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Legal Controls on Big Data Price Discrimination for Existing Customers

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ABSTRACT

This article focuses on the legal regulation of price discrimination against existing customers using big data. This practice infringes on consumers' rights to know, fair trade, and personal information protection. However, the current legal system has flaws. For example, price discrimination lacks clear definition and punishment, and there's no accurate definition of "legitimate reasons". Also, current legislation has obvious gaps in preventing algorithm - related risks. To improve the legal regulation, it is recommended to incorporate differential pricing for consumers into the scope of adjustment of the Price Law, refine the provisions on fair trade conditions in the Law on the Protection of Consumers' Rights and Interests, and improve the rights relief mechanism. Moreover, consumers should be more aware of rights protection, be more price - sensitive, keep evidence, and use judicial procedures or consumer associations to safeguard rights. We aim to create a healthy and orderly Internet economy, ensuring consumers' equal treatment and legal rights in digital transactions.

KEYWORDS

Price Discrimination, Big Data, Price Fairness, Legal Regulation, Fair Trade, Consumer Rights

INTRODUCTION

The vast amount of data and advanced algorithms endow platform operators with extremely keen market insights, enabling them to accurately grasp consumers' purchase intentions and payment capabilities (Liu et al., 2022). They can then implement personalized pricing strategies within the price range that consumers can afford (Xiao, 2022). This behavior results in different consumers paying different prices for the same product, which is the unique "big data-driven price discrimination" phenomenon that has been realized in the era of the internet economy (Gillis & Spiess, 2019). The term "big data-driven price discrimination" was listed as one of the 10 hot topics of consumer rights protection public opinion by the China Consumers Association in 2024. This directly reflects the strong aversion consumers have to the "big data-driven price discrimination" phenomenon.

Big data-driven price discrimination is common across many industries and in the everyday lives of consumers (Wang, 2023). In the field of takeout food ordering, for example, some consumers report that the price of the same dish from the same restaurant can vary from one user's mobile phone to another, and some users have even been charged higher fees after ordering from the same platform for a long time. Another industry affected is transportation. For instance, taxi or rideshare apps are known to discriminate the price of trips according to users' travel habits, geographical locations, and other information. Some users have found that even when using different rideshare applications at the same time and in the same place, the quotes can vary greatly from one user to the next. Furthermore,

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users who use certain apps are often charged higher fees. The phenomenon is even more common in online shopping. Merchants will set different prices for the same product according to consumers' shopping history, browsing records, and other information. When consumers search for an electronic product on an e-commerce platform, they report finding that the price of the same product can actually be hundreds of yuan different in price when compared to another user's search performed at the same time. It is even more shocking that some merchants dynamically adjust the price of goods according to factors such as consumers' spending power and purchasing willingness, which makes consumers unable to enjoy fair trading conditions when purchasing online (Yu & Jia, 2023).

This behavior not only violates the principle of fair competition in the market economy, but it also seriously damages the legitimate rights and interests of consumers (Gautier et al., 2020). When consumers discover that they have experienced price discrimination due to long-term use of a certain platform, they develop a trust crisis towards the brand, which can lead to feelings of mistrust of the whole online consumption environment altogether. They may reduce their consumption on the platform and even be cautious about other platforms, which is extremely detrimental to the healthy development of the entire internet consumption ecosystem. During the consumption process, consumers not only pay close attention to the quality of goods and services but also constantly worry about whether they are being treated differently by the platform. This additional psychological burden can make consumers feel anxious when shopping, reduce the pleasure of consumption, and hinder a consumer's normal consumption behavior (Abdou, 2019).

This paper delves into the legal regulation of big data-driven price discrimination, targeting long-term consumers with a particular focus on safeguarding consumer rights. By comprehensively analyzing the current legal landscape, the paper aims to identify loopholes and propose feasible legal countermeasures. This research is not only intended to provide a theoretical basis for the legal system's improvement but also to offer practical guidance for regulatory authorities. Ultimately, the goal is to construct a fair and healthy market environment, ensuring that consumers can enjoy equal treatment and legitimate rights in the digital trading process.

Legal Nature of Big-Data-Enabled Price Discrimination Against Existing Customers

Infringement of Consumer Rights and Interests

Platforms widely collect various types of consumer information through multiple channels and methods. Information collected includes personal identity information and characteristics for accurate identification of consumers', geographical location information to profile consumers' locations and activity ranges, preference and liking information to gain insights into consumers' interests and consumption tendencies, payment-willingness information to grasp the price range a consumer is willing to pay for goods or services, and information that can be recorded in electronic data form (Chen, 2021). Through specific data-cleaning algorithms, duplicate, incorrect, and invalid data can be removed, and the characteristic data with practical value can be retained. Data-mining techniques are used to identify key information from this characteristic data (e.g., the consumer's age range, gender, consumption frequency, etc.), classify, and group consumers' profiles according to these key characteristics. For example, consumers with high consumption frequency and large consumption amounts are grouped together. These consumers are usually the core user group of the platform, while consumers with low consumption frequency but high single-consumption amounts are grouped together in subsequent targeted analysis. After this step, the platform achieves the initial classification of consumers, laying the foundation for subsequent accurate analysis. Based on the previous classification results, representative labels are selected from multiple dimensions, such as "high-consumption potential," "fashion-trend pursuer," "price-performance-sensitive," etc. These labels do not exist in isolation but form a comprehensive and detailed consumer-label network through the construction of a multi-level label system, where each label is interrelated and complementary. For example, a consumer may be simultaneously labeled with multiple tags, such as "young user," "digital-product enthusiast," and "high-consumption ability." Through the combination of these