

Research on Justification and Cognizance of the Theory of Necessary Facilities under Data Carrier

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Abstract: *With the in-depth development of the digital economy, data has become the core driving force for platform operators to obtain market competitive advantages. Due to the bilateral market characteristics of the Internet platform economy and the unique network effect, economy of scale, lock-in effect and other effects, sticking to the traditional anti-monopoly regulatory thinking of "the identification of the relevant market - the identification of the dominant market position - the identification of the act of refusal to deal" will face no small regulatory dilemmas. From the perspective of the inherent attributes of data and the maintenance of competition order, it is reasonable to apply the theory of essential facilities in the field of data. Moreover, the determination of essential facilities and market dominance is substitutable, so the traditional approach to determination of abuse of market dominance can be replaced by the analytical approach of "the determination of whether the data constitutes an essential facility -- the determination of an act of refusal to deal", which will more effectively regulate the anti-monopoly issue of data platforms.*

Keywords: *Data Platforms; Abuse of A Dominant Market Position; Essential Facilities Doctrine*

1. Introduction

The development of modern electronic information technology makes the collection, analysis, and processing of data more simple and more efficient, which also allows data-driven platforms to develop rapidly and become the leading enterprises in the industry by virtue of the data they master. These platforms occupy great competitive advantages in the relevant market through the influence of network effects, economies of scale, and lock-in effects. In order to obtain more monopoly profits, data platform operators even make use of leverage to conduct their monopoly power in one market to the other, restrict other competitors from crawling data by data access restriction means, and finally monopolize the two markets at the same time^[1]. Under the epochal principle of "strengthening anti-monopoly and preventing the disorderly expansion of capital", the future platform data monopoly still needs a set of scientific and effective solutions. This article hopes to explore a new way of thinking for the regulation of data platform essential facilities by learning from the theoretical and practical experience of essential data facilities abroad, and considering the current development of the platform economy in China, in order to solve the problem of platform data monopoly in the new business forms.

2. Regulatory Dilemmas in Data Platforms' Abuse of Market Dominance

2.1. Dilemma in Defining Relevant Market

When defining the relevant market of traditional industry, we often analyze whether there is substitutability between products through raw materials, production methods, product uses, consumer preferences and other factors. If there is substitutability between products, then the related products are in the same relevant product market. This kind of product substitutability analysis is also adopted in China's anti-monopoly practice^[2]. There are great differences between the products of traditional industries in terms of composition, use, manufacture technology, etc., so the boundary between traditional products is relatively clear. For example, there are great differences between bicycles and small cars in terms of manufacture materials and uses, so it is easier for us to distinguish. But the data platform in the twenty-first century is developing from a single production model to a pluralistic production model. Many data platform operators attempt to build a pluralistic super platform by means of cross-industry, cross-stage and normal cooperation. The diverse nature of the products and services provided by these all-encompassing pluralistic data platforms makes the boundary between products increasingly blurred.

2.2. Dilemma in the Identification of a Dominant Market Position

Relying on network effects and innovative technologies, data platform enterprises generally have the phenomenon of “the winner takes all” and “the loser takes no chances”^[3]. Even if such a data platform enterprise has a dominant position in the market, it is still difficult for it to maintain its dominant position in the relevant market due to the dynamic nature of market competition. The anti-monopoly law enforcement in China will last for about 14 months. When the anti-monopoly law enforcement agencies affirm the dominant position of a data platform, it will be meaningless for the anti-monopoly law enforcement agencies to affirm the possibility that the platform may be replaced by other platforms at any time. In the dynamic competition driven by innovation, the market position of a data platform is temporary and uncertain. If a platform enterprise relaxes a little, it may be replaced by a large number of potential competitors. Therefore, the key factor for a modern data platform to have a dominant position in the relevant market is shifting from traditional market share to technological innovation.

2.3. Predicament of Illegality of Monopolistic Behavior

As for the question of whether data access restriction hinders competition, some scholars believe that restriction will not hinder competition because of the non-competitive characteristics of data, and other scholars believe that it will be difficult for the late entrants to compete effectively because of the lack of data access privilege. There are various opinions on whether data access restrictions hinder innovation, and the divergent standards for identifying illegality also render anti-monopoly law enforcers at a loss on how to identify platform operators' monopolistic activities^[4].

3. Logic Factors to Certify the Necessary Facilities of Data Platforms

3.1. The Substitutability of Necessary Facilities and The Determination of Market Dominance

There must also be strong market forces in the relevant markets. If the problem of non-replicability of necessary facilities is transformed into the theoretical term of anti-monopoly law, it is the complete monopoly of the relevant market. Since the determination of the market dominant position is considering the market power of the operators, and the identification of the necessary facilities is also the examination of the market forces of the operators, or even more stringent, then in terms of market forces, the necessary facilities can completely replace the determination of the market dominant position^[5].

3.2. Rationality Analysis Based on Inherent Attributes of Data

3.2.1. The Binary Attributes of Data Privacy and Publicity

As the core driving factor of the economic development of Internet platforms, the value of data in the era of digital economy is no longer limited to the private sector. In a sense, the data mastered by operators is no longer limited to the development of the operators themselves^[6]. The value of data is more reflected in public areas such as national security, social and public interests and overall innovation of the industry. As the main participant in the development of digital economy market, data platform awareness is also in an unprecedented stage of strengthening, and the momentum of sharing its own data has become seriously insufficient. Some data platform operators will even arbitrarily block other operators from grabbing their data to prevent the occurrence of “free riding” phenomenon. It is obviously inappropriate to still solve the current problem of data protection and sharing with private law logic, and timely use of public law logic such as anti-monopoly law to regulate data sharing is a scientific and efficient path choice^[7].

3.2.2. Data is Indispensable

Data has greatly promoted the transformation of platform business models^[8]. The data platform business model has transformed from the unilateral business model of traditional industries into a two-sided market model. In this new business model, platform operators often adopt a “zero price” marketing strategy, providing free services on one side of the market in exchange for customer data, and then analyzing and processing the exchanged user data to improve the platform's service quality. , through this way of exchanging quantity for quality, the positive effect of data feedback is obtained, and the value of platform products or services is also continuously improved. At the same time, the platform adopts higher pricing for operators within the platform whose market price elasticity is low on the other side to obtain profits. For example, advertisers in the search engine market and small merchants in the e-

commerce market pay higher prices to platform operators because they value the platform's customer scale and service quality. This positive feedback interaction model among data collection, service quality improvement and the entry of sub-market merchants has become the key for platform operators to gain market power^[9]. Once operators who have made huge profits by relying on this two-sided market business model monopolize the data they possess, it will be difficult for other late-comer operators to compete with them in terms of data scale and quality.

3.2.3. Data is Shareable

Whether it is "the provision of necessary facilities is feasible" in the US MCI standard or "rejection without justifiable reasons" in the EU standard. They all emphasize the shareability of facilities, and data are also shareable^[10]. Shareability requires that enterprises that open facilities will not suffer irreparable damage due to the opening of facilities. Although the necessary facilities theory is a restriction on ownership imposed on facility owners, considering the development of the industry and the stability of the competitive order, this restriction is the result of a fair and reasonable balance of interests. Data itself has a certain degree of openness. The opening of bottleneck data resources often does not cause a devastating blow to normal production and operations.

4. Ideas for Identifying Necessary Facilities for Data Platforms

4.1. Necessary Data Only Exists for Indirect Competition

Although direct competition and indirect competition are common in the data field, the data that constitutes necessary facilities can only exist in indirect competition. From the perspective of the existence basis of the necessary facilities theory, the theoretical basis for the existence of the necessary facilities theory in anti-monopoly law is vertical integration and the leverage principle, and the main connotation of the leverage principle is the extension of monopoly power^[11]. An operator improperly transfers its monopoly power in the upstream market to the downstream market, allowing the operator to have a monopoly position in both markets at the same time. The simplest way for operators to realize this improper transmission of monopoly power is to refuse transactions with necessary facilities. The unique attributes of data make data platform operators more inclined to realize the transmission of monopoly power through vertical integration. Affected by network effects and lock-in effects, platform operators who hold key data are more likely to control the data by refusing transactions, thereby Obtain huge monopoly profits in the upstream and downstream markets.

4.2. Factors to Consider in Identifying Necessary Facilities for Data Platforms

4.2.1. Rejected Data is Essential

From the perspective of public interest, if the refusal to trade a certain data harms the public interest, then this data may constitute a necessary facility. Only if the data facility can circulate normally in the market can public interests be protected. The development of each era must be driven by corresponding production factors. With the development of electronic information technology, data has become the core driving factor in the digital economy era. From the perspective of effective competition, a certain piece of data can only constitute a necessary facility if it becomes an indispensable and important cornerstone for effective competition in the downstream market. If there is no sharing of this data facility and the downstream market can still compete effectively, then there will be no issue of necessary facilities.

4.2.2. Rejected Data Cannot be Copied

When defining whether a piece of data constitutes a necessary facility, we must first consider whether the facility can be obtained through other reasonable channels in the market. Many scholars believe that data is non-competitive. Unlike the value of production factors such as oil, land or capital, which will be depleted with use, the value of the data will not be affected even if the data is copied and used many times by others. Therefore, these scholars believe that data is replicable and all data can be replaced with each other, but they all ignore the functional differences in main business data between data platforms.

4.2.3. Denied Data is Shareable

The public nature of data is becoming increasingly important in the digital economic market. The information carried by data is not only limited to private information such as ordinary users' names, contact information, and geographical location, but may also involve sensitive information such as business secrets, state secrets, and public security. Data platforms must not freely share and disclose data

related to national security. When downstream market competitors require the data control platform to disclose information that involves public security or national secrets, the data controller has the right to refuse to open it. Therefore, only data that does not involve national secrets and security can be shared at the legal level.

4.2.4. There is No Valid Reason for Refusing to Open

The impact of refusing data sharing on platform innovation is an issue that cannot be easily ignored during the development of the platform economy. The motivation for data platforms to produce digital products and provide corresponding data services comes from generous market returns. Market returns are not only for data controllers but also for enterprises in the downstream market that require data openness. Paying reasonable consideration to the data control platform is the most important form of data market returns. If the reason why the data controller refuses to open necessary data is that the downstream enterprise requesting openness has not paid a reasonable consideration, then the reason for refusing to open can be considered to be legitimate. Antitrust law is not omnipotent, and remedies for privacy rights mainly rely on private law remedies in the civil field, rather than blindly incorporating them into antitrust laws to seek public remedies. Moreover, the legitimate reasons mentioned in the Anti-Monopoly Law are often discussed around social public interests, consumer welfare, market competition order, and economic operating efficiency. The privacy protection of personal data is not within the scope of the legitimate reasons of the Anti-Monopoly Law. Therefore, personal data privacy protection should not be used as a necessary data monopoly platform to refuse data transfer.

4.2.5. A Regulatory Path That Combines Quantitative and Qualitative Aspects

The specific implementation of regulations on necessary facilities for data platforms still requires improving the regulations on necessary facilities for data within the scope of antitrust law. Then the specific identification issues such as the identification of data constituting necessary facilities, applicable fields, considerations, and legal consequences can be stipulated in detail in the law in the future. 18 The second section of this chapter introduces in detail the necessary conditions that constitute necessary facilities from the aspects of data indispensability, non-replicability, sharability and legitimate reasons, which is the characterization of necessary data facilities. However, in order to enable judicial authorities to accurately identify data necessary facilities and law enforcement agencies to accurately implement data necessary facility cases, it is not enough to simply characterize data necessary facilities. It is also necessary to set relatively scientific absolute values. The identification of necessary data facilities must be carried out quantitatively. Only by organically combining qualitative and quantitative aspects can the identification of necessary facilities for platform data be feasible.

5. Conclusions

With the continuous development of the digital economy era, the core position of data, a new production factor, has become increasingly prominent. Data often becomes a key element for data platform operators to gain market competitive advantage. However, after the first data platform uses network effects, economies of scale, lock-in effects and other influences to obtain large-scale industry core data, in order to maximize its monopoly profits, it often adopts technical means to limit the capture of data by other platforms. Some data platform operators even use the principle of leverage to improperly transmit their monopoly power in one market to downstream markets, and then block necessary data in the industry by refusing to trade data to raise market access thresholds and harm effective competition in the data industry. The application of the necessary facilities theory in antitrust law can effectively address the issue of platform operators monopolizing necessary data. However, it is unclear whether this theory, which originated in the industrial economy era, is applicable to the problem of data monopolies in the digital economy era. Identifying necessary data and determining when to apply the theory of necessary facilities are challenging issues that require resolution in this new era. Due to the two-sided market characteristics of the Internet platform economy and the unique network effects, economies of scale and lock-in effects, if we stick to the traditional antitrust regulatory thinking, we will face considerable regulatory difficulties. From the perspective of the inherent properties of data and the maintenance of competitive order, it is reasonable to apply the necessary facilities theory in the data field. What's more, the identification of necessary facilities and market dominance are also substitutable, so the analytical approach of "identification of data constituting necessary facilities—identification of refusal to trade" can completely replace the traditional identification of abuse of market dominance, thus making it more effective. Regulate antitrust issues on data platforms.

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