Competitive Effects of Exclusive Dealing Strategy on E-commerce Platforms: A Dynamic Duopoly Game

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Short Research Paper

Competitive Effects of Exclusive Dealing Strategy on E-commerce Platforms: A Dynamic Duopoly Game

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Abstract: As a controversial competitive strategy of platform manufacturers, exclusive dealing is getting more and more attention from anti-monopoly law enforcement agency. However, considering the unique features of two-sided market such as cross-network externality, how to identify the competitive effect of exclusive dealing has become an important and difficult problem. Referring to the specific facts of the exclusive dealing agreement, we design a two-stage game framework on the basis of Hotelling model for duopoly e-commerce, and compare the changes of market structure, bilateral user welfare and platform profit at equilibrium. The results show that the exclusive dealing agreement signing between platform and sellers reduces the utility of single-homing and multi-homing consumers, and may also reduce the utility of the sellers in the market. Besides, not only does it reduce the other platform's profits, but more importantly, it doesn't make more profits for itself. Finally, we try to explain the results from the perspective of economics, and provide theoretical support for regulators to formulate platform economy anti-monopoly policy scientifically.

Keywords: exclusive dealing, competitive effect, dynamic duopoly game, cross-network externality

1. INTRODUCTION

The platform economy has improved the efficiency of market resource allocation, but at the same time some controversial competitive phenomena have gradually emerged in the development process. For maximizing long-term profits, some dominant platforms require sellers to operate only on its own platform, but not simultaneously enter its competitors' platforms for business, which is called exclusive dealing strategy. In 2021, the Anti-Monopoly Guide on Platform Economy was issued in China, which pointed out that if the competitive behavior harms the welfare of users, it will be considered as unfair. As a result, the competitive effects of exclusive dealing strategy is an important boundary for enforcement.

Compared with traditional industrial enterprises, enterprises, platform enterprises have some unique features of industrial organization such as cross network effect and two-sided market. We define the platform competition effects as the influence of competitive strategy on market structure, bilateral user welfare and platform profit. Accordingly, the competition effects in platform economy are more complex, and there are two mainstream views from different perspectives. On the one hand, exclusive dealing is considered as conducive to eliminate free-riding behavior in the market, achieve the purpose of protecting specific investment and improving market efficiency. On the other hand, exclusive dealing may cause market segmentation and increase entry barriers, which damage the efficiency of resource allocation [1].

Based on the features of platform competition, we explore the competitive effects of exclusive dealing in duopoly markets, trying to provide a theoretical basis for China’s anti-monopoly law enforcement in related areas.

2. LITERATURE REVIEW

The research in the field of exclusive dealing strategy mainly starts from one-side market enterprises.

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Bernheim proposed a basic framework about exclusive dealing in the early, in which the key point is to weigh the costs and benefits brought by it comprehensively \cite{2}. However, the platform economy has typical features of bilateral market \cite{3}. The particularity of the platform economy determines that the traditional industry analysis framework cannot be directly copied. It is necessary to establish a characteristic analysis idea according to the specific market structure.

At present, academia has obtained relatively abundant research results on the competitive effects of exclusive agreements in two-sided market, especially on welfare changes and platform motivation \cite{4-6}. Firstly, exclusive dealing agreement has two-sides effects on consumer welfare. On the one hand, exclusive dealing would limit consumers’ right of choice and harm consumer welfare \cite{7}. Wang focused on the analysis framework based on changes in user attribution, it is found that exclusive dealing did not affect consumer attribution, but it would force multi-homing sellers to choose to be single-homing, which could reduce consumer welfare \cite{8}. On the other hand, based on the empirical results of the quasi-natural experiments, Qu found that due to the fierce competition between sellers of the same category, the exclusive agreement between the platform and a specific seller would not lead to an increase in commodity prices and consumer welfare would not decline\cite{9}. Secondly, the impact of exclusive dealing agreement on the seller is complex. Considering both price and quality factors, Tang supposed that in the case of consumer users with strong product differentiation preferences, exclusive dealing will damage consumer and seller utility \cite{10}. On the basis of Armstrong and Wright \cite{3}, Qiao incorporated the direct network externality within bilateral users into the model, and found that after the implementation of exclusive dealing, seller utility first rise and then decline with the increase of platform investment \cite{11}. Thirdly, the implementation of exclusive dealing agreement is also uncertain for platform profits. When the cross-network externality brought by consumers to sellers are quite different, the exclusive dealing agreement helps the platform to achieve rapid accumulation of consumer scale, thereby increasing the platform’s profits and improving the efficiency of resource allocation \cite{12}. However, from the perspective of two heterogeneous platforms, Zhang found that when the cross-network externalities on the seller side are strong, the platforms are motivated to implement exclusive behaviors, but the result of competition is to make both parties fall into a "prisoner's dilemma" \cite{13}.

Generally, the conclusions of the competitive effect on platform exclusive transactions in existing literature are still unclear, but these literatures provide an important theoretical basis for our research. Different from the above research, it is believed that the platform forces the seller to choose one or the other, and the seller can only be single-homing \cite{3,10,11,13}. We believe that the platform attracts sellers to accept exclusive dealing at preferential cost. If some sellers don’t accept, they can still keep multi-homing at the original cost. Therefore, it will be more realistic for us to explore the competitive effect of exclusive dealing in this situation.

3. DYNAMIC GAME FRAMEWORK

3.1 Model construction

Based on the model proposed by Armstrong and Wright \cite{3}, we construct a two-stage complete information dynamic game model. In the first stage, each platform formulates service prices for consumers and sellers. In the second stage, consumers and sellers choose platforms from their own utility maximization. From the perspective of cross-network externality, distribution of singe-homing and multi-homing users, platform differentiation and platform pricing of two-sides platforms, we compare the changes of market structure, user welfare and platform profit in the equilibrium state before and after the exclusive dealing.

3.2 Key assumptions

3.2.1 Cross-network externality

Sellers and consumers are users on each side of the platform. Through the platform, consumers can obtain a lot of information about sellers, and sellers can promote their products or services to more consumers. The
participating behaviors of bilateral users will influence each other. This feature that the number of users on one side will affect the utility level of users on the other side is called cross-network externality. In general, the influence of the scale of consumers on sellers is greater than that of sellers on consumers. Therefore, to model this situation, we propose the assumption that the consumer’s cross network externality coefficient is greater than sellers, and the cross-network externality is the same for sellers and consumers in different platforms.

\[ H1: \alpha_1^c = \alpha_2^c > \alpha_1^s = \alpha_2^s \]

### 3.2.2 Single-homing and multi-homing users

Users on the platform are classified into single-homing and multi-homing, which is reflected in the different preferences of bilateral users on the platform. For sellers, as long as they can obtain positive utility on a certain platform, they will choose to join the platform. For consumers, individual preference for platforms is more obvious. In reality, some consumers only prefer to join one platform, and some others prefer to join multiple platforms. Therefore, it is assumed that sellers are multi-homing and consumers are partially multi-homing.

\[ H2: N_1^c \geq 0, N_2^c \geq 0, N_1^s \geq 0 \]

### 3.2.3 Platform differentiation

According to Hotelling linear model\(^{[14]}\), it is assumed that platform 1 and platform 2 are located at both ends of a line segment, and consumers are evenly distributed on the line segment. In general, the quality of service varies from platform to platform, and the model uses transportation costs to measure the differentiation. The greater the cost of transportation, the greater the differentiation of platforms. Platform differentiation leads to differences in the scale of users on the platform, so it is assumed that the size of consumers on the platform can be used to represent transportation costs. For the seller, according to the conclusion of Belleflamme\(^{[15]}\), due to its inherent multi-attribute characteristics, however, it is unclear to perceive the variety of different platforms, so it is assumed that there is no difference between different platforms for sellers.

\[ H3: t^s = 0 \]

### 3.2.4 Pricing strategy

In reality, platforms often have different pricing strategies for bilateral users. E-commerce platforms tend to charge sellers for a fixed fee or a percentage of each deal, while consumers for less or even free. For simplicity, we consider that the marginal cost of services provided by the platform is approaching zero, and the platform charge sellers and consumers for a fixed fee.

### 3.3 Variable description

<table>
<thead>
<tr>
<th>Variable</th>
<th>Detailed description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>For consumer i=c, for sellers i=s.</td>
</tr>
<tr>
<td>J</td>
<td>For platform1 j=1, for platform2 j=2.</td>
</tr>
<tr>
<td>( U_j^i )</td>
<td>Utility for i from platform j.</td>
</tr>
<tr>
<td>( \pi_j )</td>
<td>The profits of platform j.</td>
</tr>
<tr>
<td>( N_j^i )</td>
<td>The number of two-sides users on each platform.</td>
</tr>
<tr>
<td>( \alpha_i )</td>
<td>Cross-network externality for i.</td>
</tr>
<tr>
<td>( P_j^i )</td>
<td>Price for i on platform j.</td>
</tr>
<tr>
<td>( t_j )</td>
<td>The consumer's transportation costs on platform j.</td>
</tr>
</tbody>
</table>

### 4. Game Equilibrium Analysis

#### 4.1 Equilibrium state before exclusive dealing

Consumer utility is determined by cross-network externality utility, unit service cost charged by the platform and transportation cost. For multi-homing consumers, they can not only get utility from the two platforms...
respectively, but also obtain more information through the comparison of commodity price and quality on the two platforms. The utility of this part is expressed by the average of total utility obtained from the two platforms \[^{[13]}\]. Therefore, the utility of single-homing consumers and multi-homing consumers are as follow:

\[
U^c_1 = \alpha^c N^c_1 - P^c_1 - t_1 \quad (1-1)
\]

\[
U^c_2 = \alpha^c N^c_2 - P^c_2 - t_2 \quad (1-2)
\]

\[
U^c_{1,2} = \alpha^c N^c_1 + \alpha^c N^c_2 + \frac{1}{2} (\alpha^c N^c_1 + \alpha^c N^c_2) - P^c_1 - P^c_2 - 1 \quad (1-3)
\]

Seller utility is determined by the cross-network externality utility and the unit service cost charged by the platform. The sellers are multi-homing before the platform implement exclusive dealing. Therefore, the utility of sellers from the platform1 and platform2 are as follow:

\[
U^s_1 = \alpha^s (N^s_1 + N^s_{1,2}) - P^s_1 \quad (1-4)
\]

\[
U^s_2 = \alpha^s (N^s_2 + N^s_{1,2}) - P^s_2 \quad (1-5)
\]

The profits of oligarchic platforms come from the fees charged for providing services to sellers and consumers. And they respectively are

\[
\pi_1 = P^c_1 (N^c_1 + N^c_{1,2}) + P^s_1 N^s_1 \quad (1-6)
\]

\[
\pi_2 = P^c_2 (N^c_2 + N^c_{1,2}) + P^s_2 N^s_2 \quad (1-7)
\]

In dynamic games, backward induction is usually used for analysis. According to the utility maximization principle, consumers will make a choice that they are single-homing or multi-homing. It is not hard to find that the game is in equilibrium when

\[
U^c_1 = U^c_2 = U^c_{1,2} \quad (1-8)
\]

in which case:

\[
t_1 = 1 + P^c_1 - 2\alpha^c \quad (1-9)
\]

\[
t_2 = 1 + P^c_2 - 2\alpha^c \quad (1-10)
\]

\[
t_1 = N^c_1, t_2 = N^c_2 \quad (1-11)
\]

The distribution of consumers is

\[
N^c_1 = 1 + P^c_1 - 2\alpha^c \quad (1-12)
\]

\[
N^c_2 = 1 + P^c_2 - 2\alpha^c \quad (1-13)
\]

\[
N^c_{1,2} = 4\alpha^c - (P^c_1 + P^c_2) - 1 \quad (1-14)
\]

The next step is to analyze how e-commerce platforms set prices for consumers and sellers in order to maximize profits. According to formula 1.12-1.14, the profit of e-commerce platforms is

\[
\pi_1 = P^c_1 (2\alpha^c - P^c_1) + P^s_1 \quad (1-15)
\]

\[
\pi_2 = P^c_2 (2\alpha^c - P^c_2) + P^s_2 \quad (1-16)
\]

Therefore, when the platform profit maximizes, the pricing for consumers should satisfy the condition:

\[
\frac{d\pi_1}{dp_1} = 0, \frac{d\pi_2}{dp_2} = 0 \quad (1-17)
\]

In equilibrium, the prices to consumers are

\[
P^c_1 = P^c_2 = \alpha^c \quad (1-18)
\]

For multi-owned sellers, as long as the utility of using a platform is positive, they will join the platform. The platform charges the highest price the seller is willing to pay. Extremely when \(U^s_1 = U^s_2 = 0\), the pricing of the platform to the sellers are

\[
P^s_1 = P^s_2 = \alpha^c \quad (1-19)
\]

Furthermore, market structure, consumer utility, merchant utility and platform profit can be obtained in equilibrium of the dynamic game.

\[
N^c_1 = N^c_2 = 1 - \alpha^c, \quad N^c_{1,2} = 2\alpha^c - 1 \quad (1-20)
\]
\[ U^c_i = U^z_i = U^z_{i,2} = \alpha^c - 1 \quad (1-21) \]
\[ U^z_1 = U^z_2 = 0 \quad (1-22) \]
\[ \pi_1 = \pi_2 = (\alpha^c)^2 + \alpha^c \alpha^s \quad (1-23) \]

### 4.2 Equilibrium state after exclusive dealing

According to the competition strategy implemented by Platform 1, sellers who accept exclusive dealing will belong to Platform 1 at a preferential price lower than the original price. For sellers who do not accept exclusive dealing, they will belong to both platforms as before. However, sellers who do not accept exclusive dealing can only join Platform 1 at the original price. Considering the above assumptions, the consumer's utility is as follows:

\[ U^c_i = \alpha^c (N^z_i + N^z_{i,2}) - P^c_i - t_1 \quad (2-1) \]
\[ U^z_i = \alpha^z N^z_{i,2} - P^z_e - t_2 \quad (2-2) \]
\[ U^z_{i,2} = \alpha^z (N^z_i + N^z_{i,2}) + \alpha^c N^z_{i,2} + \frac{1}{2} \alpha^c (N^z_i + 2N^z_{i,2}) - P^c_i - P^z_e - 1 \quad (2-3) \]

Sellers who accept the platform's exclusive dealing and those who do not are as follows:

\[ U^c_i = \alpha^c (N^c_i + N^c_{i,2}) - \overline{P}^c_i \quad (2-4) \]
\[ U^z_i = \alpha^z (N^c_i + N^c_{i,2}) + \alpha^c (N^c_i + N^c_{i,2}) - P^c_i - P^z_e \quad (2-5) \]

Accordingly, the profits of oligarch platform 1 that implement exclusive dealing and oligarch platform 2 are as follow:

\[ \pi_1 = N^c_1 \overline{P}^c_i + N^z_1 P^z_i + (N^c_i + N^c_{i,2}) P^c_i \quad (2-6) \]
\[ \pi_2 = N^c_{i,2} P^z_i + (N^c_i + N^c_{i,2}) P^c_i \quad (2-7) \]

Again, backward induction was used for analysis. On the one hand, for consumers and sellers, it results in the same utility to be multi-homing or single-homing. On the other hand, it also results in the same utility for single-homing consumers to choose platform1 or platform2. Consequently, the equilibrium state is reached if it satisfies the following two requirements

\[ U^c_i = U^z_i = U^z_{i,2} \quad (2-8) \]
\[ U^z_1 = U^z_{i,2} \quad (2-9) \]

Given the assumptions related to transportation costs

\[ t_1 = N^c_i, t_2 = N^z_i \quad (2-10) \]

in which case:

\[ N^c_i = 1 - \frac{1}{2} \alpha^c (3N^z_{i,2} - 1) \quad (2-11) \]
\[ N^z_i = 1 - \frac{1}{2} \alpha^c (N^z_{i,2} + 1) \quad (2-12) \]
\[ N^z_{i,2} = 2 \alpha^c N^z_{i,2} - 1 \quad (2-13) \]

The next step is to analyze how e-commerce platform1, which proposed the exclusive dealing, should set the new preferential prices for sellers so as to maximize its own profits.

\[ \pi_1 = (\alpha^c)^2 + \alpha^c \alpha^s - \frac{(\alpha^c)^2}{24\alpha^2} \quad (2-14) \]
\[ N^c_i = \frac{\alpha^c}{6\alpha^s}, \quad N^z_{i,2} = 1 - \frac{\alpha^c}{6\alpha^s} \quad (2-15) \]
\[ \overline{P}^c_i = \alpha^c \alpha^s - \frac{(\alpha^c)^2}{4} \quad (2-16) \]

Meanwhile, the profit of e-commerce platform 2 is

\[ \pi_2 = (\alpha^c)^2 + \alpha^c \alpha^s - (\alpha^c)^2 \left( \frac{1}{4\alpha^s} + \frac{1}{6} \right) \quad (2-17) \]
Furthermore, the market structure, consumers utility and sellers utility can be obtained in equilibrium of the dynamic game.

\[
N_1^c = 1 - \alpha c + \frac{(\alpha c)^2}{4a^2} \tag{2-18}
\]

\[
N_2^c = 1 - \alpha c + \frac{(\alpha c)^2}{12a^2} \tag{2-19}
\]

\[
N_{1,2}^c = 2\alpha c - 1 - \frac{(\alpha c)^2}{3a^2} \tag{2-20}
\]

\[
U_1^c = U_2^c = U_{1,2}^c = \alpha c - 1 - \frac{(\alpha c)^2}{4a^2} \tag{2-21}
\]

\[
U_1^f = U_{1,2}^f = \alpha^a - \frac{(\alpha c)^2}{3} \tag{2-22}
\]

### 4.3 Comparison of competitive effects

<table>
<thead>
<tr>
<th>Table 2. Competitive effects before and after exclusive dealing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market structure for sellers</strong></td>
</tr>
<tr>
<td>(N_{1,2}^c = 1)</td>
</tr>
<tr>
<td>(N_{1,2}^c = 2\alpha c - 1)</td>
</tr>
</tbody>
</table>

| **Market structure for consumers** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| \(N_{1,2}^c = N_{1,2}^c = 1 - \alpha c\) | \(N_1^c = 1 - \alpha c + \frac{(\alpha c)^2}{4a^2}\) | \(\Delta N_{1,2}^c = \frac{(\alpha c)^2}{4a^2} > 0\) |
| \(N_{1,2}^c = 2\alpha c - 1\) | \(\Delta N_{1,2}^c = \frac{(\alpha c)^2}{12a^2} > 0\) |
| \(N_{1,2}^c = 2\alpha c - 1 - \frac{(\alpha c)^2}{3a^2}\) | \(\Delta N_{1,2}^c = -\frac{(\alpha c)^2}{3a^2} < 0\) |

| **Utility of sellers** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| \(U_1^c = U_2^c = 0\) | \(U_1^c = U_{1,2}^c = \alpha^a - \frac{(\alpha c)^2}{3}\) | \(\Delta U_1^c = \Delta U_{1,2}^c = \alpha^a - \frac{(\alpha c)^2}{3}\) |

| **Utility of consumers** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| \(U_1^c = U_2^c = U_{1,2}^c = \alpha c - 1\) | \(U_1^c = U_{1,2}^c = \alpha^a - (\alpha c)^2 - \frac{4a}{4a^2}\) | \(\Delta U_1^c = \Delta U_{1,2}^c = \alpha^a - (\alpha c)^2 - \frac{4a}{4a^2} < 0\) |

| **Price for sellers** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| \(P_1^c = P_2^c = \alpha c\) | \(P_1^c = P_{1,2}^c = \alpha^a\) | \(P_1^c = \alpha^a - \frac{(\alpha c)^2}{4}\) | \(\Delta P_{1,2}^c = \Delta P_{1,2}^c = 0\) |

| **Price for consumers** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| | \(P_1^c = P_{1,2}^c = \alpha c\) | \(\Delta P_{1,2}^c = \Delta P_{1,2}^c = 0\) |

| **Profit of platform1** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| \(\pi_1 = (\alpha c)^2 + \alpha^a\) | \(\pi_1 = (\alpha c)^2 + \alpha^a - \frac{(\alpha c)^3}{24a^2}\) | \(\Delta \pi_1 = -\frac{(\alpha c)^3}{24a^2} < 0\) |

| **Profit of platform2** | **Before exclusive dealing** | **After exclusive dealing** | **\(\Delta\)** |
| \(\pi_2 = (\alpha c)^2 + \alpha^a\) | \(\pi_2 = (\alpha c)^2 + \alpha^a - (\alpha c)^2\left(\frac{1}{4a^2} + \frac{1}{6}\right)\) | \(\Delta \pi_2 = -(\alpha c)^2\left(\frac{1}{4a^2} + \frac{1}{6}\right) < 0\) |

### 4.3.1 Market structure and consumers utility

After e-commerce platform1 implements the competitive strategy of exclusive dealing, the size of single-homing consumers for platform1 and platform2 increases. Specifically, single-homing consumers for platform1 are more than those for platform2. By contrast, the utility of single-homing consumers and multi-homing consumers are both less than before. And it means once the platform implements exclusive dealing strategy, all
consumers’ welfare would be compromised. The exclusive dealing agreement between e-commerce platforms and sellers does not have a direct impact on consumers’ choices, but it affects the distribution of single-homing and multi-homing sellers, thereby reducing the cross-network externalities that consumers obtain from sellers and thus indirectly affecting consumers’ utility.

4.3.2 Sellers utility

Regardless of whether to accept the exclusive transaction proposed by e-commerce platform 1, sellers’ utility will increase when $\alpha_s < \alpha_c \leq 3\alpha_s$ is available. In other words, the change of seller's utility is uncertain, which depends on the coefficient of cross-network externality of consumers and cross-network externality of sellers. When it exceeds a certain critical value, the seller’s utility will increase, otherwise it will decrease.

4.3.3 Platform profits

In order to attract more sellers and consumers, e-commerce platform 1, which proposed the exclusive dealing, charges sellers at a lower service rate. But the results of dynamic game equilibrium show that the profit of platform 1 decreases instead. For another oligarchic e-commerce platform, its profit also declines.

Then why would this competitive strategy be adopted? Actually, China’s B2C e-commerce market is not balanced, with the top two platforms occupying more than 80% of the market share. In this competitive situation, large e-commerce platforms have sufficient motivation to hijack sellers to sign exclusive dealing agreements. At this time, perhaps the number of sellers in the oligarch e-commerce platform has not increased, but the scale of consumers has increased. In the short term, the exclusive dealing agreement has excluded potential small platform competitors to some extent. In the long run, if another big platform competitor is excluded from the market, the platform that carry out exclusive dealing can gain monopoly profits to compensate for earlier losses.

5. CONCLUSIONS

Platform competition is a hot issue in the study of modern industrial organization theory, which is also highly valued by regulators. We construct a dynamic game of oligopoly two-sides market based on Hotelling model to analyze the change of the distribution of single-homing and multi-homing users, users’ welfare, platform profit. Here are what's novel points about the conclusions: After the introduction of the platform Anti-monopoly Law, it is not allowed for e-commerce platforms to directly force sellers to trade only on their own platforms or ban them. We redefine the situation of exclusive dealing, in which the seller can still keep multi-homing at the original rate, thus we get some more realistic conclusions about competition effects. Apart from this, from the economic perspective we explain an unusual result, that is, even if an exclusive trading strategy reduces profits, the platform still has an incentive to compete.

Overall, for consumers, the exclusive dealing agreement signed between the platform and the sellers will reduce consumer utility, which is indirectly caused by the reduction of cross externality brought by sellers. For sellers, the change of utility after signing the exclusive dealing agreement with the platform is uncertain, which depends on the comparison between the cross-network externality of consumer and that of seller. For e-commerce platforms, attracting sellers to sign exclusive dealing agreements at lower fee rate will reduce their profits. At this point, profits on another e-commerce platform will also cause losses. However, from the perspective of the competitive goals of crowding out some small platform competitors in short term and crowding out the large platform competitor in long-term, e-commerce platforms still have the motivation to implement exclusive dealing in the duopoly market pattern.

To sum up, on the one hand, anti-monopoly law enforcement agency should pay more attention to the exclusive dealing behavior of e-commerce platforms, because the exclusive dealing of e-commerce platforms may increase their market dominance and damage the welfare of consumers and sellers. On the other hand, regulators should analyze the impact of exclusive dealing agreements on e-commerce platforms on market competition
according to specific situations. In view of the particularity of China’s e-commerce platform industry, the asymmetry of network external externality and the dynamic uncertainty of competition situation, it is necessary to strengthen the pertinence and rationality of anti-monopoly monopoly law enforcement, and promote the management, technological progress and transformation of China’s e-commerce platform enterprises.

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