Research on Consumer Satisfaction of New Energy Vehicles Based on the Dual-cycle Perspective

Huinan Gao^{1,a}, Xiangning Li^{1,b}, Xin Wang¹ and Ye Chen¹ ¹Xiamen University, Tan Kah Kee College, Zhangzhou 363105, China. ^ag13096912741@163.com, ^bl18159657271@163.com

Abstract

The emergence of the policy of "energy saving and new energy vehicles" has brought unprecedented development opportunities for my country's new energy vehicle industry. Under the guidance of policy dividends, the new energy automobile industry has experienced a period of barbaric growth from the budding period to an era of refined development. With the decline of subsidies, the new energy automobile industry has gradually changed from policy-oriented to market-oriented, and its development drawbacks have gradually been exposed. How to better deepen the supply-side reform under severe conditions and move towards a dual cycle at home and abroad has become a major test question for the development of the new energy automobile industry. It is also a test for my country's manufacturing industry to transform into a manufacturing power. This article focuses on the country, industry, and consumers. Through industry surveys, in-depth interviews, and large sample data analysis, it summarizes the core needs of users for using "new energy vehicles", and conducts empirical analysis of the data to conclude that new energy vehicles are used by users. Strengths and weaknesses in the mind. Finally, regarding the supply-side reform and the hidden worries of the new energy vehicle industry under the subsidy of good governance, a series of supply-side structural reform suggestions and optimization countermeasures for the development of new energy vehicles are systematically proposed.

Keywords

New Energy Vehicles; Dual Circulation Strategy; Supply-side Structural Reform; Consumer Satisfaction.

1. Introduction

In recent years, the country has vigorously developed the new energy industry. With the support of policies, the new energy automobile industry has rapidly formed a scale advantage, showing a prosperous scene. However, behind the prosperity of the new energy automobile industry is also a development crisis. As a new industry that the country is vigorously developing, it has not mastered the core technology and formed the brand advantage. Good governance subsidies have brought many hidden worries, such as a series of "growth bubbles" such as radical production planning, backward core technology, imperfect supporting services, and frequent safety accidents. In addition, there is still a certain gap between the consumer satisfaction of new energy vehicles and fuel vehicles. New energy vehicle consumer satisfaction has a large room for development. How to better meet consumer demand and improve consumer satisfaction is also an urgent problem to be solved in the development of the new energy automobile industry, and provides references and suggestions for government agencies, related auto companies, and supply-side structural reforms to promote the dual-cycle development at home and abroad. This will further promote the positive development of new energy vehicle consumption.

2. Background Analysis of the new energy automobile industry based on the dual-cycle perspective

2.1 Domestic and foreign policy analysis of new energy vehicles

Before 2013, the new energy vehicle policy was in the groping stage, with initial development, low market access barriers, and unclear subsidy rules. From 2013 to 2015, the core is to rely on megacities to promote the application of new energy vehicles to activate market vitality. Low subsidy standards, inadequate supervision, fraudulent reimbursement, and illegal remedies have emerged one after another. From 2016 to 2020, the subsidy policy will be adjusted and optimized, and the technical standards will be greatly improved. In 2016, the subsidy method was improved and small companies were discouraged. In 2017, the subsidy standard became stricter, and the situation of fraudulent subsidies improved. In 2018, local protection was broken, and infrastructure construction was emphasized. In 2019, the subsidy was reduced by 50%. In 2020, new energy car companies were encouraged. Intelligent networking. The strong guidance of the national energy strategy and the strong support of policies are a major thrust for the development of new energy vehicles. Boosting the development of the new energy vehicle industry also requires continuous updating and optimization of policies.

With the increasing global energy shortage and the deteriorating ecological environment, new energy vehicles have become an important starting point for coping with the energy crisis and alleviating environmental pollution. Vigorously developing new energy vehicles has become a new focus of competition in the world auto industry. In the 14th Five-Year Plan, it is clearly stated that the realization of high-quality development should attach importance to supply-side structural reforms. Internationally, European strict carbon emission targets have catalyzed the new energy vehicle market, the U.S. Federal and the government have made concerted efforts to promote the development of the new energy vehicle industry, optimize the development environment of the new energy industry, and enhance the competitiveness of new energy vehicles.

2.2 Analysis of the status quo of the new energy automobile industry

Under the subsidy of good governance, the production-sales ratio of the new energy automobile industry is on the rise. In 2019, the contribution rate of China's automobile industry to GDP growth reached 0.36%, which has stimulated the development of stagflation of the domestic economy under the epidemic. At present, a large amount of capital has entered the new energy automobile industry, and the related investment has exceeded 1,000 billion yuan. The structural overcapacity of new energy vehicles has a capacity plan of more than 20 million vehicles, which is 10 times the planned target.

The development of the core technology of the industry shows that the overall strength of the suppliers representing China in the upstream "three-electric technology" is relatively strong, but there is still a gap with the international top technology level. The demand for power batteries is gradually increasing, and the market share is increasing. However, it is relatively difficult to increase the energy density of batteries and it is difficult to meet the policy targets. Under the above-mentioned status quo, China's power battery industry has formed a deformed production capacity situation, which is specifically manifested in high-quality production capacity and low low-end production capacity utilization. There is still a gap between domestic motor technology and the world's first-class technology. Domestic automakers mostly purchase motors from outside, and the degree of autonomy of motor systems needs to be improved. The domestic electronic control system relies on imported IGBT technology, the global market competitiveness is weak, and the core technology of the electronic control system needs to be developed. On the whole, in addition to battery technology that has a slight advantage, other core technologies still need to be developed and innovated.

3. Empirical investigation on user experience of new energy vehicles

The site for this survey was selected in five regions: Xiamen, Guangzhou, Shenzhen, Chengdu, and Hangzhou. 28 new energy 4s stores were visited and 1,376 valid user satisfaction survey

questionnaires were collected. In-depth interviews were also conducted with more than 117 operating vehicle drivers and more than 192 private vehicle owners. Through frequency analysis, reliability and validity analysis, regression analysis, correspondence analysis, etc., systematic user analysis and user portraits are obtained, and combined with national policies and the status quo of domestic market development, suggestions and trend predictions that resonate with consumers are put forward.

3.1 Empirical Analysis of User Experience of New Energy Vehicles 3.1.1 Frequency analysis

This study analyzes the characteristics of new energy vehicle users through the following frequency analysis table. It can be seen from the data that the proportion of men and women filled in this new energy vehicle user satisfaction questionnaire is quite different. It can be seen that there are more male users of new energy vehicles, and most of them are online car-hailing drivers and private car owners. Duan is mainly 26-49 years old, and high school and technical secondary school account for the majority. The overall education level is low. The acceptable price is 80,000 to 180,000, of which more than 120,000 to 180,000.

variable	Table 1. Frequency an project	frequency	percentage	Effective	Cumulative
				percentage	percentage
gender	male	1144	83.1	83.1	83.1
	Female	232	16.9	16.9	100.0
age	18-25 years old	236	17.2	17.2	17.2
	26-34 years old	612	44.5	44.5	61.6
	35-49 years old	520	37.8	37.8	99.4
	50-64 years old	8	0.6	0.6	100.0
education level	Junior high school and below	256	18.6	18.6	18.6
	High school and technical secondary school	568	41.3	41.3	59.9
	the University	488	35.5	35.5	95.3
	Postgraduate and above	64	4.7	4.7	100.0
Identity	Bus driver	40	2.9	2.9	2.9
	Ride-hailing driver	836	60.8	60.8	63.7
	Private car owner	320	23.3	23.3	86.9
	Surrogate driver	44	3.2	3.2	90.1
	other	136	9.9	9.9	100.0
Accepted price	50,000-80,000	68	4.9	4.9	4.9
	8-12 million	512	37.2	37.2	42.2
	12-18 million	592	43.0	43.0	85.2
	18-25 million	96	7.0	7.0	92.2
	25-40 million	80	5.8	5.8	98.0
	400,000-800,000	12	0.9	0.9	98.8
	Over 800,000	16	1.2	1.2	100.0
Will you buy it	Yes	1064	77.3	77.3	77.3
5	no	312	22.7	22.7	100.0
	total	1376	100.0	100.0	

variable	Kronbach Alpha		
Supporting facilities	0.809		
product quality	0.861		
User value	0.782		
customer satisfaction	0.630		
total	0.820		

3.1.2 Reliability analysis

According to the data of reliability analysis, the reliability coefficient of supporting facilities is 0.809, the reliability is relatively ideal, the reliability coefficient of product quality is 0.861, the reliability is relatively ideal, the reliability coefficient of user value is 0.782, and the reliability is relatively ideal.

The reliability coefficient of user satisfaction is 0.630, which is acceptable. The reliability coefficient of the total questionnaire is 0.820, which is ideal. Through these data analysis, we can know that the data of the questionnaire variables are reliable, and the whole questionnaire is also reliable, which is worthy of the next step of validity analysis.

3.1.3 Explore factory analysis

It can be seen from the overall that the questionnaire contains 4 variables, namely supporting facilities, product quality, user value, and user satisfaction. From the analysis of the validity coefficient in Table 3, it can be seen that when the extracted factors are also 4, the cumulative More than 60% is 65.059%, indicating that the questionnaire is valid and worthy of further analysis.

Total variance explained							
ingredient	Initial eigenvalue			Extract the sum of squares of the load			
Ingredient	total	% Variance	Cumulative%	total	% Variance	Cumulative%	
1	6.347	31.737	31.737	6.347	31.737	31.737	
2	3.740	18.699	50.436	3.740	18.699	50.436	
3	1.676	8.382	58.818	1.676	8.382	58.818	
4	1.248	6.241	65.059	1.248	6.241	65.059	
5	.898	4.491	69.550				
6	.823	4.116	73.666				
7	.656	3.278	76.944				
8	.608	3.039	79.983				
9	.496	2.481	82.464				
10	.423	2.114	84.578				
11	.393	1.964	86.542				
12	.376	1.882	88.424				
13	.370	1.852	90.276				
14	.357	1.785	92.061				
15	.323	1.615	93.676				
16	.312	1.560	95.235				
17	.273	1.363	96.599				
18	.258	1.290	97.888				
19	.235	1.177	99.065				
20	.187	.935	100.000				

Table 3. Analysis of Validity Coefficient

Through the KMO and Bartlett test data, we can know that the KMO data is 0.886, which is ideal, and the significance of the Bartlett sphere test is less than 0.001. These data show that the common factor can be further extracted for analysis.

Table 4. KMO and Bartlett test analysis					
KMO and Bartlett test					
KMO sampling app	.886				
	Approximate chi-square	3652.392			
Bartlett sphericity test	Degree of freedom	190			
	Significance	.000			

3.1.4 Regression analysis

Generally speaking, the questionnaire controls gender, age, education level, identity, etc. in order to obtain more objective results. In addition, this research began to formally conduct hypothesis testing, H1, H2, and H3, in which the relationship between supporting facilities and user satisfaction (R^2 =0.129, P<0.05), adjusted R^2 =0.111, F value 3.682, To a certain extent, it shows that supporting

facilities can significantly lead to user satisfaction. Therefore, it can be proved that supporting facilities are an effective predictor of user satisfaction. Hypothesis 1 can be verified. In addition, product quality has an effect on user satisfaction (R^2 =0.136, P<0.01), adjusted R^2 =0.118, F value 6.664, which shows that product quality can significantly lead to user satisfaction. Therefore, it can be Prove that product quality is an effective predictor of user satisfaction. Hypothesis 2 can be verified. User value versus user satisfaction (R^2 =0.310, P<0.001), adjusted R^2 =0.295, F value 92.677, to a certain extent shows that user value can significantly lead to user satisfaction. Therefore, it can be proved that user value is user satisfaction. As an effective predictor of satisfaction, Hypothesis 3 can be verified.

Table 5. Regression analysis						
customer satisfaction						
variable	model1	model2	model3	model4		
gender	0.077	0.083	0.070	0.057		
age	-0.193	-0.187	-0.182	-0.158		
education level	0.075	0.055	0.043*	0.127		
Identity	-0.329	-0.302	-0.342	-0.219		
Accept the price of new energy vehicles	0.122	0.119	0.122	0.040*		
Will you buy new energy vehicles	-0.029*	-0.008**	-0.010**	-0.024*		
Supporting facilities		-0.105**				
product quality			-0.141**			
User value				0.454***		
R ²	0.119***	0.129*	0.136**	0.310***		
Adjust-R ²	0.104***	0.111*	0.118**	0.295***		
F	7.609***	3.682*	6.664**	92.677***		

3.2 Analysis of New Energy Vehicle Attitude Index Scale

The following figure quantifies the dimension facilities of new energy vehicle supporting facilities, and uses the attitude index scale to analyze (3 is the middle value), and the related index of question 1 (the number of charging piles is large) is 3.7761. It can be analyzed that users are satisfied with the number and convenience of charging piles, indicating that the relevant supporting facilities of new energy vehicles are quite complete and people are highly satisfied with them. Among them, the related index of question 4 (convenience of charging operation) is 3.416, which can analyze the convenience of charging pile operation, the adaptation of related models, and the optimization management of charging and discharging background is in place.

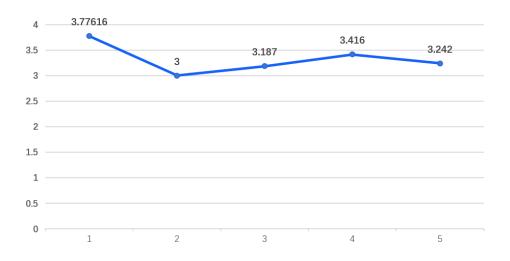


Figure 1. User attitude index scale for new energy vehicle supporting facilities

The following figure quantifies the product quality of new energy vehicles, and uses the attitude indicator scale for analysis (3 is the intermediate value), among which question 2 (whether the driving distance of a new energy vehicle can meet your needs with one charge) is 3.546 It can be analyzed that users are very concerned about the battery life of new energy vehicles. In addition, the related index of Question 1 (the attractiveness of exterior design) is 3.398. It can be seen that in addition to battery life, users have certain requirements for the appearance of new energy vehicles, and they must have their design features. In summary, new energy vehicles must not only look good and attractive, but also have to update and develop the inherent related technologies (battery density, motor update iterations).

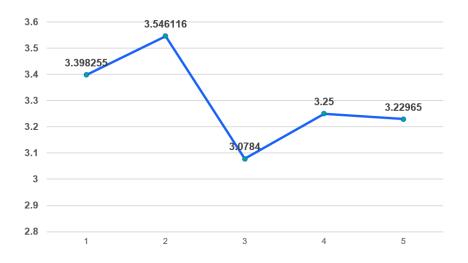


Figure 2. User's attitude index scale for new energy vehicle product quality

The following figure quantifies the product quality dimension of new energy vehicles, and analyzes the attitude index scale (3 is the median value). In terms of the value dimension of vehicles, users' overall satisfaction with the use value of new energy vehicles is relatively high, of which the third is Questions (new energy vehicles are cool in appearance, easy to operate, and can bring you driving pleasure) and other related car value of new energy vehicles (free of purchase tax, cheap charging, low cost of cars, unlimited lines and unlimited numbers, low carbon and environmental protection Environmental protection) is slightly lower than satisfaction. The cost of new energy vehicles in use and related expenses have made users very satisfied with the overall evaluation.

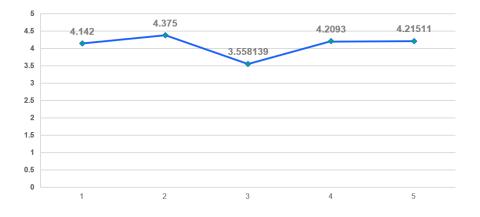


Figure 3. Index scale of users' attitudes towards the value of new energy vehicles

The following figure quantifies the user satisfaction (dependent variable) of new energy vehicles, and analyzes the attitude index scale (3 is the median value). The overall satisfaction of users with the use value of new energy vehicles is relatively high. , Supporting facilities) are optimistic and satisfied. It shows that the overall trend of new energy vehicles is developing well,

With the advancement of science and technology, it will further meet the needs of users and realize the transformation of value.



Figure 4. User satisfaction index scale for new energy vehicles

3.3 Research on the new energy vehicle market segment based on correspondence analysis

This research uses a visual data analysis method—correspondence analysis to show several groups of data that can't see any connection through the positioning map to analyze the connection between the data. From the corresponding analysis in Figure 2-6, it can be concluded that according to market segmentation, the education level of online car-hailing drivers is mainly junior high school and below and high school and technical secondary school, and the overall education level is low; age 26-49, yes The acceptable price of new energy vehicles is mainly between 80,000 and 120,000, and 120,000 to 180,000, and the overall price is in the middle and lower levels. For private car owners, the educational background is university and they are 18-25 years old, and the acceptable price is 18-25 million; for private car owners with a graduate degree or above, they are 35-49 years old and are in the middle class of society. Generally there are families with children or the elderly, and the acceptable price is mainly between 250,000 and 400,000. The overall education level of private car owners is high and they are more likely to accept new things.

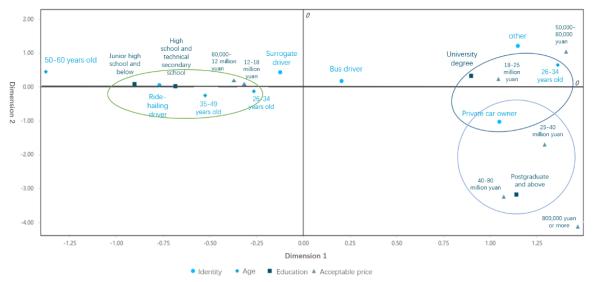


Figure 5. Correspondence analysis

According to the analysis of the distance theorem in Figure 2-7, the acceptable price for the driver who is 26-34 years old is 120,000-180,000 and 80,000-120,000, but 120,000-180,000 accounted for a larger proportion. For online ride-hailing drivers, the ages are mainly 35-49 years old. In terms of education level, the proportion of senior high school and technical secondary school is slightly larger than that of junior high school and below, but the overall education level is still at a low level. In terms of private car owners, education is at a relatively high level, mainly universities, graduate students and above, and the acceptable price is also relatively high, mostly concentrated in 180,000 to 400,000.

Through the analysis of the law of cosines in Figure 2-7, there is a certain correlation between the driver and the online car-hailing driver, such as age and acceptable price. There is little correlation between online car-hailing drivers and private car owners, and there is not too much overlap in demographic attributes. New energy vehicles of different brands can treat these two groups differently through market segmentation.

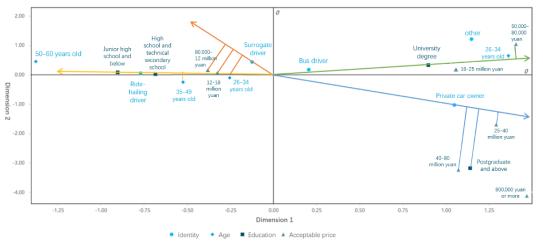


Figure 6. Correspondence analysis

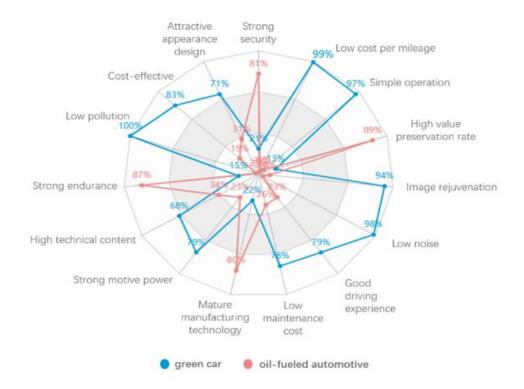


Figure 7. Comparison of spider diagrams between fuel vehicles and new energy vehicles

It is not difficult to analyze the corresponding label from the comparison of the spider diagram of energy vehicles and traditional fuel vehicles in the figure below. The relevant labels of new energy vehicles are based on: low cost per mileage, simple operation, low noise and low pollution. The related labels of traditional fuel vehicles are: high value retention, strong safety, mature manufacturing technology, and strong endurance.

Compared with related label analysis, users are now satisfied with the related expenses of the cost of new energy vehicles. In the process of using new energy, the operation is simple, and the driving process is quiet. The awareness of protection has gradually become stronger. In traditional fuel vehicles, the preservation rate, mature technology, and strong endurance are brought about by the step-by-step development and technological precipitation of traditional fuel vehicles. It can be seen that new energy vehicles still have a long way to go in terms of technology.

4. Hidden worries on the supply side of the new energy automobile industry

4.1 Capital is pouring into the new energy automobile industry, and production capacity planning is radical

A large amount of capital has poured into the new energy automobile industry to participate in investment and construction, production capacity planning is radical, and the proportion of new energy automobile production is unbalanced. First-tier luxury brands (Tesla) and new car manufacturers (Xiaopeng) are in strong demand and insufficient production capacity. The supply and demand relationship between joint venture brands (Volkswagen) and first-tier independent brands (BAIC) is basically balanced and within a reasonable range; the remaining car companies have a large number of low-end production capacity, and the overall capacity utilization rate of the industry is only about 10%, which is in a state of supply exceeding demand and there is a risk of bubble .

4.2 New energy vehicle policy issues are highlighted

There are defects in the top-level design of new energy vehicles, and there are faults in the transition from policy-driven to market-driven. During the transition to the market, there is a lack of market-oriented multi-dimensional assessment index systems such as actual operating vehicles and various use environments.

There is a lack of consistency between local policies and national policy guidance. In order to strengthen the development advantages of local new energy vehicle brands, local governments focused their policy subsidies and promotion catalogues on local new energy vehicle brands, resulting in the phenomenon of regional imbalance in the sales of new energy vehicles and affecting the market structure.

4.3 The technology is relatively immature, affecting consumers' willingness to buy

In the early stage of the development of the new energy vehicle market, policy subsidies were strong. When some enterprises pursued the development of industrial scale and quantity, they ignored the quality of new energy vehicles and product safety to a certain extent. Frequent security incidents have continuously overdrafted consumers' purchase intentions. Furthermore, due to the limitations of new energy vehicles' own technical problems, charging, battery life, cost, etc. are still important factors that affect consumers' buying behavior. In addition, the residual value rate of new energy vehicles is much lower than that of fuel vehicles of the same price and age. The low residual value rate has become a major obstacle for consumers to purchase new energy vehicles.

4.4 The charging and aftermarket service system is not yet complete

At present, the penetration rate of supporting charging equipment in China's new energy vehicle industry is less than 40%, and the growth rate is much lower than that of new energy vehicle sales. The popularity of supporting equipment cannot keep up with the growth of demand, which has greatly inhibited the release of consumption of new energy vehicles.

In addition, the after-sales dilemma of new energy vehicles is also worrying. Related after-sales outlets are few, mainly connected to the grid with fuel vehicles. At the same time, there are problems

such as long queue time for electric vehicles and relatively chaotic management. When a new energy vehicle fails to be repaired, it is difficult to find a professional new energy maintenance technician. Multi-party coordination is needed to solve the problem.

5. Suggestions and countermeasures on the supply side of new energy vehicles

5.1 Government and enterprise work together to optimize the supply structure and achieve internal and external integration

In Ningde, Shenzhen, Beijing-Tianjin, Yangtze River Delta, Pan-Pearl River Delta and other regions, there are complete industrial chains and complete supporting facilities. These good foundations are conducive to the establishment of joint experimental bases for new energy vehicles among the government, new energy industry and scientific research institutions.

Aiming at capacity imbalances: (1) The technology sharing and complementarity between enterprises (head enterprises and low-capacity enterprises) can be used to achieve effective connection between upstream and downstream, production, supply and marketing, thereby reducing production cost factors, improving the overall competitiveness of the industry, and giving play to the effect of resource sharing . (2) Fully rely on favorable policies for mutual promotion of international and domestic dual cycles to improve the production imbalance of new energy vehicles. (3) Build a unified standard system. Government departments cooperate with the New Energy Automobile Industry Association, combine innovation on the basis of the traditional automobile industry system, and adjust with the actual situation of new energy vehicles, build a complete and unified industry standard, and guide the standardized operation of the market. (4) Increase individual electric vehicle sales and service outlets to improve management and service quality. (5) Joint vocational schools, technology and major colleges and universities, send products that need to be repaired or scrapped, and send them to college students for practical operations, on the one hand to solve maintenance problems, and on the other side to train more professionals with new energy vehicle maintenance technology.

5.2 New layout of policy guidance

Strengthen the policy linkage between the decline and the "post-subsidy era". Focus on the production and supply side and promote the shift to focus on the pull of the consumer side of the market, optimize the top-level design, deepen the reform of related systems and mechanisms, establish and improve related management systems that are in line with my country's national conditions and industrial development laws, and form a diversified policy system, and the convergence and coordination between policies A series of management system reforms for new energy vehicles from R&D to sales to aftermarket services.

Formulate reasonable promotion policies, guide the market to stimulate vitality, and prevent local governments from simply using emerging industries to stimulate investment and viciously stimulate GDP growth. Shift the focus of policy to the overall promotion of consumption and speed up competition in natural monopoly industries.

5.3 Strengthen the supporting and leading role of infrastructure

Constantly improve public charging facilities, while developing private shared charging piles. In the early stage, gas stations and new energy vehicle charging stations can be combined to provide as many charging ports as possible to ensure basic use functions. In the middle and late stages, the state guides the layout of expressways and the construction of charging and replacement facilities in third-and fourth-tier cities to further promote the development of the new energy vehicle industry, and at the same time, the construction of new energy vehicle infrastructure facilities is an important part of urban planning.

5.4 Focus on promoting technological innovation to prevent low-level redundant construction

Strengthen the research and development of key technologies, master core patented technologies, and improve the consistency, reliability, energy density, and service life of power battery products, so as to continuously improve the comprehensive performance, production efficiency and quality level of

products. While doing a good job in product innovation, it is people-oriented and cultivates compound technical talents in the industry. With the new technology of new energy vehicle intelligence, networking, sharing and other aspects as the leading, the new energy vehicle industry's job standards and vocational skill levels Standards are integrated into the entire process of professional talent training, and the discipline construction in the field of new energy vehicles and key parts and components will be strengthened to enable more high-end talents to supply the development needs of the new energy automotive industry.

5.5 Multi-pronged approach, synchronously improving the supervision mechanism internally and externally

The good development of new energy vehicles is inseparable from the government's external supervision and the enterprise's internal supervision. To develop new energy vehicles, it is necessary to complete a comprehensive supervision mechanism with a comprehensive understanding and multipronged approach to realize the orderly development of the market and the standardized management of the government. (1) Prescribe the right medicine, strengthen government monitoring, change the management method of "emphasis on access and neglect supervision", and establish special new energy vehicle consumption rights protection and dispute resolution institutions in each city. Create quality standards and post-evaluation systems, monitor product defects in a timely manner, establish a quality assurance system, and safeguard consumer rights through strengthening supervision. (2) Establish and improve a monitoring platform for new energy vehicle companies to accurately monitor and manage the operational safety status of key systems such as new energy vehicles and power batteries to provide consumers with better after-sales protection. (3) Government departments set up new energy vehicle consumption rights protection and dispute resolution agencies, and through the establishment of new energy vehicle quality standards and post-evaluation systems, consumers can monitor and provide timely feedback on new energy vehicle products in real time, and supervise companies to continuously optimize products. Strengthen consumer rights.

5.6 Cultivate consumer domestic demand and promote consumption in an all-round way

To deepen the supply-side reform of new energy vehicles, we must also pay attention to the demand side, and promote the growth of consumption by cultivating consumer demand. (1) Companies need to improve the safety, comfort, and convenience of new energy vehicles. Coupled with effective publicity, consumers can understand the advantages of new energy vehicles compared with traditional fuel vehicles, and enhance consumers' recognition of new energy vehicles. Through a rich service system, such as new product test drives and other activities, let consumers better experience and understand the product, thereby narrowing the distance with consumers. Break the inherent impression of new energy vehicles in consumers' minds. (2) Improve supporting facilities and increase technical support, and provide corresponding products based on the interests of consumers to match their needs. Speed up infrastructure construction, solve problems in the industry, dispel consumer worries, and increase consumers' willingness to buy. (3) Based on big data and a scientific residual value pricing system, new energy vehicle companies have introduced value-preserving repurchase and trade-in programs, and using a reasonable combination strategy to increase the value retention rate of new energy vehicles, and cultivate more potential consumers for the market. Promote total consumption.

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