The Global Expansion of China's New Energy Vehicle Industry: Challenges and Opportunities

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Abstract. With the acceleration of globalization and carbon neutrality goals, the demand for new energy vehicles is rapidly increasing. China has become the world's largest NEV market. The sector not only dominates the domestic market but is also expanding internationally. As global carbon emission regulations become more stringent, driven by technological advancements and increasing environmental consciousness, China's NEV industry is poised to play a larger role in the global market. This study explores the internationalization path of China's new energy vehicle industry, analyzing the opportunities, challenges, and strategies it faces in global expansion. Utilizing the PEST model to analyze the opportunities and challenges for Chinese NEVs entering the international market. This study shows that opportunities include China's technological innovations and competitive pricing for new energy vehicles, along with strong government support. Furthermore, the growing infrastructure in international markets ensures a solid foundation for the adoption of NEVs, and globalization has made car transportation and overseas production more efficient. However, challenges remain, such as trade barriers in certain countries, the entrenched market base of traditional vehicles, and cultural differences in car usage across different nations. Technological cooperation and the Belt and Road Initiative have significantly boosted the export sales of Chinese NEVs. The initiative has facilitated infrastructure, trade, and economic cooperation, strengthening NEVs' market adaptability and consumer acceptance, particularly in charging infrastructure, battery standards, and environmental policies.

Keywords: New energy vehicles, global expansion, the Belt and Road initiative.

1. Introduction

With the continuous deepening of globalization, international economic, cultural, and technological connections have become increasingly tight, and globalization has become the dominant trend in the economic development of countries worldwide. Against this backdrop, especially with the growing awareness of environmental protection as well as the recent global push for "carbon neutrality goals". The demand for new energy vehicles is growing rapidly. China's new energy vehicle industry has encountered unprecedented development opportunities. With the support of technological innovation, favorable policies, and market demand, China's NEV industry has rapidly emerged and has quickly become a global leader in the NEV sector. China's NEV sales reached 12.866 million units accounting for 70.5% of the global total sales which makes an increase from 64.8% in 2023 [1]. China's NEV industry has rapidly emerged and quickly become a global leader in the NEV sector with the support of technological innovation, favorable policies, and market demand.

China's NEV industry has achieved great progress in domestic markets, but breaking the monopoly of traditional automotive sectors and expanding into international markets is still a key challenge for sustainable development. The current international trade environment faces growing instability because of the intensifying U.S.-China trade disputes. Anti-globalization sentiments and trade protectionism are on the rise and prompting economic entities like the Regional Comprehensive Economic Partnership (RCEP) and the European Union to adjust tariff policies on NEV trade among member states [2]. This global expansion strategy serves dual purposes for Chinese NEV manufacturers. On one hand, it addresses practical pressures from saturated domestic competition. On the other hand, it facilitates strategic positioning in global markets through systematic

internationalization. Such transformation represents not merely an industrial evolution, but more critically, a core pathway to strengthen China's international influence in automotive innovation and green technology sectors.

The primary focus of this study is on the path of internationalization for China's new energy vehicle industry, emphasizing the challenges, opportunities, and opportunities faced during the industry's 'going global' process. The specific research content includes: Opportunities and Challenges under the Globalization Context. Opportunities such as policy incentives under globalization the Belt and Road Initiative policy and export government subsidies, further technological innovation--AI models and big data analysis, and other driving factors. Challenges such as market competition brought by traditional automotive industries--Customers may have more trust in well-established brands that have been rooted in the automotive market for many years, same as in some traditional automakers that are transitioning to make their own NEVs. Plus differences in policies--Tariff policies, differences in safety standards for automobiles across countries, and cultural discrepancies.

Therefore, studying the pathways, opportunities, and challenges for China's NEV industry in entering international markets is of great practical significance for promoting industry development and corporate international strategies. From a theoretical perspective, this study delves into the opportunities and challenges faced by China's NEV industry during its “going global” process, especially in helping enterprises adapt to the market demands and policy environments of different countries in the context of globalization. The research findings contribute to enriching and refining the internationalization theoretical framework of the NEV industry, providing valuable references for related academic fields and exploring the internationalization path of China's new energy vehicles using the PEST model, and for the first time combines the “Belt and Road” initiative with the internationalization path of new energy vehicles, enriching the theory of internationalization in the NEV industry.

From a practical standpoint, this study offers a series of specific internationalization strategy recommendations for Chinese NEV enterprises, especially in areas such as how to enter international markets, how to respond to policies in different countries, and how to leverage technological advantages and brand influence. By analyzing successful cases such as BYD, this paper provides feasible operational plans for the internationalization of China's NEV industry, helping enterprises better navigate the complexities and challenges of the global market and enhance their international competitiveness.

2. Global New Energy Vehicle Ecosystem Evolution

The global NEV industry has shown strong growth and vitality in recent years. Driven by factors like increased environmental awareness, government policies, and ongoing advancements in battery and smart drive technologies. The world pushes towards sustainable development so that NEVs are eventually replacing traditional internal combustion engine vehicles to be the next generation's trending transportation. According to market research global NEV sales reached 18 million in 2024 with China accounting for more than 70% of the total [1]. China not only leads in market size but also has made great achievements in technological development, such as in battery management systems and smart drive technologies. This momentum is expected to gain rapid growth in the global NEV industry.

Regions like Europe, North America, and Southeast Asia are promoting the widespread adoption and the concept of NEVs. Europe is advancing its green energy agenda through the Green New Deal and stricter emission regulations, which are accelerating the adoption of NEVs and their transition in many countries [3]. For example, Norway, the Netherlands, and Germany have been particularly prominent in this regard. The same thing happens in North America, especially in the U.S., state policies like California continue to support the growth of NEVs. As well as in Southeast Asia is still a relatively new market but it is on its way to quickly becoming an important part of the global NEV industry with the drive from government support and increasing market demand.

The development of smart technologies including auto and smart driving and vehicle-to-everything (V2X) communication reshaping the NEV industry. The growing maturation of auto-driving technologies is expected to greatly improve traffic safety and reduce accidents. At the same time, the spread and development of V2X technology enables communication between vehicles and infrastructure. This technology not only refines safety but also optimizes traffic flow and reduces congestion [4]. Additionally, the consistence upgrade of intelligent cockpits is making the driving experience more convenient, comfortable, and personalized for consumers. The integration of smart technologies with NEVs will take the industry towards greater efficiency, safety, and intelligence.

China's advantages in the NEV industry are undeniable. Thanks to the strong support of the government, China's new energy vehicle industry is in a leading position in terms of technological research and development, production capacity, and infrastructure construction. Brands such as BYD, NIO, and XPeng have achieved great success in China and are now actively expanding into the international market. Despite these technological and policy advantages, Chinese brands still face specific challenges in their global expansion. Compared with traditional car manufacturers in Europe and America, they need to enhance brand awareness and global influence. Meanwhile, trade barriers, different safety standards in various countries, and cultural differences are all major obstacles for China's new energy vehicles to enter the global market.

With the continuous advancement of technology, the continuous improvement of policy frameworks, and the continuous expansion of global demand as well as the new energy vehicle industry maintain a strong growth momentum. For Chinese new energy vehicle brands to succeed in the global automotive market, they must strategically consolidate their core competitive advantages to overcome international market barriers.

3. Opportunities

3.1. Market Opportunities

The global NEV market experiences accelerating demand, fueled by tightening emissions regulations and consumer preference shifts toward sustainability. European governments actively deploy fiscal tools to stimulate adoption—France offers €6,000 for petrol-to-EV transitions under its Bonus Écologique scheme (2024-2025), while Germany increased its environmental bonus by 18% to €6,750 for vehicles under €40,000. Such targeted incentives, coupled with tax rebates and charging infrastructure investments, systematically lower ownership barriers. The current subsidy amount covers about 25% of the vehicle's price. Belgium also offers subsidies on vehicle prices with tax reductions. Besides countries in the EU, the United States and Japan have introduced similar policies to encourage NEV development. Consumer purchase costs are significantly reduced, making electric vehicles more affordable because of preferential policies and government subsidies. In turn, strengthens the competitiveness of NEV brands in international markets and is beneficial for the Chinese NEV industry.

Furthermore, the infrastructure in these countries is relatively well-developed, providing a solid foundation for NEV growth. European and American countries have highly developed road and transportation networks, making them ideal for the widespread use and long-distance travel of NEVs. Additionally, supporting infrastructure such as charging facilities and maintenance services is well-established. Many cities have already set up extensive charging networks, and some regions are implementing fast-charging technologies to shorten charging times and improve convenience. Thanks to these basic facilities, new energy vehicles have higher charging speeds and longer driving ranges due to good road conditions. These robust infrastructures enable NEVs to penetrate these markets quickly, alleviating consumers' concerns about charging issues and service availability, thus enhancing the market appeal of NEVs. Therefore, not only do the policies and market demand in these countries present significant opportunities for Chinese NEVs, but the infrastructure also provides stable support for the industry's internationalization.

3.2. Technological Empowerment

The Chinese NEV industry, with its leading advantages in technology, particularly in battery technology, intelligent systems, and big data analysis, has gradually established a strong presence in the global market. As a representative of China's NEV technology, BYD has set new standards with its innovative blade battery technology, which not only leads globally in safety but also serves as a model for the industry.

Take BYD's Blade Battery technology as an example. This is an important innovation in the field of batteries. The traditional battery system first assumes the battery cells into modules and then installs the modules into the battery system for hierarchical management. The mechanical structure of the module supports, fixes, and protects the battery cells, and then the battery system supports, fixes, and protects the module. Compared with traditional batteries, the blade battery represents a brand-new design concept. Using long cells, eliminates the intermediate module link and directly installs the cells into the battery system. Meanwhile, the battery structure design of BYD draws on the principle of honeycomb aluminum panels. The battery cells are fixed between two layers of aluminum plates through structural adhesives, allowing the battery cells themselves to act as structural components to enhance the strength of the entire system. It has higher thermal stability and impact resistance, and can effectively reduce the risk of fire in the event of accidental collision or overheating. In addition, the energy density and lifespan of blade batteries are also greater than those of traditional batteries, thereby extending the vehicle's driving range. BYD's Han electric vehicle and Tang electric vehicle are examples that adopt this technology. In the 2023 European NCAP crash test, their blade battery configuration demonstrated zero thermal runaway incidents, achieving a 5-star safety rating. Compared with traditional lithium iron phosphate battery packs, the driving range was extended by 12%. Overseas, this technology has also received numerous favorable comments. European car manufacturers have begun to use this technology in their own products to enhance the safety and driving range of vehicles.

Another technological advantage of China's new energy vehicles is their intelligent driving system. Chinese new energy vehicle manufacturers are concentrating their R&D investments on autonomous driving and the integration of the Internet of Vehicles. They are collaborating with companies like Baidu and Autonavi to develop more comprehensive navigation intelligent driving systems, and working with companies like Huawei and Meizu to create more powerful in-vehicle infotainment systems. Under the continuous competition among major manufacturers, the Internet of Vehicles (IoV) architecture and intelligent driving technology of China's new energy vehicles are constantly advancing, and are transforming vehicles from basic means of transportation into a new generation of travel and mobility platforms. The intelligent driving systems jointly created by these collaborations have surpassed the intelligent driving systems and in-vehicle infotainment systems of most traditional automakers and are leading globally.

It is also worth mentioning that the big data analysis systems of Chinese new energy vehicle manufacturers are also a major advantage. Big data analysis systems play a huge role in management. By collecting and analyzing vehicle operation data, the company can better improve battery management and energy efficiency, identify problems and deficiencies during vehicle operation, enhance the competitiveness of its products, and reduce operating costs at the same time. Chinese NEV companies are utilizing big data to achieve more precise and accurate vehicle scheduling and remote diagnostics which improves vehicle performance and same for operational efficiency. These technologies can help with the performance of NEVs while providing strong support for the companies' further innovation.

To sum up, the technological advantages of China's NEV industry lie in better battery technology, more advanced intelligent systems, and the assistance of big data analysis, providing ideas and support for the global automotive industry. BYD's blade battery technology and innovations in intelligent systems demonstrate the technological strength of Chinese companies in the global NEV market. As these technologies continue to develop and improve, the path for Chinese NEVs to expand

globally will become much more smoother and their competitiveness in the global market will grow as well.

3.3. Economic

The substantial domestic demand for NEVs in China provides great development conditions for the industry. Post-2020, under China's Dual Credit Policy, NEV sales surged to 6.88 million units—a 93.4% annual growth—accounting for 57.8% of global volume. Globally, China's NEV sales accounted for 57.8% of total global sales. This large consumer market allows companies to achieve cost advantages through scaled production; companies can acquire better-quality batteries and other interior components by procuring raw materials at lower prices. Leveraging economies of scale, manufacturers optimize production efficiency while reducing unit costs. Concurrently, evolving consumer preferences for extended range and smart features drive iterative product upgrades. This not only helps improve product quality and technological standards but also drives innovation research and development within the industry. For example, in response to consumer demand for longer range, intelligent configurations, and in-car connectivity, Chinese NEV brands have launched high-quality products that are appealing to the domestic market. After understanding the demands from various aspects, companies can optimize their shortcomings and strengthen the advantages of their products which can attract more customers in the international market and so on. These economies of scale effect promote the technological progress of Chinese NEVs and also help companies gain a more advantageous position in international markets [5].

3.4. Globalization

China's NEV sector demonstrates dual-drive dynamics in global expansion, combining technological symbiosis with geostrategic localization. In technological collaboration, BYD's joint R&D with Bosch resolved critical compatibility challenges between battery management systems and powertrains, enabling batch acquisition of EU Whole Vehicle Type Approval (WVTA) certifications—a prerequisite for European market access [6]. NIO and Mobileye further advanced this model by co-developing perception algorithms that reduced autonomous driving system errors to 0.3 incidents per 1,000 km, securing operational licenses in Nordic markets with stringent technical requirements [7].

The same benefits brought by globalization are that while China's policy of the “Belt and Road Initiative” is steadily advancing, Chinese enterprises and the government continue to deepen economic and trade cooperation with countries and regions along the routes and improve the level of trade and investment liberalization and facilitation. As a result, the new energy vehicle industry has achieved new development and a new situation has emerged. According to data from the General Administration of Customs of China, Guangdong Province, a key region along the “Belt and Road Initiative”, witnessed significant growth in both the export value and volume of new energy vehicles in 2021 and 2022. In 2021, the export value increased by 557.8% compared to the previous year, and the volume rose by 423.5%. In 2022, the year-on-year growth rates of export value and volume reached 686.7% and 477.7% respectively, with the overall export value reaching 7.78 billion yuan. Under the impetus of the “Belt and Road Initiative”, the main destinations for China's new energy vehicle exports have shifted from Asia to Europe and Asia, with the destination markets becoming more upscale. These obvious data improvements reflect the assistance and valuable opportunities provided by the “Belt and Road” policy for China's new energy vehicles.

Chinese manufacturers strategically integrate global technologies with localized adaptations to reshape automotive value chains. BYD's Tang EV series exemplifies this approach—by incorporating Bosch's domain controller technology, the model achieved ASPICE Level 3 certification, marking the first Chinese automaker to meet the EU's stringent automotive software process standards. Concurrently, BYD's Hungarian battery production facility employs EU-compliant cell packaging techniques and carbon footprint tracking systems, securing a 19% contract success rate in European commercial EV tenders, including supply agreements with DHL and IKEA. This dual strategy

operates through two synergistic mechanisms: technological refinement and geopolitical calibration. Adaptive reengineering of core components like domain controllers aligns with regional certification frameworks, while localized manufacturing nodes address CBAM carbon tariffs and local content rules. The Hungarian plant's logistics costs per MWh battery pack dropped 37% compared to China's exports, with EU Taxonomy-aligned operations surging from 12% (2021) to 68% (2023). Such technological-territorial synergy is redefining the paradigm of China's NEV globalization.

Therefore, both cross-border technological cooperation and the national policy of the “Belt and Road Initiative” have provided strong support for the internationalization of Chinese new energy vehicle enterprises. Through technological cooperation among different countries and enterprises, China's new energy vehicles are creating more complete, comprehensive, and competitive products, and further enhancing their “presence” in various countries, building their own brands and promoting them further. Meanwhile, the Belt and Road Initiative also helps Chinese new energy vehicle enterprises enter the markets of relevant countries through preferential policies and cooperation projects signed between countries. While bringing experience and data to enterprises, it helps them build a user base overseas and promote Chinese brands.

4. Challenges

4.1. Policy Barriers

Another huge obstacle for Chinese NEV manufacturers is the trade protectionist policies of some European and American countries. To cope with intensified market competition and political frictions, these policies have greatly hindered the sales routes of Chinese NEVs to the international market, including restrictions such as technical certifications and direct trade restrictions. An example is that in order to deal with the competitive pressure brought by new external forces, the EU's “Net Zero Industry Act” and “Critical Raw Materials Act” stipulate strict procurement agreements - Chinese manufacturers must only purchase key NEV components from suppliers certified by the EU. This regulation has disrupted supply chain efficiency, increased material costs by 23% to 38%, and squeezed export profit margins. Further escalating tensions, the EU concluded its anti-subsidy investigation on October 4, 2024, with member states approving tariffs that could erode Chinese automakers' margins by 4.7-6.2 percentage points. BYD and NIO now grapple with heightened operational complexity due to this decision [8].

In the United States, the “Inflation Reduction Act” has also impacted Chinese NEVs. This law stipulates that only electric vehicles assembled in North America can qualify for up to $7,500 in tax credit deductions so about 80% of the electric vehicles available for sale in the U.S. do not meet the subsidy criteria and the high tariffs have forced prices to increase after import. Causing a reduction in consumers' willingness to purchase. As the government continuously strengthens the implementation of these regulations and improves the details they target, China's new energy vehicle industry will face increasing pressure when exporting. Chinese new energy vehicle enterprises need to find corresponding alternative supply products while maintaining their own low-cost strategy, so as to maintain their high-cost performance, attract overseas customers and gain a firm foothold in the market.

4.2. Technical Standards and Certification Differences

Another major challenge is that the technical and certification requirements for new energy vehicles vary greatly among different countries. For instance, the standards implemented in the United States and Europe are particularly strict, especially setting strict benchmarks for battery performance, safety, and environmental compliance, requiring new energy vehicles to meet the benchmark regulatory thresholds while demonstrating long-term technical reliability. Under the certification frameworks of UNECE R100 of the European Union and UL2580 of the United States, the markets of Europe and the United States require safety assessments, such as collision resistance tests, thermal runaway simulations and short-circuit risk assessments. In contrast, China's GB/T

31467 standard gives priority to production process control and transportation safety. The differences in these certification standards have led to many Chinese new energy vehicles being unable to meet overseas standards, thus being unable to be driven on the road and thus losing the market and customers.

China's certification system, mainly managed by the China Quality Certification Center (CQC), is a relatively simplified certification procedure. To enter the US market, one needs to obtain dual certifications from EPA and CARB, including laboratory tests and road performance verification. Entering the European market requires the technical protocols of the Economic Commission for Europe that are recognized by it. In order to meet these different international standards and testing systems, nascent Chinese automakers need to invest a significant portion of their resources in three interrelated areas: technological research and development for international standards, product modifications that meet regional requirements, and certification logistics [9], thereby obtaining licenses and enabling their products to be sold legally and compliantly overseas.

In addition, it is also very troublesome that due to specific technical requirements and differences in national conditions, new energy vehicle manufacturers must comply with local strict data privacy regulations when handling user information. Laws such as the GDPR of the European Union and the CPRA of California require encrypted data architectures and localized processing infrastructure, such as establishing EU-based data centers and deploying edge computing modules to avoid violations in cross-border data transmission. Therefore, Chinese new energy vehicle enterprises must cooperate with the work of local departments to prevent themselves from crossing the boundaries of the law [10].

These regulatory obstacles have increased the difficulty for Chinese new energy vehicle enterprises to enter the Western market. Cooperating with the work and undergoing a large number of certifications not only consumes a lot of money but also takes months or even years of waiting. For these new energy "challengers" from China, this will be a major and arduous test.

4.3. Localization and Brand Effect

Cultural differences have brought huge challenges to Chinese new energy vehicles when they enter the global market. Consumer preferences vary greatly in different regions. The majority of people will give priority to the power, performance, lineage, and brand of a car, while traditional automakers such as Mercedes-Benz, BMW, and Audi have deep-rooted advantages in these fields. For decades, these manufacturers have created generation after generation of reliable and satisfactory products through accumulated technical experience and continuous scientific research and development. Meanwhile, their accumulated brand benefits and continuous promotional efforts have led consumers to favor them more and establish good trust with them, creating a very high entry threshold for new energy vehicle companies, these "new players". Not to mention that these brands are from China, which is beyond the ocean. So although China's new energy vehicles have excellent technology and extremely high-cost performance, they are facing a tough battle in promoting their own brands and the reliability of their products. Without such good publicity, it will not gain the trust of consumers and thus fail to stand firm in overseas markets.

Furthermore, people in different countries and regions value different aspects of cars, which is also a major issue that needs to be taken seriously. North American buyers usually look for long-distance buses with larger storage space during interstate travel, while European consumers emphasize car emissions and performance. Japanese buyers need more car versatility and good design, while buyers in the Middle East pay more attention to car durability. This cultural particularity directly affects market performance. However, China's new energy vehicles have not been adapted to local conditions and lack localized improvements and adaptations to better meet the different expectations of various countries for automobiles. This will lead to the situation where, although one's own cars have many advantages, they cannot truly meet the basic or fundamental needs of the local people, thus making oneself lack strong product competitiveness. Understanding these different demands and cultures requires step-by-step exploration and discovery, as well as a large amount of data and user feedback.

For Chinese new energy vehicle enterprises, this will again take a great deal of time and money to deal with these problems.

Ultimately, to overcome these obstacles, it is necessary to focus on doing a good job in one's own publicity work, break the traditional dominance of automobiles in the endorsement of “luxury” and “performance”, and at the same time, research the automotive culture and user demands of various regions, make improvements based on local conditions, and enhance the competitiveness of one's own products. For Chinese new energy vehicle enterprises to succeed overseas, it is not only necessary to catch up with traditional vehicles in terms of technology, but also to rewrite the traditional market's demand for automobiles and redefine and build their own brands.

5. Strategies for International Market Challenges in China's NEV Industry

5.1. Seizing the opportunity

The global promotion of carbon neutrality and low-carbon policies has strengthened the demand for new energy vehicles. In the future, the European and American markets will have a great need for more new energy vehicle brands. Therefore, Chinese new energy vehicle enterprises need to seize the opportunity of local policy preferences in a timely manner and enter the local market with their own brands. Moreover, Chinese new energy vehicle enterprises should make good use of the preferential trade terms under the Belt and Road Initiative, export new energy vehicles with high- cost performance to target markets, utilize the productivity of countries along the routes, build their own overseas production chains, and at the same time keep in line with the international decarbonization agenda.

China's new energy vehicle industry should also make good use of the infrastructure in developed countries and carry out corresponding adaptive debugging for its own products. In regions with mature infrastructure, such as Norway's extensive charging network, the company collaborates with operators like Norwegian Charging Company to integrate new energy vehicles with the local energy ecosystem, ensuring seamless compatibility with over 95% of public charging stations. These measures and corresponding facilities enable new energy vehicles to be charged in a timely manner and ensure good driving. Chinese new energy vehicle enterprises should seize the opportunity to publicize that they are compatible with it and vigorously promote their products locally.

In addition, it is necessary to make good use of the data and technological advantages one possesses. Chinese new energy vehicle enterprises can leverage big data from millions of domestic users. By analyzing user preferences and the feedback they bring, they can use their advantageous artificial intelligence models to analyze international market preferences, such as predicting the demand for specific charging speeds, driving ranges, and intelligent functions. And create more mature and competitive products based on the feedback from domestic users. In addition, enterprises can also leverage their technological advantages to equip products sold to different countries with the corresponding in-vehicle systems, software programs and other technologies they are proficient in, thereby highlighting the advantages and characteristics of China's new energy vehicles. After conducting certain sales, new user data and the enterprise's existing big data analysis system can be utilized to analyze local consumer preferences in order to better adapt to the local market [11].

5.2. Facing Challenges

Chinese new energy vehicle enterprises must actively observe the geopolitical trends of each country, comprehensively analyze local policies, and learn from the already mature market strategies. It is also very important to keep abreast of the demands of local users and the advantages of best-selling local products in real-time. A successful case is that XPeng Motors' entry into the Norwegian market is an example of this approach. By conducting rigorous research on regional consumer behavior and regulatory frameworks, XPeng customized vehicle configurations for the Nordic winter, developed models that comply with the ECE r100 standard, and collaborated with Ionity's high-power charging network to address the range anxiety issue. This demonstrates how crucial it is for China's

new energy vehicles to be exported to overseas markets by achieving these two points. At the same time, Chinese new energy vehicle enterprises must understand the standards of different regions in advance and adjust their products to meet local technical and safety benchmarks; otherwise, a great deal of time and money will be wasted.

It is also very important to adapt to the local automotive culture. As mentioned earlier, people in different countries have different preferences for cars. Chinese new energy vehicle enterprises can interact directly with consumers through pop-up experience centers or some offline activities to understand consumers' interest in their products and their preferences. Some bloggers or review experts can be invited to do promotional work so that more overseas consumers can see China's new energy vehicles.

Traditional automakers have provided many lessons learned in terms of professional knowledge such as production, sales, and after-sales service. Chinese new energy vehicle enterprises should actively learn from successful experiences and imitate their successful paths when going global. By taking advantage of the sales situation in the domestic market and the word-of-mouth among domestic users, build the brand's popularity and trust overseas. While doing a good job in publicity, a complete set of sales and after-sales service measures should be established to deal with unexpected situations in overseas markets. Only in this way can we better gain the trust of consumers and better promote the brand of China's new energy vehicles [12].

6. Conclusion

Due to its superior products, competitive pricing, and advanced industrial and technological chain, China's NEV industry has demonstrated enormous potential in global markets. However, Chinese NEV companies will unavoidably encounter many difficulties during their global expansion due to geopolitical shifts, policy and cultural differences, and other intricate factors. Trade protectionism, variations in technical standards and certification requirements, brand recognition, consumer cultural preferences, and other facets of market diversity represent just a few examples of these difficulties. Consequently, emerging Chinese NEV firms need to react more accurately to these various and intricate factors.

In order to help businesses overcome external obstacles and accomplish a long-term global strategy, this study will analyze the opportunities and challenges the Chinese NEV industry encounters during its internationalization process. It will also optimize supply chains and strengthen brand influence. We hope these insights will help Chinese NEV companies build a competitive brand image and establish a strong presence in various countries and regions. Future studies, particularly focusing on BRI's role, could further examine the precise effects of the Belt and Road Initiative on the internationalization of China's new energy vehicles. Ultimately, the experiences and lessons we discuss here can serve as useful benchmarks for the prosperous international expansion of more Chinese businesses, encouraging the rise of more Chinese industries on the international scene.

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