

Analysis of the factors influencing product pricing in e-commerce environment

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ABSTRACT. With the rapid development of the Internet and the intelligent application of big data, unlike traditional product pricing, products in the e-commerce environment have their own unique pricing strategies. The pricing strategy adopted by the product in the e-commerce sales channel, the influencing factors of the product pricing and the product pricing method are the decisive factors affecting the success or failure of the transaction. Based on the characteristics of e-commerce products, this article analyzes product pricing strategies and influencing factors, and provides a certain basis for e-commerce companies to do product pricing.

KEYWORDS: E-commerce, product pricing, influencing factors

1. Introduction

With the good development momentum of e-commerce, more and more product manufacturers choose e-commerce channels for product sales. Traditional product sales pricing earns profits through the difference caused by information asymmetry. E-commerce solves the problem of information asymmetry between the supply and demand sides in the traditional sales process. Due to the different environments and media, the e-commerce has its own unique pricing feature. Based on the characteristics of e-commerce pricing, this paper studies the relevant theories of e-commerce pricing strategies and analyzes the influencing factors of e-commerce product pricing, which is beneficial to maximize corporate profits.

2. Literature review of product pricing in E-commerce

In view of the pricing strategy of FMCG in the e-commerce environment, in 2018, Fengli proposed to make reasonable pricing from the perspective of manufacturers and promote the overall planning of enterprises in e-commerce channels^[1]. Aiming at the pricing strategy of the clothing industry in the e-commerce

environment, in 2018 LAN Tao put forward the personalized and diversified demand of the current consumers for the clothing industry, and the price, as an elastic factor of our consumers' psychology, set the corresponding clothing pricing strategy from various psychological factors of consumers' purchase of clothing^[2]. Aiming at the pricing strategy of fresh products in the e-commerce environment, Xiao Xiao put forward the importance of studying the pricing of fresh products in the face of e-commerce in 2019, and then studied the equilibrium of pricing strategy from the factors of consumers and retailers' supply chain^[3]. Aiming at the pricing strategy of information products under the environment of e-commerce, Fu Huizi proposed information products as network economic products in 2020, studied the difference between the pricing mode of information products and general commodities, and summarized the influencing factors of information products pricing^[4]. In 2019, Du Pirie analyzed the influencing factors of network pricing from three aspects: quality factor, sales factor and renewal factor, and proposed that in the increasingly mature shopping market in China, it is more conducive to the sale of goods to make the price of data and materials reasonable transparent^[5].

3. Theory of e-commerce product pricing

3.1 Product pricing objectives

According to their own production conditions, environmental factors, and the nature of their products, enterprises will actually produce profit goals, market goals, competitive goals, and consumer goals. The profit target is that the company pursues a state of maximizing long-term profits in the long run. Generally speaking, the market target is the market share target. The market share and profit show a positive growth relationship, so the company can change the market environment to achieve the market share target and set it as the pricing target. The competitive target is that the company participates in the market competition process. In terms of price, it is necessary to seek advantages and avoid disadvantages. Do not engage in unreasonable competition with large enterprises and choose appropriate competitive methods for pricing. Consumer goals guide consumers to make purchases by cultivating their shopping behavior and shopping structure, and cultivate specific consumption Group, reasonable pricing establishes a good image for the enterprise^[6].

3.2 Product pricing strategy

Under the premise of setting a reasonable basic price, enterprises should be flexible and clever in pricing based on changes in different market environments. The pricing strategies usually adopted in this process include product life cycle pricing strategies, product portfolio pricing strategies, and psychological pricing strategies.

The product life cycle from listing to delisting is the life cycle of the product. The pricing strategy for the life cycle of listed products is a reasonable pricing strategy based on market demand at different stages of the product life cycle. Product portfolio pricing strategies usually have the following situations. In the sales process of products, there are usually series products, complementary products, and product bundle combinations. When selling portfolio products, companies often have to set prices based on product attributes to promote customer purchases. Series product pricing strategies Often, similar products are designed with significantly different quality for pricing, which leads to different values according to different styles, thereby promoting purchasing power. When manufacturers manufacture major products, sellers often give these products alternatives or auxiliary products, such as buying mobile phones and giving headphones. This kind of behavior is the pricing strategy of subsidiary products; manufacturers reduce the price or increase the price to make a bundle of products for sale is called a product bundle pricing strategy. Psychological pricing strategies are generally divided into three cases: integer pricing strategy, mantissa pricing strategy, and custom pricing strategy. The price is modified by analyzing the customer's sentiment on prices.

3.3 Product pricing method

The product pricing method is based on the premise of achieving the enterprise's pricing goals, and uses the company's strategy to set the product price to set the most favorable pricing method for the product. Product pricing methods usually have three pricing methods: cost-based pricing, demand-based pricing, and competition-based pricing.

The method of pricing goods based on the cost of goods is called cost oriented pricing. The cost oriented pricing method emphasizes the possibility that the cost of goods is regarded as the lowest limit to protect the principal, and sets the most favorable price for the enterprise as far as possible to make profits. This method only considers the cost of goods, so it is easy to master, but it has some limitations in the real buyer's market. The common cost pricing methods include total cost plus pricing, target rate of return pricing and marginal cost pricing. The demand-oriented pricing method is a method that enterprises price according to the demand degree of commodities and the dependence degree of consumers on commodities rather than just the cost of commodities. There are two common demand-oriented pricing methods: value pricing method and demand difference pricing method. Because of brand, quality, service and other factors, consumers will form their own understanding value of the goods, rather than the cost value of the goods themselves. Only by understanding the value of consumers' understanding of commodities, can enterprises better set prices and better realize the purchasing power of commodities. The method of demand differential pricing is a customized differential price based on the demand degree difference of different consumers. According to the different demand degree of different items of the same quality, the different professional demand degree of different ages and the different demand degree of different places of purchase, consumers' pricing strategies will be

affected. The competition oriented pricing method mainly considers the price changes of competitors in the market, sets up a reasonable pricing method of commodities, and forms a balanced competitive relationship with competitors in the market. Generally, there are three kinds of competitive pricing methods: market-based pricing, auction pricing and bidding pricing.

4. Analysis of factors affecting e-commerce products

4.1 Enterprise influencing factors

Enterprise factors are usually composed of five factors: product cost factors, product service factors, security factors, logistics service factors, and merchant reputation factors. During the operation of online products, it includes the cost of purchase price for goods, the cost of hardware and software for operation decoration for e-commerce, the cost of publicity and promotion for product promotion, involving the maintenance of website, the management of software and hardware, and the cost of human resources for product sales. Commodity factors mainly include commodity characteristics and brand.^[7] The characteristics of commodities are that enterprises are competing to attract consumers through a certain factor of products and improve the sensitivity of consumers to product prices. As the intangible assets of enterprises, in the complex network of information, consumers will pay more attention to the choice of brand when they buy goods. Safety factors are related to the safety of customer information. Enterprises should do a good job in the safety of shopping process, the safety performance of goods themselves, and win the trust of consumers. As an important part of e-commerce transaction, logistics distribution factor mainly embodies in the cost and speed of logistics. As an external manifestation of the core competence of an enterprise, good reputation can gain the trust of consumers and win a wider consumer group, which requires enterprises to repay consumers with high-quality services, so that enterprises can achieve a virtuous circle and get more profits.

4.2 Analysis of consumer influence factors

4.2.1 Analysis of consumer influence factors

In the increasingly fierce environment of e-commerce competition, the key to enterprise competition is to grasp consumer psychology and win consumer groups. Consumer psychology usually includes self-esteem, reputation, benefit and inference. The self-esteem psychology usually likes to buy high-end products and get spiritual satisfaction; the material psychology pursues the material economy, which can be priced by the tail pricing method; the reputation psychology consumers will have certain requirements for the brand of the goods, and should adopt the high price brand pricing strategy; it is inferred that the psychological consumers will wait and see the goods and buy them in stages.

4.2.2 Time factor

The time factor consists of three parts: search time, payment transaction time and tracking waiting time. Different consumers spend different time in searching, trading, paying and waiting for goods. Compared with the traditional online shopping process, the search energy and time spent by customers online shopping decreased year on year, but the fast online browsing time of consumers also had some differences. Consumers' choice of different payment methods has a certain impact on transaction time. Businesses should provide a variety of convenient payment methods to reduce the time cost of consumers^[8]. Consumers will track the delivery time, and enterprises need to choose appropriate logistics services.

4.2.3 Shopping experience factors

Product experience will affect people's satisfaction with products, and a good online shopping experience can continue to increase consumer dependence on online shopping. In today's increasingly fierce competition in e-commerce, companies need to do a good job of customer experience in every aspect and every detail.

4.3 Analysis of external environmental factors

The external environment factors mainly include four parts: competitor factors, legal system factors, shopping concept factors and network factors.

4.3.1 Competitor factors

Under the e-commerce environment, product sales are accompanied by the convenience of search products, which means that enterprises will face more competitors. In the market competition, with the aggravation of competition, the price of goods will be reduced, and reasonable pricing can ensure the normal operation of the market. E-commerce marketing channels not only face the siege of online competitive enterprises, but also face the competition of offline traditional sales channels, and the traditional market has a huge customer base. When making product pricing strategies, online enterprises should take full consideration of the competitive factors.

4.3.2 Legal system factors

The company system and legal issues of e-commerce are becoming more and more perfect. E-commerce transactions involve many interests, We should avoid legal disputes that may arise in every link. E-commerce enterprises should establish trust in e-commerce and make the pricing mechanism of e-commerce develop in a normative direction.

4.3.3 Concept transformation factors

With the diversification of e-commerce participation industry and the change of consumers' concept of e-commerce product quality and service, some consumers tend to pay more attention to safety and after-sales service, implement quick return and exchange service, so as to transform consumers' concept of e-commerce, increase the market potential of e-commerce products, and improve the pricing system.

4.3.4 Network factors

Internet is the basis of e-commerce, and the quality of Internet directly affects the development of e-commerce. We should make good use of the fast-growing 5g technology, Internet of things technology and data analysis technology to meet the real needs of consumers, and do a good job in the pricing strategy of enterprises to better adapt to the times.

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