

Research on Export Strategy of new Energy Enterprises: Taking CATL as Example

Ruicong Quan

Business school, University of Shanghai for Science and Technology, Shanghai, 200093, China

ABSTRACT

Driven by the transformation of the global energy structure, the new energy industry has shown rapid development. In order to seek greater development, many new energy enterprises have embarked on the road of internationalization. In the face of frequent trade protectionism policies in recent years, the export strategy of enterprises will face enormous challenges. How to survive in today's trade environment and even continue to generate income has become an important issue for China's new energy enterprises' export trade. This paper takes Contemporary Amperex Technology Co., Limited (CATL) as an example to analyze the potential export strategies of CATL from the aspects of accurately positioning the target market, selecting the optimal entry time and providing targeted after-sales service. Finally, the export business strategy of CATL is summarized, and the prospects and suggestions for the future of China's new energy enterprises are given.

KEYWORDS

Export strategy; PEST analysis method; CATL

1 Introduction

Nowadays, the global climate crisis is becoming more and more serious. Governments have put forward the goal of "carbon neutrality" such as the "Paris Agreement" to promote the transformation of energy structure from traditional fossil fuels to renewable energy. With technological breakthroughs and large-scale production, China has emerged as a leader in the global new energy industry chain. In this context, the internationalization of new energy enterprises has become a key track of global competition.

Since its establishment, Contemporary Amperex Technology Co., Limited (CATL) has rapidly emerged as the world's leading power battery supplier with its strong R&D capabilities and industrial chain integration advantages. Its products are not only exported to developed markets such as Europe and North America, but also to emerging markets such as Asia and Latin America. Its export strategy has important reference value for the future internationalization of China's new energy industry.

2 Literature Review

Shi Qin (2023) believes that under the background of the complex and changeable global trade environment and the relevant policies of trade protectionism in some countries, the export of China's new energy enterprises is facing the dilemma of increasing trade barriers, increasing difficulty in market access and lagging overseas infrastructure construction. It should optimize the export structure and global layout, focus on exploring the global southern market, accelerate the integration into the global value chain through the cooperation of the whole industrial chain, enhance the resilience of China's export supply chain, and benchmark its own products against international standards to reduce the constraints of trade barriers. Facing the anti-subsidy investigations and tariffs imposed by the EU, Wang Yingdi (2024) believes that at present, China's new energy enterprises should actively use their overseas production bases and the EU free trade partner network to radiate the EU market, ban pure exports through localized production to avoid high tariffs and countervailing duties and other countermeasures, and accelerate trade negotiations with the EU and other places. Han Tianxin (2025) believes that we must first confirm the strategic layout of the market, do a good job in various research work, clarify the current situation and future development potential of each market, and increase the intensity of technological innovation to improve the market competitiveness of enterprises. Refined positioning helps enterprises to effectively control costs, improve their service level, build a localized organizational culture, and enhance the recognition of export commodities while opening up overseas markets.

3 Case Overview of CATL

CATL was founded in 2011 in Ningde, Fujian Province, China. The company focuses on the research and development, production and sales of power batteries and energy storage systems. Its market share is more than 35%, and its customers cover more than 50 domestic and foreign automobile enterprises such as Tesla, BMW and Mercedes-Benz. CATL, not only

ten production bases have been built in China, but also overseas super factories have been built in Germany and Hungary through global layout, with a total planned capacity of more than 800 GWh. In addition, CATL has also reached in-depth technical cooperation with Tesla, Ford and other enterprises, creating a precedent for industrial technology licensing. As an industry standard setter, CATL has led more than 80 international standards and created a full life cycle carbon footprint management system. At present, it is still accelerating the development of cutting-edge technologies such as solid-state batteries and condensed-state batteries, and continues to lead the development of global new energy companies.

3.1 The Market Environment in CATL

This paper uses PEST analysis method to compare and analyze the macro market environment of CATL. It helps enterprises systematically analyze opportunities and threats in the external environment by identifying four key factors: politics, economy, society and technology. It is especially suitable for new energy industries with strong policy sensitivity and fast technological iteration, such as predicting the impact of EU carbon tariffs on battery exports.^[1] However, its static perspective is difficult to dynamically capture environmental mutations such as supply chain disruption caused by geopolitical conflicts, and lacks direct analysis of industrial competition.

3.1.1 Policy Environmental Impacts

Most of the policies in China are to encourage the rapid development of new energy enterprises, standardize industry standards and encourage exports. The policy proposes that by 2035, pure electric vehicles will become the mainstream of new sales vehicles, and vehicles in the public sector will be fully electric; at the same time, it emphasizes that the breakthrough of power battery technology needs to improve energy density, safety and life, and promote the research and development of new generation technologies such as solid state batteries. Improve the power battery recycling and reproduction system, and promote the green and low-carbon development of the entire industrial chain.

In foreign countries, with the adjustment of global energy strategy, the power battery market in Europe and the United States has shown great potential for growth. The demand for clean energy in these regions is increasing, and there is no large-scale local battery manufacturing enterprise, which provides a broader market opportunity for China 's power battery enterprises.

3.1.2 Economic and Environmental Impacts

At present, China 's economy is at a critical stage of shifting from high-speed growth to high-quality growth. At the same time, the proportion of new energy vehicles is also expanding, which shows that with the continuous development of the new energy automobile industry, from policy-driven to product and market demand-driven, the future market expectations are still in a stage of rapid development.

It can be seen that in the global market, the development potential of new energy vehicles is huge, and it is currently in a rapid development. With the improvement of environmental awareness and the accelerated transformation of energy structure, it is expected that new energy vehicles will maintain a rapid growth trend in the international market. As the world 's largest power battery supplier, CATL has a very large potential market under this major environmental trend. With the continuous expansion of the new energy vehicle market, the demand for power batteries will increase significantly, and the share and influence of CATL in the global market is expected to be further enhanced.^[2]

3.1.3 Socio-environmental Impacts

In particular, some European countries that focus on environmental protection, such as Norway and Sweden, encourage people to buy new energy vehicles by implementing policies that encourage the development of electric vehicles and limit traditional fuel vehicles. With the deepening of similar green environmental protection concepts, the actual demand for green travel is increasing, and the related R&D and investment in power batteries are gradually strengthened. From the perspective of the development of the new energy vehicle industry, the proportion of global new energy vehicles in 2023 is about 17.6%, so it is still in the early stage of growth. With the further improvement of the global energy structure and public awareness, the demand for batteries will continue to be significantly enlarged.

3.1.4 Technological Environmental Impacts

CATL has strong technological R & D and innovation advantages. According to the financial report of CATL in the third quarter of 2024, its cumulative R&D investment exceeded 66.3 billion yuan, and it has a total of 39,792 authorized patents

and patent projects under application, covering materials, batteries, battery recycling and other technical fields of the whole industry chain. Compared with BYD, Funeng Technology, Guoxuan High-tech, and Tianneng Power, which are deeply cultivated in the battery industry, there are overwhelming advantages in the number and quality of patents for lithium iron phosphate batteries, sodium ion batteries, and energy storage technologies. In CATL, through ultra-fast charging and long-endurance Kirin battery, lithium iron phosphate 4C supercharged Shenxing battery, sodium ion battery and other technologies, it has basically achieved full-scene applications from household passenger cars to energy storage. In particular, sodium ion batteries not only solve the problem of lack of lithium ion resources, but also further improve the energy density of batteries, which is expected to break the industry barriers and form a breakthrough. Through the mode of 'technical partner', it cooperates with car companies such as Xiaomi, Ideal and Huawei to customize the battery scheme, which not only shortens the R&D adaptation time of car companies, but also enriches its own product line and improves the product matrix.

4 Export Strategy Analysis

4.1 Accurate Positioning of the Target Market

CATL, in order to move towards internationalization to increase its export volume and sell energy storage products such as power batteries overseas, the first thing to determine is the target market and location choice. As shown in the following table, the traditional automobile giants in the world are mainly from Europe, the United States, Japan and Republic of Korea, but their electric transformation is relatively slow. Therefore, these regions not only have preferential policies for the development of new energy power batteries, but also have a natural global automobile market share.

Europe's new energy market has a vast incremental space, among which Japan and Europe have huge market potential. Toyota, Honda, Suzuki and Volkswagen, Renault Nissan Mitsubishi, BMW and Mercedes-Benz are the main representatives. In recent years, they have also been developing new energy vehicles and related automobile products in line with the trend of the times. Therefore, they have a huge overseas market for the CATL. At the same time, the EU has also developed a 'digital energy system' plan, which will require the EU to invest EUR 565 billion in infrastructure by 2030, one of which is to 'get 30 million zero-emission vehicles on the road by the end of 2030'. However, the European electric vehicle industry chain has not been able to keep up quickly. From the above table, it can also be seen that the major manufacturers are still mainly selling traditional fuel vehicles, and the local battery manufacturers have not really risen. In recent years, the CATL has been deeply cultivated in the automotive power battery industry, which has brought a lot of market export space for the CATL. Therefore, in CATL, Europe was the main overseas export market.

4.2 Select the Most Appropriate Admission Time

For this kind of heavy asset industry in CATL, the international operation time is long and the capital turnover is slow. Therefore, it is particularly important to choose when to export overseas and when to enter what market. This part will use the pioneer advantage theory to analyze the admission time of CATL.

The theory of "pioneer advantage" was first mentioned by Robinson in a study in 1985. He advocated that some enterprises that can enter the international market first can often obtain a more obvious favorable position than the latecomers. From the perspective of the development process of CATL, as early as 2012, CATL facilitated BMW to reach a strategic cooperation relationship on the joint development of lithium-ion power batteries and the application of new energy vehicles. It announced that it officially entered the international market and began to export power battery products to the world with Germany as the entry point, which provided valuable support for its subsequent production capacity improvement, technology research and development and product innovation. Through the early intervention of the market, CATL not only gained high-quality supply chain partners and a certain scale of market share, but also gained greater resource advantages. By expanding into the international market, CATL not only obtains a stable customer base and market demand, but also ensures the continuous growth of enterprises on a global scale. More importantly, the early international export layout also enabled the CATL to have a certain voice and the right to develop new standards in the formation of global battery technology and market standards, which also won the company more resources and opportunities in the fierce global competition.^[3] As a heavy asset industry, resource advantage is very important. After having the first-mover advantage of resources, it can be further reflected in the cost advantage. First entering the market can control the key resource cost, which includes tangible workshops, raw materials, etc., and also covers intangible assets such as corporate goodwill, brand trust, and patent technology. Moreover, as a heavy asset enterprise, the first-mover can use the effect of the learning curve through accumulated experience. With the gradual expansion of the production scale, the cost of producing per unit of battery continues to decline, and finally a large-scale benefit is formed to further reduce costs and achieve profit expansion and growth. Here in the CATL, through in-depth cooperation with German BMW, Mercedes-Benz, SAIC Volkswagen and many other automobile manufacturers, it provides customized battery solutions for

new energy vehicles, and realizes deep binding with automobile enterprises. For automobile enterprises, purchasing other competitors' batteries undoubtedly needs to re-adapt to their own models, which may bring huge conversion costs. CATL has once again consolidated its first-mover advantage and vigorously developed its export business.

4.3 Provide Targeted After-sales Service

For an enterprise, export business marketing is undoubtedly a key factor in the work, and after-sales service is the decisive factor to truly establish brand value and cultivate consumer dependence. CATL has a whole process of monitoring and management services from the sale of batteries to the recycling and reproduction of batteries, and also provides customized management solutions for car companies.

CATL provides quality assurance and maintenance services for battery products after selling power battery products, which includes a certain shelf life. The length of the warranty period and the number of warranty kilometers depend on the type and application scenario of the purchased battery. Taking the new battery released by CATL in September 2024-Tianxing battery as an example, CATL provides it with a 10-year warranty of 1 million kilometers, and the full life cycle operating capacity is increased to 15 years and 1.5 million kilometers, and promises to enjoy free replacement services if it fails to meet the standards. In addition, the battery health management system is provided during the life cycle of the battery. It can help enterprises monitor and view the health status of the battery in real time when producing new energy vehicles or terminal consumers^[4]. For electric vehicle users, the vehicle's central control system can directly feedback the battery data on the screen to help the driver understand the vehicle's information in a timely manner. If there is a problem with the battery, the control system of the CATL will also issue an alarm to remind the driver of the possible problems of the battery in time to avoid unnecessary damage.

In addition, the government of CATL and the import place cooperates to develop charging piles and fast charging agreements, which is also one of the important after-sales services for car owners and car companies. For the application of power batteries in household new energy vehicles, the most important thing is undoubtedly the range and charging problem. CATL can provide support services related to charging piles, compatible with EU standard charging agreements, and provide customers with appropriate charging solutions. It also cooperates with overseas charging pile manufacturers such as Tesla and Schneider Electric to break through the barriers of different agreements between charging piles. At the same time, through technical means, the power battery products of CATL are compatible with charging piles produced by different manufacturers, so that the choice of users can be more diversified, which facilitates the owners of new energy vehicles and facilitates the new energy vehicle enterprises to further adapt the batteries in CATL.

In CATL, the acquisition of Bangpu in 2015 officially began to enter the battery recycling industry. In the past 10 years, the management and control of the whole life cycle of the power battery industry from battery production to use to recycling to reproduction has been gradually realized, and the integration and closed loop of the ecological chain has been realized. Under the requirements of the EU's environmental protection concept and enterprise ESG strategy, the CATL took advantage of the resources obtained by the first-mover advantage, integrated the battery recycling and reuse industry, and quickly seized the market share. This initiative not only realizes its own ecological layout, but also promotes the maturity and development of the entire battery recycling industry, further consolidates its leading position in the global battery industry, and also makes the CATL itself more favored by European consumer groups and markets. With the deepening of European consumers' concept of environmental protection, CATL can build brand image to build its own core competitiveness of enterprises, and consolidate its market position in Europe. At the same time, through continuous innovation and resource integration, CATL has set an industry benchmark in the battery recycling industry, and has also made important contributions to the green development of the global battery industry. Finally, under the influence of multiple factors, the export volume of CATL has been rapidly expanded. In addition, entering the battery recycling industry can further broaden its main business, further reduce the cost of battery production through resource advantages, weaken the dependence on upstream mineral resources of batteries, and improve the bargaining power of its own products, and finally gain a foothold in the European market.

References

- [1] Zhao T, Zhang Y. Research on Financing Business of New Energy Enterprises Under the Background of Green Finance Policy: A Case Study of CATL [J]. Journal of Statistics and Economics, 2024, 1(5): 84-100.
- [2] RUIWEN W. Strategic Quality Management in the Electric Vehicle Transition: A Case Study of CATL's Supply Chain Management [C]. SHS Web of Conferences, 2024, 207: 01015.
- [3] Li Yumei. Research on the American Market Car Access System [J]. Auto Time, 2021, (8): 174-175.
- [4] Lu Li. Analysis of the Strategy of Improving the Quality of Automobile Sales Services [J]. Auto Time, 2025, (07): 151-153.