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E-commerce Platforms under Economics Research Focusing on Price Discrimination (B2C)

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ABSTRACT

With the rapid development of the Internet, the online shopping behavior of customers is being strengthened, attracting the attention of merchants to the e-commerce platform. It also moves on in accordance with the willingness of consumers to pay to formulate personalized prices corresponding to different customers. In fact, price discrimination has existed for a long time and has been widely used in the business field. In today's extremely developed e-commerce field, price discrimination will not only be widely used in business but also slowly become a new type of economic development in market behavior. This paper, through the study of economics, explores the economic behavior of e-commerce platforms and the current national policies that focus on e-commerce platforms to give the best price to different users with different welfares. Besides, the paper also emphasizes consumer preferences and willingness to pay according to consumer behavior. Although price discrimination has many advantages, it is also easy to cause a serious anti-competitive phenomenon in the market in some specific conditions. The paper finds that if the buyer gets to know the value of the goods from the public as well as other businesses' average value, the buyer will automatically avoid the occurrence of price discrimination. However, the buyer who only cares about the intrinsic value of the goods is prone to being affected by other buyers' intrinsic value assessments, which can lead to the wrong judgment of the product itself and then make them weak buyers. However, under the personalized price set by merchants, they can get more profits.

Keywords: *price discrimination, consumer preference, e-commerce, economics*

1. INTRODUCTION

With the development of The Times and the Internet, more and more businesses have decided to transfer their sales from offline bricks-and-mortar stores to online e-commerce platforms, and their price control has become more flexible and flexible. The price trend will be determined according to the information mastered by the buyers and sellers [1]. Price discrimination may increase, decrease, or keep the profits received by all consumers and may also increase, decrease, or keep the welfare of some consumers, so as to increase, decrease, or keep economic efficiency. In fact, the behavior of price discrimination is not completely unacceptable to our consumers. On the contrary, this type of behavior can sometimes bring certain benefits to consumers, and the majority of price discrimination is reasonable product caused by competition in various markets and cannot be fundamentally eliminated. However, we cannot say that price discrimination is reasonable or feasible because some price discrimination in the market should be restricted by law. In today's era of big data and the rapid development of the Internet, the price discrimination problem in various dynamic pricing models is becoming more and more serious. Thus, how to define illegal price discrimination undoubtedly is the most important way to solve the problem[2].

As the phenomenon of price discrimination in the market is more and more frequent in daily life, we often encounter the behavior of "price discrimination." However, it is necessary to figure out whether this price discrimination really adapts to the current market environment, what the advantages are compared with the traditional market, and what the defects and deficiencies are. As there is not that much research focused on this side in detail, this paper, through the study of economics, explores the economic behavior of e-commerce platforms and the current national policies that focus on e-commerce platforms to give the price to different users with different welfares. Besides, the paper also emphasizes consumer preferences and willingness to pay according to consumer behavior. It is hoped that the paper will help figure out whether the new market economy strategy will make sellers and buyers more satisfied, achieving a win-win situation.

2. PRICE DISCRIMINATION

2.1 The trend of price discrimination phenomenon in the market

From the twentieth to the twenty-first centuries, the Internet's development and the popularity of e-commerce have grown rapidly. People are more willing to trade goods and services on the Internet. In this trend, more and more e-commerce platforms emerge, giving birth to one after another B2C platform. There are a number of trading platforms in China, such as the T-mall platform, the Jing Dong platform in China, the United States, Amazon, and so on. At the same time, using big data to provide information is bad. It appears there are a lot of "price discrimination" phenomena. For the same goods or services, for different users, the prices will be different. It will be more common among new and old users, such as taxis. If both of them are set to the same place, the price will be the difference between new and old users, which may be several to dozens of dollars more, and we call this phenomenon "the big data killing" phenomenon in China.

This phenomenon reveals the importance of sellers in collecting information about buyers' consumption preferences, such as in "Shapiro and Varian's 1998" article [3], in order to reduce their own profit losses and gain more consumer surplus. In fact, this price discrimination phenomenon is particularly common in life, such as when the age difference can enjoy relative discounts, or the membership card can get a certain membership price, or it can also be based on the amount of purchase to give a wholesale price and any other behaviors.

2.2 Anti-discrimination laws and policies for price trend behavior

However, it does not mean that price discrimination behaviors are highly desirable and should be widely popularized. There was a case where a buyer deleted all the cookies on his computer, and Amazon automatically identified him as an ordinary user rather than a frequent buyer. The buyer found that the price of DVDs on the platform had been reduced from $26.24 to $22.74, which caused the buyer to become so angry that Amazon apologized publicly and refunded all the money paid for products that were higher than the average user's purchase. In addition, most consumers will have unpleasant feelings when they are subjected to price discrimination, which shows that consumers' preferences influenced by a particular price cannot be solely targeted, otherwise it is easy to make mistakes in pricing strategies like Amazon's.

The paper "Big Data and Personalised Price Discrimination in EU Competition Law" [3] describes this phenomenon in two ways: First, from the perspective of consumers, some consumers may be considered low-value consumers, so operators may provide them with lower quality services and higher prices. Therefore, overall fairness should be considered in a competitive market. Second, from the perspective of fairness and justice, there are two phenomena that can be confirmed as unfair: when consumers think online and offline shopping is uniformly priced, it will lead to a wrong evaluation of online goods or services, so personalized pricing will be judged as unfair and reduce consumer welfare. Or maybe there are some consumers who are not good at online operations. Due to their own problems, these consumers can only buy the same product and cannot choose to buy other online products. As a result, they are considered by the seller as the preferences of the consumer, so they need to pay a higher price. These vulnerable consumers need to be protected, but it is argued that there is no suitable remedy for it in this paper.

Algorithmic consumer price discrimination (ACPD) Article 102 of the EU is applicable to price discrimination in today's market, but EU competition law pays more attention to consumers when the object of price discrimination is the consumer. However, EU competition law can not be used to solve all the problems. Article 102 in particular may not be the most appropriate legal form to address this phenomenon.

Personalised Pricing in the Digital Era was discussed in item one of the Competition Commission and Consumer Policy Commission's joint meeting in 2018 [4]. Among them, the United States argued that the phenomenon would benefit consumers because of competition from each other's businesses. Personalised pricing itself is not illegal in the absence of anti-competitive, unfair or deceptive practices. But given the theoretical rhetoric and the lack of practical and empirical simplicity to evaluate this approach, there is no reason to ban personalized pricing. However, from the perspective of economics, the EU may not only increase overall social welfare but also cause the loss of some consumer welfare. For example, low-income consumers may be ignored by operators, resulting in the loss of their own rights and interests. This behavior may be regulated by "discrimination" or "overpricing" provisions under antitrust law.

This has led to some policy changes. The United States launched the Robinson-Mc Whitman Act. Although the EU did not reflect obvious law, for such a period of specific analysis, China's anti-monopoly bureau also released in 2019, the provisional regulations prohibiting abuse of dominant market position behavior in the legal system [4]. In view of this phenomenon, merchants should be required to: inform consumers that the price or discount provided is personalized and that everyone is different; show consumers the calculation method of merchants' personalized pricing; use their personal information to make personalized pricing with the permission of consumers; and provide uniform pricing for all consumers who choose not to use personalized pricing.

2.3 From the economic model to analyze price discrimination

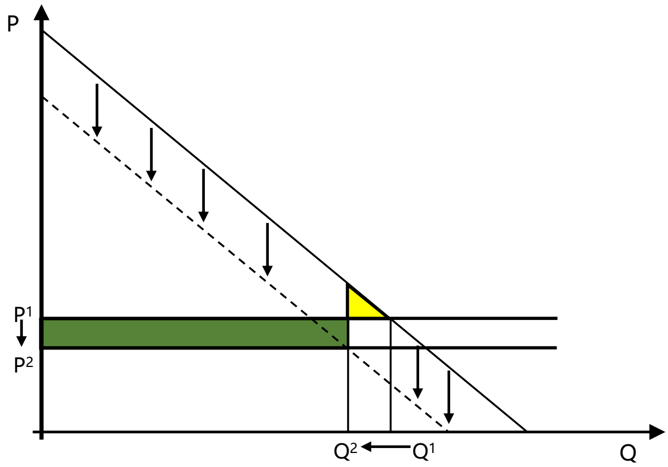

Figure 1 Demand curve (P for price; Q for quantity of goods)

In Figure 1, as shown above, the seller made the Q1 quantity of goods and the number of consumers willing to buy it was less than the number of sellers willing to sell it (Q2 <Q1), but also paid for it at a low price (P2 <P1). In the short term, a small amount of reduced demand is useful because consumers abandoned marginal consumption. But if consumers' willingness to pay an average price is higher, the sellers' profit is lower than the profit brought by personalized pricing[5].

Thus, by adjusting the price to each individual consumer's willingness to pay, the seller can make a bigger profit. It is a good way to set the low price of goods to sell to consumers with a low willingness to pay and set the high price for consumers with a high willingness to pay to obtain a surplus. In theory, the segmentation of an infinite number of consumers can be achieved by an automated agency system, based on the history of previous quotations combined with the current development of the Internet and big data technology. As Grover and Ramanlal (1999) said [6], buyers will continue to use the Internet and big data technology to compete for more of the consumer surplus.

3. DISCUSSION AND SUGGESTION

When setting prices, merchants should not only compare the cost of goods with the demand of consumers, but also set personalized prices for different consumers based on their age, race, gender, income, purchase record, and consumer preference, so as to gain more profits. Some examples of price discrimination include the widespread practice of charging different rates for mobile phone users using different systems and complex promotions designed to differentiate between different types of consumers.

In fact, the emergence of these phenomena is mainly due to the development of the Internet, which leads to the reality that merchants use a large amount of information to distinguish and identify the preferences of different consumers, so as to formulate the method of price discrimination for different consumers. According to the investigation by Mckeen et al. (1994) [7], such personalized pricing can reduce consumers' perception of price discrimination to a certain extent and also increase the number of sales. Similarly, the enhanced negotiation for EBAY's Best Offer launched on the EBAY platform proves the feasibility and authenticity of personalized pricing and also shows the potential of big data technology today.

In other words, using reasonable price discrimination in today's market will undoubtedly increase the welfare of consumers in the whole market, which is beneficial to both consumers and operators, and achieve a win-win situation for both sides. But due to the asymmetry of big data, both the buyer and the seller know the wrong information [8]. It also causes price discrimination, which makes it more difficult for consumers to choose commodities according to their needs. Nevertheless, consumers need to strengthen their own ability to identify the quality of products so that they don't conflict. At the same time, we should also strengthen the legislation to avoid or reduce price discrimination in the e-commerce market[9]. Operators should create their own reputation advantages, demonstrate loyalty, and take other effective measures. All in all, in today's e-commerce platform, as a new era of the new trading platform, price discrimination is regarded as an effective way of pricing.

Operators have to respect the rules of the market at present, establish a reasonable price system, try to appropriately personalize pricing so they can stand out in many electric business platforms, occupy more market share, and improve their own economic benefits in order to promote the long-term development of the e-commerce platform[10].

This paper argues that price discrimination is not caused by big data technology, improper disclosure, or protection of personal information, but rather because some monopolistic merchants abuse their position in the market to set prices at will. As "monopoly" of data is also the inevitable Internet enterprises, this also lets those who are mastered by the monopoly of the user's rights and interests be the cause of the damage. If the enterprise has other competitors that do not have access to the data, the data itself will help companies to form market barriers, enhance the enterprise market forces, and have anti-competitive effects. When users' non-sensitive information is not protected, merchants have an incentive to use users' personal information for price discrimination. However, this will also have adverse aspects that will directly reduce the overall profits of enterprises and thus increase the overall welfare of consumers. In other words, in order to solve the price discrimination of each merchant, the most important thing is to let them compete so as to maximize the welfare of consumers.

4. CONCLUSION

To conclude, through the study of economics, this paper explores the economic behavior of e-commerce platforms and the current national policies that focus on e-commerce platforms to give the price to different users with different welfares, as well as consumer preferences and willingness to pay according to consumer's behavior. Price discrimination has many advantages, though, including that the output will be larger than that of a single price, thus meeting the needs of more consumers. However, if the monopolistic manufacturer conducts price discrimination, its output will be equal to its output under perfect competition. Besides, if the manufacturer only sells according to a single price, the output will inevitably decrease, which leads to some low-priced consumers not being satisfied. It is also easy to cause serious anti-competitive phenomena in the market in some specific conditions. The paper finds that if the buyer gets to know the value of the goods from the public as well as other businesses' average value, the buyer will automatically avoid the occurrence of price discrimination. However, the buyer who only cares about the intrinsic value of the goods is prone to being affected by other buyers' intrinsic value assessments, which can lead to the wrong judgment of the product itself, and then make them into weak buyers. However, under the personalized price set by merchants, they can get more profits.

From the angle of economics and the analysis of the previous case to the electric business platform of price discrimination, and from some policies to explore, while the price discrimination is obtained under the advantage and feasibility of personalized pricing, the lack of some field case analysis and thinking, the evidence is not enough to justify price discrimination as the trend of the future. But it also shows us the importance of big data technology to a certain extent and makes us better aware of the reaction of consumers to single price discrimination. We hope to improve the research on price discrimination in the future.

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