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Change and Cause Analysis of Supplier Selection Strategy of Chinese Electric Vehicle Enterprises under the Background of Dual Circulation

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Abstract: Over the past decade, the Chinese government has introduced a large number of measures to encourage the development of the electric vehicle industry. In this process, many electric vehicle companies have emerged in China, and they have achieved historic success in the competition with foreign car companies. It is worth noting that as China's domestic electric vehicle market share continues to increase, a whole set of domestic electric vehicle supply chains are also changing, and the selection strategy of suppliers by enterprises has changed significantly after China proposed the new dual circulation development pattern in 2020. This paper attempts to explore the new characteristics of Chinese electric vehicle enterprises in terms of supplier selection strategy and tries to summarize the reasons for these changes and predict the new trend in the future.

Keywords: dual circulation, electric vehicle, supplier, acquisition strategy

1. Introduction

In 2023, China's electric vehicle sales reached 9.495 million units, up 37.9 percent year on year, and its market share reached 31.6 percent, 5.9 percentage points higher than the same period last year. In the same year, 14.653 million electric vehicles were sold globally, with China's electric vehicle sales accounting for 64.8%, which is worthy of the first place in the world. However, entering 2024, the situation of the domestic electric vehicle market is not clear, with many adverse factors emerging, such as high inventory, economic downturn, excessive market competition and the cessation of state subsidies, rapidly causing the shipments of electric vehicle enterprises to plunge and fall into a vicious price war. As an important part of enterprise supply chain management, supplier selection strategy directly affects the production efficiency, cost, quality and competitiveness of enterprises. Therefore, it is of great significance for enterprises to adapt to the new economic environment and improve their competitiveness to study the changes in supplier selection strategies of Chinese electric vehicle enterprises under the background of double circulation. Since China put forward the proposition of "domestic major circulation as the main body" in 2020, combined with the influence of anti-

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globalization trend, Chinese electric vehicle enterprises have begun to prefer domestic enterprises in supplier selection.

2. Changes in supplier selection strategies

2.1. The proportion of self-research by car companies has declined

Although domestic automobile enterprises have made significant progress in technology self-research, due to the growing strength of domestic suppliers and the widening gap between procurement cost and self-research cost, many enterprises are increasingly dependent on suppliers, resulting in inertia and a decline in the proportion of self-research. The main reason is that the technical threshold of electric vehicles is high, which involves knowledge and technology in many fields. For some enterprises with relatively weak technical strength and poor sales performance, complete self-research may have technical difficulties, research and development risks and financial pressure. In this case, firms may choose either procurement or cooperation.

2.2. The share of Chinese suppliers has increased

Domestic suppliers have gradually won market recognition by virtue of their cost and service advantages. More and more electric vehicle manufacturers are choosing to cooperate with domestic suppliers to reduce production costs, improve product quality and speed up delivery. This trend has also further boosted the proportion of domestic suppliers in the electric vehicle industry chain. Take the automobile air suspension market as an example. According to the statistics of relevant institutions, the market penetration rate of domestic air suspension will reach 2.7% in 2023, and the sales volume of new cars will be 564,000, more than doubling compared with the penetration rate of 1.2% and the carrying volume of 238,000 vehicles in 2022. Among them, as a Chinese enterprise, Konghui Technology firmly occupies the leading position with more than 250,000 sets of carrying capacity, while the gap between China Baolong Technology and Vibracoustic, an established German enterprise, is less than 6,000 sets, basically equal.

In addition to cost and service, the research and development and production capacity of domestic suppliers is constantly improving, and the quality and performance of their products have been comparable to the international advanced level, providing strong support for them to occupy a higher proportion in the electric vehicle industry chain. With the continuous improvement and integration of the electric vehicle industry chain, the position and role of domestic suppliers in the industry chain has become increasingly prominent. Through cooperation and collaboration among enterprises, domestic suppliers can better play their own advantages and improve the efficiency and competitiveness of the whole industrial chain. This trend of industrial chain integration has also further promoted the proportion of domestic suppliers in the electric vehicle industry chain.

2.3. The industrial agglomeration effect becomes significant

With the rapid development of the industry, the agglomeration of electric vehicles has gradually emerged, and China has formed a complete industrial chain in the field of electric vehicles, providing convenient supporting services for electric vehicle enterprises, reducing production costs, and improving production efficiency. At the same time, regional resource endowment restricts the development of industrial regions, which is the most basic and inducing reason for the formation of industrial agglomeration[1].

China has a large land area, vast land, and abundant resources. Compared with plateau, mountain and other terrain, plain is easier to develop automobile industry. Compared with those areas with harsh climate and poor natural resources, areas with mild climate and convenient transportation are

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more likely to attract enterprises and suppliers to settle in and form enterprise agglomeration. Especially for the innovativeness of the electric vehicle industry, enterprises in the industrial agglomeration areas compete by producing the same or similar types of goods. This innovation promotes technological progress and industrial upgrading in industrial agglomeration areas, thus strengthening the industrial agglomeration effect. At the same time, through the research of scholars, the agglomeration of China's electric vehicle industry is mainly divided into three levels, namely, high-high agglomeration area, high-low agglomeration area and low-low agglomeration area, which further shows that there is a strong positive spatial correlation in the agglomeration of China's electric vehicle industry.[2]

2.4. Electric vehicle enterprises have more bargaining power in procurement

As the party A in procurement, electric vehicle enterprises often have more space in the choice of suppliers. In particular, the number of registered enterprises related to China's electric vehicle industry has exceeded 600,000, but there are still less than 100 electric vehicle enterprises that really have the qualification of vehicle manufacturing and have incubated mature brands and sales paths to enter the market. Electric vehicle parts suppliers often need to make concessions if they want to win limited orders to maintain their own business. In terms of capital, in the past decade, with the continuous increase of national policies and the optimistic and prosperous market, the concept of electric vehicle continues to heat up in the capital market. Electric vehicle manufacturers often have strong capital. Take Xiaomi as an example, there are two modes of relationship between Xiaomi and suppliers. It is considering direct investment and equity, and even merger and acquisition of some potential small factories as a team under Xiaomi. Xiaomi's investments mainly involve semiconductors, three-power systems, intelligent cockpit and intelligent driving, according to Enterprise Check Cat APP. Among them, more than 30 investments in semiconductors. Strong enterprises such as NIO, Li Auto, BAIC Electric and Xpeng Automobile will also conduct accounting in procurement. If the procurement cost of a certain component or technology is too high, they will consider setting up their own team for research and development or buying shares in relevant enterprises, or even taking control of the enterprise, so as to reduce costs.

As a result, electric vehicle enterprises are often in a favorable position in the game with suppliers, and they can put forward more favorable conditions and higher bargaining power to suppliers. Of course, this situation is more obvious in domestic suppliers. Due to the brand effect and technical barriers of established foreign suppliers still exist, and with the support of foreign automobile manufacturing enterprises, equal cooperation between Chinese electric vehicle enterprises and foreign suppliers is still the main.

3. Cause analysis

3.1. Domestic trolley businesses are large in quantity and low in quality

According to the data of the "QICHACHA" app,as many as 600,000 EV-related companies will survive in China in 2023, with as many as 100 companies launching mass-produced EVs. In the past ten years, as the national supportive policies and financial subsidies for the electric vehicle industry have been increasing, the number of registered electric vehicle enterprises has been increasing, which has resulted in a large number of electric vehicle enterprises relying on favorable policies and a large number of state subsidies to survive, with low profitability on their own, and with low innovation ability and research and development investment. With the gradual reduction of subsidies and policy support in the past two years, China's electric trolleybus enterprises have been exposed to the general situation of large total volume but weak strength under the competition in the market, and the vast majority of enterprises have huge losses every year and cash flow is tight.

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3.2. The new pattern of the domestic macrocycle as the main body is initially formed

In recent years, the rise of unilateralism and trade protectionism, and the obvious trend of anti-globalization, especially with the increasing competitiveness of Chinese enterprises and products in the global market, have begun to trigger uneasiness and antagonism in many countries and regions. This has given rise to frequent targeted sieges and supply cut-offs by foreign-funded enterprises in areas of high technological content and industrial production importance, such as chips, materials, and artificial intelligence, resulting in rising concerns among Chinese enterprises about their own supply chain blockages and shortages. In addition to this, the global logistics timeframe has been sharply reduced after the outbreak of the COVID-19, with frequent supply chain disruptions, which has led to the stagnation of industrial production, as well as the geopolitical impact of fluctuating oil prices resulting in the soaring cost of imports, which has left a psychological shadow on many import-dependent manufacturing enterprises in China.This sentiment in today's COVID -19 after the impact of the basic elimination has not dissipated, more and more Chinese enterprises began to seek domestic substitution of imports, parts and components production industry to reduce the aggregation of transportation, to achieve the production process "safe and autonomous and controllable" [3], while increasing the stability of the supply chain timeliness and reduce costs.

Vehicle exports are also less than expected, according to the data released by the CAAM in 2023, China's total vehicle exports reached 4.91 million units, with a growth rate of 57.9%, which has exceeded 1.2 million EV exports, and the overall growth rate is close to 80%, far more than the broader market. However, in mature and developed markets such as Europe and the United States, domestic electric car sales figures are not optimistic. For example, in the first quarter of 2024, BYD posted export figures of about 90,000 units, but data from foreign statistical agencies, such as Eurostat, show that BYD sold 37,091 EVs in the same period in the 16 major countries to which it exports. In fact, a large number of electric cars from Chinese car companies are stranded in ports. According to the FT, Chinese EVs often arrive in Europe with nowhere to go and end up sitting in ports.

3.3. Changes in consumer profiles

The impact of the changing consumer base on the strategy of electric vehicle companies should not be ignored. The current consumer base is very different from the past. This is mainly focused on two parts, first, the traditional generation of people focus on cost-effective and practicality of the consumer concept, will be focused on personality, experience and service of the consumer concept replaced. New consumer main force is keen to experience new things, they are required to highlight their personal characteristics in consumption, the pursuit of cutting-edge technology, and prefer products that are integrated with current trends [4].Second, Chinese production is no longer synonymous with low-end and unreliability. In the past decade, with a series of combinations of punches such as "Made in China 2025" and "Supply Side Structural Reform", products made in China have shaped the image of cost-effective, reliable, durable and advanced in the hearts of the world's people. The same is true in the automotive sector, where the brand power added by imports and joint ventures has been diminished to a very low level.

3.4. The domestic component is concentrated in areas of low technical difficulty

China's automotive industry is developing rapidly, electric vehicles is expected to realize the bend, but it should be noted that the electric vehicle industry scale is huge, the supply chain is long, the continuous updating of performance parameters has a high technical demand, not only some of the hardware technology content is higher, the indispensable Advanced Driver Assistance System also makes the electric vehicle research and development technology content is higher, the extreme test of China's automobile enterprises of the sustained innovation ability. Many high-end instruments and

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production technologies are still monopolized by foreign enterprises, such as insulated-gate bipolar transistor still need to be imported [5],the domestic rate of China's automotive chips is still below 10%.With the passage of time foreign car companies patent barriers are also gradually apparent. In addition, the technology of the electric vehicle industry is changing rapidly, and the technology of core components is also being updated and upgraded. This may lead to supply chain management risks for old technology components, including obsolescence of components due to technological updates, failure to meet product performance requirements, etc. [6]

At present, there are still many Chinese suppliers who, in pursuit of short-term profitability, focus on areas of low technical content and manufacturing difficulty, and are unwilling to compete with established foreign suppliers in areas of high investment and long research and development cycles. This strategy can indeed ensure the stability of the enterprise's capital flow in the short term, but in the long term, China's electric vehicle industry will be subject to the risk of foreign suppliers will be very high, resulting in a small number of foreign capital with a small number of key technologies to win a larger share of the pattern of profits again.

3.5. Momentum of Malignant competition emerges

With the first batch of electric car companies out of bankruptcy, as well as another batch of previously wait-and-see attitude of electric car-making forces to join, the market competition is once again escalating. EV companies have almost entirely entered into the multiple pressures of de-stocking, recovering capital and servicing debt. With Tesla taking the lead in big price cuts in early 2023, other brands quickly followed suit, adopting various ways to improve competitiveness to attract consumers such as terminal discounts, replacement guide price cuts, trade-in and other ways to improve competitiveness to attract consumers, and it is already a miracle to see EVs sold at guide prices into 2024, and this price war has caused the whole chain profitability of the entire EV industry to suffer once again, and has also shaped an unfavorable image in the minds of consumers that EVs do not This kind of price war causes the profitability of the whole chain of the electric vehicle industry to be hit again, and also shapes an unfavorable image in the minds of consumers that electric vehicles do not retain their value and the guide price is not a reference value, etc. This kind of vicious competition may be devastating to the whole industry.

3.6. policy orientation

From the policy level, the "14th Five-Year Plan" plans to focus on electric vehicles and other strategic emerging industries, and actively and steadily develop the Industry of Internet and Internet Of Vehicle. Development plan for the new energy vehicle industry (2021-2035)points out that it is necessary to adhere to the direction of electrification, network connectivity and intelligent development, focus on integration and innovation, breakthroughs in key core technologies, optimize the industrial development environment, promote the high-quality and sustainable development of China's electric vehicle industry, and accelerate the construction of a strong automotive country. These policies not only promote the development and production of electric vehicles, but also provide more market opportunities for Chinese suppliers. The Chinese government has given favorable and direct support to the development of electric vehicles, which makes the development path of electric vehicles in China different from that of Europe and the U.S. While developed countries are mainly market-oriented and government-supported, China's support for electric vehicles is directly led by the government, with full participation of the market, and officials are responsible for it, and the government promotes it [7].

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4. Conclusion and suggestions

The electric vehicle market is still growing at a high speed. It is expected that the production and sales scale of electric vehicles will reach 13 million units in 2024, with a growth rate of about 40% and an overall penetration rate of more than 40%. Related industries will also become an important bridge for exchanges and cooperation in the current global economy, trade, technology, supply chain and other fields.[8]

But for electric car companies, the survival situation is still not optimistic. The difficulties mentioned in this paper, such as blocked sales in the international market, excessive competition in the domestic market, superimposed high inventory and high financial pressure, will continue for a period of time, and cause more than half of the enterprises to be eliminated. Only the surviving enterprises can participate in the formation of a new competition pattern and promote the steady development of the industry. Therefore, electric vehicle enterprises should do the following at present. First, pay attention to consumer research, insight into market changes, and launch products in line with market expectations. Second, promote its own institutional reform, reduce unnecessary costs and expenses, pay attention to the stability and security of cash flow. Third, it should cultivate its own research and development and innovation capabilities and form a moat of technological achievements as its core competitiveness. Fourth, adopt diversified supplier strategy and establish close cooperation with suppliers throughout the chain to deal with risks. Electric vehicle industry has a broad prospect, electric vehicle enterprises must make scientific and prudent strategic decisions, continue to make efforts in core technologies, in order to achieve steady and long-term.

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