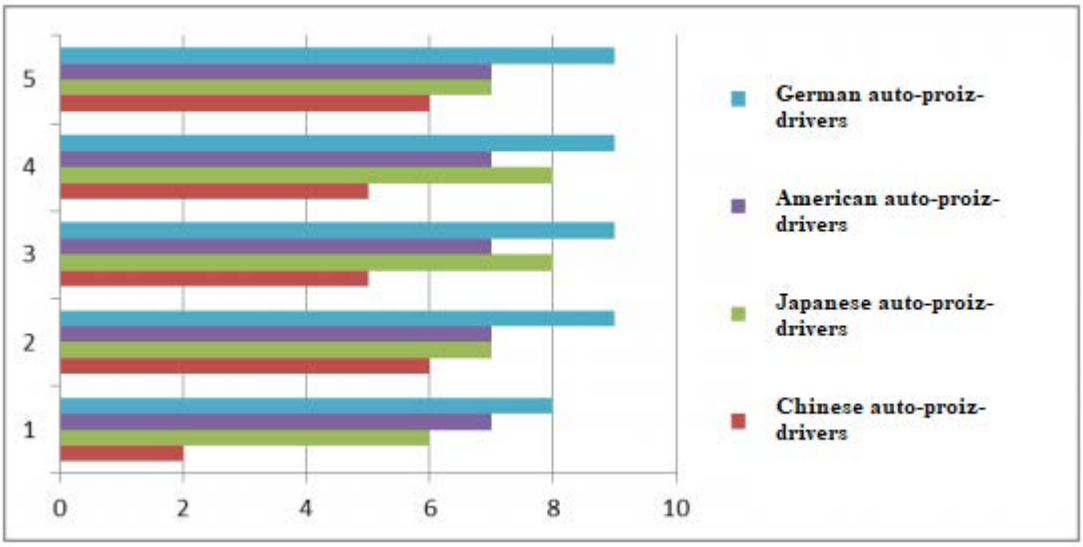

Figure 1.5 – Map of comparative characteristics of organizations in terms of «Marketing» indicators of the competitive development strategy

Note. Source: [41]

On the figure 1.5: 1–availability of sales promotion programs; 2 – availability of discounts for the sale of goods; 3–participation in public events; 4–PR programs; 5–advertising budget; 6 – holding competitions, exhibitions, fairs; 7 – use of measures to «reinforce products»; 8–availability of product presentations; 9 – use of new means of information dissemination; 10–sales promotion budget.

The analysis shows that the 15 largest Chinese automakers are significantly behind their competitors ' organizations in terms of such indicators of competitive development strategy as:

– availability of sales promotion programs;

– new means of spreading information about the company and products are not used. Once again, it is worth emphasizing that, from our point of view, the competitive development strategy is based on the competitiveness of the company, which is formed through the creation and use of competitive advantages in the target markets.

This makes it possible to describe the main elements of a competitive development strategy in relation to the specifics of automotive corporations.

1.2 Factors of development and internationalization of the Chinese automobile industry at the present stage1

Macroeconomic analysis shows that the success of the Chinese automotive industry is associated with the skillful implementation of government policies, thanks to which, even during the general crisis (2008–2009), the automotive industry maintained high growth rates. The Chinese auto industry relies on government support for investing

in innovative ideas and the development of new technology (the creation of cars based on alternative energy sources, electric vehicles, the development of a service network, increasing subsidies for the renewal of defective old cars, improving the quality of spare parts, etc.). The Chinese government is constantly increasing its investment in education, science, new ideas and developments in the automotive industry, investing heavily in research and development of new energy resources, and adopting programs to create cars based on alternative energy sources. One of these programs is aimed at research on the creation of electric vehicles and the replacement of cars running on traditional fuel with high–tech cars, the development of system technologies, the key element of which is the integration of automotive components and the production of spare parts [11, p. 42].

Experts state that the Chinese automotive industry is fully formed, the basis of the automotive industry has been created and debugged, including the production of passenger cars, trucks, passenger buses, special purpose vehicles, spare parts and components [2, p. 27]. The key characteristic of the Chinese automotive industry is the close relationship between its production and sales components, which is primarily due to the specifics of the distribution channels of the industry, namely: their minimum length with a sufficiently large width. All major automakers directly control the sale of their products to the end user through an extensive network of dealerships — either directly included in the internal corporate structure, or connected by very strict dealer agreements with the parent company or its regional representative office. As a result, the automotive industry is not actually affected by intermediary structures, which, on the one hand, allows you to directly regulate pricing and, accordingly, directly manage sales, on the other hand, leads to a rigid, without an intermediary buffer, feedback from the market, where in fact «the seller is equal to the manufacturer». Given this fact, the development of the domestic market is the most important factor in the development of automobile production in the country.

The most important factors in the internationalization of the Chinese automotive industry include the expansion and deepening of the foreign market, namely, the import and export of direct investment, the import of technology and the export–import of finished products. As you know, by 2003, almost all of the world's leading automobile manufacturers had opened joint ventures in China under conditions determined by the Chinese Government.

The motivation of Western firms to finance Chinese enterprises is based more on the significant potential of the domestic automotive market in the long term, rather than on overcoming tariff barriers or the availability of relatively cheap labor, as is commonly thought. It was the size of the market itself that was a sufficient incentive to achieve penetration into the Chinese market [25].

Thus, external sources of financing for investment in the Chinese auto industry make up a small part of the total investment in the industry. At the same time, in 2008

this share was 22%, and by 2021 it significantly decreased to 15%. The largest increase in investment from abroad of 24.6% occurred in 2011, followed by a decline to negative values (–6.7%) in 2019, and in 2020, growth was again recorded at 13.1% [13, p. 63].

This uneven flow of foreign funds is explained by the decisions of specific investors, either in connection with the need to recapitalize existing assets, or with the emergence of additional opportunities to invest in new projects. Despite its small scale, the attraction of foreign investment, as well as the import of foreign innovative technologies from international automobile concerns, allowed China to significantly improve the quality of automotive products, increase production volumes and move to the first position in the global automotive industry. Major corporations such as BMW, Daimler, Ford, General Motors, Honda, and Peugeot Citroen have established a number of joint ventures in China, and their total investments in the country's automotive industry have already exceeded $ 20 billion by 2004. Currently, there are more than 25 enterprises in China with the participation of the largest multinational corporations that produce ready–made cars, and significantly more enterprises that produce equipment and components for assembling cars [18, p. 26].

At the beginning of 2011, China announced the end of a seven–year period of attracting leading foreign automakers to create a national automobile industry. Until 2021, the construction of new plants with the participation of large foreign concerns continued to develop only on the basis of government permits received earlier. However, since June 2017, there has been a turnaround in the government's strategy regarding the financing of industry from abroad, which was due to the government's concern to support economic growth in the least developed western and central regions of the country. The auto industry is again included in the list of industries where foreign investment is encouraged. The National Development and Reform Commission has announced that foreign investment in the automotive sector is receiving most–favored–nation treatment [7, p. 66].

Thus, the difference between the newly announced policy of attracting foreign investment in the Chinese auto industry is different in its regional orientation. The new deal to attract foreign automakers was part of a program to encourage the creation of projects with a high need for labor in the central and western regions of China. According to experts, the new course is the government's reaction to the current trend of slowing the flow of foreign direct investment into the country.

By the beginning of this century, the automotive industry had emerged with three distinct areas of production concentration: the North American market, the European Zone, and Southeast Asia, which primarily includes Japan, China, and Korea.

According to the level of motorization, there are usually three major segments of countries:

1. countries with developed economies, high levels of total and relative gross domestic product (GDP): the United States, Western Europe (including Sweden), Great Britain, Japan, etc.;

2. Eastern European countries (new EU members, such as the Czech Republic, Poland, Hungary, etc.) and some Asian countries with economies in transition, where the automotive market is still very far from saturation, and the GDP level is significantly lower than that of the first group;

3. countries belonging to emerging markets, i.e. developing economies, where the potential capacity of the automotive markets, although large, but the level of GDP per capita is still relatively low (for example, the BRIC countries: Brazil, Russia, India, China).

In recent decades, the motorization of the world has been very intensive: from 1980 to 2021, the growth rate of car production (products of long–term use) was almost twice as high as the population growth. In the second half of the last decade, the volume of global production of cars of all types exceeded 50 million units per year [6].

The indicators of the world fleet per thousand inhabitants in the 90s increased almost one and a half times (to the global average of 176 cars of all types in 2021) and at the turn of the new century in many developed countries reached and developed at the level of 500 passenger cars (about 1 car per 2 people). In developed countries, as you know, less than 20% of the world's population lives, while their residents own as much as 80 % of the world's car fleet. If we consider the level of motorization of the largest developing countries–China and India, it will be only 53 and 14 cars per 1000 inhabitants, respectively. Because of this, it can be expected that the low level of motorization will contribute to the volume of demand from these countries in both the medium and long term.

In Russia, the level of motorization is also still relatively low, so the growth rate of motorization in recent decades significantly exceeds the level of the leading developed countries, excluding, of course, the crisis of 2008–2009 [2].

It should be noted that each of the regional automobile markets has its own distinctive features. It is possible to distinguish the following characteristic features of passenger cars of various manufacturers. For American manufacturers at the end of the last century, there was a traditional gigantism: the machines were very large both inside and out.

Especially terrifying and unusual for Europeans or Japanese seemed American SUVs (jeeps). Equipped with large engines (up to 6.0 liters of working volume), they were extremely uneconomical and were mostly not used for their intended purpose (for off–road driving). Now American cars look a little different, although the most popular car is a Ford F – series pickup truck. And half of all cars sold in America are pickup trucks, SUVs, or minivans. Also popular are large executive class sedans. From a technical point of view, the American dream is a car with a large engine, an automatic

transmission, a selector located on the steering column, and a capacious trunk. It should be noted that strategic alliances allow American companies to develop and produce a larger range of products in a short time, to gain access to new technical solutions, inventions and markets.

A significant synergistic effect is achieved from joint purchases and sales, increasing the efficiency of the sales and service network. It is not uncommon for some automakers to become major shareholders of others in strategic alliances to implement joint projects in the field of research and development or production. The analysis of the most well–known alliances and merged companies – GM–Toyota, GM–Renault–Nissan, GM–Fuji Heavy Industries Ltd, DaimlerChrysler–Hyundai Motor – showed that not all of them function successfully and more than half of them break up without realizing their goals and overcoming the difficulties that arise in the way of their development (determining the general goals of the association, managing and coordinating the interests of participants, the possibility of damaging the image of the alliance due to mistakes or failures of one of the partners, the risk of information leakage, etc.) [1, p. 16–17].

European cars are distinguished by their restraint (compared, for example, with American ones: smaller dimensions, less voluminous engines and less spacious interiors) and are very traditional in appearance. Cars of European manufacturers have a precise division by class and all classes, from micro–liter cars to executive sedans, are mostly produced in Europe. Asian cars are also distinguished by their «Asian» design. They often have narrow or small headlights and smoothed body lines. «The Japanese are very good from a technical point of view. And according to the options offered, a Japanese car for the domestic market can often win against an American or European one. Environmental friendliness and cost–effectiveness are also put at the forefront here. Very popular in Japan and other Asian countries are small and medium–sized cars, as well as sports cars, the basis for which is most often serial sedans. Much attention is paid to the engines and driving qualities of cars, which should satisfy fans of active driving [4, p. 109].

All these traditions and preferences must be taken into account by the manufacturers in order for their cars to be successful with the relevant buyers. And indeed, numerous studies are being conducted in this area to create cars for a specific car market or even a country. Taking into account all the data, as well as experience on the market, manufacturers produce exactly the machines that consumers are waiting for.

This is how the markets are filled with several successful models. However, there are exceptions – the so–called «world cars», which are developed with the aim of being sold on all continents. A few recent examples of such cars are the VW New Beetle and Mini – which were built with an eye to the design of specific cars of the middle of the last century. In this case, the nostalgic factor played a huge role. Although technically these cars are modern, they are not perfect. They are now selling particularly well in

both Europe and America. It will not be superfluous to note that the automotive «ideologies «of different markets have had a strong influence on each other, making cars more «international». When a manufacturer prepares to launch a car on the market, it most often mainly counts on two or three countries in which it will be sold. Therefore, for good sales and good profits, the car must first of all combine the preferences and preferences of people living in these countries. The basis of the structure of the world market is made up of passenger cars, their share in the world economy accounts for about 72.6 % of production, as well as a significant share in the structure of the world automobile market is occupied by commercial vehicles. This group accounts for 22.0 % of all transport production.

Trucks account for only 4.8 % of the total global car market. The smallest share in the structure belongs to buses 0.7 % of the world car market [3, p. 27].

Modern global automobile production covers all regions of the world without exception, but the dynamics of production development in individual regional markets differ significantly. Based on the above data, we will draw up a trend of annual growth rates of the world production of passenger cars: the world production of cars is not always characterized by stable growth rates.

During 2010–2021, China continued to be the fastest growing market, with passenger car production increasing by 21.9 %, and the share of passenger car production in the Asia–Pacific region was 26.4 %.

The Asian region is constantly expanding its participation in global car production, while European and American manufacturers, on the contrary, are losing their positions. World Economy and International Economic Relations.

However, in 2008–2009, there was a significant decline in car production worldwide. The decline in global production of North American corporations amounted to 426 thousand units, this is the most significant change among all regions, since this region was the center of the financial crisis that broke out, as well as the region has significant investments in other countries in the automotive industry, the financial crisis that broke out affected this area, which led to a decrease in production.

The European region also suffered significant losses in the dynamics of car production. The decline in production in Asia was insignificant. The biggest problems in the pre–crisis period were experienced by the US car market. The reasons for the unfavorable situation of American manufacturers in 2019–2020 are related to the recent general crisis of the global economy.

Rising fuel prices, the mortgage crisis, and a glut in the U.S. auto market have weighed on the performance of U.S. automakers in the first place. In addition, the model range of Ford, GM and Chrysler is formed by 80 % of large mini–vans and SUVs, which are rapidly losing popularity in the face of rapid growth in fuel prices. Therefore, the plans of the «big American three» include the closure of a number of factories in the

NAFTA countries – Mexico and Canada, which produce SUVs and mini–vans, reorientation to the production of more compact cars, and the sale of non–core assets.

In the coming years, the leaders of the American automotive industry will hardly be able to regain their lost positions in the US market, so more and more attention is being paid to the development of production companies in Asia and Eastern Europe, in particular, in Russia. Against the background of the decline in the share of passenger car production in the United States and Western Europe, the share of Asia is increasing every year.

The main participants in the global car market can be recognized as such large companies as: – Toyota Group–Toyota (Toyota Motor Corporation, Toyota Jidosha KK) is a Japanese automobile company. Toyota is rightfully considered one of the leaders in the global automotive industry. In addition to the Toyota brand, the company produces cars under the Lexus brand [16, p. 98].

In Russia, Toyota ranks first in popularity. The share of this global market participant accounts for 14.6 %. – GM Group (General Motors, General Motors Corporation), the world's largest American automobile company. It produces passenger cars of the famous brands Buick, Chevrolet, Cadillac, Vauxhall, Pontiac, etc., trucks, various components, and also plays a significant role in the production of aerospace products, produces energy equipment, construction and railway equipment, household appliances. – Ford Group–Ford Motor Company – an American automobile company that produces passenger cars of the Ford, Mercury, Lincoln brands, trucks, and various agricultural machinery. Ford owns Jaguar. Today, Ford Motor Company has its own production, assembly and sales centers in 30 countries around the world. The company produces millions of cars, trucks, and tractors annually and is a leader in automotive sales outside of North America. Ford Motor Company sells more than 70 different models of cars worldwide, produced under the brands Ford, Lincoln, Mercury, Jaguar and Aston Martin. The company also has a stake in Mazda Motor Corporation and Kia Motors Corporation. – Volkswagen – In the 70s, Volkswagen developed three new models at once – the Passat, Golf and Sirocco, which technically had nothing in common with the previous Volkswagen cars. Modifications of the Passat and Golf are still being made – and they have already become classics of the automotive industry and their names are often used as a common name. This participant accounts for about 9 % of the global auto market.

– Renalt–Currently, Renault, while continuing to produce traditional European subcompacts, is also actively focusing on trucks. As one of the interesting developments, we can single out the Next model with an engine running on both traditional liquid fuel and electricity.

Renault is currently available in France, Spain, Belgium, Portugal, Slovenia, Turkey, China, Taiwan, Colombia, Argentina, Morocco, Malaysia and Uruguay. The

share of this global market participant accounts for 9 % of the market share as a whole [27, p. 89].

– Hyundai Group–In our time, Hyundai is a South Korean company that has successfully established itself in the export markets of Canada and the United States. Its model range has also been adapted for export markets. The share in the global car market is 6.0 % [27, p. 98].

– Honda – Honda Motor Company (Honda Giken Kogyo KK). One of the main features of Honda cars – high–speed engines. Recently, Honda has been producing powertrains with variable valve timing. One of the subsidiaries of Honda–Acura, which produces cars for America, which belongs to the class of executive cars and claims a share in the American market of luxury cars. During 2006–2020. the global car market has been characterized by a steady growth rate of an average of 2 to 4 % per year, with the exception of 2019, when global car production fell by almost 6 % in the Global economy and international economic relations as a result of the impact of the global financial crisis (for 2021, the global car market was characterized by an unprecedented growth rate of 5.3 %) [18, p. 103].

In general, these growth rates correspond to the growth rate of the global economy as a whole. Moreover, it should be noted that the Western European, North American and Japanese markets, where the demand is primarily for cars intended for fleet renewal, have been developing relatively slowly in recent years, and sometimes the dynamics of development there is even negative. The situation is different in Central and Eastern Europe, Latin America and Asia (and especially in China and India), where sales in some years grow by more than 10% per year. In 2021, developed countries occupied six places in the list of the ten largest passenger vehicle markets, and the top lines in it belonged to the United States and China.

Table 1.1. – World's Largest Automotive Markets in 2021

№	A country	Production volume, thousand units.	N°	A country	Production volume, thousand units.
1.	China	19272	6.	India	4145
2.	USA	10329	7.	Brazil	3343
3.	Japan	9943	8.	Mexico	3002
4.	Germany	5649	9.	Thailand	2483
5.	South Korea	4558	10.	Canada	2464

In the context of the crisis, it became clear that car sales in developed countries tend to decline more significantly than in developing countries.

In developing countries, on the contrary, with positive GDP dynamics, there is a more significant increase in new car sales. This correlation between the dynamics of GDP and car sales in different groups of countries indicates that the crisis does not generally lead to any significant decline in car sales on the global market as a whole, although the country's sales structure may change significantly. The main players in the

global car market are TNCs. Automobile corporations are among the largest TNCs and in terms of value added (on average 25% of their sales) are quite comparable to the gross output of medium–sized states [19, p. 45].

In the list of the world's largest economic entities compiled by UNCTAD (countries and companies, data for 2020), Toyota Motors was on the 6th place, Ford Motor, Volkswagen and DaimlerChrysler were on the 9th, 13th and 16th places, and BMW AG, Nissan Motor and General were on the 21st, 30th and 31st. However, even such large monopolies had to resort to drastic measures to stay in the market and ensure their survival.

At the end of the 90s, the global automotive industry experienced a wave of cross–border acquisitions, as well as partnership mergers, the creation of joint ventures and production cooperation agreements, and the formation of broad strategic alliances (combining some operations or activities, but maintaining independence.

CHAPTER 2 TRENDS IN THE AUTOMOTIVE INDUSTRY IN CHINA

2.1 The problems of the development of the automotive industry in China

Much attention is paid to the development of methodological recommendations to identify opportunities for further development of the industry.

As a result of the SWOT analysis of the industry, it was revealed that the opportunities for its further development are the constantly growing domestic automotive market in China. Industrialization, urbanization, population growth, and increased welfare of peasant farms are expanding the capacity of the domestic consumer car market.

The analysis showed that the automotive industry in its development relies on government support for investing in innovative ideas and the development of new technology (the creation of cars on alternative energy sources, electric vehicles, the development of a service network, increasing subsidies for the renewal of defective old cars, improving the quality of spare parts, etc.). The Chinese government is constantly increasing investments in new ideas and developments in the automotive industry, during the tenth five–year plan, it invested about 1 billion RMB. RMB in research and development of new energy resources, since 2006 the government has defended the program of creating cars on alternative energy sources. The next program is aimed at research on the creation of electric vehicles and the replacement of cars running on traditional fuel with high–tech cars, the development of system technologies, the key element of which is the integration of automotive components and the production of spare parts. This is due to the creation of a single service network. But this, in turn, required an increase in their production. At the same time, it should be noted that the mass production of components and spare parts is already the basis for the export of automotive products (in 2007, the profit from the export of components amounted to 14 billion 500 million dollars, which significantly exceeded the profit from the export of cars, in other words, the export of components is becoming one of the most profitable industries for the export of technical products).

Today, it can be stated that the Chinese automotive industry is fully formed, the basis of the automotive industry has been created and debugged, including the production of passenger cars, trucks, passenger buses, special purpose vehicles, spare parts and components.

But at the same time, in the development of the automotive industry, there are a number of difficulties that hinder its development.

They are:

– imperfect vehicle design mechanism;

– insufficient dynamics of production of national brands;

– the lag in the quality parameters of national products from the quality of international car brands, which affects their low competitiveness.

Their solution will allow us to justify the ways and nature of the development of the domestic automotive industry in the future.

Currently, China is the leader in the global automotive market. The annual production of cars in 2019 is more than 24,500 thousand units [13, p. 193–194], which is 20 times more than the production of cars in Russia [11, p.207–217].

In 2018, the United States remains in first place among buyers of both cars and trucks. The second largest consumer in 2018 was Iran with a consumption share of 19.5%, and in 2019 it was replaced by Malaysia [17].

In 2019, there was a sharp increase in purchases of Chinese low–cost cars from Malaysia (generally not a poor country) and from Saudi Arabia (an extremely rich country). At the same time, in 2019, the United States also remained the largest consumer of Chinese automotive products. China remains the largest supplier of the Russian Federation, with the main share of imports being motor vehicles (53%) [13, p. 193–194].

The United States is the first share–based consumer of the Chinese auto industry. This trend is not accidental, as China's auto industry is growing rapidly. Not only is the design, model range and production volumes improved, but the quality of the products is also improved. At the same time, for more than 30 years, the automotive industry has been one of the priority sectors of the People's Republic of China, there is various state subsidies to the industry, encouraging the creation of joint ventures with foreign investors, and the acquisition of new technologies [6, p. 36–48; 10, p. 386–387].

In addition, the automobile industry is the main branch of the Chinese economy. As a strategic branch of national development, the automotive industry plays a vital role in the development of the national economy.

At present, Chinese automobile products have formed a relatively complete system of automobile products, covering many varieties and models of cars, trucks, and buses. At the same time, Chinese automakers use advanced enterprise development strategies, as well as powerful means of promoting their products [18]. Let's analyze some strategies and vectors of success of the Chinese automotive industry. First, the Chinese auto industry pays great attention to improving foreign economic activity. Secondly, another strategic trend of the People's Republic of China is the consolidation of production, strategic conglomeration, which have an impact on both automakers and the retail market. As of the end of 2019, there are about 154 automobile manufacturers in China [14, p. 69–71].

Also, the trend of the strategic development of the Chinese automotive industry is the promotion of new energy vehicles in the market BYD (build your dream, a company that produces cars with a hybrid engine and microlitrage cars). In the conditions of an increasingly limited supply of traditional energy carriers and a decrease in the quality of

the environment, the tendency to replace new vehicles with new energy vehicles inevitably becomes [9, p.133–136].

At the moment, in the People's Republic of China, as well as around the world, environmental and sustainable development is given great attention. In this context, new energy vehicles are characterized by a general trend of replacing traditional vehicles with more environmentally friendly ones. BYD is the market leader in new energy vehicles in China. As for the state's support for the new branch of the development of the Chinese automobile industry of eco–friendly transport, it should be noted that from the point of view of the political and legal environment, China has issued many regulations and developed many methods to support and encourage the development of small–capacity vehicles during the «twelfth five–year plan». That is, the People's Republic of China called the production of new electric vehicles its strategic industry. Let's analyze the growth strategy of the automobile industry of the People's Republic of China on the example of the most dynamically developing segment of the electric car market, since most authors note that this segment is the future of the entire automotive industry. BYD, a manufacturer of new energy vehicles, uses a cost leadership strategy [4, pp. 69–71]. BYD has lower costs than other automakers, mainly due to the following measures::

1. Use existing advantages to achieve cost leadership. Since BYD has a lot of experience with batteries, the company has also transferred this experience to new energy vehicles. At the same time, BYD imitates other successful automotive companies, but is not limited to simple imitation: BYD borrows the characteristics of cars that are liked by buyers of cars of different brands, and integrates them into their products, as well as innovates to bring their own products closer to the preferences of the buyer.

2. Technological innovation to achieve cost leadership. At this stage, there are two main technical constraints on the industrialization of new energy vehicles: the energy storage of batteries and the battery life. Lithium–iron–phosphate materials and lithium–iron–phosphate batteries are the most important areas for the future development of the automotive industry using new energy sources. Enterprises that own production technologies can become the future stars of the industry. BYD is currently the only Chinese company that owns large–scale technology for the production of lithium–iron–phosphate batteries for vehicles and occupies a leading position in the world.

3. Differentiated strategic analysis. In addition to implementing a cost leadership strategy, BYD has also integrated its differentiation strategy into its new energy vehicle development strategy. In September 2010, the BYD K9 pure electric vehicle rolled off the assembly line at the BYD factory in Changsha, Hunan. Prior to the release of the K9, the Shenzhen Municipal government bought electric buses from BYD. So far, more than 3,000 BYD electric buses have been purchased from BYD in Shenzhen through

public procurement channels. Thus, the leading BYD company of the Chinese automotive market, the manufacturer of new energy vehicles, in its practice uses a strategy of concentrated growth, as well as a strategy of competitive advantage: advanced battery technology for energy vehicles is a key driver for BYD's new energy vehicle, serving the purpose of increasing the company's competitive advantage. The researchers note that China's new energy transport strategy should be systematic and should be strengthened with three dimensions in mind: enterprise, government, and the market. The government should implement a tax policy, encourage the efforts of producers, stimulate consumer groups and strengthen the construction of infrastructure, and the autonomy of enterprises should be strengthened in relation to enterprises [8, p.48–63].

It seems that in the process of producing new energy vehicles, it is also advisable to effectively reduce the barriers to entering the production of electric vehicles, forming a market situation that is beneficial for the development of small electric vehicle companies, in order to solve the difficulties in developing small low–speed electric vehicles in the current market. In addition, in our opinion, manufacturers of electric vehicles should reduce the cost of resources based on the real situation and avoid the problem of limiting the development of new industries due to the high input threshold in the market. In this case, you should also monitor the ratio of «resource price – product quality». Let's analyze the growth strategy of another major company in the Chinese automotive industry in the field of production of new energy vehicles – Gree New Energy. On March 8, 2017, Gree acquired Zhuhai Yinlong New Energy Co., Ltd. Currently, the company's strategic growth vector is the creation of a new production chain with a closed production cycle of electric vehicles with lithium batteries, electric vehicle transmissions, complete vehicles and intelligent peak and frequency modulation systems of the power system [4, pp. 449–457]. We will conduct a step–by–step analysis of the competition strategy of the new Gree vehicle:

1. Advantages in production capacity. Gree acquired Zhuhai Yinlong New Energy Co., Ltd. At the moment, Gree Automobile has three production bases in Zhuhai, Guangdong, Shijiazhuang and Wu'an.

2. Technical advantages. Gree has an independent research and development team, as well as specific development technologies, a ready–made engine plant, and mold and molding development technologies.

3. Financial Benefits In 2019, Zhuhai Yinlong completed sales orders for 12,000 new energy vehicles, with a total value of 15 billion yuan.

4. Sales advantage. The government is subsidizing new energy vehicles, and consumer awareness of the environment is growing. Consider the disadvantages of the new Gree vehicles. Gree Electric Appliances entered the automotive industry from the field of home appliances. Air conditioners and cars are two completely unrelated products, and their production and sales processes are different. Gree specializes in the

production of small cars. At the same time, Gree currently does not have a developed production system [2, p.1281–1288].

As for the development strategy, Gree follows the product differentiation strategy. Gree's new energy vehicles use only electric charge, and their battery technology is unique. Currently, the first model has a maximum range of more than 200 kilometers and a maximum speed of 150 km / h, which is a good performance for cars of this kind. Thus, the development of advanced technologies for the production of batteries for new vehicles is the main task of Gree New Energy Vehicle, which allows the company to maintain its competitive advantage.

The key to the advantages of the new Gree vehicles are the following aspects:

1. Advanced technology for the production of energy–based vehicle batteries is the key to maintaining a competitive advantage. Technology is the first productive force, and technological innovation is the fundamental guarantee of the long–term development of the enterprise. Only by focusing on technologies that truly meet market requirements can an enterprise achieve growth in the long term. The product differentiation strategy is very suitable for Gree New Energy Vehicles.

2. Product differentiation strategy. The new Gree energy vehicles use a pure electric motor, which is an advantage over other new energy vehicles. The power and top speed of the first model currently exhibited also also meet the requirements of buyers. Gree should also improve the appearance of its car models, make efforts to improve the design of models, colors, interiors, etc. to achieve competitive advantages [15, p. 69–71].

3. New energy vehicles are a general trend of industrial development. The cooperation between Gree and Yinlong enterprises has opened up important development opportunities, but at the same time they face challenges. We can say that threats and opportunities exist in parallel. Gree should actively combine development opportunities, technologies, as well as use such advantages as brand awareness, cost savings, etc. [2, p. 1281–1288].

Thus, the analysis suggests that the new Chinese energy transport strategy should be systematic and can be strengthened by taking into account three aspects: enterprise, government, and market: the government should implement tax policies, encourage producers, encourage consumer groups, and strengthen infrastructure construction, and it is advisable for enterprises to strengthen their autonomy. However, at present, the automobile industry of the People's Republic of China as a strategic branch of national development is not ideal. At the end of 2018, more than 28 million cars were sold in China.

One of the main reasons for the intensive development of the automobile industry in China is the rapid growth of the demand of the large Chinese population for personal cars due to the intensive development of the economy, the gradual improvement of social and cultural living conditions. The demand for land vehicles in the country

(passenger, cargo, etc.) is also increasing on the part of businesses and public authorities. The volume of passenger car production in China from 1998 to 2020 increased more than 55 times — from 0.51 million to 28.12 million units of cars. For the period from 2000 to 2020, the output growth was 13.6 times.

Table 2.1 shows the world production of automobiles (passenger cars and commercial vehicles) from 2000 to 2020. with the allocation of the share of China and other leading manufacturing countries.

Table 2.1 – World production of cars (passenger cars and commercial vehicles), million units

Countries	2000	2010	2014	2015	2016	2017	2018	2019	2020
Total in the world	58,37	66,72	77,58	79,88	84,24	87,51	89,75	90,78	94,98
China	2,07	5,72	18,26	18,42	19,27	22,12	23,72	24,6	28,12
USA	12,8	11,95	7,74	8,66	10,34	11,07	11,66	12,1	12,2
Japan	10,14	10,8	9,63	8,4	9,94	9,63	9,77	9,28	9,2
Germany	5,53	5,76	5,91	6,15	5,65	5,72	5,91	6,03	6,06
Republic of Korea	3,11	3,7	4,27	4,66	4,56	4,52	4,52	4,56	4,22
China's place in the world	8	4	1	1	1	1	1	1	1

Compiled from: [14–16]

Since 2014, China has emerged as the undisputed leader in car production, 2.3 times higher than production in the United States, 3.1 times higher than production in Japan, 4.7 times higher than in Germany, and 6.7 times higher than in the Republic of Korea.

Figure 2.1 clearly shows the dynamics of China's share in global automobile production.

Figure 2.1 – Dynamics of China's share in global car production for 2012–2020

Note. Source: [41]

The sharp increase in production during the crisis of 2012–2013 is noteworthy:

while other countries curtailed the production of most types of automotive products, China increased its volumes, which allowed it to compensate for the global decline to a certain extent. Table 2 shows the growth rates of global automobile production and production in the leading countries.

Table 2.2 – Growth rates of car production in the leading manufacturing countries, 2000–2020, %

Countries	2000	2009	2014	2015	2016	2017	2018	2019	2020
World	3,8	4,2	25,6	3,2	5,5	3,9	2,6	1,1	4,5
China	13,1	9,2	32,4	0,8	4,6	14,8	7,3	3,3	14,5
USA	24,9	6,6	21,4	11,9	19,3	7,1	5,4	3,8	0,8
Japan	–8,1	–3,2	35,6	–12,8	18,4	–3,1	1,5	–5,1	–0,8
Germany	2,2	–8,6	13,4	4,1	–8,1	1,2	3,3	2,1	0,5
Republic	24,5	–0,9	21,6	9	–2	–0,9	0,1	0,7	–7,2

Note. Source: [41]

As can be seen from Table 2.2, the growth rate of car production in the world is very uneven. In the crisis years of 2012–2013, the decline in production was recorded in many countries, while the deepest decline was noted in the United States and Japan. At the same time, China registered a record growth of 48.4%. After 2013, the Chinese auto industry began to decline, up to a minimum value in 2015 — 0.8%. Finally, 2020 was a year of recovery in the growth rate to 14.5%. Despite the uneven output dynamics and the lack of a clear trend, the Chinese automotive industry shows a deliberately higher growth rate compared to the world as a whole.

It is necessary to highlight the rapid growth of sales of automotive products in the BRICS countries, whose markets in 2020 absorbed a total of 35.7 million cars, which is equivalent to 38% of the global sales volume. Naturally, the leader in this group is China, where more than 28.5 million cars were sold last year (Table 2.3).

Table 2.3 – Car sales in the BRICS countries, 2016–2020, million units

Countries	2016	2017	2018	2019	2020
China	19 306	21 984	23 499	24 662	28 028
India	3 596	3 241	3 177	3 425	3 669
Brazil	3 802	3 767	3 498	2 569	2 050
Russia	3 142	2 999	2 592	1 441	1 404
South Africa	624	651	645	618	547
BRICS total	30 469	32 642	33 411	32 714	35 700
BRICS share of global sales	37,10%	38,13%	37,82%	36,48%	38,04%

Note. Source: [41]

Such a significant growth of the automotive industry in China was made possible

thanks to the capacious and fast–growing domestic market and cheap resources that attracted the largest automotive TNCs to the country № 17 – At the same time, it should be noted that China's reasonable industrial policy aimed at stimulating multinational enterprises companie within the framework of administrative and economic regulation measures, and not just to carry out production activities on the territory of the country, but to deepen its integration into the national economic mechanism by increasing the level of localization, expanding cooperation with local firms, and creating joint ventures.

It should be noted that the stable growth of the industry became possible in the second half of the 1990s after the adoption of a ten–year Program for the development of the automotive industry, which was aimed at liberalizing the industry. After that, in 2003, China became the fourth largest car manufacturer in the world, producing 4.44 million vehicles, and in 2010, with a total output of 5.5 million cars, it surpassed Germany.

Currently, there are more than 120 enterprises producing cars in China, including ten large ones, and the remaining small manufacturers produce up to 10 thousand cars a year, competing strongly with each other. The following well–known automobile corporations can be identified:

– Beijing Automotive Industry Co is one of the oldest automobile companies in the country, founded in 1958 Through cooperation with world–famous automobile concerns, it produces the Mercedes–Benz and Hyundai brands, as well as power units for them;

– Chery Automobile Co is one of the largest multi–brand Chinese car exporters, founded in 1998. Today, the company's production capacity is more than 900 thousand cars per year. The company cooperates with global automakers, such as Fiat and Chrysler;

– BYD Auto is also one of the young, large and dynamically developing car manufacturers in China, including electric cars and hybrid models. The BYD F3 model is actively sold both in the domestic market of the country and abroad. For further development, the company has established joint ventures with Daimler and Volkswagen;

– Geely is a private car company, famous for the fact that in 2014 it bought the Swedish automaker Volvo together with the world's best technologies in the field of car safety. Along with its own brands, the company plans to develop the Volvo brand and produce up to 300 thousand of these cars annually.

About a third of the cars produced in China are commercial vehicles – construction, road, special equipment, passenger buses and other vehicles that are in demand among small and medium–sized businesses. Commercial vehicles, which are affordable, are actively used both in the domestic market of China and are exported.

The creation and promotion of Chinese brands on domestic and global markets, especially such as Great Wall, Chery, BYD, Lifan, Hafei, JinBei, was facilitated by active technological cooperation with the leaders of the global automotive industry and the production of foreign–made cars in China. However, this was also the basis for the emergence of such a phenomenon as technological plagiarism on the part of China. Many design and design solutions were borrowed by China both legally, on a license basis, and without the knowledge of the owners. Illegal borrowing is one of the characteristic negative features of the automotive industry of the late 1990s.

– 2000s. The main forms of resolving conflicts on this basis were long–term lawsuits between Chinese companies and European manufacturers: in particular, with the BMW concern over the Shuanghuan CEO SUV, which has common features in the design with the BMW X5 model, as well as over the Chinese model of the ultra–compact Noble car, similar to the German Smart For Two model. German companies BMW, Daimler and Italian FIAT have repeatedly suffered from technological plagiarism.

Closer to 2014, most Chinese automakers stopped the practice of explicit illegal technological borrowing and switched to creating their own car structures and design solutions. Despite the fact that experts assess the current state of intellectual property protection of foreign companies in China as unsatisfactory, the development of their own car brands has largely contributed to the creation of the most favorable conditions for innovative development in the automotive industry.

As a result, in the 2014's, China was able to seamlessly integrate its automotive industry into the modern system of global automotive production and sales, fully benefiting from this in the form of access to technology, resources, management and other experience of world leaders in the automotive industry. As a result, the citizens ' need for a modern passenger car as a product was not only met, but also the most important block in the foundation of the national economy was laid — the automobile industry, which acts as a powerful generator of economic growth [20; 21].

Brazil, India, and other developing countries have taken a similar path, significantly expanding their presence in the global automotive industry, both passively as consumers and actively as producers and participants in the international economic mechanism.

The growing differentiation of demand and the increasing intensity of competition in the industry makes it difficult for Chinese automakers to «combine the incongruous»: expand the geography of sales, but take into account regional specifics, produce in large volume, but with a high degree of individualization, improve technical characteristics, but reduce the price as part of business consolidation. The size of the company does not guarantee its superiority over its competitors, although it is important in the automotive industry: the new conditions of the global economy require new

solutions, primarily in the field of improving the efficiency and competitiveness of production. Such solutions were the use of unified platforms and the creation of «global» models, as well as modular assembly and the development of flexible production, in which Japanese and European companies succeeded, and largely due to this, American companies were pushed out of the market at the time. The same path is currently followed by Chinese automakers [22].

2. Factors of development and internationalization of the Chinese automobile industry at the present stage

Macroeconomic analysis shows that the success of the Chinese automotive industry is associated with the skillful implementation of government policies, thanks to which, even during the general crisis (2012–2013), the automotive industry maintained high growth rates. The Chinese auto industry relies on government support for investing in innovative ideas and the development of new technology (the creation of cars based on alternative energy sources, electric vehicles, the development of a service network, increasing subsidies for the renewal of defective old cars, improving the quality of spare parts, etc.). The Chinese government is constantly increasing its investment in education, science, new ideas and developments in the automotive industry, investing heavily in research and development of new energy resources, and adopting programs to create cars based on alternative energy sources. One of these programs is aimed at research on the creation of electric vehicles and the replacement of cars running on traditional fuel with high–tech cars, the development of system technologies, the key element of which is the integration of automotive components of spare parts 117–23]. Experts state that the Chinese automotive industry is fully formed, the basis of the automotive industry has been created and debugged, including the production of passenger cars, trucks, passenger buses, special purpose vehicles, spare parts and components.

The key characteristic of the Chinese automotive industry is the close relationship between its production and sales components, which is primarily due to the specifics of the distribution channels of the industry, namely: their minimum length with a sufficiently large width. All major automakers directly control the sale of their products to the end user through an extensive network of dealerships — either directly included in the internal corporate structure, or connected by very strict dealer agreements with the parent company or its regional representative office. As a result, the automotive industry is not actually affected by intermediary structures, which, on the one hand, allows you to directly regulate pricing and, accordingly, directly manage sales, on the other hand, leads to a rigid, without an intermediary buffer, feedback from the market, where in fact «the seller is equal to the manufacturer». Given this fact, the development of the domestic market is the most important factor in the development of automobile production in the country.

The role of foreign investment as a factor in the development and internationalization of the Chinese automotive industry

The most important factors in the internationalization of the Chinese automotive industry include the expansion and deepening of the foreign market, namely, the import and export of direct investment, the import of technology and the export–import of finished products. As you know, by 2003, almost all of the world's leading automobile manufacturers had opened joint ventures in China under conditions determined by the Chinese Government. The motivation of Western firms to finance Chinese enterprises is based more on the significant potential of the domestic automotive market in the long term, rather than on overcoming tariff barriers or the availability of relatively cheap labor, as is commonly thought. It was the size of the market itself that was a sufficient incentive to achieve penetration into the Chinese market.

Table 2.4 shows the share of foreign fixed capital investment in China's automotive industry and the annual growth in fixed capital investment from abroad.

Table 2.4 – Share and growth of external sources of investment in fixed assets of the Chinese automotive industry in 2012–2020, %

Indicator	2012	2014	2015	2016	2017	2018
Share of domestic sources of investment	78,0	85,5	85,8	82,2	82	84,5
Share of external sources of investment	22,0	14,5	14,2	17,8	18,0	15,5
Annual growth of fixed capital investments from abroad	8,30	5,8	24,6	21,1	17,1	–6,7

Note. Source: [32]

Thus, external sources of financing for investment in the Chinese auto industry make up a small part of the total investment in the industry. At the same time, in 2012 this share was 22%, and by 2020 it significantly decreased to 15%. The largest increase in investment from abroad of 24.6% occurred in 2015, followed by a decline to negative values (–6.7%) in 2018, and in 2019, growth was again recorded at the level of 13.1%. This uneven flow of foreign funds is explained by the decisions of specific investors, either in connection with the need to recapitalize existing assets, or with the emergence of additional opportunities to invest in new projects.

Despite its small scale, the attraction of foreign investment, as well as the import of foreign innovative technologies from international automobile concerns, allowed China to significantly improve the quality of automotive products, increase production volumes and move to the first position in the global automotive industry. Major corporations such as BMW, Daimler, Ford, General Motors, Honda, and Peugeot Citroen have established a number of joint ventures in China, and their total investments in the country's automotive industry have already exceeded $ 20 billion by 2004. At present, there are more than 25 enterprises in China with the participation of the largest

multinational corporations that produce ready–made cars, and significantly more enterprises that produce equipment and components for the assembly of cars.

At the beginning of 2015, China announced the end of a seven–year period of attracting leading foreign automakers to create a national automotive industry. Until 2017, the construction of new plants with the participation of large foreign concerns continued to develop only on the basis of government permits received earlier. However, since June 2017, there has been a turnaround in the government's strategy regarding the financing of industry from abroad, which was due to the government's concern to support economic growth in the least developed western and central regions of the country. The auto industry is again included in the list of industries where foreign investment is encouraged. The National Development and Reform Commission has announced that foreign investment in the automotive sector is receiving most–favored–nation treatment.

Thus, the difference between the newly announced policy of attracting foreign investment in the Chinese auto industry is different in its regional orientation. The new deal to attract foreign automakers was part of a program to encourage the creation of projects with a high need for labor in the central and western regions of China. According to experts, the new course is the government's reaction to the current trend of slowing the flow of foreign direct investment into the country.

Export and import of cars in China in the context of industry development.

China's active participation in world trade gives reason to consider foreign trade as one of the most important factors in the development of the automobile industry of the People's Republic of China. In the 1990s, the country developed an export–oriented development model, which, due to the growth of foreign exchange earnings, implies an increase in the technical level of the economy and the knowledge intensity of industrial production. This was largely facilitated by the transfer of labor–intensive and polluting production by companies in developed countries to China. However, later this allowed to form the basis for a significant leap forward in the Chinese industry due to borrowed technologies and huge demand from Western countries for high–quality and affordable industrial products. All of China's significant economic achievements in the automotive industry have been made in the course of reforms that involve liberalizing foreign trade and meeting global demand for vehicles while maintaining the regulatory role of the state that protects its economic interests.

The main directions of China's export–oriented policy, implemented within the framework of automobile production and contributing to the development of both this industry and the national economy as a whole, were the following:

1) intensive development of the production of various types of vehicles – passenger and commercial, the competitiveness of which was determined by low labor and energy costs;

2) actively attracting investments and borrowing technologies, supported by the development of their own innovative developments in the field of solar panels, electric motors, artificial materials, etc.;

3) improving the organizational and managerial foundations of the functioning of the automotive industry, the development of international contractual relations, production and trade relations between countries;

4) the use of a system of tax benefits and preferences for foreign investors, as well as the formation of favorable conditions for investment and profit management.

At the same time, in the 2000s, the Chinese automobile industry followed the path of replacing foreign manufacturers with their own automobile factories, 100% of the capital of which is owned by the state or private companies. Currently, out of more than 120 manufacturers of automotive products, only one quarter is accounted for by enterprises with foreign capital. Nevertheless, foreign investors do not reduce their activity in China, as they are attracted to China by a high profit rate of 30%.

According to statistics from the Ministry of Industry and Information Technology of the People's Republic of China, in 2020, China exported 708 thousand finished cars (–2.8% by 2019) worth $ 12.4 billion, and imported 958 thousand cars from abroad worth $ 45 billion (– 3.3% by 2019) (Table 2.5).

Table 2.5 – Car exports and imports in China in 2016–2020

Years	Export		Import	
	Thousand	Change, %	Thousand	Change, %
2016	1057	–1,20%	1054	0,90%
2017	977,3	–7,5%	1073,4	1,8%
2018	910,4	–6,8%	1295,5	20,7%
2019	728,2	–20,0%	991,2	–23,5%
2020	708,0	–2,8%	958	–3,3%

Note. Source: [43]

As can be seen from Table 2.5, in 2014–ies there is a decrease in absolute indicators of exports and imports of cars, while the highest rates of decline in exports and imports were in 2019: 20% for exports and 23.5% for imports. The high level of prices and state control over imports allowed China, even despite the growth in car imports until 2019, to control its share in the domestic market, which is consistently declining. Thus, the share of imports in sales in the car market in China in 2016 was only 5.46%, and in 2020 — already 3.42%. The share of exports compared to the volume of production in China is also decreasing — from 5.5 % in 2016 to 2.5% in 2020 (Table 2.6).

Table 2.6 shows that, along with the reduction in absolute indicators of exports

and imports, the share of exports in the total volume of car production in the country and the share of imports in the total industry revenue are decreasing. This indicates the obvious orientation of the Chinese car industry to the domestic market, which, combined with the growth of car sales, indicates an increase in the solvency of the Chinese population and the growth of the country's motorization in recent years.

Table 2.6 – Ratio of exports, imports, production and sales of cars in China, 2016–2020

Years	Export, thousand units.	Production, thousand units.	Share of exports in production	Import, thousand e d.	Sales, thousand units.	Share of imports
2016	1 057,0	19270	5,5%	1054	19306	5,5%
2017	977,3	22120	4,4%	1073,4	21984	4,9%
2018	910,4	23720	3,8%	1295,5	23499	5,5%
2019	728,2	24600	3,0%	991,2	24662	4,0%
2020	708,0	28120	2,5%	958,0	28028	3,4%

Note. Source: [41]

Despite the decline in export indicators, we can say that the foreign market today is filled with Chinese cars. Auto exports from China are more than 50% carried out to developing countries, including Russia. The leading importers of Chinese cars include Iran, which accounts for 19.3% of Chinese exports, India with a similar figure of 9.5%, Vietnam (6.8%), the United States (6.6%), Egypt (5.5%), Chile (5.0%), Russia (3.5%), Colombia (3.4%), Peru (3.1%), Bangladesh (2.5%) and many other countries with smaller specific weights. At the same time, China actively imports cars of world–famous brands from Germany, whose products account for 20.8% of Chinese industrial imports, Japan with a similar indicator of 19.6%, the United States (18.7%), Great Britain (10.1%), the Republic of Korea (7.5%), Mexico (5.6%), Belgium (4.2%), Slovakia (3.8%), Canada (1.8%) and other countries [14–16].

It should be noted that along with developing countries, Chinese car exports to developed countries are increasingly expanding, especially to North America (the United States and Canada), which are interested in saturating weak segments of their domestic markets with cheap, affordable cars. Developing countries demand both passenger (personal) and commercial (commercial) vehicles. Developed countries are more interested in importing passenger cars for individual use. According to experts, Chinese cars are readily bought by migrants in the United States, Canada, and European countries. The total physical volume of exports of the Chinese automotive industry (expressed in units of vehicles) consists of 33% of commercial vehicles (trucks) and, accordingly, 67% — of passenger cars [29; 18]. Compared to 2013, the share of passenger cars in exports decreased from 60% to 33%, which indicates both a decrease

in demand for commercial vehicles and an increase in confidence in Chinese personal vehicles from the population of many countries.

Foreign direct investment by Chinese automakers in the context of the internationalization of the industry

An important strategic direction for the development of the Chinese automotive industry is the foreign direct investment of Chinese companies in core assets abroad. As a rule, this is manifested in the organization of assembly plants of large Chinese concerns or the construction of factories that produce cars under the license of Chinese companies. For the countries receiving investments, this form of intra–industry cooperation is good because it allows you to attract additional funding to the weakest places for the industry and exchange new technologies and design solutions with partners. For Chinese companies, this is not only the import of technology, but also the formation of markets for their products, the expansion of the sphere of influence of their trademarks and trademarks. However, according to experts, the number of joint ventures with Chinese investments currently does not increase much, since the production of cars in other countries loses their price advantage, achieved by low cost, possible only in production in China. Therefore, the construction of assembly plants abroad is justified economically due, for example, to lower costs for the supply of components compared to the cost of supplying high–duty finished products to the domestic market of another country.

The first factory for the production of cars under the Chinese brand was built in 2003 in Iran, by Chery, which subsequently launched production in Indonesia. In 2015, the production of Lifan cars began at the Nakhichevan Automobile Plant (Azerbaijan). China is also involved in various international mergers and acquisitions, as well as in strategic alliances. In this regard, the following examples of international transactions can be noted:

– Strategic alliances and joint ventures in China: SAIXi Volkswagen, SAIC and General Motors, General Motors and Suzuki, Hyundai and Beijing Automotive Industry Holding;

absorption: Nanjing Automobile Corporation acquired MG Rover in 53 million pounds (2009); SAIC Motor acquired a 50 % stake in Nanjing Auto from the Italian company Fiat (2011); Zhejiang Geely acquired Volvo Car Corporation (2014); Dongfeng acquired 14% of the French group PSA Peugeot–Citroen (2018).

Chinese companies established a joint research and development:

– Three in the United States: two in California, including one in Silicon Valley, another in San Jose, and a third in Detroit;

– two in the UK: Birmingham and London;

– in Brazil in San Paolo;

– in Sweden in Gothenburg;

– in Italy in Turin;

– In Japan in Tokyo.

The obvious reasons for the international transactions of Chinese companies with foreign automakers are access to new innovative technologies in the field of mechanical engineering and related industries.

Interesting statistics of Chinese direct investment in the United States for the period 2000–2017. The volume of direct investment from China in the assets of the automotive industry in the United States for the specified period amounted to $ 4,148 billion, or 3.47% of the total structure of direct investment in the United States from China. Chinese investments in the U.S. auto industry were geographically located in more than 20 states. The following states received the most Chinese investments in the auto industry: Michigan — $ 3,048 million, California – $ 347 million, Missouri – $ 151 million, Massachusetts – $ 131 million, Illinois – $ 95 million. In particular, in Michigan in the city of Ann Arbor Chinese company Wanxiang Group bought the bankrupt manufacturer of lithium–ion batteries for electric vehicles A123 for $ 256.5 million, and in Detroit, the capital of the American automotive industry, opened offices of about a hundred Chinese companies related to the automotive industry ^^And. At the same time, Chinese companies are actively adopting American management experience, using technological and innovative potentials. Structural analysis of China's direct Investment in the United States pre ds ta v le n v ta b person 2.7.

Table 2.7 – Structure of China's direct investment in the United States for 2000–2017

Investments by project type			Investments by type of property		
Type of investment	Number of transactions	Cost, million US dollars.	Type	Number of	Cost million
New projects	828	9609	of owner	355	318
Acquisitions	609	109773	State–owned companies	1080	874

Note. Source: [41]

As can be seen from Table 2.7, a larger number of transactions (57%) are investments in new projects, but their total value is only 8%, the remaining transactions, which account for 92% of the value, are purchases of existing assets. By type of owner, investments of private companies predominate — 75% of the number of transactions and 73% of the value. State–owned companies, respectively, account for 25% of the total number of transactions and 27% of the total value of investments.

Based on the conducted research, the following conclusions can be drawn.

1. Current trends in the development of the global automotive industry are determined by the current transformation of the structure of the world economy in favor

of high–tech industries, such as the automotive industry. The country structure of the global automotive industry reflects the increasing concentration of car production in Pacific Asia. The role of China as one of the leading manufacturers and consumers of automotive products among developing countries is particularly pronounced.

2. At the beginning of the XXI century, China became known as the «world factory» of industrial products. The automotive industry is no exception: since 2014, China has taken a leading position in the production of cars, 2.3 times higher than production in the United States, 3.1 times higher than production in Japan, 4.7 times higher than in Germany, and 6.7 times higher than in the Republic of Korea. As a reason for China's apparent dominance in the growth rate of the automotive industry, we can identify a set of factors that form a generally reasonable industrial policy, which is aimed at stimulating investment by multinational companies within the framework of administrative and economic regulation measures, and deepening their integration into the national economic mechanism of the country.

3. The most important factors in the internationalization of the Chinese automotive industry should include the expansion and deepening of the external market, namely, the import and export of direct investment, the import of technologies and products, and the export of finished products. Internationalization has paved the way for Chinese cars to travel to other countries. Each of these factors plays an important role in the current and future development of the automotive industry as the flagship of the global engineering industry.

Based on the conducted research, it is also possible to draw a conclusion about the formation of three main trends in the development of the automotive industry in China in the near future. First, China is modernizing its industrial base and rebalancing its economy away from exports towards domestic consumption and services. Second, China's self–investment–driven automotive industry is developing rapidly, which has an impact on the industry's structure, competition dynamics, and organizational change requirements. Third, new automotive technologies and business models create both challenges and opportunities. The Chinese government sees the electrification of cars and «intelligent» autonomy as an opportunity for new breakthroughs by car companies.

2.2 The main directions of further development of the automotive industry in China

The need to find a choice of ways and nature of the development of the automotive industry in China.

The rationale for the ways and nature of the development of the industry is determined not only by the above–mentioned difficulties, but also by the emergence of new opportunities for the development of the Chinese automotive industry. The fact is that the conditions for its development have fundamentally changed. First of all, as a

result of the growing prosperity of China's multi–million population, industrial and agricultural construction, the need for cars has sharply increased.

This is reflected in the fact that China has a low cost of labor.

Takes place:

– first, the mass development of components and spare parts. Their key consumers are 100 industries. The production of components was the main export item in 2007, the profit from their export amounted to 14 billion 500 million dollars, which exceeded the profit from the export of assembled cars.

– secondly, the emergence and development of new automobile engines. The new engines include 5 main types of engines. The main focus is on the manufacture of electric vehicles.

– third, the rapid development of the production of cars of their own brands: Great Wall Motor, Geely, ChangAn, HuaChen, Lifan, etc.

And yet, despite the existing opportunities for the development of domestic engineering, it does not reject the modern requirements of the global automotive industry. Therefore, it was decided to develop the domestic automotive industry based on the experience of the United States, Germany, Japan, and South Korea.

The study showed that its use is characterized by an integrated approach, which consists both in highlighting the general approach to the organization of the industry, and individual private solutions. These parties are:

First, the internationalization of production. Large companies have their own production facilities in many countries around the world. This allows them to take a leading position in the national markets of the host countries and increase the competitiveness of their products due to differences in exchange rates, differences in the price of labor, energy and other resources.

Secondly, the merger of large companies leads not only to an increase in the volume of production of automotive products, but also to the mutual exchange of technologies for manufacturing components and service networks.

Third, the industrialization of all processes, which leads to an increase in labor productivity.

Fourth, there is a wide range of automotive products within a single brand.

Fifth, there are strict requirements for compliance with the high environmental friendliness of the products.

Sixth, the high level of scientific and technical equipment of each workplace, as a result of which it takes an average of 22 hours to assemble one machine in the United States.

If the market is the catalyst for the development of the automotive industry, then the development of innovative technologies is the driving force for the development of competitive production. Therefore, foreign companies pay great attention to scientific research. So, for example, scientific research in General Motors before the general crisis

was engaged in 15 thousand employees, Ford – 12 thousand, and Chraysler – 7 thousand.

The analysis of the state of the foreign automobile industry showed that the main directions of its development in the pre–crisis period were characterized by:

first, the priority is to develop technical equipment and expand scientific research;

secondly, the development of models of cars running on new energy sources (the objects of research of new energy sources for cars were included in the list of « 863 « most important state technical tasks).

The first step in the development and implementation of mixed–type energy is the Chery model, launched in 2004, a representative ECO–Nybfid model running on mixed fuel and electricity energy, the production of which began in 2007.

By the beginning of the second decade of this century, China has developed fundamental knowledge in the field of property rights for new energy sources, and has created a complete integrated system of key components and components of equipment operating on new energy sources.

In the decision of the State Committee for Planning, Regulation and Development of the Automotive Industry of January 14, 2009. the need for a breakthrough, the introduction of innovations for China to reach the world levels of development is established and emphasized.

For the gradual and more accelerated development of the industry, measures are being taken to increase the number of qualified personnel for the automotive industry. Much attention should be paid to the training of highly professional managers and workers.

An important condition in the training of managerial personnel should be the expansion of the horizons and competencies of managers to the level of highly developed countries. The increase in the number of working personnel will depend on this.

The development of China's automotive industry, as the analysis showed, is focused on moving according to the laws of the market economy. The peculiarity of the economic policy of the People's Republic of China is that the Government creates conditions for the development of enterprises as subjects of market competition, but at the same time regulates market relations, creating a favorable environment for both investment in the industry and for stimulating the sale of cars. Special attention is paid to the construction of roads, the development of alternative energy sources, the formation of an environment for fair competition, the deterrence of illegal transactions, the development of a legal system that guarantees the conclusion of only legitimate trade transactions, and the protection of order in the markets.

Analyzing the experience of the development of the national automobile industry in China and advanced countries, I believe that the main trends in the development of the industry will take place if:

– the automotive industry is waiting for a new wave of scientific, technical, economic and social transformations;

– there will be an increase in production and demand for cars using alternative fuels.

All this in turn will require:

– rationalization of the structure of production of automotive products;

– improving the competitiveness of automotive products and the industry;

– strengthening the integration processes of enterprises (The State Council of the Automobile Industry of China on January 14, 2009 decided to reorganize and merge large automobile enterprises);

– further strengthening of the process of developing own car brands based on existing models, namely «FAW model», «Chery model», «Changan model».

For comparison, in the United States at the end of last year, only 17.8 million cars were sold [5, p. 8–12].

At the same time, at the moment, the Chinese automotive market continues to experience a negative trend – a decline in the sale of cars and in their production. It should be noted that the automotive industry has largely experienced the consequences of both the global financial crisis of 2008–2010 and the current political crisis. In particular, manufacturing companies faced a sharp drop in demand for cars, a drop in the solvency of the population, difficulties with the supply of components and aggregates due to changes in exchange rates, etc. The current trends are the disruption of political and economic ties between the enterprises of the production chain, the growth of unemployment, the fall in demand, and the decline in the overall level of well–being of citizens. Negative trends in the automotive industry of the People's Republic of China appeared in June 2018. In January 2019, the decline in sales reached its peak: compared to January 2018, sales fell by 15.73%. The number of cars sold returned to the level of January 2020. The total drop in sales in 2018 compared to 2017 was almost 1 million cars. The drop in sales in January 2019 compared to January 2018 is almost half a million cars [11, p. 207–217]. At the moment, the dynamics of the automotive market in China is also negative and the demand for products is steadily falling. The decline in the Chinese automotive market is influenced by many political factors, the global crisis caused by the global pandemic – the spread of Covid–19, the decline in the solvency of the population and the general decline in the standard of living of citizens.

The internal causes of the crisis in the Chinese automotive industry:

1. Dependence on joint ventures and lack of in–house innovation. It should be noted that although Chinese automobile companies actively cooperate with well–known foreign groups of automobile enterprises, the main technologies of the PRC depend on joint ventures and their innovative capabilities;

2. Dependence on the main world technologies and trends. Automotive enterprise groups have started all–round competition in the Chinese market, but it is difficult for Chinese automotive enterprises to compete with international ones due to their weaknesses, such as small scale, low concentration of production, low efficiency, insufficient use of scale effects, and overly scattered industrial organizations.

3. The presence of a bad reputation of goods from China, mainly related to the poor quality of products.

4. The impact of global crises. In this case, we are talking about a drop in demand in the market, a drop in the purchasing power of the population [13, p.193–194]. The pace of economic development has slowed in recent years, and China is also actively pursuing supply–side reforms. China is actively adjusting its industrial structure, actively developing a «green» economy and contributing to the sustainable development of its economy and society [1, p.1–6]. At the same time, in our opinion, it is advisable to increase and accelerate the development of the tertiary industry (this is the service sector, which also includes transport), expand domestic demand and promote a gradual increase in the level of consumption of Chinese residents. The automobile industry in the PRC, supported by the state, has good prospects in the future, taking into account the rapid and steady growth of the PRC economy and the gradual improvement of the standard of living of the PRC population [3, p.102–109].

In order to achieve maximum efficiency in the crisis conditions of development, the following conditions are necessary for the growth of the Chinese automotive industry:

1. Innovative development as the basis for the development of the automotive industry, the implementation of the strategy of an independent brand. Own brands are carriers of innovation. Supporting their own brands can allow enterprises to gain further development by expanding the market scale: first, based on the national conditions of the People's Republic of China, to become a well–known national brand, and second, to respond to international competition and become a world–famous brand. By adopting effective marketing methods, the PRC also formulates social responsibility planning, significantly strengthens the consolidation of the brand image, increases public confidence and recognition of the PRC's own brand cars.

In our opinion, increased investment in product innovations at the present stage is the key to the future growth of the automotive industry in China. In general, the direction of product innovation should also follow a sustainable growth model.

2. Modernization of the structure of the automotive industry and improvement of the overall competitiveness of the automotive industry. The development of the automotive industry is mainly based on the methods of grouping and mass production. In the twenty–first century, competition in the international automobile market has intensified. Taking into account the current situation of Chinese enterprises, it is necessary to purposefully promote the adjustment and reorganization of the structure of

the automotive industry, integrate development, expand the scale of enterprises and benefit from the economy, as well as increase competitiveness [14, p. 69–71].

Reasonable allocation of resources is advisable, in order to avoid duplication of construction. Enterprises can adopt a vertical integration strategy, create appropriate backup industries to support the automotive industry, or strengthen cooperation with component manufacturers to form a technical alliance and reduce production costs.

3. Development of credit to support the automotive industry. With the growth of the Chinese economy, cars should become the next hot spot for consumption, so it is advisable to allow qualified companies to create non–bank financial institutions that professionally service car sales on the basis of ensuring credit security [3, p. 102–109].

4. Development of leasing. Increasing consumption through leasing as a way to finance the purchase of a car will also expand market share. Based on foreign experience and the national conditions of the People's Republic of China, one of the key tasks is to use useful proposals for the sustainable development of consumer lending in the country [7, p. 34–38].

Over the next 15 years, there will be a change of leaders in the automotive market. The level of technological development of the People's Republic of China allows us to count on success in the competition for market leadership. To do this, in particular, you need to perform the following steps:

1. Create a consortium in the field of electric, unmanned, connected transport – organizational form, key products, conditions for state participation, conditions for business participation.

2. Create a regulatory framework in the form of a legal form, develop R & D, develop technologies, create standards.

3. State support measures should ensure: demand generation, support for R & D, the possibility of operation and PPO, and safety. Naturally, state regulation measures should be based on international experience, combined with the existing conditions and financial opportunities.

Thus, at the moment, China is the world leader in the production of cars, where the annual output is more than 24,500 thousand units, which is 20 times more than the production of cars in the Russian Federation. The automobile industry of the People's Republic of China has a huge production and market potential, the country has all the necessary resources that should be properly used with the help of the state.

We conducted an analysis of the two largest manufacturers of energy vehicles: BYD, Gree New Energy. The analysis showed that BYD has chosen a leadership strategy, the main task is to achieve cost reduction. In its practice, BYD uses a strategy of concentrated growth, as well as a strategy of competitive advantage, as supporting strategies: advanced battery technology for energy vehicles is a key driver for BYD's new energy vehicle, serving the purpose of increasing the company's competitive advantage. Gree New Energy follows a strategy of specialization and strives to gain

leadership positions in its segment. In this case, the company uses the advantages in production capacity, technical advantages of production, financial advantages and sales advantage due to the state subsidizing its projects, product differentiation. Nevertheless, the current trends in the development of the automobile industry of the People's Republic of China are in crisis, there is a drop in demand for cars, a drop in the solvency of the population, manufacturers face difficulties in purchasing components and aggregates due to changes in the currency exchange rate, etc. In general, the automotive market around the world is experiencing a crisis, the demand for manufacturers ' products is falling.

4. The crisis phenomena in the market of automobile manufacturers of the People's Republic of China are caused both by external economic and political factors – the global economic and political crisis (falling demand for cars, falling solvency of the population, difficulties with the supply of components, etc.), and internal factors. Among the internal problems, the following can be noted:

1) dependence on joint ventures and the lack of independent innovation opportunities. It should be noted that although Chinese automobile companies actively cooperate with well–known foreign groups of automobile enterprises, the main technologies of the PRC depend on joint ventures and the lack of independent innovative opportunities [12, p.126–130].

2) dependence on the main world technologies and trends. Automotive enterprise groups have started all–round competition in the Chinese market, but it is difficult for Chinese automotive enterprises to compete with international ones due to their weaknesses, such as small scale, low concentration of production, low efficiency, insufficient use of scale effects, and overly scattered industrial organizations.

3) The presence of a bad reputation of goods from the PRC, mainly related to the low quality of products. At the same time, the authors have developed ways to improve the strategic development of the automobile industry of the People's Republic of China.

In our opinion, firstly, it is advisable to adhere to the strategy of an independent brand and the direction of product innovation, secondly, to modernize the structure of the automotive industry itself, expand the scale of enterprises and benefit from savings, as well as increase competitiveness, thirdly, to develop lending to support the automotive industry, and fourth, to use leasing.

In the event of a change of leaders in the automotive market, which is predicted by the researchers, it is also advisable to provide in advance measures that can become key factors for the growth of the automotive industry in China, in particular, to create a consortium in the field of electric, unmanned, connected transport, to form a regulatory framework in the field of R & D, development of technologies, creation of standards, to determine measures of state support for the automotive industry.

Manufacturers respond to these initiatives by creating new designs, both ready for mass production and at the concept level. In this case, we are not talking about

borrowing foreign technologies, as we have repeatedly mentioned earlier. The new projects are fundamentally new and open up previously known directions in the development of car designs. For example, on urban routes, you can already find the BYD eBus–12 bus, which is driven by special motor wheels that receive energy from solar panels located on the roof. Also, as an example, the BYD eBus–12 electric car operating in the taxi industry with special batteries can be cited.

Such trends indicate the possibility of China's entry into the leading position in the production of the latest technologies in the industry in the near future, and the copying of well–known brands and poor quality will remain in the past.

The prospects for the development of the automobile industry of the People's Republic of China are evaluated from different angles. On the one hand, China is expected to strengthen its position in the global automotive industry against the background of the unstable economic situation in the United States and the EU. On the other hand, there are also pessimistic assessments that point to a possible overheating of the automotive industry. For Russia, it is important to take a rational position in relation to the PRC in order to find ways of mutually beneficial cooperation not only in trade and investment, but also in the innovation sphere, based on the broad production capabilities of this country, on the creation of not only assembly plants with automobile companies of the PRC, on conducting and integrating joint research in the automotive industry to improve the quality level of this industry in Russia.

It can be stated that the automobile industry of the People's Republic of China today is at a key stage of its development, and it is absolutely wrong to deny the contribution made by joint ventures to the development of the automobile market of the People's Republic of China. However, today it is fundamentally important to form your own strategy for the development of the automotive industry, the potential of which is very high.

An important aspect in this regard in the near future should be the formation of their own car brands, which requires large investments. So, published in 2009. The plan of the leading car manufacturers suggests that their total investment in their own development of new brands should be at the level of $ 5.8 billion, 74 which is a huge amount compared to the profit of enterprises. The weight of this amount will increase, taking into account the fact that part of the company's profit is transferred to its foreign partner. It is necessary to take into account that large automobile companies spend large sums annually on reforming the existing production capacities.

After large payments for the cost of the brand and the transfer of technology, the automobile enterprises of the People's Republic of China (due to the fact that they have limited capabilities) can not quickly apply and use the new technology. At the same time, the foreign side, as a rule, does not risk bringing the latest technologies to the PRC. According to experts, if a joint venture intends to introduce a new model into production, the cost of technology transfer can reach 200 million euros. Among other

things, it is necessary to pay remuneration to the management of a foreign car, buy components (while their cost may be higher than the cost of their repair), spend certain funds to adapt the car to the Chinese market. In view of these circumstances, the introduction of technology, as a rule, increases the profit of a foreign manufacturer in the Chinese market.

In practice, there is a case when the Shanghai Automobile Corporation (SAIC) decided to use the purchase of the company in the transition from making a profit from the products of a joint venture to developing its own brand. After the purchase of the South Korean car manufacturer SsangYong, the Chinese participant has its own factory in South Korea and its own brand. Through the acquisition of the British manufacturer Rover, the company managed to acquire intellectual property patents and two production facilities. This step was strategic compared to the usual purchase of rights to use the technology, as it will facilitate the transformation of foreign resources into their own. Due to the fact that Chinese manufacturers have almost no experience in international project management, as well as due to the long–standing and close ties of SAIC with Volkswagen and General Motors, it is very difficult for this Chinese company to reform. Compared to SAIC, a major manufacturer like Dongfeng has declared its own development strategy, but this company lacks the necessary knowledge and technology. At the same time, they can resort to the use of proven technologies of their partners, but they are inferior to their own national competitors in terms of assimilation of technologies, as well as in terms of providing resources for the acquisition of a foreign company. In turn, brands such as Chang'an and Hafei have always been focused on light and subcompact cars, so they will need even more time to launch their own brands.

It is also necessary to take into account the trends of consolidation of the Chinese automobile market, since under the influence of the market and the actions of the state, the structure of the Chinese automobile industry evolves from classic mergers and acquisitions to strategic alliances in the field of production, resources, R & D, and sales. As a result of the evolution of the market in China, a very centralized structure of the industry has been formed, with the five largest automobile companies accounting for about 70% of the market.

According to the experts of the audit company PricewaterhouseCoopers [6], the BRIC countries (Brazil, Russia, India, China) will provide more than 40% of the projected growth in global production of passenger cars and other types of cars based on them by 2031, and these countries will account for 52% of the increase in global production capacity. At the same time, the most promising is the automotive industry in China, whose average annual growth rate in the period 2021–2031 is estimated by experts [6] to be more than 6%, which will provide more than 20% of the global increase in car production.

According to the Association of the Automobile Industry of China, the growth in the export of motor vehicles is due to the increased competitiveness of the Chinese automobile industry. The Ministry of Commerce of China intends to increase the annual value of exports of motor vehicles and auto parts to $ 120 billion over 10 years [5, p. 10]. Europe has become one of the main markets for Chinese cars; in 2016, 76.6 thousand cars were exported to the EU countries with a total value of $ 748 million (an increase of 172% and 154%, respectively, compared to 2015). Thus, Europe came in second place in the world after Asia in terms of the number of imported Chinese cars. At the same time, there was a more than 100% increase in exports to South and North America, both in quantitative and value terms. In total, in 2006, China exported cars to 186 countries and regions of the world [5, p. 10]. According to the Government's five–year plan, exports of motor vehicles and components are expected to reach $ 70 billion in 2010 ($19.7 billion in 2015).

The success of Chinese companies in the global market is due to the specific strategy of these companies and the economic conditions that have developed in China. Chinese strategies currently combine the successful use of outsourcing from developed countries with the development of self–production in the most optimal way. They are dominated by the element of copying the most successful car models and variants of strategies of world (mainly Japanese) leaders for the production and promotion of their products on the world market. In the future, Chinese automakers plan to switch to the production of self–developed cars. In addition, Chinese companies are looking to increase the consumer value of their products at a lower price. Copying the technologies of leading foreign companies allows Chinese automakers to achieve a sufficiently high quality of their products, while significantly reducing the cost of developing the design, components and components of their cars. As a result, the price of products is significantly reduced in comparison with higher–quality, but also much more expensive products of American, Japanese and Western European manufacturers. In addition, the price reduction is achieved through the use of cheaper labor, less expensive raw materials and materials (including electronic equipment of our own production, which is not inferior in performance and reliability to foreign analogues, but has a lower cost). The mass production of products by Chinese companies is contrasted with the individualization of the products of leading automakers (this trend is most clearly seen in the strategy of BMW). Chinese automakers are primarily focused on their own market and the markets of Asian countries, which are characterized by low purchasing power of the population. As a result, the price factor is crucial in these markets when choosing products.

Despite the positive trends in the export of products to the American and European markets, and the positions of Chinese companies in them are still too weak, as consumers prefer more advanced products and well–known brands. Therefore, Chinese–made cars in these markets are aimed at the least affluent segments of the population. A

feature of the Chinese automotive industry is the large number of exporters (in 2020, there were 1,025). As a result of internal competition and the «price war», the average value of one exported finished passenger car fell from $ 16.1 thousand in 1990 to $ 9.1 thousand. In 2020, a new system of regulating prices for export products is designed to counteract the unjustified fall in prices, which provides, in particular, for the introduction of indicative prices, which include deductions for environmental protection, land reclamation and social insurance. The government also provided for a system of sanctions for enterprises for illegal actions in pricing.

Since January 2019, China has introduced a system that limits the number of car exporting companies, and approved 8 cities as national bases for the production and export of cars and auto components, in which the law defines 160 producers as national companies that have the right to export cars and auto parts. The most–favored–nation regime in foreign economic relations has been created for them. It is assumed that the export of cars will be carried out only by companies that have export licenses. Licenses will be issued only to large companies with sufficient production, domestic sales and export of cars. The aim of the new system is to counter unnecessary and excessive competition between Chinese companies in foreign markets. The Department of Mechanical Engineering, Electronics and High–Tech Industries of the Ministry of Commerce of China has developed a new policy to support automobile exports [5, p. 10], the main provisions of which are:

– creation of a state R & D base for companies engaged in the export of automotive products;

– development of credit insurance for car exports;

– increasing the size of loans to expand exports;

– expanding the export of cars under Chinese brands;

– development of a strategic alliance between auto–export and transport companies –

– large–scale information support;

– strengthening ties between Chinese and foreign automotive manufacturers in the field of automotive components;

– creation of a mechanism for the protection of intellectual property rights. However, despite all the positive trends that have emerged in the automotive industry in China, there are a number of problems that hinder the development of the industry. First, there is the “overheating” of the industry in China, with more cities becoming or preparing to become automakers.

In the country, 2,443 enterprises for the production and assembly of cars are registered, 21 provinces and cities of central subordination produce passenger cars and 27 geographical centers are preparing to introduce themselves into the industry [5, p.11]. Second, foreign brands hold most of the local car market. The number of purely

Chinese patented car brands produced in 2020 was 32%, with passenger car brands accounting for 10.5%.

Third, transport problems significantly hinder the development of the industry, due to the need to purchase some components abroad and the low efficiency of domestic rail transport, which leads to an increase in the cost of finished products. Fourth, a serious problem for the Chinese automotive industry is already the difficulties of entering foreign markets, due to the copying of Chinese companies of products of well – known world brands, and as a result–problems with copyright protection and significant costs for conducting legal proceedings. For example, the German company BMW sued the Chinese company Shuanghuan after the 2017 Frankfurt Motor Show presented the Shuanghuan SCEO SUV, the design of which, according to the Germans, was stolen from the BMW X5 of the previous generation. Another exhibit at the Shuanghuan stand was the Ufo car, which looks like a complete copy of the Toyota RAV4. With these cars, Shuanghuan plans to enter the European market. Chinese automakers are already having problems entering not only the highly developed European market, but also other markets characterized by lower barriers to entry and a less strict attitude to the issue of copyright protection.

Thus, the Association of Russian Automobile Manufacturers demanded that the government ban the import of Chinese–made trucks, which are analogues of the KAMAZ–6520 /6x4/ and KAMAZ–6522 /6x6 / cars. Conclusions China's automotive industry is developing rapidly (the average annual growth rate is more than 6%). The export orientation of production and rapid growth rates will allow Chinese automakers to compete seriously in the global automotive market in the near future. The success of Chinese companies in the global market is due to the significant volumes of foreign direct and domestic investment in the industry and the peculiarities of their chosen development strategy. The essence of this strategy is the mass production and export of cheap products of sufficiently high quality, based on copying the technologies of leading automakers using cheap labor and cheaper components and units of their own production. The state policy aimed at supporting the export orientation of the industry is of no small importance. Among the problems of the development of the industry, it is necessary to highlight the difficulties that arise when entering foreign markets and associated with the illegal use of technologies of foreign companies.

In general, the products of the Chinese automotive industry are competitive in the segments of the world market characterized by low prices. Further development, based on the creation and use of their own technologies, as well as improving the quality of their products, will allow Chinese companies to seriously compete with the world's leading automakers in almost all regional markets in the medium term. The strategy of the Chinese automakers, which in many respects resembles the strategy of the companies of Japan and South Korea at the initial stage of the industry development in these countries, is promising and allows us to develop at a high pace, gaining a certain

segment of the world market in the short term. Similar development strategies have already been adopted by car manufacturers in other developing countries (in particular, India, Brazil and Russia). According to the forecasts of PricewaterhouseCoopers experts, the automotive industry in these countries will develop most dynamically in the next five years, which will allow them to provide a significant share of growth in the global automotive industry. Using the experience of China will enable automakers from other developing countries to choose the best development strategy and push companies from developed countries into the global market.

CONCLUSION

As a result of the conducted research, the following conclusions and generalizations can be made.

1. The automotive industry in China and in the industrialized countries, remains the leading branch of mechanical engineering and one of the key industries that affect the stabilization of the processes of economic and social development of society. In some periods of development, the automotive industry provided up to a quarter of the economic growth in the leading countries.

2. At present, China has already become one of the most dynamic countries in the automotive industry and is playing an increasingly important role in the global automotive market. Such successes would not have been possible without taking into account the experience of other foreign countries. In turn, in the near future, the specifics of the development of the Chinese automotive industry will become a new world experience.

3. The main types and directions of foreign economic activity of the automotive industry enterprises include: foreign trade, international investment cooperation, scientific and technical cooperation, etc. However, the leading place among the forms of foreign economic relations is occupied by international production cooperation, which involves not only the association of foreign partners on the basis of communities of economic, technological, scientific and technical and other interests, but also the organization of the production of intermediate products (components and components for cars) at enterprises and the binding of the technical parameters of finished products and their parts, ensuring interchangeability and unification of the cooperative products, taking into account the standards of international organizations and cooperative countries.

4. In the context of the global financial and economic crisis, many large car manufacturers had to switch from a development strategy to a survival strategy. However, the analysis showed that the car industry in Europe, the United States and China survived in different ways. Some countries preferred increased state support, while others relied solely on market mechanisms. However, most of the anti–crisis measures were to provide financial assistance to automobile companies that were experiencing economic difficulties. The situation in China had a complex and peculiar specificity: with a decrease in the volume of car exports, the Chinese government sought to open the domestic market.

5. As the analysis showed, China managed to make a significant leap forward in terms of the development of the national automotive market in a relatively short period of time. Due to the liberalization of the market, the development of reforms in the country, and the use of the best practices of leading Western automobile concerns, in

2009 China managed to reach the 1st place among the automaker countries with a result of 13.79 million units of assembled cars. In order to maintain their positions and expand their sales markets, Chinese automobile corporations pay great attention to improving their foreign economic activities.

6. The analysis of the specifics of the internationalization of the Chinese automotive industry allows us to note the following main points: until April 2020, the products of joint ventures occupied a large share of the automobile market of the People's Republic of China (more than 70%), and taking into account the fact that most of the production structure of joint ventures accounts for the assembly of foreign models, Chinese automakers need to develop their own developments for further qualitative development of the industry.

7. The analysis of the world experience has shown that the most stable and acceptable structures in the automotive market are strategic alliances that have an impact on both car manufacturers and the retail market. Today, there are about 130 automobile manufacturers in China. At the present stage, the task of the Chinese government is to reduce their number.

8. The characteristics of the main directions and trends of the passenger car industry of the People's Republic of China are very important for solving the current problems of national manufacturers. Today, the Chinese automotive industry is the most powerful, but not the most competitive in the world: to increase the competitiveness of national manufacturers, it is necessary to increase, first of all, their technological level.

Manufacturers respond to these initiatives by creating new designs, both ready for mass production and at the concept level. In this case, we are not talking about borrowing foreign technologies, as we have repeatedly mentioned earlier. The new projects are fundamentally new and open up previously known directions in the development of car designs. For example, on urban routes, you can already find the BYD eBus–12 bus, which is driven by special motor wheels that receive energy from solar panels located on the roof. Also, as an example, the BYD eBus–12 electric car operating in the taxi industry with special batteries can be cited.

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REFERENCES

1. Bartnik, R., Wilhelm, M., Fujimoto, T. Introduction to innovation in the East Asian automotive industry: Exploring the interplay between product architectures, firm strategies, and national innovation systems / R. Bartnik // Technovation. - 2018. - Vol. 70–71. - P. 1–6.

2. Yang, D.X., Qiu, L.S., Yan, J.J., Chen, Z.Y., Jiang, M. The government regulation and market behavior of the new energy automotive industry / D.X. Yang // Journal of Cleaner Production. - 2019. - Vol. 210. - P. 1281–1288.

3. Yijie, Liu, Yi, Liu, Jining, Chen. The impact of the Chinese automotive industry: scenarios based on the national environmental goals / Liu Yijie // Journal of Cleaner Production. - 2020. - Vol. 96. - P. 102–109.

4. Wang, J., Lee, H.H., Kim, K.T., Park, D.H. Firm and Product Heterogeneity in China's Automotive Exports / J Wang // The Asian Journal of Shipping and Logistics. - 2020. - Vol. 31. Is. 4. - P. 449–457.

5. Aleksandrov, I. A. Dynamics and structure of the development of the automobile industry of the People's Republic of China at the present stage. Vestnik universiteta (State University of Management) / I. A. Aleksandrov. - 2019. - No. 6. - P. 8–12.

6. Volgina, N. A., Vozmilova, S. S. Features of global value chains in the automotive industry / N. A. Volgina // Bulletin of the Peoples ' Friendship University of Russia. Series: Economics. - 2020. - No. 2. - P. 36–48.

7. Dan, Ch. The role of the automotive industry in the process of exponential development of the Chinese economy / Ch. Dan. - 2021. - No. 3. - P. 34–38.

8. Krasova, E. V., Zhilina, L. N., Khamdamov, Sh. Zh. Modern trends in the development of the automotive industry in China against the background of the global internationalization of the industry / E. V. Krasova // Trends and management. - 2018. - No. 4. - P. 48–63.

9. Kurilov, K. Yu. Evaluation of the results of the development of the world automotive industry on the basis of the grouping of countries of automobile manufacturers / K. Yu. Kurilov // Karelian Scientific Journal. - 2018. - Vol. 7. No. 1 (22). - P. 133–136.

10. Mukhametshina, A.M., Shvabskaya, A.L., Antamoshkina, E.A. Evolution of the automobile industry in China / A.M. Mukhametshina // Actual problems of aviation and cosmonautics. - 2020. - Vol. 2. - No. 11. - P. 386–387.

11. Sazonov, S. L., Chen, S. As cars from China take over the world // the Collection of 13th five–year plan (2021–2020) is the most important step of building China's society small of welfare «passenger» / S. L. Sazonov. — M: Institute of far Eastern studies RAS, 2018. - P. 207–217.

12. Frolov, M. V., Ivashchenko, A. V., Vladimir Putkin knowledge Management in electronic University automotive cluster / M. V. Frolov // Intelligence. Innovation. Investment. - 2020. - No. 4. - PP. 126–130.

13. Yu, Yu. The state and forecast of the development of the motor transport industry of the People's Republic of China / Yu Yu // Transport Business of Russia. - 2019. - No. 9.- PP. 193–194.

14. Yang, Ya. The role and mechanisms of personnel motivation diagnostics in the development strategy of China's automotive industry enterprises // Online journal «Naukovedenie». 2020. Volume 7. No. 2. pp. 69–71. [Electronic resource]. URL: https://naukovedenie.ru/PDF/162EVN215.pdf (accessed 07.06.2020).

15. Jan, Ya. Formation of the automobile industry of China / Ya Jan // Transport business of Russia. - 2019. - No. 2. - PP. 69–71.

16. Blok, E. The collapse in the world's largest car market is accelerating / / Infocenter AfterShock. What will tomorrow be like? [Electronic resource]. URL: https://aftershock.news/?q=node/733726&full (accessed: 14.06.2020)

17. The Chinese automobile industry and its exports: war, blackmail and praise (results of foreign Economic Activity 8703 2019). / / Infranews.ru –portal about logistics and transport [Electronic resource]. URL:: http://infranews.ru/info/55520–kitajskij–avtoprom–i–egoeksport–vojna–shantazh–i–xavala–itogi–ved–8703–2019/ (accessed 15.06.2020).

18. Kondratiev, V. Automobile industry: prospects for development after the crisis [Electronic resource]. URL: http://www.perspektivy.info/print.php?ID=64426 (accessed 20.07.2020).

19. Fatkhutdinov, R. A. Competitiveness of the organization in the conditions of crisis: economy, marketing, management [Text] / R. A. Fatkhutdinov–M.: Marketing, 2000. – 223 p.

20. Fatkhutdinov, R. A. Strategic marketing [Text] / R. A. Fatkhutdinov–M.: CJSC « Business School «Intel–Sintez», 2000. – 640 p.

21. Fatkhutdinov, R. A. Management of the competitiveness of the organization. Textbook [Text] / R. A. Fatkhutdinov. – M.: Market–DS, 2008. – 432 p.

22. Filin, S. A. Strategic management of investment activity in the transition of the economy to an innovative type of development. Finance and Credit / S. A. Filin. – 2003. – № 4 (118). – P. 20–48.

23. Oleynikov, E. A., Filin, S. A., Muravyev, A. S. Multifactor models for assessing the economic potential of a company. Economic analysis: theory and practice / E. A. Oleynikov. – 2003. – No. 9. – P. 20–23.

24. Khamitsaeva, A. Chinese automobile industry: growth parameters and the acquisition of international competitiveness / A. Khamitsaeva // Russian Economic Journal. – 2007. - № 9–10. - PP. 127–128.

25. Kholstinin, K. A. Chinese automobile industry: growth and competitiveness / K. A. Kholstinin // Bulletin of the Volga Institute of Economics, Pedagogy and Law. – 2007. – No. 5. – pp. 42–44.

26. Khrustaleva, N. A. Automobile industry of China and the WTO / N. A. Khrustaleva / / Automobile industry. – 2008. – No. 3. – PP. 37–39.

27. Huai, H. Increasing the scale of production – the main goal of the automotive industry in China / H. Huai // Bulletin of the Moscow University of the Ministry of Internal Affairs of Russia. – 2009. – No. 10. – PP. 68–70.

28. Huang, Huai. The current state and trends in the development of the automotive industry in China. – author's abstract ... candidate of Economic Sciences. – Moscow: 2009. – 24 p.

29. Chan, T. Ch., Khoshgiyafeh, R. M. Strategy for the formation of the automotive industry in developing countries / T. Ch. Chan, R. M. Khoshgiyafeh / / Izvestiya Moskovskogo gosudarstvennogo tekhnicheskogo universiteta (MAMI). – 2012. – Vol. 5. – № 4 (22). – P. 42–47.

30. Tap, E. L. Main characteristics of the model of consumer choice when purchasing light commercial vehicle in 2014–2015 / E. L. a Tap dance // Practical marketing. – 2015. – № 5 (219). – P. 13–19.

31. Sablinski, I., Danilova, E. Automotive industry: production, sales, consumer disputes. [Text] / I. Shablinsky, E. Danilova // The legal aspect. Collection–Moscow, – 2009. – Ser. [1]. – 152 p.

32. Shpektorov, D. M. Research of indicators of quality of production of the automobile industry (on the example of buses of the Riga experimental bus plant « RAF») [Text] / D. M. Shpektorov // Diss. ... Candidate of Technical Sciences–Moscow, – 1967. – 304 p.

33. Schumpeter J. A. Teoriya ekonomicheskogo razvitiya. Capitalism, socialism and democracy / J. A. Schumpeter. - Moscow: Eksmo. 2007. – 864 p.

34. Yu, Yu. The state and forecast of the development of the motor transport industry of the People's Republic of China / Yu.Yu. // Transport business of Russia. – 2011. – No. 9. – P. 193–194.

35. Yang, Yang. Innovations in the automotive industry of China / Yang Yang // Automotive industry. – 2014. – No. 12. – P. 20–22.

36. Jan, Jan. Definition of elements of building a competitive strategy for the development of modern automotive corporations / Jan Jan // Innovations and investments. – 2016. – No. 10. – PP. 257–260.

37. Yang, Yang. Development of the automobile industry of China (in the 1950s–2000s) / Yang Yang // Moscow State University of Economics, Statistics and Informatics (MESI), 2014. – No. 2 – PP. 116–119.

38. Yan, Yan. Development of a parametrization system for the formation of a competitive strategy for the development of modern automotive corporations. Business in law. Economic and Legal Journal / Yang Yang. –2016–No. 6. – PP. 97–101

39. Yang, Yang. The formation of the automobile industry in China / Yang Yang // Transport business of Russia. – 2014. – No. 2. – p. 69–71.

40. Yang, Yang. Successfully overcoming challenges in innovation policy in China / Yang Yang // Moscow state University of Economics, statistics and Informatics (MESI), 2014. – No. 1 – P. 89–92.

41. Yasenkov, E. P., Parfenov, L. A. Information analysis: organization, problems and prospects of development of the automobile industry of the People's Republic of China / E. P. Yasenkov, L. A. Parfenova // Proceedings of the Bratsk State University. Series: natural and engineering sciences. – 2011. – Vol. 1. – S. 54–56.

42. Jan Hofmeyr and Rice Butch Services marketing: Integrating customer focus across the firm. / V. Zeithaml, Bitner M.. – 3rd ed. – Boston: McGraw–Hill/Irwin, 2007.

43. Efimenko, E. S. Chinese cars / E. S. Efimenko // International Business Corporation [Electronic resource]. – Access mode: http://www.mbcorp.ru/page0001204 (Accessed: 04.04.2017).

44. SKOLKOVO Institute for Research on Fast–Growing Markets (SIEMS), report for 2014 [Electronic resource]. – Access mode: http// world.eizvestia.com. (Accessed: 04.04.2017).

45. China Association of Automobile Manufacturers (China Association of Automobile Manufacturers) [Electronic resource]. – Access mode: http/ / www. caam. org. cn. (Accessed 04.04.2017).

46. The Chinese automobile industry focuses on the western regions of the country / / The People's Daily Newspaper on–line [Electronic resource]. – Access mode: http://www.russian.people.com.cn/200107/10/rus20010710 47893.html (Accessed 17.03.2017).

47. International Organization of Automobile Manufacturers (International Organization of Motor Vehicle Manufacturers) [Electronic resource]. – Access mode: http/ / www. oica. net. (Accessed: 04.04.2017).

48. International Monetary Fund (International Monetary Fund) [Electronic resource]. – Access mode: http/ / www. imf. com. (Accessed 12.09.2016).

49. Ministry of Commerce of the People's Republic of China [Electronic resource]. – Access mode: http/ / www. moftec. gov. cn. (Accessed 12.09.2016).

50. National Bureau of Statistics of China (National Bureau of Statistics of China) [Electronic resource]. – Access mode: http/ / www. stats. gov. cn. (Accessed 12.09.2016).

51. China Automotive Industry News [Electronic resource]. – Access mode: http/ / www. autonewschina. com. (Accessed 12.09.2016).

52. News of the automotive industry of China [Electronic resource]. – Access mode: http://www.oica.net/category/production–statistics/2013–statistics/ – (Accessed 12.09.2016).

53. News Chinese automobile portal [Electronic resource]. – Access mode: http://www.autohome.com.cn. (Accessed 12.09.2016).

54. News Chinese automobile portal [Electronic resource]. – Access mode: http://www.chinacars.com. (Accessed 12.09.2016).

55. The official website of the car manufacturer Brilliance [Electronic resource]. – Access mode: http/ / www. brilliance–auto. com. (Accessed: March 2017).

56. Official website of the car manufacturer BYD [Electronic resource]. – Access mode: http/ / www. bvdauto. com. cn. (Accessed: March 2017).

57. Official website of the Changan automobile manufacturer [Electronic resource]. – Access mode: http/ / www. changan. com. cn. (Accessed: March 2017).

58. Official website of the car manufacturer Chery [Electronic resource]. – Access mode: http/ / www. chery. cn. (Accessed: March 2017).

59. Official website of Dongfeng Automobile manufacturer [Electronic resource]. – Access mode: http/ / www. dfmc. com. cn. (Accessed: March 2017).

60. The Chinese automobile market has excellent potential for development // Portal of the Club of owners of Chinese cars [Electronic resource]. – Access mode: http://ru–chinacar.blogspot.com/2008/04/blog–post 26. htmlM (Accessed 26.03.2017).

61. Hu, Hao. Features of the development of the Chinese automotive industry: electronic resource. / Hao Hu // China International Trade Association [Electronic Resource] – Access mode: http://www. ccpit. org/Contents/Channel2212/2008/0711/120010/content 120Q 10 .htm (Accessed: 11.03.2017).

62. Yang, Yang. On the methodology for assessing the competitiveness of the brand of modern entrepreneurial structures of the automotive industry of China [Electronic resource] / Yang Yang / / Online Journal «Naukovedenie». – 2015. – Volume 23. – No. 4. – Access mode: http://naukovedenie.ru13EVN415 (accessed 21.03.2017).

63. Jan, Jan. Evaluation of the effectiveness and risks of program implementation motivations of sales personnel in the strategy of development of automotive enterprises in China [Electronic resource] / Yang Yang / / Online Journal «Naukovedenie». – 2015. – Volume 7. – No. 3. – Access mode: http://mukovedenie.m81EVN315 (accessed 21.03.2017).

64. Yang, Yang. Program of motivation of sales personnel in the strategy of development of automotive enterprises in China [Electronic resource]// Yan Yan / Online journal «Naukovedenie». – 2015. – Volume 7. – No. 3. – Access mode: http://mukovedenie.m178EVN315 (accessed 21.03.2017).

65. Yang, Yang. The role and mechanisms of diagnostics of personnel motivation in the strategy of development of automotive enterprises in China [Electronic resource] / Yang Yang / / Online Journal «Naukovedenie». – 2015. – Volume 7. – No. 2. – Access mode: http://mukovedeme.rn162EVN215 (accessed 21.03.2017).