

# **Research on the Challenges and Improvement Strategies of Relevant Market Definition in Platform Economy**

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Abstract: With the rapid development of the platform economy, the traditional related market definition methods are facing multiple challenges, including the diversity of subjects, free goods and multiple functions in the platform economy. To address these challenges, this paper proposes improvements, including the introduction of non-price factors for alternative analysis, comprehensive consideration of multi-agent relationships, and dynamic and flexible approaches to define relevant markets. These improvements will help to more accurately define the relevant markets under the platform economy and provide effective support for antitrust regulation. In the future, we should continue to explore innovative methods and technical means to adapt to the new changes and development trends of the platform economy.

*Keywords*: platform economy, related market definition, challenge and improvement, anti-monopoly supervision, non-price factors

## **1. Introduction**

With the rapid development of science and technology, platform economy has become an important pillar of today's society. However, this emerging economic pattern has brought unprecedented challenges to the traditional related market definition method. Due to the characteristics of subject pluralism, free goods and multiple functions, it is difficult to directly apply the traditional demand substitution and supply-demand substitution analysis method. Therefore, how to improve the traditional definition method in the new era background to meet the development needs of the platform economy has become an urgent problem to be solved.

## 2. The monopoly problem brought about by the era of big data

## 2.1 The impact of the big data era on the traditional industrial economy

With the development of big data law, the Internet economy is increasingly prosperous, and a variety of APP platform economy phenomenon appears. Consumers can consume and shop online, which is quite different from the rules behind the traditional industrial economy and market economy. Compared with the traditional industrial economy, the platform economy shows many different characteristics. In the traditional market economy, it often only involves the buyer and the seller, and follows the rules of money exchange. However, in the era of big data, the platform economic model pays attention to traffic and sharing, big data rules into consumers, and large-scale diffusion, so that the Internet platform can grasp the information of consumers, and push their appetite content according to their preferences, by collecting and analyzing consumer data, accurate push and personalized service; for merchants, also need to enter the Internet platform to enjoy more opportunities to contact consumers. Secondly, the platform economy also has "advertising revenue, product revenue, data revenue, sharing revenue" and so on. It can be seen that under the background of big data, the fixed subject of traditional market economy, the third party, and the rules of only "money transaction". Unlike traditional sellers, who charge to provide services, the Internet platform also has many free services for consumers; the platform economy also breaks through the fixed subject and trading rules of traditional economy, and establishes the multi-subject relationship including platforms, merchants and consumers, forming a more complex interest chain.

## 2.2 The Internet uses big data to implement monopolistic behavior

### 2.2.1 The monopoly behavior of the platform on the settled merchants by using the data

The use of big data by the Internet to implement monopoly behavior has attracted much attention in recent years. Some platform enterprises, by accumulating and analyzing a large amount of user data, are able to grasp the dominant position in the market, and may abuse this position to implement monopolistic behavior. This behavior not only limits the competitive opportunities of other enterprises, but also damages the fairness of the market and the rights and interests of consumers. Take a well-known e-commerce platform as an example, which has implemented a series of monopoly behaviors on the settled merchants with its strong data analysis and processing capabilities. Through big data analysis, the platform can accurately grasp the business situation and user preferences of merchants, and then carry out differentiated pricing and limited transaction conditions for merchants. This behavior of using the advantage of data not only deprives merchants of their independent choice, but also destroys the competition order of the market.

In addition, the platform also uses big data monitoring and analysis systems to strictly monitor businesses' business behavior. Once merchants are found to be online on other competitive platforms, mandatory measures such as suspending business operations will be taken to maintain their market position. This behavior not only limits the trading opportunities of merchants, but also damages the level playing field in the market.

Article 9 of the Anti-Monopoly Law of the People's Republic of China: Operators shall not make use of data, algorithms, technology, capital advantages and platform rules to engage in monopolistic acts prohibited by this Law. And paragraph 4 of Article 17: without justifiable reasons, limit the transaction counterpart to trade only with it or to trade only with the designated business operator. According to the relevant provisions of the Anti-monopoly Law of the People's Republic of China, it is illegal to use big data to implement monopolistic behavior. Platform enterprises shall abide by laws and regulations, respect market rules, and maintain a level playing field. At the same time, the government regulatory authorities should also strengthen the supervision of the platform enterprises, prevent them from using big data to implement monopoly behavior, and protect the fair competition in the market and the rights and interests of consumers.

#### 2.2.2 The monopolistic behavior of the platform on consumers by using data

In addition to adopting monopolistic behaviors such as exclusive transactions for registered merchants, some platforms also use big data to implement monopolistic behaviors such as unfair price discrimination against consumers. As platform users, many people may have had such an experience: when buying the same goods in the same store, the price paid by different users is different, which raises questions about the platform using big data to "kill".

This phenomenon is not limited to a specific platform, but widely exists in multiple Internet platforms, such as online shopping, taxi services and so on. By collecting and analyzing consumers 'personal information, and using algorithmic technologies and rules, the platform can accurately grasp consumers' consumption habits and preferences, so as to provide consumers with personalized price services. However, this also leads to the problem of the price difference between the same product and different consumers, namely the so-called "killing".

This behavior not only infringes on consumers' right to information and fair trade, but also destroys the normal order of the market. When purchasing goods or services, consumers should enjoy fair and transparent price treatment, and should not receive unfair discrimination. The use of big data to discriminate against price by platforms not only damages the interests of consumers, but also damages the level playing field in the market. This kind of behavior not only infringes on consumers' right to information and fair trade, but also destroys the normal order of the market. Among them is the infringement of consumers 'right of information and fair trading right, not only suspected of "the anti-monopoly law of the People's Republic of China" article 9 and article 17 paragraph 6: without justifiable reasons, the transaction counterpart of the same conditions to implement differential treatment.

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According to the relevant provisions of the Anti-monopoly Law of the People's Republic of China, such behavior is illegal. Platform enterprises shall abide by laws and regulations, respect the rights and interests of consumers, and safeguard fair competition in the market. At the same time, the government regulatory authorities should also strengthen the supervision of platform enterprises, prevent them from using big data to implement monopoly behavior, and protect the legitimate rights and interests of consumers and fair competition in the market.

#### 2.2.3 Platform abuse of dominant market position

The Anti-Monopoly Law of the People's Republic of China mainly stipulates that monopolistic behaviors include: monopoly agreements, abuse of dominant market position, concentration of business operators, and abuse of administrative power to exclude and restrict competition. The author about the platform of the implementation of merchants "exclusive deal" behavior and the implementation of "consumer" price discrimination, belong to the manifestation of abuse of dominant market position, that is to define the platform of the monopoly behavior, must first define "market", second define "dominant market position", the last is the exclusive transaction, price discrimination the abuse. Of course, if it belongs to "monopoly

agreement and operator concentration", it is not necessary to define the relevant market, but under the monopolistic behavior of "abuse of dominant market position", defining the relevant market is an important link. Although some scholars believe that the dominant market position can not mainly rely on the clear definition of related market, and take to the relevant market to'basic definition, and through the evidence identification and case facts the most closely related competition constraints, at the same time considering other do not rely on relevant market definition and contribute to the dominant market position. However, the author believes that the basic definition of the relevant market is in fact to admit the definition of the relevant market but may reduce the definition standard due to the practical difficulty. So why is it difficult to define the relevant market and market dominance? I will elaborate from the following aspects.[1]

## 3. The challenge of the relevant market definition in the platform economy

## 3.1 Involving the diversification of the subjects

According to the above analysis of the settled merchants and consumers implemented by a well-known e-commerce platform, in the transaction activity of providing catering services, the subjects of the design are very diverse, not only consumers, platforms, merchants, and even riders. This makes it difficult to apply the traditional demand substitution method of defining the relevant market. Whether it is the demand substitution: determine the substitution degree of different commodities from the perspective of the demand of the demand for the function of the commodity, the acceptance of the quality, the acceptance of the price and the difficulty of the acquisition; or the supply and demand substitution: the input of the transformation of the production facilities, the risk and the time of entering the target market. This is an alternative test between the demanders and the operators, and how to determine the demanders and the supply and demand in the platform is a big problem. In individual cases, if the platform conducts exclusive transactions for the settled merchants, the author thinks that the demanders are the settled merchants, the supply and demand is the platform, and it seems to apply the alternative analysis; but the price discrimination between the platform and consumers, but also the settled merchants, because after all, the merchants provide the goods and services, but sometimes the platform infringes the rights and interests of consumers, so how to define who is the supply and demand? We need to think more about how to define the relevant market.

### 3.2 The free sex and multiplicity of the goods on the platform

#### 3.2.1 Free characteristics of commodities in the platform economy

Above emphasized in the era of big data more emphasis on sharing economy, so for consumers to provide free service platform is now the trend and trend, the platform is not mainly by charging consumers platform benefit this way, but "cash", then it breaks through the traditional market economy assumed monopoly test define relevant market method: with the help of economic tools analysis the data, determine the assumed monopoly can maintain the price above the competition price level or the minimum commodity collection and geographical scope, to define the relevant market. It is clear that price is an important measurement factor in the assumed monopolist test. The platform gathers a large number of users by providing free products, so it is easier to get users to develop other types of consideration products or services. Since the product is available for free for a long time, consumers are very sensitive to the price. If the sudden price increase leads to the failure of consumption expectations, it is likely to cause consumers to immediately turn to other free platforms. Accordingly, the prices and sales of other products will be involved, and the result is undoubtedly that the relevant market scope is too large.[2] **3.2.2 Multiple functions of commodities in the platform economy** 

Modern platform economy not only emphasizes the free, and pay attention to collection, an APP often set a variety of functions, such as WeChat not only pay function, still have social function, and even video number this entertainment function, is a collection of various functions, and in the traditional market economy, but cannot achieve this convenient way of trading. However, such versatility is also a double-edged sword. Although it is convenient for users, it also monopolthe market virtually and has great concealment in the definition of relevant markets. It is difficult to apply the traditional direct definition of the relevant market: whether it is defined as the payment market, or the social market; or in markets with many of the same functions. But this greatly reduces the relevant market, or to treat the specific problems specifically. In the social monopoly and is defined as the social market, defined as the payment market in the payment function monopoly, but it creates real problems. That's because a platform has a great aggregation, so there must be an inseparable connection between social networking, payment and other functions, like signing a user privacy agreement. This means that within the same platform, all the social and payment functions will apply, including big data push, traffic segmentation.

Commodities in the platform economy are often characterized by free sex and multiple functions. This makes it difficult to use price as the sole measure when conducting the assumed monopolist test. At the same time, the multiple functions of commodities also make it difficult for us to simply classify them as a specific market area when defining the relevant market.

## 4. Suggestions to improve the relevant market approach

In the platform economy, the traditional price-led related market definition method seems to be inadequate. In view of this, we propose the following improvements to adapt to the new features and demands of the platform economy.

First, non-price factors should be introduced for alternative analysis. Goods or services in the platform economy are often free and have multiple functions, which makes price no longer the only factor for consumers to choose goods or services. Conversely, non-price factors such as service quality, data resources, and user experience are playing an increasingly important role in the platform economy. Therefore, when conducting an alternative analysis, we should consider these non-price factors to more comprehensively assess the substitutability of goods or services. By taking into account the non-price factors comprehensively, we can define the relevant market more accurately, so as to avoid too narrow or too broad definition results.

Secondly, the multi-subject relationship should be considered comprehensively. The main body in the platform economy not only includes consumers and merchants, but also involves the platform itself, riders and other aspects. There are complex mutual relationship and dependence relationship between these subjects, which makes the definition of relevant markets more complex. Therefore, when defining the relevant market, we should not only pay attention to the relationship between consumers and merchants, but also comprehensively consider the interest relationship and influence of multiple subjects. For example, when evaluating the monopolistic behavior of the platform, we need to consider the factors such as the control of the platform over the registered merchants, the mastery of consumer data resources, and the technological innovation ability of the platform itself. By comprehensively considering the multi-subject relationship, we can more accurately evaluate the market position and influence of the platform, so as to provide more effective support for anti-monopoly regulation.

In addition, we should also adopt the dynamic and flexible methods to define the relevant markets. The platform economy is characterized by rapid change and uncertainty, which requires us to have sufficient flexibility and adaptability in defining the relevant markets. To be specific, we should constantly adjust and improve the standards and methods for defining the relevant markets according to the actual situation and development trend of the market. At the same time, we should also strengthen our attention to and research on emerging markets in order to respond to the challenges brought about by market changes in a timely manner. By adopting dynamic and flexible methods, we can better adapt to the development needs of the platform economy and provide more accurate and effective support for antitrust regulation.

Traditional market economy is the demanders and suppliers as the center of the qualitative way combined with the price centered assumed monopoly test this quantitative way to define the relevant market, in the age of data has not been able to fully apply, to prevent the platform using data, the algorithm of the anti-monopoly law of the People's Republic of China in article 9 of the monopoly behavior, define the relevant market is particularly important and imminent, on the concrete implementation, we can improve alternative analysis and assumed monopoly test. First, no longer focus on price, but consider the competitive advantage of the platform in providing services to consumers. These competitive advantages may include service quality, the richness of data resources, user experience and many other aspects. Taking these competitive advantages as an important method to define the relevant market, and conducting alternative analysis by improving or reducing these advantages, the market position and influence of the platform can be more comprehensively evaluated. Secondly, under the multiple subjects, we can fix the service quality of both parties or even multiple parties by only changing the service or other variables of the platform to solve the problem that it is difficult to replace the analysis method under the multiple parties. This method can help us to more accurately evaluate the role and influence of the platform in the multi-subject relationship, so as to provide a more scientific basis for the definition of relevant markets.

### 5. Conclusion

The challenge and improvement measures of the relevant market definition under the platform economy are a topic worthy of further discussion. By introducing non-price factors, comprehensively considering multi-subject relations, and adopting dynamic and flexible methods, we can better adapt to the development needs of the platform economy, can more accurately define the relevant markets under the platform economy, and provide more accurate and effective support for anti-monopoly regulation. In the future research, we should also continue to explore more innovative definition methods and technical means to meet the new challenges and new opportunities brought about by the platform economy. At the same time, the government and enterprises should also strengthen cooperation to jointly promote the healthy development of the platform economy and achieve a fairer, more transparent and sustainable market environment. With the continuous development and change of the platform economy, we believe that the methods and technologies of the relevant market definition will continue to improve and progress, to provide a more solid theoretical foundation and practical guidance for anti-monopoly supervision.

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