

Manifestations, Causes, and Governance of Data Monopoly in Chinese Internet Platforms

Xinyue Huang¹

¹ Guangdong University of Finance & Economics, Guangzhou, Guangdong

Correspondence: Xinyue Huang, Guangdong University of Finance & Economics, Guangzhou, Guangdong.

doi:10.56397/LE.2023.07.03

Abstract

Data has become a critical factor of production in China's digital economy development. Internet platforms, in their pursuit of market dominance, engage in data monopolies that impede the healthy growth of the market economy. Data monopolies on internet platforms manifest in various forms, posing threats to other market entities and consumers' rights. The formation of platform data monopolies can be attributed to the nature of data itself, as well as deficiencies in government and legal regulations. Although laws such as the Anti-Monopoly Law and the Price Law provide certain regulations and government oversight, the current provisions are disconnected from practical implementation, resulting in limited effectiveness in governing platform data monopolies. To eliminate adverse factors that hinder fair market competition and protect consumers' legitimate rights, this paper argues for governance principles based on marketization and the rule of law. It suggests establishing clear governance rules for platform obligations and adopting a governance approach that combines corporate self-governance, government regulation, and social supervision.

Keywords: data, monopoly, internet platforms, antitrust regulation

1. Introduction

In the context of entering the digital economy era, data has emerged as a crucial resource for market participants. It encompasses various aspects and now plays a role in reflecting the allocation of production factors in people's daily lives. This involvement in significant economic interests has fueled fierce competition among market participants for data resources. In their quest for a competitive edge, market participants strive to control these data resources. However, this pursuit not only impacts healthy market competition but also presents risks of data monopolies, which can render the market's self-regulatory ability uncontrollable. Internet platforms, due to their engagement in activities such as extensive data collection, storage, analysis, and utilization within their production and operational processes, hold exclusive access to and control over data. This monopolistic position concerning data can potentially give rise to data monopoly issues.

For instance, in March 2022, the Beijing Consumers Association released investigation findings on the issue of "price discrimination" based on big data in internet consumption. The investigation involved 16 platforms and 32 simulated consumer experience samples, revealing inconsistent prices for new and existing accounts in 14 samples. The Ctrip app displayed varying hotel prices for different users, and Amazon analyzed users' purchase records, personal attributes, and internet behavior to implement differential pricing, among other examples. These real-life instances shed light on the problems stemming from data monopolies and the infringement on consumer interests.

To maintain market competition order and protect consumer rights, it is essential to regulate and govern data monopolies on internet platforms through antitrust measures. The 35th session of the Standing Committee of the 13th National People's Congress passed amendments to the Anti-Monopoly Law of the People's Republic of

China, effective from August 1, 2022. Additionally, the State Administration for Market Regulation issued the Anti-Monopoly Guidelines for the Platform Economy, reflecting China's growing concern regarding data anti-monopoly. However, the current anti-monopoly laws still have limitations in effectively controlling data monopolies in practical domains, necessitating further refinement and adjustment.

To address these issues, it is crucial to define data monopoly, understand its impact on market order, and determine specific regulatory measures required for internet platforms. This paper aims to analyze the manifestations and underlying reasons for data monopolies in the platform economy and propose corresponding governance strategies to promote the orderly development of China's market economy and protect consumer rights.

2. Literature Review

Chinese scholars have made significant progress in researching data monopolies, offering various perspectives on the issue. Platform data monopoly is a product of the digital economy era, and the academic community has conducted comprehensive studies on its definition, nature, and regulation in China. These research efforts have yielded multiple viewpoints and presented a series of suggestions for regulating data monopolies in the country. These findings represent valuable theoretical and practical research achievements that have a guiding significance for the development of the platform economy. They also serve as an important research foundation for this article.

To begin with, scholars have engaged in discussions and provided clarity on the fundamental aspects of the definition and nature of platform data monopolies. From the perspective of implementing monopolistic practices, Cheng Xuejun and Hou Shuqi define data monopoly as "the phenomenon of controlling and manipulating prices, excluding competition, and ultimately establishing a monopolistic market position by monopolizing and utilizing data, thus impacting fair market competition." Li Xiliang, on the other hand, analyzes the nature of data monopolies from both a historical viewpoint and the perspective of production factors. He argues that data, as a production factor, indirectly generates significant social productivity and naturally becomes a resource that platforms compete to acquire. In the process of defining platform data monopolies, most scholars have recognized the competitive advantage of large platforms in the era of big data. Zheng Pengcheng and Chen Sen argue that the digital economy strengthens the market power of platforms.¹ Zeng Di, through a comparison of the positions of platforms and merchants, points out that the platform's identity has shifted from being a manager to a competitor, as it possesses more data resources than the merchants. This demonstrates the platform's competitive advantage in data.² The inherent characteristics of platforms give them an advantageous position in competition, making it easier for data to be concentrated in their hands. Additionally, the legal regulation of data power is not yet complete, which exacerbates the risk of platform data monopolies.

Furthermore, scholars have also summarized and summarized the operation and characteristics of platform data monopolies from different perspectives, forming different viewpoints. Song Donglin and Tian Guanghui argue that the formation of data monopolies can be divided into two steps: capital accumulation and capital concentration.³ The first step is internal capital accumulation, and the second step is horizontal capital concentration. Ma Pingchuan reveals the source and operation of platform data power from the legal attributes, operational logic, and legal control of data power, answering why and how platform data power should be regulated from a legal perspective.⁴ Ye Ming and Zhang Jie identify the consequences of data monopolies based on their behavioral effects, which include duality, difficulty of identification, and uncertainty.⁵ Cheng Xuejun and Hou Shuqi propose three main manifestations of data monopolies: monopolistic agreements primarily based on algorithm collusion, abuse of market dominance through data resources, and data-driven concentration of operators.⁶ These studies, based on a critical examination of platform data monopolies, objectively reveal the inherent nature of their formation process and their destructive effects on the market.

To maintain the liquidity of the market, the data rights enjoyed by platforms should be reasonably protected, including control interests and property interests over platform data.⁷ However, in terms of the legal regulation of platform data ownership, practical problems have arisen. Some scholars argue that the platform's control interests over data are based on facts rather than judicial norms based on rights, while others argue that there is no complete and widely accepted definition of data ownership, and data has not been given asset attributes in law. In summary, there are no specific restrictions on data ownership in the law, and platforms still have significant freedom to use data. Data is concentrated without restraint on a few major platforms, leading to the phenomenon of platform data monopolies.

Finally, how to regulate platform data monopolies is also an important issue of concern in academia. Li Xiliang explores the governance of Internet platform data from the perspectives of market regulation and government intervention, explaining how an effective market and proactive government should be achieved based on existing limitations.⁸ Su Yu proposes the necessity and specificity of regulating platform data monopolies from the perspective of the limits of regulation and elaborates on three institutionalized limits for regulating platform data

monopolies, demonstrating specific means of governing data monopolies. Wang Yanchuan presents existing anti-monopoly measures and reflections on super platforms from the perspective of data legal persons. He believes that the key to addressing data monopolies lies in defining data ownership.⁹ Zheng Pengcheng and Long Sen propose four specific recommendations for addressing “price discrimination based on big data” from the perspective of platform publicness,¹⁰ “Price discrimination based on big data” refers to the differentiated treatment of different users by platforms based on special data algorithms, and its root cause is closely related to platform data monopolies. Many scholars have provided their interpretations of the regulation of platform data monopolies from different perspectives, with most of them mentioning the issue of data ownership and some addressing existing laws and government regulations. It can be seen that the academic community has a rich variety of viewpoints on how to regulate platform data monopolies, with significant research conducted both in theory and practice. The scholars’ focus on data ownership is particularly evident, and it can be said to be a major cause of platform data monopolies. The prominence of this issue highlights the urgency of defining it.

3. Manifestations of Platform Data Monopolies

3.1 Data Control

One of the manifestations of platform data monopolies is data control, characterized by user control, algorithm control, and cross-domain control. User control refers to platforms accumulating data by attracting and engaging users. Algorithm control relies on capturing a significant portion of users and using algorithms to create precise user profiles, providing personalized services and targeted advertising to generate profits and achieve monopoly status. Cross-domain control occurs when platforms extend their influence across different industries, establishing barriers to entry and ultimately leading to data monopolies.¹¹ Data control enables the gradual formation of data monopolies. Platforms leverage data control to progressively accumulate, centralize, and monopolize data, increasing user stickiness and attracting new users while extensively collecting user data. Finally, the platform’s market dominance allows it to easily employ advanced algorithms to categorize and utilize user data accurately.

3.2 Harm to Consumer Interests, Users

“Price discrimination based on big data,” also known as “surge pricing,” is a typical manifestation of consumer rights infringement resulting from data monopolies. For example, food delivery platforms like “Eleme” may show different prices or discounts for the same product to different users based on their consumption habits and frequency.

Currently, the mainstream academic definition of “price discrimination based on big data” is generally considered as price discrimination. The practice of customizing prices for different consumers using extensive data and analytical techniques can be viewed as a form of price discrimination in theory. However, in judicial practice, “price discrimination based on big data” may be classified as price fraud. For example, in 2020, a Chinese travel agency called Ctrip faced a lawsuit for “price discrimination based on big data.” Although the plaintiff prevailed in the case, the court ultimately ruled that Ctrip had engaged in “false advertising, price fraud, and deceptive practices.”

This article supports the viewpoint that “price discrimination based on big data” should be regarded as price discrimination, as the specific manifestations of this practice do not align with the elements of price fraud as defined by the Price Law of the People’s Republic of China. Article 14, Clause (4) of the Price Law states that price fraud involves using false or misleading pricing tactics to deceive consumers or other businesses into conducting transactions. However, in “price discrimination based on big data,” the prices presented to consumers by platforms are genuine. It essentially takes advantage of information asymmetry among consumers without concealing or intentionally misleading them, thereby not meeting the criteria for price fraud.

As for how “price discrimination based on big data” harms consumer rights, there are three implementation methods: reinforcing the market power of super-platforms in the digital economy, accurate differentiation of customer groups through big data algorithms, and algorithmic black boxes effectively preventing arbitrage.¹² These three methods result in price discrimination being implemented by platforms without consumers’ knowledge. Due to information asymmetry between consumers and platforms, “price discrimination based on big data” remains highly covert.

Furthermore, the loss of consumer rights is manifested in the loss of autonomy. Data monopolies by platforms put consumers in a passive state where their choices are effectively controlled by the platforms. This phenomenon stems from the negative externality of businesses, where the actions of one enterprise affect others and impose additional, unnecessary costs on them without providing corresponding compensation.¹³ Under the influence of negative externalities, a few platforms dominate the primary market, making it difficult for other businesses to enter. As a result, consumer choices are significantly reduced, and they may have to bear high prices and limited product variety.

3.3 Setting Barriers and Excluding/Restricting Competition

Platforms use data control to achieve data monopolies and set information barriers for consumers, establishing entry barriers in the market. Dominant companies in the market with data monopolies possess massive user data and advanced algorithms. On the other hand, startup companies lack these advantageous conditions. Whether it is negotiating with data monopolists to obtain data or collecting data themselves, it results in extremely high costs and resource waste.¹⁴ In the early stages, startup companies lack the hardware foundation to acquire user data using advanced algorithms like dominant companies. Additionally, the relatively limited economic resources are insufficient to support the recruitment of talent and technology. Lastly, startup companies struggle to bear the enormous costs of trial and error. Therefore, entering the market is a high-risk choice for startup companies, and the market entry barriers formed by dominant companies greatly reduce the survival space for startups.

Data, as a crucial factor determining productivity, can be exclusively controlled to generate anti-competitive effects.¹⁵ Due to the lack of clear regulations on data ownership in current laws, the decision to implement exclusive control is left to the platforms. However, platforms that already possess massive amounts of data often choose exclusive control for economic reasons, refusing to share the data. Platforms can use contracts, agreements, or access restrictions to prevent their competitors from accessing the same data resources. These actions seriously damage the fair order of the market.

4. Manifestations of Platform Data Monopolies

4.1 The Profit-Driven Nature and Expansion of Data Capital

Some scholars argue that the collection of massive data by platforms to establish market advantages is merely a surface-level manifestation, rather than the underlying cause of platform data monopolies. Instead, they attribute the root cause to the profit-driven nature and expansion of capital that drive data competition. I share this perspective and also believe that the former is one of the manifestations of platform data monopolies, rather than the root cause itself. Platforms, operating within the market, inevitably face competitive pressures. These external pressures compel platforms to pursue their interests through data accumulation and concentration. Furthermore, as platforms amass a significant amount of data, this data, serving as a production factor, can be transformed into capital. Naturally, platforms will continuously expand their data capital in order to maintain their market position. Consequently, after achieving data monopoly, platforms undergo a transformation from market competitors in the early stages to monopolistic capitalists.

4.2 Insufficient Legal Regulations

Furthermore, the infringement on consumer rights is evident in the erosion of autonomy. Data monopolies by platforms place consumers in a passive position, where their choices are effectively dictated by these platforms. This phenomenon arises from the negative externality of businesses, wherein the actions of one enterprise impact others and impose additional, unnecessary costs on them without providing commensurate compensation.

As a consequence of these negative externalities, a few dominant platforms exert control over the primary market, making it challenging for other businesses to enter. Consequently, consumer choices are greatly restricted, leading to higher prices and a limited range of products available to them.

4.3 Insufficient Government Regulation

Currently, the Chinese government's regulation of platform data monopolies still has deficiencies. The current policies are based on supporting free market competition, and the regulation of platforms and data is relatively lenient in order to promote the development of a market economy. However, some cases in judicial practice and policies issued by the government aim to create an environment of fair competition but weaken the innovation incentives in the development of platform economies, such as the "non-interference unless necessary for public interest" principle advocated by the Beijing Higher People's Court.¹⁶ The balance between government regulation and platform competition should be maintained, but if the government "fails to act" or acts in a disorderly manner, its actions may even become a catalyst for platform data abuse.

5. Countermeasures Against Platform Data Monopolies

5.1 Governance Principles: Upholding Marketization and Rule of Law

Article 4 of the General Provisions of the Anti-Monopoly Law of the People's Republic of China, revised in 2022, explicitly stipulates that the country adheres to marketization and rule of law, which should also serve as the guiding principle for governing platform data monopolies.

Firstly, internet platforms have both positive and negative externalities on market economic development.¹⁷ The consequences resulting from these two effects are diametrically opposed, manifested in fair or unfair competition arising from resource utilization methods, as well as the industry's innovation vitality or market entry barriers

resulting from resource sharing or lack thereof. One typical form of negative externality is platform data monopolies. Therefore, adhering to the principle of marketization should strive to minimize the negative externalities of platforms while actively leveraging their positive externalities. This can be achieved by allowing more entities to enter a specific industry, activating the market, and through market competition, bringing more opportunities for innovation to the industry, promoting the prosperity and development of the market economy.

Secondly, the principle of rule of law requires governance based on laws. “Legislation as the basis” is one of the fundamental principles of China’s economic law and is also reflected in various judicial practices, including the determination of data monopoly behaviors. However, as mentioned earlier, the current laws defining the criteria for such behaviors in China are incomplete, and the relevant boundaries are unclear, which may limit the scope of platforms implementing data monopolies in practice. Therefore, before implementing the principle of rule of law, it is necessary to improve existing laws and policies, constructing a sound legal foundation centered around the Anti-Monopoly Law. After the improvement, the principle of rule of law should be implemented.¹⁸ Anti-monopoly regulatory authorities need to actively supervise, enhance their understanding of data monopolies, devise reasonable strategies, accurately identify data monopoly behaviors, and avoid “disorderly actions” or “inactions.”

5.2 Governance Rules: Clarifying Platform Obligations

After establishing governance principles, it is necessary to clarify platform obligations to curb platform data monopolies. Punitive and sanction measures should be set for violations of these obligations to serve as a deterrent and prevent platforms from having the motivation to engage in monopolistic behavior. The concept of “gatekeepers” in the “EU legislation” applies to core platform providers who meet the conditions stipulated by the legislation. Gatekeepers should adhere to the obligations set forth in the legislation to maintain the competitiveness and fairness of relevant markets.¹⁹ After gaining control of core user data, some platforms may engage in price discrimination or fraud against consumers and monopolize data resources to squeeze out competitors. Under the concept of “gatekeepers,” internet platforms will have established preeminent responsibilities and corresponding obligations based on their market power, thereby avoiding a reduction in market participants and safeguarding consumer rights.

5.3 Governance Path: Enhancing Corporate Autonomy, Government Regulation, and Social Supervision for Diverse Governance

The governance of platform data monopolies cannot solely rely on government regulation; it requires the participation of other entities, including the platforms themselves, social organizations, and individuals, in joint governance. The current economic development differs from previous models, and the utilization of data as a highly sought-after resource and a mobile production factor involves the rights and obligations of diverse entities.

When it comes to the self-governance of platform companies, it is essential to consider relevant corporate compliance systems that can proactively address minor violations within the company. This approach aims to prevent litigation and mitigate the substantial costs associated with legal proceedings. By adhering to marketization principles within the existing rule of law system, companies can effectively prevent the emergence of data monopolies. Social organizations and the public should also play a vital role in platform regulation as the monopolistic behavior of platforms can potentially infringe upon social and individual interests. It is crucial for them to pay increased attention to platform regulation and utilize means such as public interest litigation and public opinion supervision to act as a deterrent against platform violations of the law. However, it is important to recognize that the primary responsibility for platform regulation still rests with the government. As the government possesses public power that other entities lack, its regulation of platforms carries a more significant impact compared to other entities.

6. Conclusion

Data, as a production factor, has transformed into data capital, exerting direct and spillover effects on economic growth. Platform data monopolies not only have detrimental impacts on the digital economy but also disrupt market order due to the negative externalities associated with these companies. Therefore, it is crucial to analyze and address this behavior. This article begins by examining the surface manifestations and subsequently delves into the underlying causes. Finally, it proposes governance strategies to tackle this phenomenon.

The manifestations of platform data monopolies primarily encompass the following aspects: 1) platforms achieving dominant market positions by controlling and monopolizing extensive user data, 2) compromising consumer rights through practices such as personalized pricing and limitations on consumer autonomy, and 3) creating barriers to exclude and restrict competition, making it challenging for startups to thrive in the market. The underlying causes include the profit-driven and expansionary nature of data capital, inadequate legal regulations, and insufficient government oversight, with the fundamental reason lying in the nature of data

capital itself.

In terms of governance strategies, it is necessary to adhere to the principles of marketization and the rule of law. This can be achieved by establishing clear rules outlining platform obligations and pursuing a diverse governance approach that involves collaboration between corporations, governments, and society. It is important to note that this article aims to highlight the shortcomings of existing laws and propose corresponding strategies without providing a detailed analysis or specific solutions for determining platform data monopolies. Further research is required to address these specific issues.

References

- Hu Xiaohong, (2023). The construction of “gatekeeper” obligations in the field of platform economy in China from the perspective of anti-monopoly law. *Academia Bimestris*, (02), 164-172.
- Ma Pingchuan, (2023). The operation logic and legal regulation of platform data power. *Science of Law (Journal of Northwest University of Political Science and Law)*, 41(02), 98-110.
- Ma Qijia, Huang Haoming, (2023). A theoretical perspective on the dispute over the proposition of abuse of market dominance in the field of big data. *Forum on Science and Technology in China*, (02), 168-178.
- Song Donglin, Tian Guanghui, (2023). The roots, approaches and governance strategies of data monopoly in platform economy. *Journal of Soochow University (Philosophy & Social Science Edition)*, 44(01), 104-114.
- Sun Jin, (2021). Anti-monopoly supervision of digital platforms. *Social Sciences in China*, (05), 101-127+206-207.
- Wang Yanchuan, (2022). Data legal person: the governance path of super platform data monopoly. *Journal of National Prosecutors College*, 30(06), 145-159.
- Ye Ming, Zhang Jie, (2021). Challenges and responses of big data competition behavior to anti-monopoly law enforcement in China. *Journal of Central South University (Social Science)*, 27(03), 26-39.
- Zeng Di, (2022). Legal Regulation of Platform Abuse of Data Preferential Treatment for Self-operated Business. *Science Technology and Law (Chinese-English Version)*, No.12(06), 54-63.
- Zheng Pengcheng, Long Sen, (2022). The regulatory logic and path of platform “big data kills maturity” from the perspective of publicity. *Journal of Jishou University (Social Science)*, 43(06), 29-40.

¹ Zheng Pengcheng, Long Sen, (2022). The regulatory logic and path of platform “big data kills maturity” from the perspective of publicity. *Journal of Jishou University (Social Science)*, 43(06), 29-40.

² Zeng Di, (2022). Legal Regulation of Platform Abuse of Data Preferential Treatment for Self-operated Business. *Science Technology and Law (Chinese-English Version)*, No.12(06), 54-63.

³ Song Donglin, Tian Guanghui, (2023). The roots, approaches and governance strategies of data monopoly in platform economy. *Journal of Soochow University (Philosophy & Social Science Edition)*, 44(01), 104-114.

⁴ Ma Pingchuan, (2023). The operation logic and legal regulation of platform data power. *Science of Law (Journal of Northwest University of Political Science and Law)*, 41(02), 98-110.

⁵ Ye Ming, Zhang Jie, (2021). Challenges and responses of big data competition behavior to anti-monopoly law enforcement in China. *Journal of Central South University (Social Science)*, 27(03), 26-39.

⁶ Zheng Pengcheng, Long Sen, (2022). The regulatory logic and path of platform “big data kills maturity” from the perspective of publicity. *Journal of Jishou University (Social Science)*, 43(06), 29-40.

⁷ Ye Ming, Zhang Jie, (2021). Challenges and responses of big data competition behavior to anti-monopoly law enforcement in China. *Journal of Central South University (Social Science)*, 27(03), 26-39.

⁸ Zeng Di, (2022). Legal Regulation of Platform Abuse of Data Preferential Treatment for Self-operated Business. *Science Technology and Law (Chinese-English Version)*, No.12(06), 54-63.

⁹ Wang Yanchuan, (2022). Data legal person: the governance path of super platform data monopoly. *Journal of National Prosecutors College*, 30(06), 145-159.

¹⁰ Ma Pingchuan, (2023). The operation logic and legal regulation of platform data power. *Science of Law (Journal of Northwest University of Political Science and Law)*, 41(02), 98-110.

¹¹ Ye Ming, Zhang Jie, (2021). Challenges and responses of big data competition behavior to anti-monopoly law enforcement in China. *Journal of Central South University (Social Science)*, 27(03), 26-39.

-
- ¹² Song Donglin, Tian Guanghui, (2023). The roots, approaches and governance strategies of data monopoly in platform economy. *Journal of Soochow University (Philosophy & Social Science Edition)*, 44(01), 104-114.
- ¹³ Zheng Pengcheng, Long Sen, (2022). The regulatory logic and path of platform “big data kills maturity” from the perspective of publicity. *Journal of Jishou University (Social Science)*, 43(06), 29-40.
- ¹⁴ Ye Ming, Zhang Jie, (2021). Challenges and responses of big data competition behavior to anti-monopoly law enforcement in China. *Journal of Central South University (Social Science)*, 27(03), 26-39.
- ¹⁵ Ma Qijia, Huang Haoming, (2023). A theoretical perspective on the dispute over the proposition of abuse of market dominance in the field of big data. *Forum on Science and Technology in China*, (02), 168-178.
- ¹⁶ Zeng Di, (2022). Legal Regulation of Platform Abuse of Data Preferential Treatment for Self-operated Business. *Science Technology and Law (Chinese-English Version)*, No.12(06), 54-63.
- ¹⁷ Song Donglin, Tian Guanghui, (2023). The roots, approaches and governance strategies of data monopoly in platform economy. *Journal of Soochow University (Philosophy & Social Science Edition)*, 44(01), 104-114.
- ¹⁸ Sun Jin, (2021). Anti-monopoly supervision of digital platforms. *Social Sciences in China*, (05), 101-127+206-207.
- ¹⁹ Hu Xiaohong, (2023). The construction of “gatekeeper” obligations in the field of platform economy in China from the perspective of anti-monopoly law. *Academia Bimestris*, (02), 164-172.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).