Research on Automobile Precision Marketing Strategy under the Background of Big Data

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Abstract. The emergence of big data technology has provided important help for the development of various industries, effectively applied big data, and promoted the development of modern society in a better direction. Based on this, this paper takes a brand car as the research object, through a brief introduction of its development status, then analyzes the external environment, advantages and disadvantages of a brand marketing of a car, and on this basis, formulates the corresponding precise marketing strategy, which provides support for improving the brand marketing effect.

Keywords: Big data; automobile; precision marketing

1 Introduction

Today, with the rapid economic growth, people's income level is gradually rising, which makes people's funds more abundant, thus creating higher requirements for automobiles. Under this background, automobile enterprises should also adjust their marketing strategies and build a more reasonable and precise marketing strategy, so as to dig out more potential customers. To achieve this goal, we should strengthen the application of big data. Based on this, it is of great significance to study the automobile precision marketing strategy under the background of big data, so as to further enhance the marketing effect of automobile enterprises.

2 The development status of an automobile brand

2.1 Sales volume

This research chooses a car brand as the research object. When the automobile brand was established, minicar was the main product. After years of development, it has become an important part of China's automobile industry, and its annual sales volume has been at the forefront. Through the investigation of an automobile brand, the production and sales volume of the automobile brand in the past 10 years can be obtained, as shown in Table 1. Through the observation of this table, it can be found that in the past ten years, the sales volume of this

automobile brand has shown a rapid upward trend, among which, since 2017, the annual sales volume has remained above 1 million.

Table 1 Sales volume of an automobile brand in the past 10 years

Year	Production volume	Sales volume
2012	401773	405737
2013	328062	338780
2014	414812	415806
2015	589849	600439
2016	475577	549225
2017	698465	734163
2018	871650	962381
2019	1107924	1123264
2020	1129180	1188322
2021	1283592	1267891

2.2 Brand structure analysis

In recent years, during the development of an automobile brand, the product structure has been adjusted to promote its own development in a better direction. At the early stage of the establishment of an automobile enterprise, minicars dominated, and cross passenger cars accounted for a high proportion. After years of development, enterprises gradually pay more attention to car, SUV and other automobile, and strengthen the production of these automobiles, which makes the distribution of automobiles more reasonable and meets the needs of modern consumers. Through the investigation of the brand structure of an automobile enterprise, we can get the results shown in Table 2.

Table 2 Structural changes table of an automobile brand

Year	Car proportion	MPV proportion	SUV proportion	Cross passenger car proportion
2012	17.61	2.51	0	78.88
2013	20.18	1.42	0	78.40
2014	25.76	0.04	0	74.20
2015	29.05	0	0	70.95
2016	35.81	0	0	64.19
2017	29.64	0	0.89	69.47
2018	31.27	12.96	6.87	48.90
2019	32.08	15.43	12.24	40.25
2020	33.69	14.72	15.43	36.16
2021	34.27	13.75	25.37	26.62

3 Analysis of the external environment of an automobile brand marketing

3.1 Political environment

Today, with the rapid development of China's automobile industry, the national government has paid more attention to the development of the automobile industry, and based on this, a large number of policies and systems related to automobile sales have been formulated. With the support of these policies and systems, the development of China's automobile industry has been promoted to a certain extent. But for these policies, most of them focus on the front market of automobiles, such as production technology and new car sales, while the content of the rear market of automobiles is not much. At the same time, in recent years, the national or local governments have attached great importance to used cars and car rental, and formulated relevant policies and systems [1].

3.2 Economic environment

The economic environment is mainly analyzed from two angles, namely: (1) price changes. Through the investigation of China's automobile market, it can be found that the average price of domestic automobiles shows a downward trend. Among them, from 2015 to 2018, the average price of automobiles increased slightly, but the increase was not very large, as shown in Table 3. (2) Income level. According to the survey statistics, by the end of 2021, the average income of Chinese residents was 35,128 yuan, an increase of 9.1% [2]. It can be shown that the ability of Chinese residents to buy cars is getting stronger and stronger.

Table 3 Average price changes of domestic automobiles in the past 10 years

Year	Average price (ten thousand yuan)	Year-on-year growth
2012	7.15	—
2013	6.94	-2.93
2014	6.85	-1.29
2015	6.84	0.14
2016	6.87	0.44
2017	6.89	0.29
2018	6.81	-1.16
2019	6.78	-0.45
2020	6.73	-0.73
2021	6.58	-2.23

3.3 Social environment

Social analysis mainly consists of two parts: (1) Population structure. In recent years, China has accelerated the pace of urbanization, which has significantly improved the level of urbanization in China. By 2021, China's urbanization rate has reached 64.72%, an increase of 0.83 percentage points compared with the previous year. Under this background, residents' thinking ideas have changed greatly, and higher requirements have been put forward for the quality of life, so they will invest more money in automobile consumption. (2) Population aging. Influenced by the

family planning policy, the proportion of child births in China showed a downward trend from 1980 to 2013. Although the country implemented the two-child policy in 2013, it was difficult to implement the two-child policy due to the influence of economic conditions, ideas and other factors, which did not give full play to the policy. As a result, the proportion of children remained low, while the proportion of the elderly remained at a relatively high level and was growing, reaching 16.80% in 2021, as shown in Figure 1 [3]. For automobile marketing, the aging of population has both positive and negative effects, and the positive effects are greater than the negative ones. Among them, in the positive aspect, because of the poor physical quality of the elderly, it is not very convenient to travel, and automobiles are usually needed to help them travel, thus increasing the probability of buying a car.
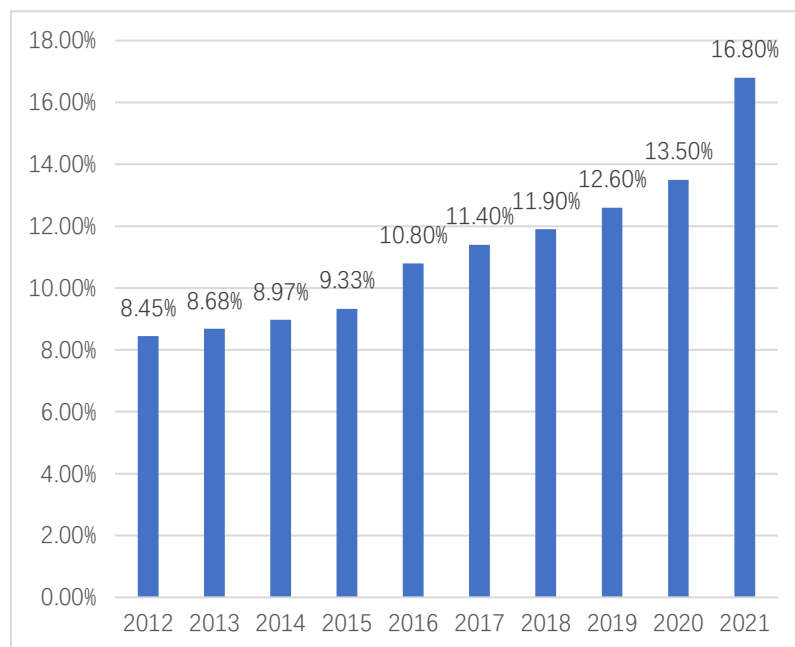
Figure 1 Change figure of the elderly population

3.4 Technology environment

Technology innovation is one of the important tasks in the development of modern enterprises, which not only relates to the long-term development of the whole enterprise, but also affects the development of enterprise marketing. Any technological innovation will bring more development opportunities to enterprises. For example, the development of Internet technology has given birth to the development of e-commerce and fundamentally changed the trading mode. The emergence of big data technology has provided strong support for marketing activities [4].

4 Analysis of the advantages and disadvantages of an automobile brand

4.1 Advantage

Compared with other domestic automobile brands, this automobile brand has many advantages, which are embodied in the following three aspects: (1) Great influence. An automobile brand was transferred from China's local automobile enterprises, and was established in the late 1990s. After more than 20 years of development, it has formed a good brand in China's automobile market, and has won many honors, which has a high appeal to consumers and enhances consumers' recognition of this brand of automobile. (2) Scale advantage. It can be found from the above Table 1 that in the past 10 years, the sales volume of a certain automobile brand showed a rapid development trend. After 2019, the annual sales volume even reached more than 1 million units, and the total sales volume in the past 10 years reached 7.58 million units, which is in potential in China's automobile market. Because of the relatively large sales scale [5], on the one hand, it represents that the brand automobile has been recognized by other consumers, and more potential customers can be tapped. On the other hand, it represents that the brand automobile has been recognized by other consumers. (3) Price. Price is the main factor that consumers pay attention to when purchasing goods. Under the same performance conditions, the lower the price, the easier it is to be accepted by consumers. However, during the development of an automobile brand, it has always paid attention to the development of economical cars, and the prices are generally not high, which meets the actual requirements of Chinese residents.

4.2 Disadvantage

It should be noted that this brand car also has certain disadvantages, including two aspects: (1) brand curing. For a long time, although a certain brand is developing in a diversified direction, in the early stage of development, a certain automobile brand is dominated by micro-cars. After a long time, the brand image in the minds of consumers is basically fixed, and most consumers still pay attention to the micro-cars of a certain automobile brand. Although in recent years, a certain automobile brand has also introduced some large vehicles, which have been recognized by some consumers, its position among consumers has not changed, and it is still regarded as middle and low-grade cars [6]. (2) The profit level is low. After 2019, the annual sales volume of an automobile brand exceeded 1 million, but compared with other automobile brands, the profit level showed a low state, and even showed a negative growth for a long time. Influenced by this factor, it restricted the long-term development of an automobile brand to some extent.

5 Marketing strategy of a automobile brand under the background of big data

5.1 Product strategy

Before making a product strategy, we should first evaluate the automobile performance from the perspectives of safety, emission and pollution degree. In view of this demand, the Internet can be used as the main tool to collect the performance of various types of automobiles of a

certain automobile brand and other automobile brands, and through the gradual comparison of various automobile brands, the performance of a certain automobile brand can be judged. Through sorting out and analyzing the survey data, it can be seen that the performance of a certain automobile brand is at the lower level in the market, whether it is small cars, compact cars or medium-sized cars, and its safety is poor, which does not meet the requirements of modern consumers. For this reason, when formulating the product strategy of an automobile brand, we should start from the following two aspects: (1) Pay attention to the conversion between R&D and finished products. For an automobile product, it has strong R&D strength and a good R&D environment, and can develop many advanced automobile production technologies. First of all, we can build a high-quality R&D team, improve the overall quality of the R&D team, and strengthen the R&D of new products. Secondly, pay attention to the cooperation with other well-known automobile companies at home and abroad. Through cooperation, learn more theoretical knowledge about automobile power design, energy-saving design, etc. from each other, so as to continuously optimize the performance of self-developed products [7]. (2) Pay attention to product quality management. The automobile is composed of many parts, and the quality of each part is related to the performance of the whole automobile [8]. Therefore, in the production of parts, enterprises must control and inspect the quality of all parts to ensure that the quality of parts meets the requirements. During the quality inspection, instruments, equipment or systems with good performance and high accuracy should be selected, and various methods such as sampling and re-inspection should be adopted at the same time. After the automobile is submitted to the customer, the automobile should also be continuously tested, and the performance of the automobile should be continuously improved through the analysis of the subsequent test data.

5.2 Pricing strategy

When pricing products, there are three main forms, namely: (1) Skimming pricing, that is, when a new product is just launched, a slightly higher price is set, so that enterprises can obtain higher economic benefits, and then the product price will be gradually reduced according to the market situation. (2) Penetration price. When a new product is just launched, in order to rapidly expand the market scale, a lower product price is set, which will have a higher appeal to consumers. (3) Satisfactory pricing, the product price is between the above two prices, that is, the enterprise can obtain certain benefits, but also meet the needs of consumers [9]. For an automobile brand, product pricing can pay attention to the following two aspects: First, for the existing types of automobiles, it is mainly middle and low grade, with relatively low technical content. Therefore, in order to enhance the appeal to consumers, the penetration pricing scheme can be adopted to rapidly expand the market scale and further enhance the influence of one's own brand in the automobile market. Second, automobile brands should strengthen the research and development of high-grade automobiles, or optimize the product configuration combination, so as to improve product pricing and create higher economic benefits for enterprises.

5.3 Channel strategy

In terms of channel strategy, we should start from the following two aspects: (1) Improve network coverage. Today, with the rapid development of modern Internet technology, an automobile brand can pay more attention to the Internet, and make use of the characteristics of fast interconnection, openness and wide coverage to strengthen the publicity of the brand,

continuously expand the brand coverage, and make more consumers know about an automobile brand. (2) Adopt the mode of joint store building. An automobile brand can cooperate with large 4S stores in various regions, make use of the professional sales ability of 4S points, and master a large amount of customer data information, so as to carry out more efficient marketing activities, reduce marketing costs while improving marketing efficiency, and create more economic benefits for an automobile brand [6].

5.4 Promotion strategy

The promotion strategy involves many contents, such as personnel promotion, advertising promotion, etc. In this study, big data is the background, so only from the perspective of advertising promotion, a promotion strategy suitable for a certain automobile brand is worked out. Specifically, it mainly includes the following aspects: (1) Choose a reasonable delivery time[10]. According to the statistics of commonly used software such as Baidu and sogou, when searching for car-related information through PC segment, most of them are in the daytime working stage, especially from 4: 00 to 5: 00. When searching for car-related information through mobile devices, most of them are in idle time, especially after 9: 00, people search more before going to bed. Therefore, when advertising, we should focus on these two time periods to push advertisements to more mobile phone or PC users [11]. (2) Choose a good delivery media. Through statistical analysis of various websites, APP software and other data, we can find out the websites or apps with more views of automobile-related information for a long time, and put more advertisements on these websites and apps, so as to ensure the advertising efficiency and improve the advertising effect.

6 Conclusion

To sum up, under the background of big data, automobile enterprises should pay more attention to big data technology. On the one hand, they should use big data technology to analyze the production and marketing status of enterprises, so as to provide support for the subsequent impact work. On the other hand, automobile enterprises should also formulate a more perfect automobile precision impact strategy based on the analysis results of the current situation, combined with technologies such as the Internet and big data, so as to lay a good foundation for promoting the development of automobile enterprises in a better direction.

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