



# Research on Automobile Development Strategy Based on ESG Taking NIO as an Example

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**Abstract.** The popularity of the concept of green development makes the traditional automobile enterprises with oil as fuel start to think about how to transform. Meanwhile, in recent years, the concept of ESG has gradually become an indicator to measure the value and sustainable development of listed companies. Taking NIO as an example, this paper analyzes the current internal and external environment of NIO through SWOT model, and draws a conclusion that it should adopt SO growth strategy. Combined with ESG concept, it points out specific measures that NIO can take from three aspects: environment (E), society (S) and corporate governance (G). Through the analysis of NIO, it aims to provide reference for other enterprises committed to the development of new energy vehicles in the development strategy.

**Keywords:** ESG · New Energy Vehicles · Development Strategy · SWOT

## 1 Introduction

After more than ten years of development, China's automobile industry is now in a mature stage, and the national demand for automobiles tends to be saturated. In addition, with the improvement of public transport and the popularity of environmental protection, the sales of traditional cars are gradually declining. At the same time, the climate change crisis is getting worse, and the country has put forward green development goals such as "blue sky defense" and "carbon peak and carbon neutrality". The new-energy automobile industry has been growing, rising to the height of the national development strategy and becoming an irreversible development direction. Due to the high carbon emission and pressure of the automobile industry, the transformation and upgrading of the industry and the remodeling of competitive advantages under the background of green development have become the main strategic choices of automobile enterprises at present.

The concept of ESG, which integrates the concepts of environment (E), society (S) and corporate governance (G), swept the world in the early 21st century and is an important standard to measure the long-term value and sustainable development of listed companies. Enterprises that attach importance to ESG disclosure and have high ESG rating tend to have better performance and more opportunities in industry development, market value, economic benefits, investment and financing projects, corporate governance, ecological environment, social influence and other aspects.

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Combining ESG concept and guiding enterprise transformation has become a strategic breakthrough which points to solve the current difficulties of automobile enterprises and shape green competitiveness, as well as the ideological basis and practical support for the innovative and sustainable development strategy of automobile enterprises.

After more than eight years of development, NIO has realized the research and development, design and mass production of several pure electric models in recent years. It has the capability of vehicle manufacturing and independent core technology of three electric vehicles, and is carrying out a global industrial chain layout. However, compared with the traditional automobile industry leader, the scale and management level of the company still have a large space for improvement. After more than eight years of development, NIO has realized the research and development, design and mass production of several pure electric models in recent years. It has the capability of vehicle manufacturing and independent core technology of three electric vehicles, and has carried out a global industrial chain layout. However, compared with the traditional automobile industry leader, the scale and management level of the company still have a large room for improvement. This paper will take NIO as an example, according to the external environment of the automobile industry and its own internal situation, combined with the concept of ESG, formulate a strategy in line with NIO, so as to enhance its market competitiveness and provide development ideas for other traditional automobile enterprises and new energy automobile enterprises.

## **2 Literature Review**

### **2.1 Research on the ESG**

In terms of the interpretation of ESG concept, Wang Dadi and Huang Jie pointed out that ESG is an overall summary of the concept of environmental responsibility, social responsibility and corporate governance, and an investment concept and enterprise evaluation standard that pursues long-term value growth, which will have a substantial impact on corporate governance, corporate strategy and resource allocation activities [1].

In the research on the role and impact of ESG, Machmuddah Zaky et al. showed that the continuous improvement of ESG performance by global enterprises would affect their personal branding and corporate value [2]. Zumente Ilze et al. found that qualitative non-financial factors such as reputation, stakeholder trust and employee satisfaction have a more significant impact on long-term corporate value than financial factors [3]. Yu Junqiu and Wang Ying said that the good ESG performance of enterprises is conducive to the stable creation of long-term value, and finally the win-win of economic benefits, social benefits and ecological benefits [4]. Li et al. provided an integrated perspective of ESG theory, that is, ESG not only connects corporate social responsibility with sustainable development, but also realizes the upgrading and transformation of corporate social responsibility in the new era [5].

### **2.2 Research on the Development Strategy of Automobile Enterprises**

Li Yan and Hu Shuhua used the basic principles of system theory to point out that China's automobile industry should vigorously develop parts and components industry in view

of the weakness, and strengthen the strength of vehicle and parts manufacturers through technological and institutional innovation [6]. Chen and Zhang believed that when formulating the development strategy of the automobile industry, we should adhere to the principle of “walking on two legs” of joint venture cooperation and independent development [7]. Wang Dongsheng believed that we should choose a strategy of “transition” and “transformation” in parallel and coordinated development, that is, to solve the current energy crisis and environmental pollution, but also to take into account the future competition heights of automobile development, and to take the road of sustainable development [8]. Wang Zhanglin believed that practical new energy vehicles should be developed to effectively benefit the people, reduce the cost of manufacturing vehicles, and enable more people to drive new energy vehicles as soon as possible, so as to enjoy the living convenience and environmental improvement brought by new energy vehicles [9]. Liu Yongliang concluded that new energy vehicles should always adhere to the three vertical and three horizontal R&D layout, and implement the industrialization promotion strategy of squeezing at both ends. On the one hand, it is necessary to continue to maintain the industrial advantages of small pure electric vehicles; on the other hand, it is necessary to vigorously develop pure electric vehicles, and finally realize the development goal of promoting the electrification of middle and advanced or main models [10].

### **2.3 Research Evaluation**

According to the existing research, most of the literature on the strategy of automobile enterprises is mainly based on the internal conditions of enterprises and the characteristics of the industrial environment under the background of a specific era. However, the literature on ESG mainly discusses its definition and the construction of evaluation indicators, while the application research of ESG is few and mostly concentrated in the field of investment and finance. This paper tries to provide a new sustainable development path for automobile enterprises with the concept of ESG under the background of green development.

## **3 SWOT Analysis**

In this section, the SWOT matrix model will be used to comprehensively analyze the internal and external environment of NIO, and then the future development direction of the company will be presented in combination with the ESG concept.

### **3.1 Strength Analysis of NIO (S)**

First of all, NIO positioned its brand in the medium and top grade market, which is different from the local new energy brand positioning in the sinking market. Meanwhile, in recent years, NIO has won a variety of awards including “Golden Steering Wheel Award” and “China Automotive Industry Science and Technology Progress Award” by virtue of its superior body design and unique technology, which has attracted high market attention and popularity.

Secondly, NIO can independently develop the six core forward-looking technologies of three power and intelligence, and has gathered thousands of the world's top automobile, software and user experience industry talents from more than 40 countries, becoming the world's leading Internet electric vehicle company, favored by global capital.

Third, NIO adopts the combination of online and offline to realize the user-customized B2C marketing mode through offline experience stores and online communities, supplemented by a complete energy service system and one-stop after-sales service, forming a user service system covering the whole country, so its users have a good reputation and high service quality.

Finally, NIO has a complete ESG organization. As can be seen from the ESG report released by NIO on its official website, since 2021, NIO's ESG management has formed a three-level management and control mode, with special agencies responsible for top-level design, specific implementation and supervision and management, so it has the ability of sustainable development.

### **3.2 Weakness Analysis of NIO (W)**

First, NIO did not build its own factory, but cooperated with Jianghuai Automobile factory, so production capacity is tight. In addition, Jianghuai Automobile factory had not been engaged in the production of premium cars before this, so the cooperation with Jianghuai affected NIO's brand image to a certain extent.

Secondly, according to NIO's financial reports in recent years, it can be seen that its R&D expenses account for a high proportion and its financial pressure is great. At the same time, NIO nets global talents, and a large number of talent aggregation means high human resource costs.

Third, as a leading enterprise in Internet car manufacturing, NIO has faced a user data leakage scandal, which is highly controversial in the market.

Finally, by April 2023, NIO has a total of 8 models, with thin products, and the product matrix needs to be further improved.

### **3.3 Opportunity Analysis of NIO (O)**

First of all, national policies such as the "dual carbon" target promote the green transformation of the automobile industry. In the 14th Five-Year Plan, it is clearly proposed to accelerate the promotion of green and low-carbon development and support green technology innovation, which means that it is imperative to transform traditional fuel vehicles to new energy vehicles. NIO in line with the concept of green development will be able to enjoy the national support policies and development platform provided.

Second, China is rich in lithium, diamond and other mineral resources, battery manufacturing raw materials sufficient. And with the development of 5G technology, China's charging network will be further improved, providing a solid backing for the charging problem of new energy vehicles.

Finally, with the end of COVID-19, local economies are gradually recovering, and the penetration rate of new energy vehicles is low, indicating huge market potential.

### **3.4 Threat Analysis of NIO (T)**

The fierce competition in the automobile industry, coupled with the national policy to guide new energy, such as LEADING IDEAL, XPENG and other Internet car manufacturing enterprises continue to emerge. At the same time, traditional fuel vehicle enterprises are also actively exploring electrified production. For example, GAC has developed AION, Changan has expanded SL03, and BYD has directly announced a comprehensive transformation to focus on new energy vehicles.

It is worth noting that although the COVID-19 epidemic has ended, after three years of interference from the epidemic, international trade conflicts and economic growth have not fully recovered, and the overall growth rate of the automobile industry has declined.

## **4 NIO's Strategic Choice Based on ESG**

Through the study of literature, research reports, social information and other contents, it can be found that the government has vigorously supported the industry in line with the “dual carbon” goal in recent years, and new energy vehicles have become the main direction of future automobile development. With the improvement of the charging network, the support of government policies, and the end of COVID-19, the opportunities (O) of the new energy vehicle industry outweigh the NIO's weaknesses (W). However, as more and more competitors enter, if NIO wants to further develop and break through the siege, it must seize the opportunity (O) and take advantage of its own advantages (S). Accordingly, NIO's development strategy is SO growth strategy guided by ESG concept.

### **4.1 Growth Strategy Selection Based on E (Environment)**

As a start-up, NIO should invest a lot of resources to expand the company's production capacity and provide more product choices, so as to occupy more market share. However, when expanding the scale of the enterprise, NIO should maintain the vision of contributing to the blue sky, and make top-level design for green development based on environmental cost accounting. When purchasing raw materials for automobile production, consider renewable energy. In product design and production, carbon emissions should be checked and carbon costs calculated to achieve green development.

At the same time, NIO needs to further deepen the integration strategy, realize self-production and self-sales as soon as possible, eliminate the label of Volkswagen as a “foundry” for Jianghuai Automobile Factory, build a world electric vehicle industrial cluster with a complete industrial chain, and set a green vehicle brand benchmark for the world.

### **4.2 Growth Strategy Selection Based on S (Society)**

Increasing NIO's sales depends not only on NIO's output, but also on customers' trust in the NIO brand. NIO should continue to uphold the concept of “user enterprise” and

actively operate NIO House and NIO Life to obtain feedback from consumers and improve service capabilities.

At the same time, as a new force of Internet car manufacturing, NIO should actively promote the concept of green environmental protection with the help of the Internet and respond to the call of the government. At the same time, NIO can use its three-power technology and intelligent technology for the construction of beautiful villages, deepening the public's favorable impression of NIO IP, so as to enhance the purchase of NIO.

#### **4.3 Growth Strategy Selection Based on G (Corporate Governance)**

In the face of the data leak scandal and the quality problems of vehicles produced in some regions, NIO needs to further strengthen its corporate governance, especially improve the ESG organizational structure. At present, NIO's ESG architecture is "design-implementation-supervision", but ESG is a goal-oriented management mode, so NIO should set specific responsibilities according to ESG's management objectives.

At the same time, in order to improve production capacity and market share, NIO should adopt diversified and international development strategy. According to the guidance of ESG concept, NIO should consider three aspects of environment, society and corporate governance when cooperating with other automobile brands or manufacturers, in order to formulate different cooperation modes.

## **5 Conclusion**

As a new force of Internet car manufacturing, NIO has been successfully listed and has broad development prospects. As green development becomes the main theme, traditional fuel automobile enterprises should think more about how to change their development strategy and adapt to the trend of rapid development of new energy vehicles.

Taking NIO as an example, this paper analyzes the strengths and weaknesses of NIO as well as the opportunities and threats it faces, and provides development strategies from different perspectives based on ESG. NIO should seize the opportunity and use its own advantages to build a world-class well-known automobile brand under the guidance of ESG, so as to set an example and provide a benchmark for Chinese automobile enterprises.

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