

How to Obtain More Market Shares of Domestic New Energy Vehicles from Behavioral Economics

–Taking Xiaopeng Automobile as an Example

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Abstract: Due to the continuous development of China's economy and society, the ownership of new energy vehicles will continue to rise steadily. At the same time, people begin to pay more attention to environmental pollution, and consumers' willingness to buy new energy vehicles is also strengthening. The development of a new generation of new energy vehicles in China can promote the transformation and upgrading of China's automobile industry, speed up the technological revolution, and reduce energy consumption and environmental pollution. In order to discuss the current China's new energy vehicle how to gain more market share, this paper explores the new marketing model of China's new energy vehicles, the prospect of behavioral economics model, the heavy anchor effect, mental accounts, by using field investigation, respectively from the macro environment, China's new energy vehicle depot. Based on the comprehensive analysis of the current situation and consumer psychology, taking Xiaopeng Automobile as an example, this paper proposes that the market share can be improved by issuing time-effective coupons for car purchase, improving the brand's good first impression and regularly organizing incentive activities with high consumer participation which will provide a reference for the development of other companies in the automotive industry and open up new ideas to promote the development of new energy vehicles in China.

Keywords: behavioral economics, new energy vehicles, market share, xiaopeng automobile, marketing strategy

1. Introduction

The development of new energy automobile industry is an important and historic decision of lane change in the competition between China's new energy automobile industry and the world's automobile industry, and is generally regarded as a relatively mature development planning action [1]. As one of the important pillar industries of the national economy, the automobile industry has been playing an important role in the economic and social development. At present, new energy vehicle enterprises mainly consider how to improve market share from the perspective of marketing, such as the use of founder's personal image marketing, seed user marketing, community marketing, live video marketing, opening direct stores to the downtown and busy business district. In this paper,

from an innovative research perspective, behavioral economics theory is applied to tentatively put forward a feasible marketing strategy for the new era, contributing to the progress of the local new energy vehicle industry. Behavioral economics is an economic theory that takes people's behavior as the main research content and a behavioral science that integrates psychology and economics [2]. Its appearance has brought a broader perspective to the study of consumption. This research not only opens up new ideas, but also plays an important role in promoting the development of new energy vehicles in China.

2. Introduction to Important Theories of Behavioral Economics

2.1. Prospect Theory

Also known as the "expectation theory", humans are always very careful and prudent in the face of gains, unwilling to take certain risks, but when faced with losses, the situation is completely different, almost everyone is a risk taker. In addition, the joy people feel when they are faced with gains is much lower than the grief they feel when facing losses [3].

2.2. Anchor Sinking Effect

When judging a certain kind of person or thing, everyone is easily disturbed by the first impression or information. When human beings make decisions, their consciousness is often disturbed by the first information and guided by a restricted word or a designed action, forming the psychological effect of behavioral effect [4].

2.3. Psychological Account

Different types of personal psychological accounts have different calculation methods. Before people do something, they will decide the importance according to their psychological account and then decide their own choice [5]. The psychological account is reflected in the following three aspects: first, through the understanding, formulation and evaluation of the consequences of decision-making in the psychological account, a psychological loss-gain analysis before and after the decision is given. Second, because people get different sources of funds and payment methods, they will have special psychological accounts, and consumption is sometimes subject to obvious or not obvious budgets for specific accounts. The psychological account can use certain date to try to measure normally, its date limit also can be long or short.

3. Analysis of New Energy Vehicle Manufacturers

3.1. Concept of New Energy Vehicles

It is generally believed that all power sources are unconventional fuels and have the drive system, electronic control system, safety control system of conventional vehicles with corresponding new structures and technologies, are new energy vehicles.

3.2. Sales of New Energy Vehicles

Affected by the impact of rising oil prices and various car purchase policies, new energy vehicles are sought after by people, and sales have increased sharply. According to statistics from The Data center of Ride Association, from January to May (Table 1), the retail sales of New energy vehicles in China have accumulated 10,000 units, with a year-on-year growth of 119.5%. From 5.8% in 2020, to 14.8% in 2021, to 23.4% in January-May 2022. BYD, Wuling and Tesla occupy the top three market shares.

Xiaopeng Automobile, as a representative of new power car enterprises, ranks 7th in the middle of the list and has much room for improvement. Therefore, this paper chooses Xiaopeng Automobile as an example for specific analysis.

Table 1: Retail sales ranking of new energy vehicle manufacturers from January to May 2022 [6].

No.	Vendors	2022.1.5 sales	2021.1.5 sales	Compared with the same	Share
1	BYD	501,224	111,449	349.7%	29.3%
2	Saic GM-Wuling	164,552	111,449	13.5%	9.6%
3	Tesla	119,637	145,027	16.3%	7.0%
4	Chery	85,863	102,887	226.0%	5.0%
5	GACAION	78,743	26,342	116.9%	4.6%
6	Geely Automobile	74,442	36,308	365.3%	4.3%
7	Xiaopeng Automobile	53,688	15,997	122.1%	3.1%
8	Chang'an Automobile	51,490	24,173	125.3%	3.0%
9	Which zha car	49,974	22,856	213.0%	2.9%
10	Great Wall Motor	49,094	15,966	17.6%	2.9%

(Data source: Monthly report of Passenger Car Market Information Association)

3.3. SWOT Analysis of Xiaopeng Automobile

Xiaopeng Automobile Technology Co., Ltd. was founded in 2014, the corporate headquarters is located in Guangzhou, China, the registered capital of 6,126,315,578,947, is a focus on the development and production of intelligent new energy vehicle technology enterprises.

Table 2: SWOT analysis table of Xiaopeng Automobile [7].

Advantages (S)	Disadvantage (W)
<p>S1: Obvious advantages in product differentiation</p> <p>S2: Leading reputation of brand and service quality</p> <p>S3: Preemptive arrangement of online car booking and car charging network construction</p>	<p>W1: The funding gap is still large</p> <p>W2: At present, the vehicle products are single</p> <p>W3: High production costs and limited profit space</p> <p>W4: At present, the product has not formed the brand effect</p>
Opportunity (O)	Threat (T)
<p>O1: National policy support is strong, and the industry has a broad future</p> <p>O2: The industry scale still belongs to the Internet+field, with immeasurable commercial value</p> <p>O3: The number of parts suppliers increases and the purchase cost decreases</p> <p>O4: The domestic technical environment is better, conducive to research and development</p>	<p>T1: Competition is fierce in the field of new energy vehicles</p> <p>T2: Users have insufficient trust in domestic independent products</p> <p>T3: The design of charging system is not sound and unbalanced</p> <p>T4: Threat of alternative technologies</p>

4. Psychological Analysis on Consumption of New Energy Vehicles

According to the research, many consumers also hold a very optimistic view of new energy vehicles and believe that new energy will gradually replace internal combustion engine as the main power.

The main reasons for changing people's shopping habits generally include the following seven points, as shown in Table 3.

Table 3: The main reasons for changing people's shopping habits [8].

No.	Influencing Factors	Brief Description
1	Brand impression	When people do not know other conditions of new energy vehicles, they prefer to buy vehicles that can give them a good image.
2	Others identity	Referring to the guiding influence of crowd behavior on consumers, the purchasing atmosphere of new energy vehicles in the crowd will also affect consumers' car buying intentions and actions.
3	Others suggest	During shopping, users can actively seek out “opinion leaders” or professional representatives to solicit their shopping opinions and opinions
4	Environmental protection consciousness	Start from customers with high awareness of environmental protection who can translate this knowledge into purchasing power. When the price drops to a certain extent, follow up from customers with knowledge of environmental protection who still remain at the level of consciousness [9].
5	Vehicle quality	Safety features, driving convenience, quality reliability, fuel and maintenance costs, among which quality safety is the most concerned by consumers, followed by fuel and maintenance costs.
6	Price factor	Sales price, preferential policy and preferential time tax policy. In the early stage when the technology is not perfect, government departments can take various measures to subsidize new energy vehicles, but cash subsidy is not the only way [10].
7	Car image	Include the brand, exterior and interior of the vehicle. These factors are particularly important for ordinary consumers who do not have a special understanding of new energy vehicles.

5. Marketing Suggestions for Xiaopeng Company

Based on the behavioral economics theory mentioned above, new energy vehicle market, SWOT analysis of Xiaopeng Automobile, consumer psychology analysis and other information, the following marketing suggestions are given:

(1) Issue valid car purchase coupons. The pain of loss is far greater than the joy of pleasure. Through the way of lottery, award customers with different discount amount of car coupons. The voucher is valid for one month, and with the delay of time, the discount amount of the voucher is gradually reduced, making consumers feel that the money in hand is slowly losing.

(2) Improve a good first impression of the brand. Strengthen the brand image of intelligence, domestic core technology, environmental protection and fuel saving. Timely and social hot spot interaction, do beneficial to society, positive energy activities, such as Xiaopeng anti-fraud in action, funding poor college students. Good brand positioning, such as Audi, official car image; Huawei, high-end business image and so on. Can plan the establishment of Internet brand, online sales, offline car.

(3) Regularly organize reward activities with high consumer participation. Consumers are more likely to add their bonuses to their psychological accounts for work. So that consumers in intelligence, physical, and even emotional aspects of the corresponding efforts and support. For example, organize

environmental protection public welfare activities, anti-fraud publicity activities, let potential owners participate in, participate in the reward for worthless goods or services, such as Xiaopeng car peripheral model, visit Xiaopeng car factory opportunity, new car test drive activities, purchase coupons, etc.

6. Conclusion

There is no doubt that new energy vehicles represent the trend of the automotive industry in the future. How to promote new energy vehicles has become a major problem facing the current automotive industry. This paper focuses on improving the market share of China's new energy vehicle brands for the purpose, taking Xiaopeng car as an example, applying the prospect theory, anchor effect, psychological account and other concepts in behavioral theory, puts forward several targeted, practical, innovative marketing suggestions, such as issuing valid car purchase coupons, improving a good first impression of the brand, regularly organizing reward activities with high consumer participation, etc. Limited by knowledge and time, this paper is not in-depth in theoretical discussion and insufficient in consumer psychology analysis. In the future, the accuracy of the study can be improved by increasing the sample number of automobile enterprises and consumers and adding statistical knowledge. It is expected that the research results of this paper can contribute to the development and completion of relevant research in China's new energy vehicle promotion and other fields.

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