

Research on Pricing Strategy of new Energy Vehicle Market

-- Taking BYD Automobile as an example

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Abstract: With the increasingly severe global climate change and environmental problems, new energy vehicles, as an important choice for green travel, have received widespread attention. However, the pricing strategy of the new energy vehicle market has been one of the important challenges facing automakers. Especially in China, as the world's largest automobile market, the pricing strategy of new energy vehicles not only affects the profits of enterprises, but also directly relates to the purchasing decisions of consumers. Taking BYD Auto as an example, as a leader in China's new energy vehicle industry, its pricing strategy has important reference significance for the entire industry. Through literature review, interview and investigation, and content analysis, this paper analyzes and studies the current situation of BYD automobile in terms of pricing strategy, and combines the current situation of China's new energy automobile industry to find out existing problems and propose corresponding optimization measures to improve the performance of new energy automobile enterprises. After in-depth research and analysis, this study draws the following conclusions: BYD Auto's existing pricing strategy has taken into account consumer psychology and market competition environment to a certain extent, but there are still some problems. Therefore, BYD Auto should flexibly adjust its pricing strategy according to changes in the market environment and consumer demand, strengthen communication and interaction with consumers, and improve brand awareness and loyalty. This study provides useful reference and enlightenment for BYD Auto and other new energy vehicle manufacturers, and helps enterprises to formulate more scientific and reasonable pricing strategies to achieve sustainable development.

Keywords: New energy vehicles, Pricing strategy, BYD.

1. Introduction

With the increasing global concern for environmental sustainability and the rapid development of renewable energy technologies, the new energy vehicle market has grown exponentially in recent years. As the market leader, BYD Auto has become a significant force, not only in China, but also globally. However, as competition intensifies and consumer demand diversifies, pricing strategies have become a key factor in determining the success of new energy vehicle manufacturers. In order to occupy a place in the market, one of the important means used by enterprises is automobile pricing. Automobile pricing has two purposes, one is to allow more consumers to buy its products, increase sales and market share, and the other is to allow automobile manufacturers to obtain revenue and achieve profits. The selling price of a car is a major consideration for consumers when buying a car. Therefore, the pricing strategy of the new energy vehicle industry is becoming more and more important.

This paper discusses the pricing strategy of the new energy vehicle market, taking BYD Automobile as an example, and deeply analyzes the theoretical background, influencing factors and actual operation of the pricing strategy. Based on the principles of economics and management, this paper emphasizes the importance of pricing strategy in the marketing mix of enterprises. The objective of the research is to explore how to formulate effective pricing strategies to cope with market competition and meet consumer demand. In terms of content arrangement, this paper first combs the theoretical basis of pricing strategy, including cost-oriented,

demand-oriented and competition-oriented pricing theories; Then it analyzes the factors that influence the pricing strategy of the new energy vehicle market, such as technology maturity, charging facility perfection and consumer acceptance. Finally, combined with the case of BYD Automobile, the present situation and effect of its pricing strategy are discussed in detail. The main contribution of this paper is to provide a reference for new energy vehicle enterprises to formulate reasonable pricing strategies, which will help enterprises maintain competitive advantages in the fierce market competition and improve consumer satisfaction.

2. Theoretical Background

Pricing strategy is one of the key elements of a company's marketing mix, which determines the price level of a product or service and the company's position in the market. The theoretical background of pricing strategy covers several principles of economics and management, which provide the foundation for enterprises to develop effective pricing strategies.

From the perspective of microeconomics, pricing strategy is affected by many factors such as supply and demand, cost structure and market competition. The supply and demand relationship determines the market equilibrium price of a product or service, while the cost structure determines the lowest acceptable price for a firm. In the highly competitive market environment, enterprises also need to consider the pricing strategies of competitors to ensure their own competitiveness in the market. From the perspective of marketing, pricing strategy is an important means for

enterprises to achieve marketing goals. Different pricing strategies can influence consumers' purchasing decisions, enterprises' market share and profitability. In addition, with the intensification of market competition and the diversification of consumer demand, enterprises are paying more and more attention to differentiated pricing strategies. Differentiated pricing strategy refers to the formulation of different pricing strategies according to the different needs, purchasing ability and purchasing willingness of consumers.

2.1. Pricing Strategy Theory

2.1.1. Cost-oriented pricing theory

Cost-oriented pricing theory emphasizes that product pricing should be based on cost, and product prices should be determined through cost plus, marginal cost analysis and other methods. In the new energy vehicle market, due to the high cost of technology research and development, production and manufacturing, the cost-oriented pricing theory is particularly important. However, the simple cost-oriented pricing may ignore market demand, competition and other factors, leading to unreasonable pricing.

2.1.2. Demand-oriented pricing theory

Demand-oriented pricing theory believes that product price should be determined by market demand. In the new energy vehicle market, consumers have different needs for product performance, brand, service and other aspects, so the demand-oriented pricing theory can better meet the needs of consumers. At the same time, demand-oriented pricing also requires enterprises to pay close attention to market dynamics and adjust pricing strategies flexibly.

2.1.3. Competition-oriented pricing theory

Competition-oriented pricing theory emphasizes that enterprises should fully consider competitors' pricing strategies when setting prices. In the new energy vehicle market, due to the fierce market competition, enterprises need to compete for market share through price competition. Therefore, the competition-oriented pricing theory requires enterprises to consider their own costs and market demand, and also pay attention to the price dynamics of competitors.

2.2. New Energy Vehicle Market Pricing Strategy Influencing Factors

The technological maturity of new energy vehicles is one of the important factors affecting their pricing. New energy vehicles with high technology maturity have higher performance and lower failure rate, which can attract more consumers, thus supporting higher pricing. The degree of perfection of charging facilities directly affects the convenience and user experience of new energy vehicles. In areas with high charging facilities, consumers are more willing to buy new energy vehicles, which is conducive to enterprises to develop a higher price strategy. Consumers' acceptance of new energy vehicles is also one of the important factors affecting their pricing. With the improvement of consumers' awareness of environmental protection and the continuous progress of new energy vehicle technology, consumers' acceptance of new energy vehicles has gradually increased, which is conducive to enterprises to develop higher price strategies.

3. Company Background

Byd Co., LTD. (hereinafter referred to as "BYD") was founded in 1995 and is headquartered in Shenzhen, China. As

a leading global new energy vehicle company, BYD not only occupies an important position in the Chinese market, but also enjoys a high reputation in the international market.

Since its establishment, BYD has always adhered to the core concept of innovation and technology, and has developed into a leader in the global new energy vehicle market. The company has independent intellectual property rights and strong research and development strength in core technology fields such as batteries, motors and electronic control, and continues to promote the innovation and development of new energy vehicle technology. In addition to the automotive business, BYD is also actively involved in rail transit, new energy and electronics and other fields, forming a diversified industrial layout. Through years of efforts, BYD has not only occupied an important position in the Chinese market, but also successfully introduced new energy vehicle products to the world and won wide market recognition. In the future, BYD will continue to adhere to innovation-driven, committed to providing consumers with more environmentally friendly, intelligent and efficient travel solutions, and promote the sustainable development of the global new energy vehicle industry.

4. Consumer Psychology and Status Quo Of BYD's Auto Pricing Strategy

4.1. Consumer Psychological Analysis

When consumers buy new energy vehicles, in addition to paying attention to the performance and quality of the product, the price is also one of the important factors in their decision-making. Consumers' psychological expectations, price sensitivity, brand loyalty and other factors will affect their purchasing decisions. For BYD Auto, its pricing strategy needs to fully consider these factors to meet the needs of different consumers.

4.2. Status Quo of BYD's Auto Pricing Strategy

In the context of the increasingly fierce competition in the new energy vehicle market, BYD Auto as a leader in the industry, its pricing strategy is of great significance to the company's market position, profit level and consumer acceptance. After in-depth research and analysis, we find that BYD Auto mainly adopts the combination of cost-oriented pricing and competition-oriented pricing in its pricing strategy.

4.2.1. Cost-oriented pricing

Cost-oriented pricing refers to the enterprise based on the cost of the product, plus a certain profit rate to determine the sales price of the product. In the production process, BYD Auto achieves continuous cost optimization through fine cost control and efficient production management. This cost-oriented pricing strategy ensures that BYD Auto can maintain a reasonable profit margin while maintaining product quality and performance. Operating data show that BYD has achieved remarkable results in cost control, providing it with a strong price competitiveness in the market.

Specifically, BYD Auto achieves cost-oriented pricing through the following aspects.

Raw material procurement cost control: BYD Auto has established long-term and stable cooperative relations with a number of high-quality suppliers, and has reduced the raw material procurement cost through centralized procurement,

optimized supply chain management and other measures.

Production process optimization: BYD Auto constantly introduces advanced production processes and equipment to improve production efficiency and product quality, while reducing production costs.

Economies of scale effect: With the expansion of production scale, BYD Auto can achieve more efficient resource utilization and cost control, thereby reducing the cost per unit product.

On the basis of cost-oriented pricing, BYD Auto can determine a reasonable sales price according to its own profit margin requirements to ensure that the enterprise can cover the cost and obtain a certain profit.

4.2.2. Competition-oriented pricing

Competition-oriented pricing means that enterprises determine their own sales price according to the market competition and the price level of competitors. In the new energy vehicle market, BYD Auto pays close attention to competitors' pricing strategies, and formulates and adjusts its own pricing according to market demand and consumer psychological expectations. Through the analysis of operational data, BYD is able to quickly capture market changes and flexibly adjust pricing strategies to maintain its competitiveness in the market.

Specifically, BYD Auto has taken the following measures in terms of competition-oriented pricing.

Market research and competitive analysis: BYD Auto will regularly conduct market research and competitive analysis to understand the price level, sales situation and consumer acceptance of similar products in the market.

Differentiated pricing strategy: BYD Auto will develop differentiated pricing strategies for different models, configurations and market demands. For example, for the high-end market, it will launch high-configuration, high-quality models, and adopt the corresponding high-price strategy; For the low-end market, more cost-effective models will be launched to attract more consumers.

Rapid response to market changes: In the face of market changes and price adjustments of competitors, BYD Auto can respond quickly and adjust its pricing strategy to maintain market competitiveness.

Through the combination of cost-oriented pricing and competition-oriented pricing, BYD Auto can better adapt to market competition conditions and improve product market acceptance and competitiveness while ensuring cost coverage and profit levels. However, in practice, BYD Auto still needs to further optimize its pricing strategy to better meet consumer demand and market changes. For example, more accurate pricing strategies can be developed through more in-depth research on consumer psychology; At the same time, it can also strengthen cooperation and linkage with other industries to jointly promote the healthy development of the new energy vehicle market.

5. Problems Faced by BYD's Auto Pricing Strategy

With the rapid development of the new energy vehicle market and the increasing diversification of consumer demand, BYD, as a leader in the new energy vehicle industry, needs to grasp the consumer psychology more accurately in its pricing strategy, and closely integrate with the company's

general strategy and price strategy. However, judging from the existing operational data and market feedback, BYD still faces some problems in its pricing strategy, mainly including:

5.1. Price Strategy and Consumer Psychological Expectations Do Not Match

Some consumers have high price sensitivity to new energy vehicles, and BYD's pricing may not fully take this into account, resulting in sales affected.

Byd's passenger-car hybrids have also made significant progress. In the market, the price of the pure electric version is 10,000 yuan lower than the plug-in hybrid version, and this price difference has led some target customers to turn to the slightly higher price of the pure electric market. Despite the lower price of the hybrid model itself, its higher maintenance costs make it difficult to attract those environmentally conscious potential customers, who prefer to choose pure electric models. In addition, the government's subsidy policy for pure electric models has also increased its market competitiveness, although the price of pure electric models is higher, but the actual price paid by consumers is relatively low.

5.2. Incomplete Price Range Coverage

The pricing of BYD's new energy vehicles is mainly concentrated in the middle and low-end market, and the insufficient coverage of the high-end market may limit the further expansion of its market share.

5.3. Balance Between Cost and Pricing

With the continuous development of new energy vehicle technology and the improvement of consumer requirements for product performance, BYD Auto needs to invest more research and development and production costs in the production process. How to ensure product quality and performance at the same time, to achieve a balance between cost and pricing, is a major challenge BYD Auto faces.

5.4. Pressure of Market Competition

The new energy vehicle market is highly competitive, and competitors continue to introduce new models, new technologies and more competitive pricing strategies. How to maintain a price advantage in the fierce market competition, while ensuring product quality and service, is a problem that BYD Auto needs to continue to pay attention to and solve.

5.5. Changes in Consumer Psychology

When consumers buy new energy vehicles, in addition to paying attention to the performance and quality of the product, they will also be affected by price factors. With the change of consumer psychology and the intensification of market competition, BYD Auto needs to have a deeper understanding of consumer demand and psychological expectations in order to develop a pricing strategy that is more in line with market demand.

At the same time, there are a large number of strategic consumers in real life, they may not buy the goods they want immediately, but wait until the price of the second phase of the product to buy. In the face of strategic consumers, new energy vehicle manufacturers to make appropriate pricing and price reduction decisions is an important part of maximizing their profits. (Wei Cong, 2022)

6. Specific Price and Quantity Sold

6.1. Qin PLUS Glory Edition and Destroyer 05 Glory Edition

Pricing: With a very competitive price - 77,800 yuan officially listed. This price is much lower than many joint-venture brand fuel vehicles in the same class, showing BYD's pricing advantage in the field of new energy vehicles.

Sales volume: With a low price strategy, these two models quickly attracted a large number of consumers. Although the specific number of sales is not directly given in the operating data, combined with the market response and BYD's overall sales growth, it can be inferred that the sales of these two models are performing well.

6.2. Middle and High-End Models (Such as Han, Tang, etc.)

Pricing: Han, Tang and other high-end models pay more attention to brand value and consumer psychological expectations in pricing. Taking the Han family as an example, its cumulative sales of more than 220,000 units reached 228,383 units, becoming the sales crown of medium and large cars. This shows that BYD has successfully attracted consumers in the mid-to-high-end market through precise pricing strategies.

Number of sales: Medium and high-end models with their excellent performance, quality and brand value, in the market to obtain a good reputation and sales. For example, the annual sales of the Han family in 2023 exceeded 220,000, and the cumulative sales of the Tang family also reached 137,184.

6.3. Vehicle Strategies in Different Price Ranges

Byd has fully covered a wide price range from 77,800 yuan to 259,800 yuan by launching models in different price ranges to meet the needs of different consumers. This strategy has made BYD more competitive in the new energy vehicle market.

7. Problem Analysis

7.1. Consumer Psychological Analysis

When consumers buy new energy vehicles, in addition to paying attention to the performance and quality of the product, the price is also one of the important factors in their decision-making. Different consumers have different sensitivity to price and cognition of price and value, and BYD needs to fully consider these factors when pricing.

7.2. Corporate Strategy and Price Strategy

BYD's overall strategy is to build a strong Chinese car and promote the development of the new energy vehicle industry. In terms of price strategy, it is necessary to keep consistent with the overall strategy of the enterprise, and support the realization of the enterprise objectives through reasonable pricing strategy. In practice, however, there may be situations where the price strategy does not match the overall strategy

7.3. Analysis of Operational Data

From the existing operational data, the sales and market share of BYD's new energy vehicles are rising steadily, but in some market segments or regions, sales growth may be affected by pricing strategies. Through in-depth analysis of

operational data, it is possible to identify problems in pricing strategies and formulate corresponding improvement measures.

8. Problem Solving Suggestions

In response to the above problems, the following is the improvement of BYD's new energy vehicle pricing strategy:

8.1. Deeply Understand Consumer Psychology and Develop Differentiated Pricing Strategies

BYD can deeply understand the psychological expectations and needs of different consumers through market research, consumer interviews and other ways, and develop differentiated pricing strategies according to consumers' price sensitivity and cognition of price and value. For example, more cost-effective models can be introduced for price-sensitive consumers; For the high-end market, high-configuration, high-quality models can be launched, and the corresponding high-price strategy can be adopted.

8.2. Expand the Price Range to Meet Different Consumer Needs

Based on the existing product line, BYD can further expand the price range and launch more models at different prices to meet the needs of different consumers. By expanding the price range, more potential consumers can be attracted and market share can be increased.

8.3. Strengthen the Flexibility of Pricing Strategy and Quickly Adapt to Market Changes

In the face of market changes and consumer demand changes, BYD needs to strengthen the flexibility of pricing strategy and timely adjust pricing strategy to adapt to market changes. Through flexible pricing strategies, we can better meet consumer demand and increase sales and market share.

8.4. Integrate Enterprise Resources to Enhance Brand Competitiveness

BYD can integrate enterprise resources, increase investment in research and development, production and sales, improve product quality and performance, and enhance brand competitiveness. By enhancing the competitiveness of the brand, the premium ability of the product can be further improved, and more space can be provided for the formulation of pricing strategies.

8.5. Build After-Sales Service Network

BYD can make use of the existing sales channels to set up its own experience stores in the middle and lower reaches of the Yangtze River, Beijing, Tianjin, Pearl River Delta and other developed regions, so as to further expand its influence among consumers.

9. Current Situation and Existing Problems of China's New Energy Automobile Industry

In recent years, China's new energy vehicle market has maintained a rapid growth trend, and government policy support and consumer awareness of environmental protection

are the main driving forces for the development of the industry. However, with the intensification of market competition, new energy vehicle enterprises are also facing many challenges.

Contradiction between cost factors and pricing: The production cost of new energy vehicles is relatively high, including material costs, labor costs, research and development costs, especially the cost of core components such as batteries and motors. This makes new energy vehicles need to fully consider the cost factor when pricing, but the excessive cost may lead to high product prices, affecting market competitiveness.

The matching problem of market demand and pricing strategy: The market demand for new energy vehicles is affected by a variety of factors, including consumer demand for environmental protection, energy saving and other aspects, as well as the demand for performance, comfort and safety of new energy vehicles. How to formulate a suitable pricing strategy according to market demand is a major challenge facing the new energy vehicle industry.

Competitive environment and pricing strategy flexibility: the new energy vehicle market is highly competitive, and auto companies need to pay close attention to competitors' pricing strategies, and flexibly adjust their pricing strategies according to market changes. However, in actual operation, car companies may be due to the market response is not sensitive enough or not timely adjustment, resulting in pricing strategies and market demand deviation.

The impact of policy changes on pricing strategies: The government's policy support for new energy vehicles is one of the important factors affecting pricing strategies. Policy changes may have a direct impact on the pricing of new energy vehicles, such as subsidy policies, preferential tax policies, etc.

The balance of consumer psychological expectations and pricing strategy: When consumers buy new energy vehicles, in addition to paying attention to the performance and quality of the product, they will also be affected by price factors. How to balance consumer psychological expectations and pricing strategies is a problem that car companies need to consider when formulating pricing strategies.

10. Recommendations

First of all, enterprises should have a deep understanding of the market and consumer demand, through market research to understand consumer preferences and willingness to pay, in order to more accurately locate product prices. Secondly, enterprises should adopt a comprehensive cost and market-oriented pricing strategy, which not only ensures that costs are covered and profits are obtained, but also considers market demand and competitive environment to set competitive prices.

Enterprises can implement differentiated pricing strategies, pricing according to product characteristics, brand premium and other factors to meet the needs of different consumers. At the same time, strengthening brand building and marketing activities, improving brand awareness and reputation, is also an important means to improve pricing power.

It is equally important to pay attention to government policies and subsidies, and enterprises should pay close attention to policy changes in order to make use of preferential policies in time to reduce consumer car costs and

improve market competitiveness. In addition, the establishment of sound sales channels and partnerships, as well as continuous innovation and technological upgrading, is also the key to improving the effectiveness of pricing strategies.

Strengthening the construction of after-sales service system and providing high-quality after-sales service will help improve customer satisfaction and loyalty, thus further consolidating market share and improving pricing power.

To sum up, new energy vehicle enterprises should consider a variety of factors and flexibly formulate and adjust pricing strategies to cope with market competition and industry challenges. Through in-depth understanding of the market, optimizing pricing strategies, strengthening brand building, paying attention to policy changes, and providing quality services, companies can improve pricing power and achieve sustainable development.

11. Conclusion

This paper takes BYD Automobile as an example to deeply discuss the pricing strategy of the new energy vehicle market. The theoretical background of pricing strategy, related theories, market influencing factors, BYD company background and consumer psychology are comprehensively analyzed. This paper concludes that pricing strategy, as a key element of marketing mix, not only affects the profit level and market share of enterprises, but also directly relates to the purchasing decision of consumers and the market competitiveness of enterprises. Therefore, the development of a reasonable and effective pricing strategy for new energy vehicle enterprises is crucial. Secondly, the pricing strategy of the new energy vehicle market is affected by a variety of factors, including technology maturity, the perfection of charging facilities, and consumer acceptance. These factors interact and together constitute a complex environment for the pricing strategy of new energy vehicles. Enterprises need to adjust pricing strategies flexibly according to market changes to adapt to market demand and competition. Thirdly, BYD Auto, as a leader in the new energy vehicle market, adopts a combination of cost-oriented pricing and competition-oriented pricing in its pricing strategy. This strategy not only guarantees the profit space of the enterprise, but also fully considers the market competition and consumer demand. Through refined cost control and efficient production management, BYD Auto has achieved remarkable results in cost control, providing it with a strong price competitiveness in the market. Finally, with the continuous development of new energy vehicle technology and the intensification of market competition, enterprises need to pay more attention to the analysis of consumer psychology and demand, and formulate more differentiated pricing strategies. Through in-depth understanding of consumers' psychological expectations, price sensitivity, brand loyalty and other factors, enterprises can more accurately locate the market, meet the individual needs of consumers, and improve the market competitiveness of products.

To sum up, the pricing strategy of the new energy vehicle market is a complex and important topic. Enterprises need to consider various factors comprehensively and formulate reasonable and effective pricing strategies to adapt to market demand and competition situation. At the same time, enterprises also need to constantly innovate and optimize pricing strategies to improve the market competitiveness of

products and the profitability of enterprises.

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