Research on the Business End Value of Electronic Commerce Platform under the Development of Sinking Market

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Abstract: The sinking market is regarded as the 'final flow dividend' of the Internet industry, and various e-commerce platforms are accelerating the development of the sinking market. Promote the supply side business model innovation and industrial structure upgrading. The sinking market shows the b-end value, which is manifested in reshaping the modern value chain, supporting small and medium-sized micro enterprises, helping agricultural products to rise, innovating and upgrading the retail industry, and expanding imports to benefit the world. In the future, the consumption structure will change to olive type, the industrial structure will change to commercial ecosystem, and the cooperation structure will focus on 'industrial belt + e-commerce platform'. B-end value drives the realization of C-end value, and finally forms a win-win situation.

1. Introduction

An important strategic task put forward in the report of the 19th National Congress of the Communist Party of China is to speed up the construction of a resource-saving and environment-friendly society. However, with the rise of China's economy, the shortage of goods has long been transformed into oversupply. From the production end, the sales end, the logistics end to the consumer end, there are a large number of redundant goods piled up, resulting in waste of resources and environmental pollution, which has become a new economic and social problem. The traditional e-commerce industry has greatly improved the efficiency of commodity circulation, but it is still helpless in the face of resource waste and environmental pollution. In this context, circular e-commerce emerges as the times require, becoming a new growth engine of 'resource saving and environment-friendly' e-commerce industry, which is regarded as a new blue ocean of e-commerce industry. Circular e-commerce refers to the use of Internet services at the same time, combined with offline store scene, to achieve the fast circulation and circulation of idle goods among consumers. Circular e-commerce has the characteristics of high utilization, low waste and recyclability. It emphasizes that economic activities should be organized into a feedback circulation process of 'product sales product recycling product resale'. All items can be reasonably and sustainably utilized in this repeated economic cycle to maximize the value of economic activities.

Circular e-commerce gives new value to the used goods, taking both efficiency and environmental protection into account, which has dual economic and social significance. Compared with foreign countries, the development of China's circular e-commerce industry is relatively backward, still in its infancy and growth stage. There are still issues such as legal compliance, model innovation, market feedback, risk management and other aspects to be discussed. Based on this, on the basis of summarizing the development law and Enlightenment of overseas circular e-commerce industry, this paper analyzes the uniqueness of China's circular e-commerce development from the development process, business model, consumer behavior and other dimensions, and points out the future development trend and potential risks, so as to provide reference for the healthy and sustainable development of China's circular e-commerce industry.
2. The Development Law and Enlightenment of Overseas Circular e-Commerce

Overseas circular e-commerce industry developed earlier and has entered a mature stage, among which the United States and Japan are the most representative. In the past century, American consumption has experienced three stages: mass consumption, quality consumption and rational consumption. Among them, rational consumption began in the 1990s, and the income gap in the United States has been increasing. The Gini coefficient of household income once exceeded the warning line of 0.4, and reached 0.485 in 2018, prompting many Americans to turn to idle goods trading. The development of circular e-commerce in the United States is exactly divided by 1990. Before that, it mainly focused on public donations and community transactions. It has successively experienced the religious oriented public donations and transactions stage (1800-1950), the small community offline sporadic transactions stage (1950-1970) and the urban area offline transactions stage (1970-1990). After that, it has stepped into the online stage, and has successively experienced the Internet to expand the scope of transactions Stage (1990-2010) and stage of vertical Internet trading platform (2010 and the future). At present, relevant vertical platforms are developing rapidly, with luxury second-hand transactions developing fastest. According to the data of the U.S. Bureau of statistics, in 2018, the offline trading volume of U.S. second-hand stores reached 19.92 billion yuan. During 2016-2018, the growth rate of the market scale of U.S. offline second-hand stores increased from 2.2% to 8.1%, with an annual compound growth rate of 5.5%, which is higher than the annual compound growth rate of 3.7% of eBay, the largest idle goods trading platform in the United States. The rapid development of circular e-commerce in the United States is related to the drive of the supply side and the demand side: the supply side is mainly driven by strong commodity circulation and idle goods donation tax reduction policies, and the demand side is mainly driven by the increase of low-income people and unique community transaction culture. From the perspective of business model, circular e-commerce in the United States has formed a good online and offline industrial form. Online and offline transactions jointly support the development of the industry, in which offline transactions are mainly community transactions and charity transactions, while online transactions are mainly C2C mode.

3. The Unique Development of China's Circular e-Commerce Industry

3.1 Development History

The development process of China's circular e-commerce industry is relatively short. In 2000, China stepped into the Internet era, and the first batch of second-hand trading platforms of single category emerged. After 2004, multi category trading platforms emerged. In 2014, mobile idle trading began to develop rapidly. In the current economic environment of China, circular e-commerce still has favorable conditions for sustainable development: first, under the background of 'new normal', China's economy is in the stage of shifting and slowing down, while the total amount of social retail products is huge, and the slowdown of economic growth leads to strong demand for goods circulation, which promotes the market transaction of idle goods; second, the per capita income growth of low-end cities is higher than that of high-end cities Faster, the consumption potential in the sinking market has not been released, which has brought a broad market space for circular e-commerce. Thirdly, the growth of online traffic on the Internet is slowing down, and the cost of acquiring customers is getting higher and higher, while offline growth still has great potential. Fourthly, China's environmental protection policy and used goods policy are constantly improving, ensuring and supporting the orderly development of idle goods transactions. It can be predicted that with the arrival of 5g era and the tide of new retail and big data, the circular e-commerce industry will enter the stage of online to offline integration.

3.2 Business Model

The business model of circular e-commerce mainly involves two major processes of recovery and transaction, four major modes of C2B, C2C, B2C and c2b2c, and four major businesses of matchmaking, leasing, quality inspection & consignment and Recovery & resale. In the recycling
stage, the upstream of the recycling e-commerce industry chain is responsible for recycling idle goods from scattered consumers, and then in the form of wholesale circulation to the next level of large wholesalers or idle goods trading platform. The recycling method is mainly C2B. In general, the closer the consumer is to the selling end of the goods, the smaller the single size of the recycler is, scattered in the community, school and other crowd gathering places, equipped with primary identification function, and commodities are collected to large wholesalers for quick realization and quick inventory turnover. In the transaction stage, matchmaking refers to the establishment of channels for direct transactions between individual buyers and sellers. The platform only charges service fees, and finally trades in C2C mode. The advantages of matchmaking business are low operation cost, small risk, large number of SKUs and complete types; the disadvantages are personal transaction, lack of credit and quality evaluation system, long selling cycle, poor quality control ability, and weak after-sales service and dispute handling ability. Leasing refers to the sharing of brand tail goods or dealer inventory in the form of fixed duration (such as monthly rent), and trading in B2C mode. The advantage of leasing business lies in the source of goods. Generally, it is brand tail goods or dealer inventory. The products are relatively new and of high quality, and the sharing concept is emphasized. The consumer group has strong screening ability. The disadvantage lies in the cost, which increases the operating cost for the maintenance after the rental items are recovered and the second rental maintenance. Quality inspection & consignment refers to credit endorsement as an intermediary, providing quality inspection, cleaning, consignment and other services, and collecting service fees; Recovery & resale refers to the platform's recovery of goods, and resale after identification, cleaning, processing and other links to earn the difference. These businesses are traded in the form of c2b2c. Its advantage is to reduce the trust problems caused by information asymmetry in the process of idle goods trading, improve the volume of transactions, and participate in quality inspection, cleaning, price evaluation and other services, reducing the possibility of disputes between buyers and sellers. The disadvantage is that the operation cost of services such as detection, screening, cleaning and after-sales increases, and such businesses are generally concentrated in the vertical field, so it is difficult to expand categories.

3.3 Consumer Behavior

Some domestic research institutions have carried out market research on the users of circular e-commerce, so as to analyze consumer behavior. According to the survey data, it is found that the trading population in the circular e-commerce market is mainly middle-aged women, most of whom are 26-35 years old, mainly live in the second and third tier cities in China, and a few of them are in the first tier cities, mainly in coastal areas. This group is in the early stage of their career, with limited accumulation of wealth, and they are usually keen to obtain more and cheaper goods by trading idle goods. In terms of industry, the distribution of this group is relatively scattered, and the industry with the largest proportion is service industry. In addition, if the conditions of 'online, offline, online + offline' are added, and the whole sample is taken as the research object, it is found that the people aged between 19-25 and whose positions are managers are more inclined to trade idle goods offline, and with the increase of urban subsidence, the proportion of those who tend to trade idle goods offline is larger.


4.1 Development Trend

As far as the business model of circular e-commerce is concerned, the development path of China's circular e-commerce is typically from online to offline. The online transaction of idle goods in China is growing rapidly, which has formed a considerable scale, but the offline transaction is still in a disordered state. Transition to offline is a new way out for circular e-commerce, and the integration of online and an offline mode is the growth point of future industry development, as shown in Figure 1. Among them, online mode mainly adopts c2b2c, C2C and C2B, while offline mode mainly relies on c2b2c, C2B and other modes.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Dimension</th>
<th>%</th>
<th>Characteristic</th>
<th>Dimension</th>
<th>%</th>
</tr>
</thead>
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<tr>
<td>Gender</td>
<td>Male</td>
<td>42.10%</td>
<td>Work</td>
<td>IT/Internet</td>
<td>13%</td>
</tr>
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<td></td>
<td>Female</td>
<td>57.90%</td>
<td>Financial and consulting</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>≤18</td>
<td>0.9%</td>
<td>Real estate / construction</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19-25</td>
<td>34.1%</td>
<td>Consumer goods</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26-35</td>
<td>54.3%</td>
<td>Service trade</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥36</td>
<td>10.7%</td>
<td>Entertainment / design</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>≤200</td>
<td>4%</td>
<td>Health/Medical</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2001-5000</td>
<td>39%</td>
<td>Others</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5001-8000</td>
<td>49%</td>
<td>Distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8001-10000</td>
<td>4%</td>
<td>First-tier</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>≥10001</td>
<td>4%</td>
<td>Second-tier</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>Third-tier</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>Fourth-tier and below</td>
<td>23%</td>
<td></td>
</tr>
</tbody>
</table>

In terms of the market size of circular e-commerce, it is expected that the market size will exceed trillions, and 3C is the most potential vertical field. Due to the characteristics of high liquidity and high residual value, the market scale of 3C mobile phone products will account for the largest proportion of the total market scale of circular e-commerce.

As far as the demand level of the circular e-commerce market is concerned, online transactions meet the demand of the bottom consumers, while offline transactions further improve the consumers' demand for quality and experience. As for the efficiency and trust of circular e-commerce, the future platform will build a trust relationship for the buyer and the seller by providing services, meet the expectations of the buyer and the seller, and improve the transaction efficiency and realize the win-win situation through the touch of online information field and offline physical field[3].

![Fig.1 Trend of Online and Offline Convergence of Circular e-Commerce.](image)

### 4.2 Potential Risk

First of all, from the perspective of recycling function, circular e-commerce market may be more prone to 'buyer's market'. Everyone has idle goods, but not everyone needs to buy second-hand goods. Secondly, from the perspective of sales function, the quality of goods in the circular e-commerce market is uneven, and the C-end seller defines the price independently, which is prone to false publicity, exaggeration of functions and other tendencies, which is harmful to customer experience and platform reputation[4]. Finally, from the perspective of social function, circular e-commerce still needs to overcome many difficulties and risks in playing social value.

### 5. Conclusion

Circular e-commerce may be an optimal solution to the problem of redundancy in commodity
economy. Compared with foreign countries, the development of China's circular e-commerce industry lags behind, so it is necessary to learn from the development experience of the relevant industries in the United States and Japan. As far as the development trend of China's circular e-commerce is concerned, the business model tends to integrate online and offline development, the market scale has the most potential with 3C products, the market demand level pays more attention to quality and experience, efficiency and trust will explore a trading market path based on credit system, and finally realize the 'three wins' situation of buyers, sellers and platform. Of course, due to the immaturity of related industries in China, we also need to pay attention to various potential risks. In a word, the circular e-commerce industry is a systematic project. In the future, it is necessary to promote the circular e-commerce to rely on the healthy business model of self circulation, self growth, self hematopoiesis and empowerment, establish the circular ecology, and make the commodities and values can be continuously turned around.

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