



PEST Analysis of Development Trend in China's Online Drug Retail Market under the "Internet Plus" Strategy

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ABSTRACT

Objective: to probe the current situation of the online drug retail market in China, so as to provide reference for the future development direction of the market. **Method:** through big data, to establish PEST model and analysis the current situation of the online drug retail market in China from the four dimensions of politics, economic, society and technology. **Results and Conclusion:** at present, the policy environment of China's online drug retail market is good, the number of pharmaceutical e-commerce enterprises will continue to increase and the scale of market size will grow. Although there are still problems such as insufficient purchasing power of consumers, uneven regional development, imperfect payment method and distribution system and so on, with the continuous promotion of "Internet Plus" strategy and benign competition in the market, China's online drug retail market will develop rapidly.

With the promotion of "Internet Plus" strategy in China, relying on network technology, drug market is closely linked to e-commerce activities, and the online drug retail market has become an important form of drug sales. By collecting and analyzing big data, establishing PEST model and probing the current situation of China's online drug retail market from four dimensions, this paper provide the direction for the future of the online drug retail market in China.

Keywords: Online Drug Retail Market; Strategy

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How to cite this article:

Beier Chen, Feng Chang. PEST Analysis of Development Trend in China's Online Drug Retail Market under the "Internet Plus" Strategy. Global journal of Economics and Business Administration, 2020; 4:22



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Website: <http://escipub.com/>

1. PEST Analysis of the Current situation in China's online drug retail market

1.1 Political Environment

1.1.1 Lower Market Access Threshold

National access policy has a very significant impact on the development of the online drug retail market in China. Nowadays, the Chinese government promotes the "Internet Plus" strategy, which offers a great opportunity for the development of the online drug retail market. However, China's access policy is still very strict. From 1999 to 2017, China issued a series of policies and measures to regulate the online drug retail market (see Table 1). In 2005, "The Provisional Regulations Concerning Drug Information Service on Internet" initially permitted Rx medicines

to be traded on the Internet, which enabled China's online drug retail market to start and develop. In 2013, "A Notice about Strengthening the Administration of the Online Drug Sales" stipulates that retail monomer drugstores are not allowed to sell medicines online, and retail chain drugstores can only sell OTC medicines, which impedes the development of the online drug retail market in China. In January 2017, "A Decision on Canceling the Third Batch of 39 Administrative Licensing Items Designed by the Central Government and Local Government" cancelled the approval of the online drug trading service enterprises (except third-party platforms), which gave a looser political environment.

Time	Title	Concept
1999	"An Interim Provision on the Administration of the Circulation of Rx Drug and OTC Drug"	There are rules against selling Rx medicines and OTC medicines over the Internet.
2000	"The Measures for Supervision and Administration of drug e-commerce pilot projects" "The Provisional Regulations Concerning Drug Information Service on Internet"	The trial of selling Rx medicines over the Internet was carried out in some provinces and cities.
2005	"The Provisional Regulations Concerning the Approval of Internet Drug Business"	Allow the Internet to sell OTC medicines.
2013	"The Measures for the supervision and administration of Online food and drug stores (draft for comments)"	Retail chain drugstores are allowed to sell OTC medicines and deliver them in a way that meets GSP-certified standards, while retail monomer drugstores are not allowed to sell medicines online.
2017	"A Decision on Canceling the Third Batch of 39 Administrative Licensing Items Designed by the Central Government and Local Government"	cancel the approval of the online drug trading service enterprises (except third-party platforms)

Table 1 China's policies and regulations on the online drug market from 1999 to 2017

1.1.2 Increasingly Sophisticated Regulatory System

The development of Internet transactions is conducive to the improvement of information transparency, and the traceability of information

in each progress is greatly enhanced, thus reducing the complexity of supervision. Meanwhile, the application of big data provides technical possibility for the supervision of the online drug retail market. After canceling the

approval of online drug trading service enterprises (except third-party platforms), the state has further emphasized the supervision of online drug trading service and established a monitoring mechanism for online drug sales. Currently, some regional warning centers of big data have provided good enlightenment for supervision. The main direction of future supervision is to make use of information to develop the corresponding drug supervision system, realize real-time supervision, remote supervision, traceability supervision and improve the supervision efficiency.

1.1.3 Imperfect Legal System

China's online drug retail industry started late, and its development was deeply influenced by national policies. However, there was no legal system to regulate the market. Illegal activities such as conducting online drug sales without permission or far exceeding the scope of permission, selling medicines online by a third plat-

form in violation of national regulations occur from time to time [1]. The authority of governance is insufficient, governance content is missing, governance mechanism lags behind, and consumers' rights and interests are not well addressed.

1.2 Economic Environment

1.2.1 Expanding Market Size

In recent years, China's online drug retail market has experienced a process from small to large. From the perspective of market size, China's online drug retail market reached 100 million yuan for the first time in 2011, and increased 5 times in 2012. By the end of 2017, China's online drug retail market had reached 5.9 billion yuan (see Figure 1), and still maintained a rapid growth rate. In terms of the number of online drugstores, up to August 2018, there were 692 online drugstores in China, with an average annual growth rate of 30% (see Figure 2).

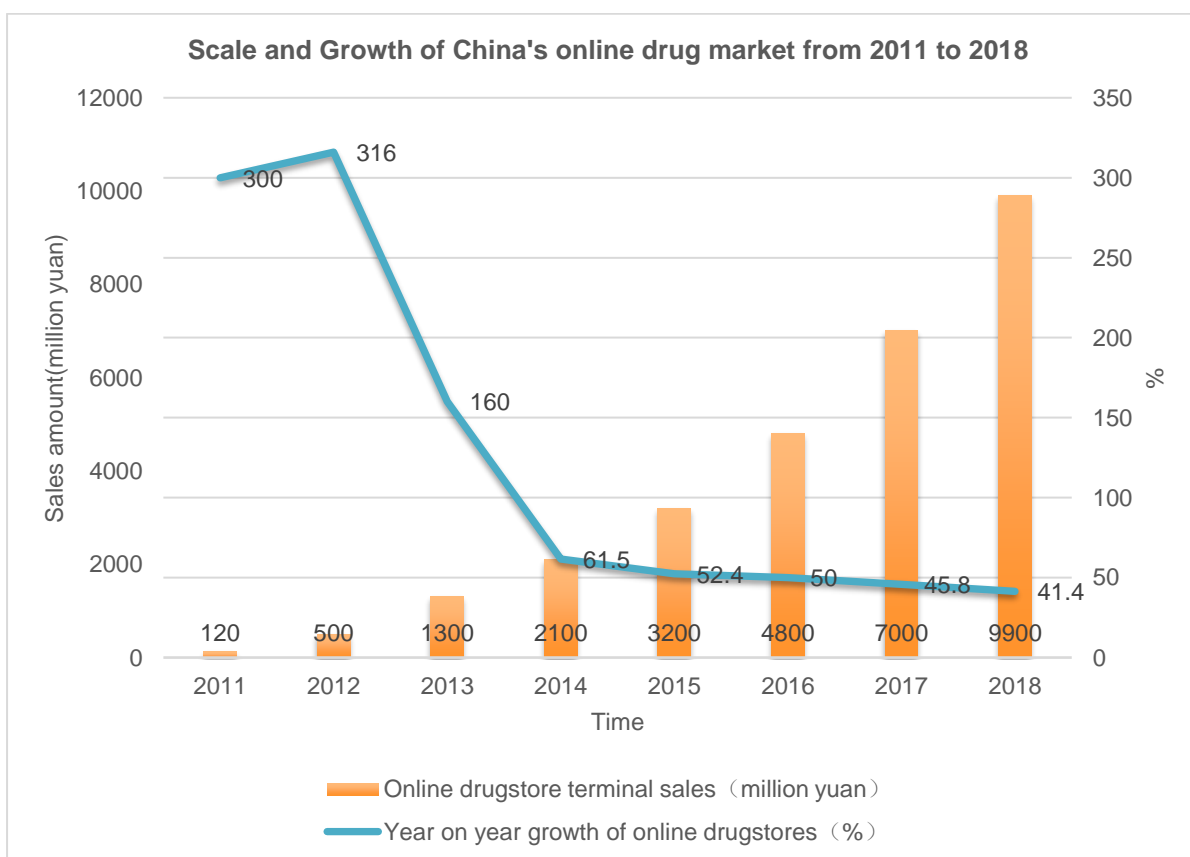


Figure 1 Scale and Growth of China's online drug market from 2011 to 2017

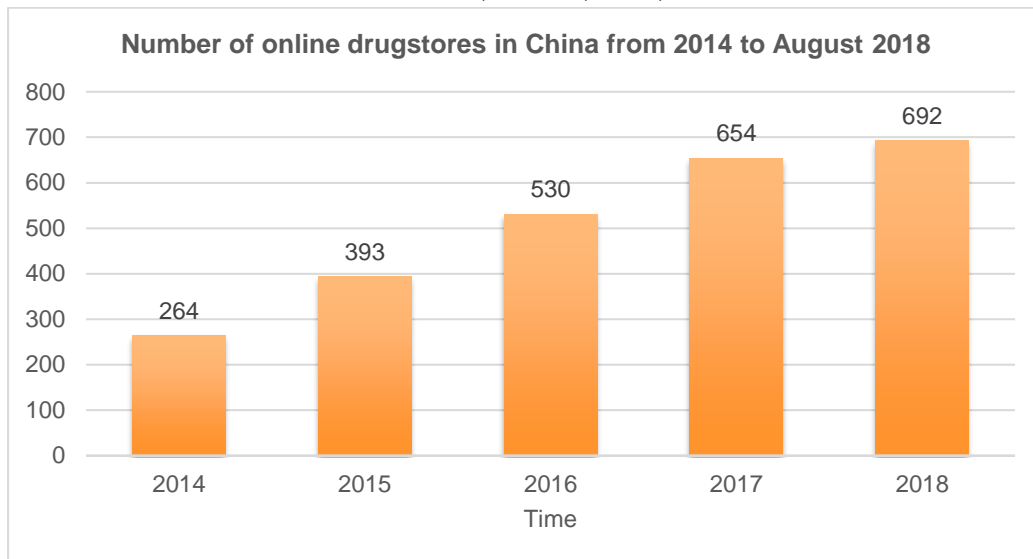


Figure 2 Number of online drugstores in China from 2014 to August 2018

1.2.2 Increasing Capital Input

As the state and the government attach great importance to the medical and health field, capital input in medical and health care is increasing year by year. In 2017, the total health expenditure in China has reached 5.15988 trillion yuan, and it is expected to exceed 0.6 trillion yuan in 2018 (see Figure 3). At the same time, the per capita health expenditure also increased from

1094.2 yuan in 2008 to 3,712.2 yuan in 2017 (see Figure 4). The continuous growth of total and per capita health expenditure indicates that the society attaches great importance to medical care and health, and also means that the demand for medical products will rise day by day, which strengthens the purchasing power of the online drug retail market.

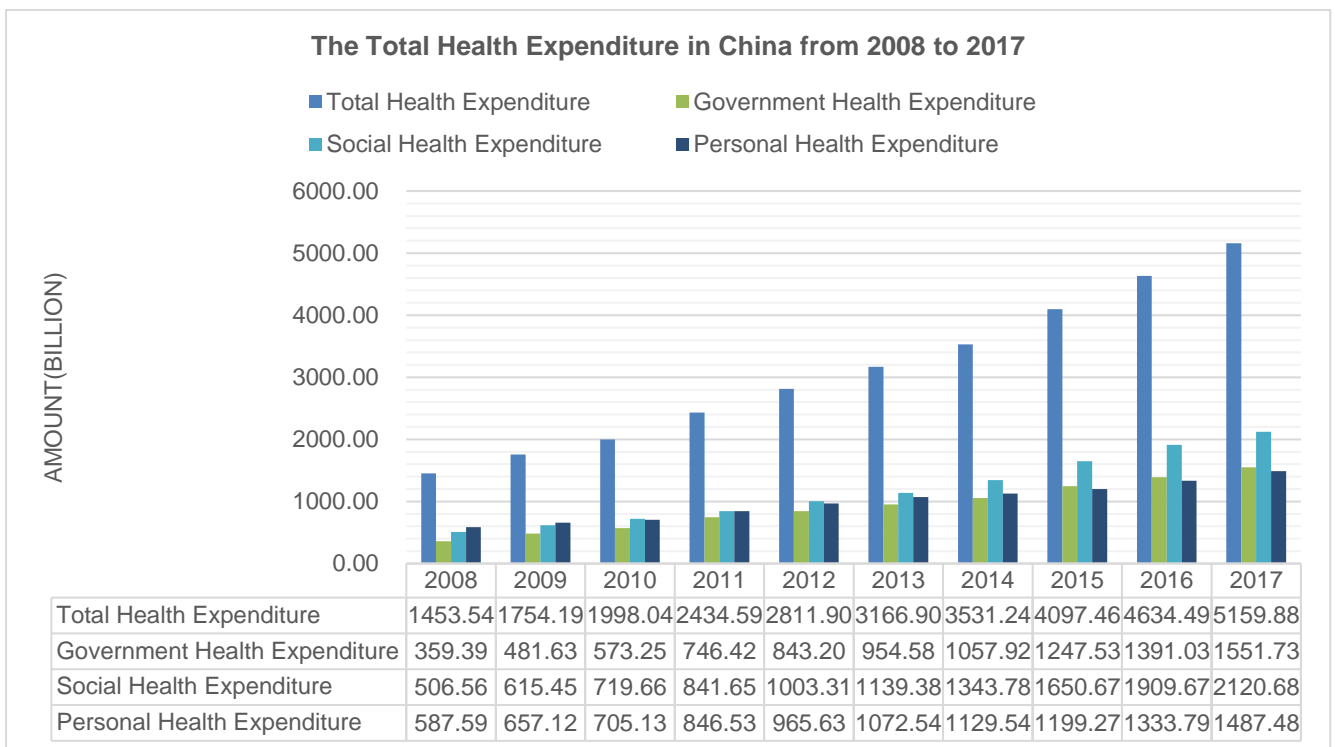


Figure 3 The total cost of health in China from 2008 to 2019

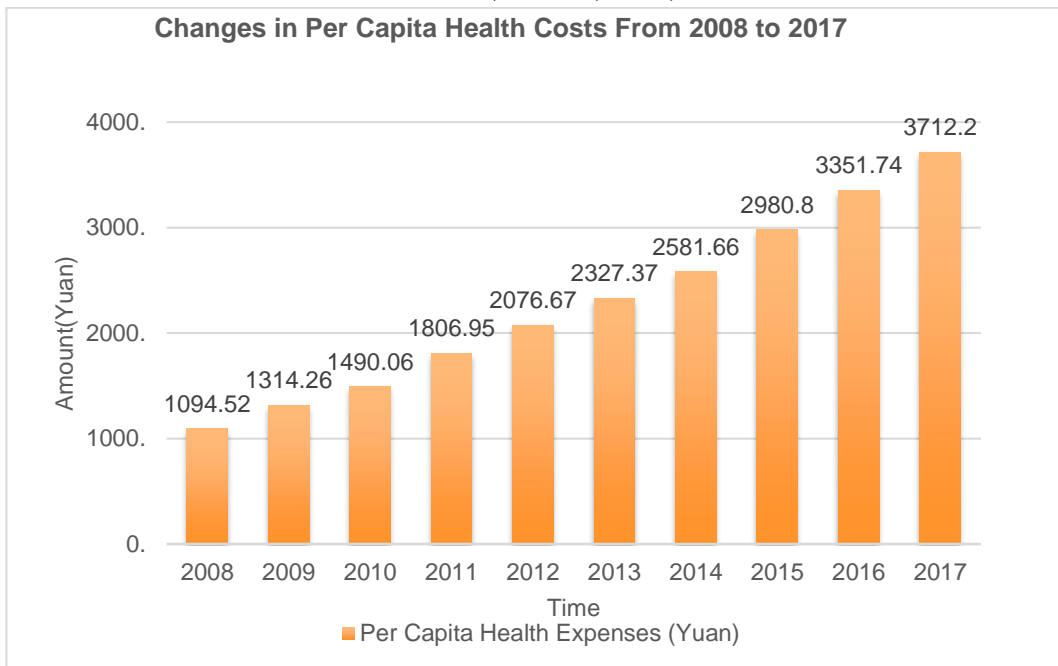


Figure 4 Health expenditure per capita in China from 2008 to 2017

1.2.3 Insufficient Market Share

Although the market share of the online drug terminal market is expanding, according to the changes of the six drug terminal markets from 2008 to 2017, the size of the online drug retail market is far less than that of urban hospitals,

county-level hospitals and urban primary medical care institutions. The market share of the online drug market is still small, and still out of proportion compared with traditional offline terminals.

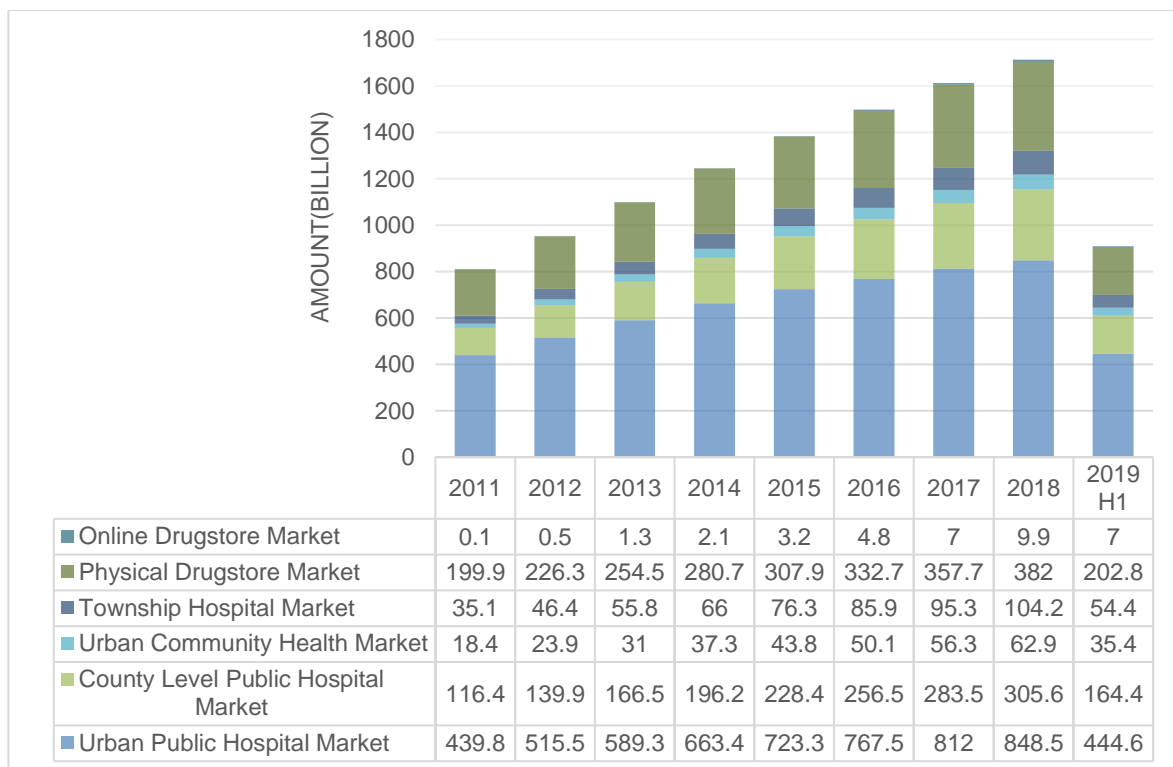


Figure 5 Changes of scale in China's six major drug terminal market from 2011 to 2019H1(Billion)

1.2.4 Unbalanced Geographical Distribution

According to the data, there are 692 online drugstores in China, but they are more in the east and less in the west, more in the south and less in the north. The number of online drugstores in Guangdong, Jiangsu and Zhejiang ranks the first three, while Guangdong ranks the first with 150 online drugstores. The pearl river delta, Yangtze river delta and Beijing-Tianjin-Hebei region have promoted the popularity of online drugstores due

to their developed economy and perfect network and distribution services. In the meantime, people concentrates in these areas, and the number of medical consumer is huge. Because of the sparse population and underdeveloped economy in northwest and southwest China, neither purchasing power nor distribution capacity can meet the needs of online drugstores. As a result, online drugstores are less distributed in these areas.

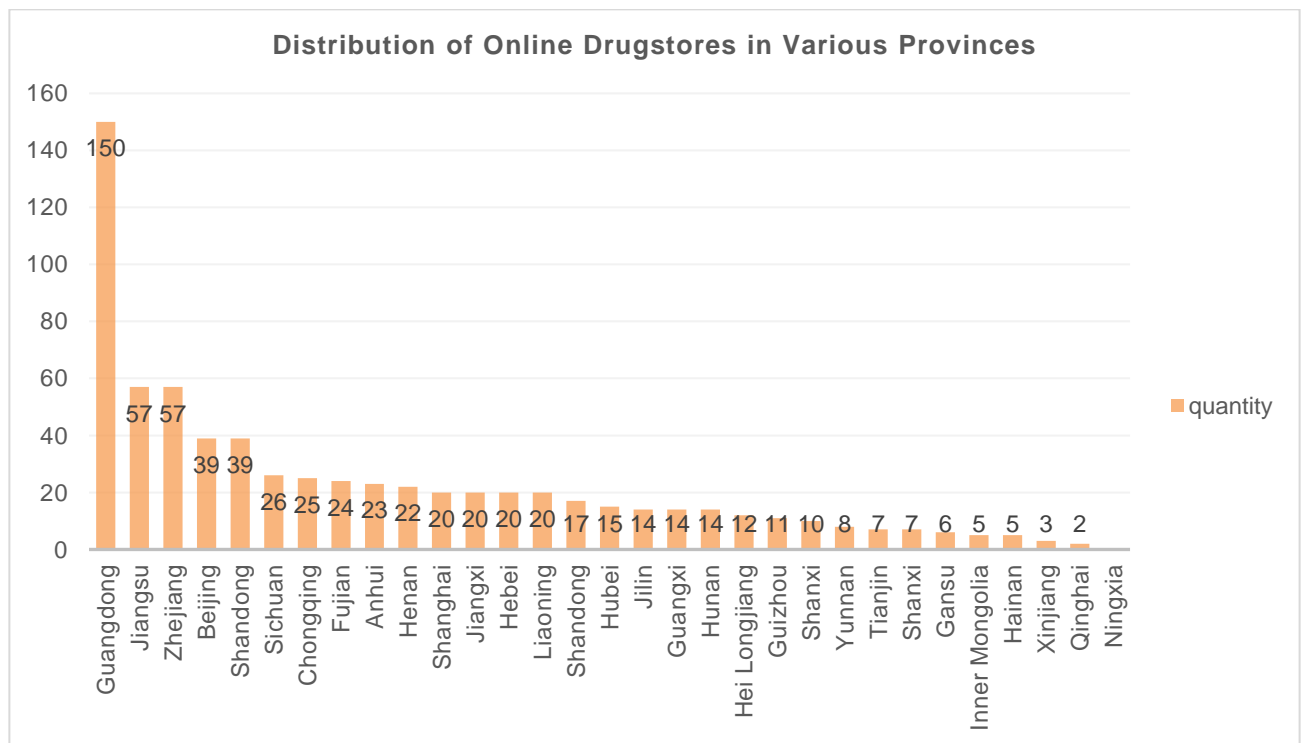


Figure 6 Distribution of online drugstores in various provinces

1.2.5 Progressively Competitive Environment

The competitors of online drugstores come from two aspects: one is the competition between online drugstores, the other is the competition between offline retail drugstores and online drugstores. The market share of Rx medicines in China is 800 billion yuan, while that of OTC medicines is only 200 billion yuan [2]. The rapid development of economy has accelerated the fierce competition within the online drug industry. A surging number of capitals enter the online drug retail market just to fight for occupying only a small market share of OTC medicines, which

leads to the phenomenon of oversupply in this market. Unlike other commodities, medicines are taken only when patients are sick, so the elasticity of demand for medicines is small and the price advantage is not very obvious. At present, China's offline drugstores have covered plenty of areas and contained all kinds of medicines, which can basically meet the needs of patients. Therefore, offline drugstores occupy an absolutely big market.

1.2.6 Smaller Profit Margin

On the basis of China's regulations, online retail drugstores can only be established by depending on offline drugstores. The scale and construct-

ion offline drugstores directly affect the development of corresponding online drugstores. Data shows that the average discount rate of online drugstores is about 9% [3]. Compared with offline drugstores, online drugstores have no obvious price advantage. Online retailing is only a sales channel and a supplement to offline drugstores. Excluding distribution costs and on-line maintenance and promotion costs, the profit margin of online retail drugstores is very small.

1.3 Social Environment

1.3.1 Consumption Concept Influences Value Orientation

As medicines are related to the life and health of the users, medical consumers take a cautious attitude when buying medicines. To this end, I made a survey on the questionnaire star (link: <http://www.sojump.com/jq/7176405.aspx>) to ad-

d up reasons for why people do not choose online drug. Statistical results are shown in Figure 7. Because most consumers lack professional knowledge about medicines, they need to purchase medicines under the guidance of professionals. At the same time, as most consumers are patients, they need to take medicine in time, and it takes a certain time for online drugstores to deliver medicines to consumers, which also hinders the further development of online drugstores. In addition, the safety of online medicines has also become a concern for consumers. Therefore, in addition to a certain price advantage, online drugstores are inferior to offline drugstores in timeliness, safety and other aspects. In this case, consumers are more willing to go to offline drugstores to buy medicines.

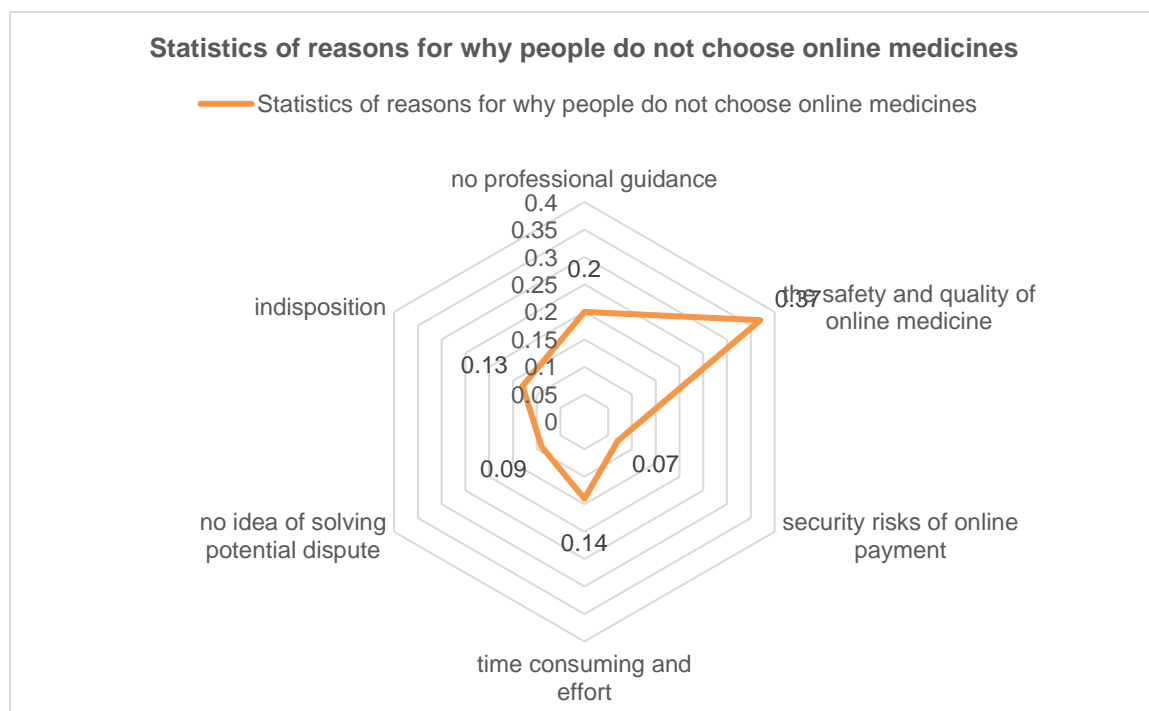


Figure 7 Statistics of reasons for why people do not choose online medicines

1.3.2 The Main Consumer Group of Online Shopping is not the Group of Online Medicines

The main group of Internet users in China are teenagers aged 10-40 and young adults (see Figure 9). This group is the main force of the online shopping market, but this group has no

strong demand for medicines. Based on the survey data, the demand of children under 10 years old, middle-aged people and elderly people over 40 years old for medicines is dramatically greater than that of teenagers and young adults between 10 and 40 years old (see Figure 10). However, these groups seldom surf the Internet

due to their knowledge level, their lack of understanding, distrust and their inability to operate the Internet [4]. These causes the age mismatch of online drug consumers. Such mismatch will

limit the purchasing power of the online drug retail market for a long time, and be unable to complete the best match between supply and demand.

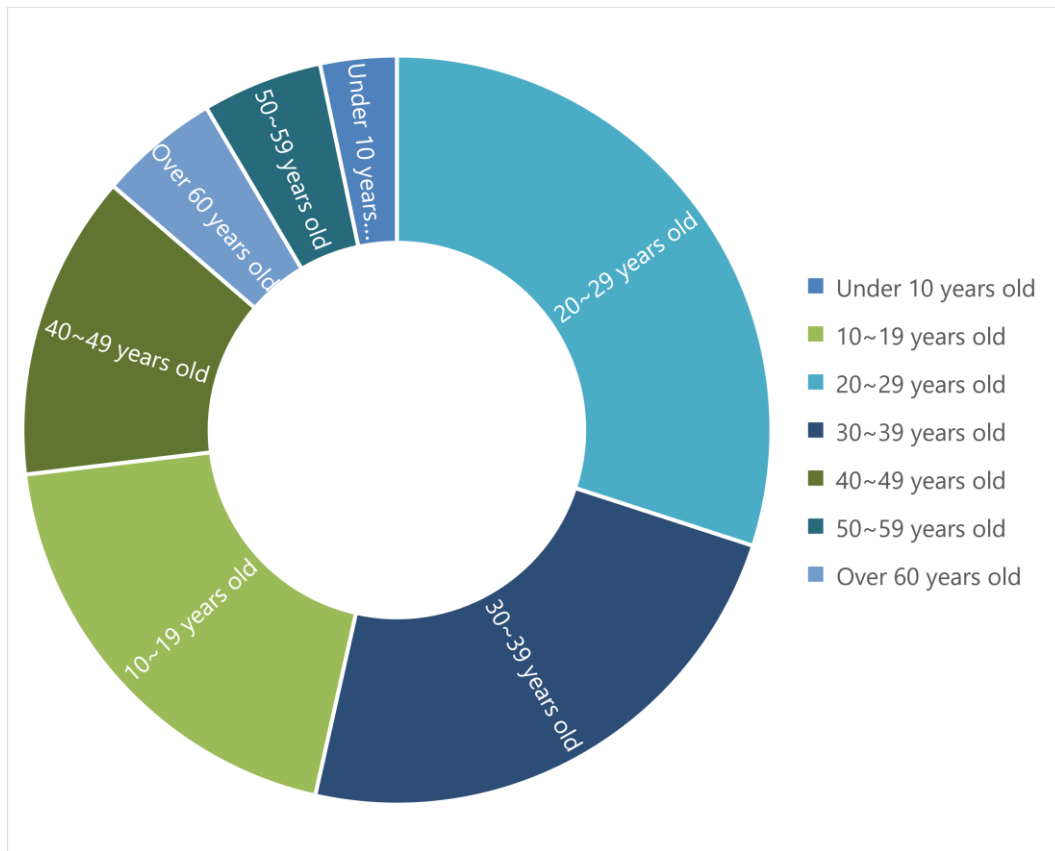


Figure 8 Age structure of Internet users in China

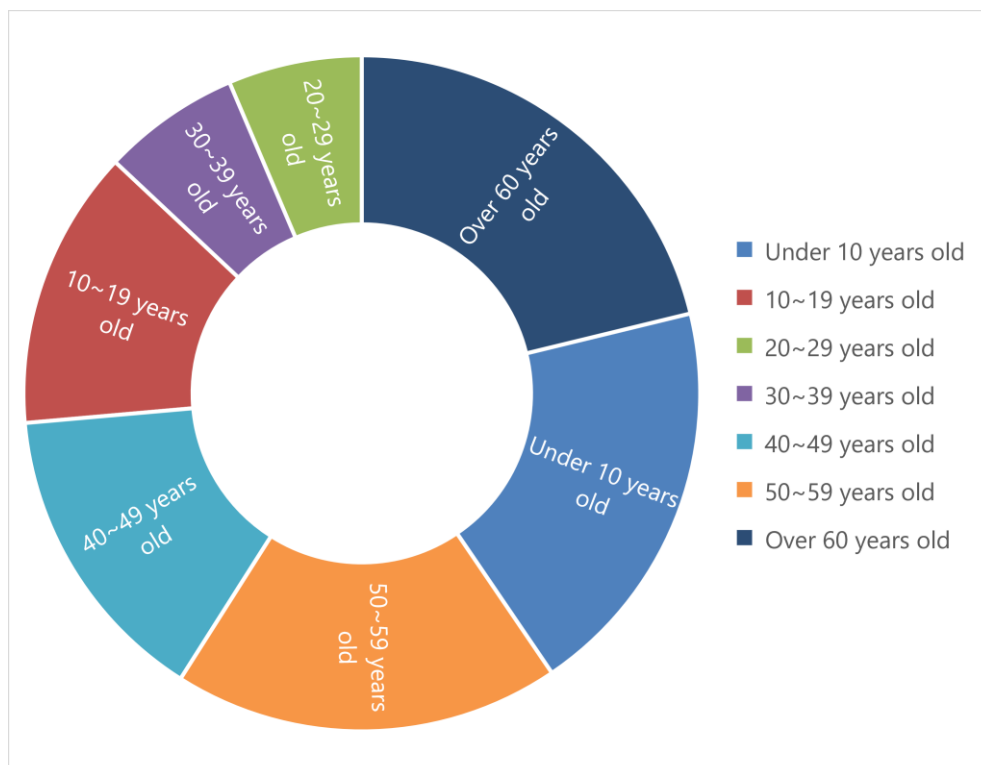


Figure 9 Medicine needs of Chinese residents in different age groups

1.4 Technological Environment

1.4.1 Relatively Single Payment Method

In China's online drug retail market, payment methods are relatively single, most of which are online banking and WeChat and Alipay. The vast majority of online drugstores can hardly use health insurance and medicare card for payment, and online drugstores do not include medicines in the scope of health insurance. Therefore, consumers generally choose offline drugstores to purchase medicines. Meanwhile, online drugstores mostly adopt the method of payment before delivery, which requires online payment instead of cash. However, some middle-aged and elderly consumers and rural consumers do not use or have no online payment method, so online medicines is not the first choice for these consumer groups.

1.4.2 Unprofessional Distribution Channel

Nowadays, there are two main distribution channels of online drugstores, namely, independent distribution and third-party distribution ^[5]. Due to the lower price of online medicines, for the cost control, most drugstores will choose third-party for distribution instead of establishing their own distribution system. The transportation and storage of one medicine is different from another. Some medicines need to be transported frozen, some need moisture-proof environment, and some medicines have time limitation.

Therefore, professional distribution methods are needed. At the same time, the distribution cost of a single medicine has become a crucial part of the cost control of online retailing. Besides, patients continue to take medicines after they are sick, but they cannot get them in the first time, thus causing longer recovery period ^[6], which also becomes the reason why consumers do not want to buy medicines online.

1.4.3 Inadequate Website Construction and Advertisement

Currently, online retail drugstores mainly sell medicines through entering into third-party trading platforms, while few of them have established their own sales websites. The success of

e-commerce enterprises often depends to a large extent on their website construction ^[7], while the current sales website also has problems such as slow speed, insufficient visitors, ugly page, inconvenient retrieval and lack of online customer service. Due to the national laws and regulations, drug advertising needs a very strict approval process, and the scope of propaganda is clearly limited. Therefore, it is impossible for medicines to be propagandized by various means like other commodities.

2. The Development Trend of China's Online Drug Retail Market under the "Internet Plus" Strategy

2.1 Policy Easing Unleashes Market Potential

The development of the online drug retail market closely relies on the support of the government. The first step is to permit the online trading of Rx medicines, which is important to promote the online drug sales. Secondly, online medicines should be included in the scope of medical insurance. We can follow the principle "separation of prescribing and dispensing" to sell Rx medicines online. In addition, we can promote commercial insurance of medicare, and optimize China's health insurance. The government try to realize online medical insurance settlement by purchasing third-party services ^[8]. The implementation of "medicine zero spreads policy" and corresponding measures by medical institutions will promote the potential of off-hospital sales, including the online drugstores.

2.2 Increasing Service Quality Improves the Online Retailing

Online drug retail enterprises can improve the service quality from the following three aspects. Firstly, the website should be established. Enterprises should establish a perfect drug retrieval page to offer detailed information so that consumers can quickly find the medicines they need. Then, an online customer service platform composed of professional pharmacists and physicians should be established to provide professional medication guidance for consumers. Besides, online drugstores can develop their own

small WeChat programs and unique apps to maximize the influence of the platform. The second is to improve the distribution system, combine B2C mode with O2O mode, optimize the distribution system based on O2O mode, so as to deliver medicines in time and track medicines conveniently. Thirdly, enterprises should build up the after-sales mechanism concerning customer feedback, dispute settlement, service quality.

2.3 Growing Number of Capital Input Stimulates the Online Drugstores

For the purpose of maximizing influence and mastering medication data, all kinds of medical enterprises show a strong tendency to acquire pharmaceutical e-commerce platforms [9].

According to the data, among the top ten online

drugstores, Guoda drugstore topped the list with registered capital of 200 million yuan, followed by Haoyaoshi drugstore with registered capital of 18788782 yuan. Until March 2017, the financing amount of the pharmaceutical e-commerce was about 8.6 billion yuan, among which, there were four enterprises with more than 1 billion yuan. After adding the amount of unlisted companies and their subsidiaries, the total financing amount exceeded 10 billion yuan. The huge capital input is bound to bring the explosive development of the online drug retail industry. Under the background of the gradual easing of national policies, the market size of the online drug retail industry may reach hundreds of billions or even trillions.

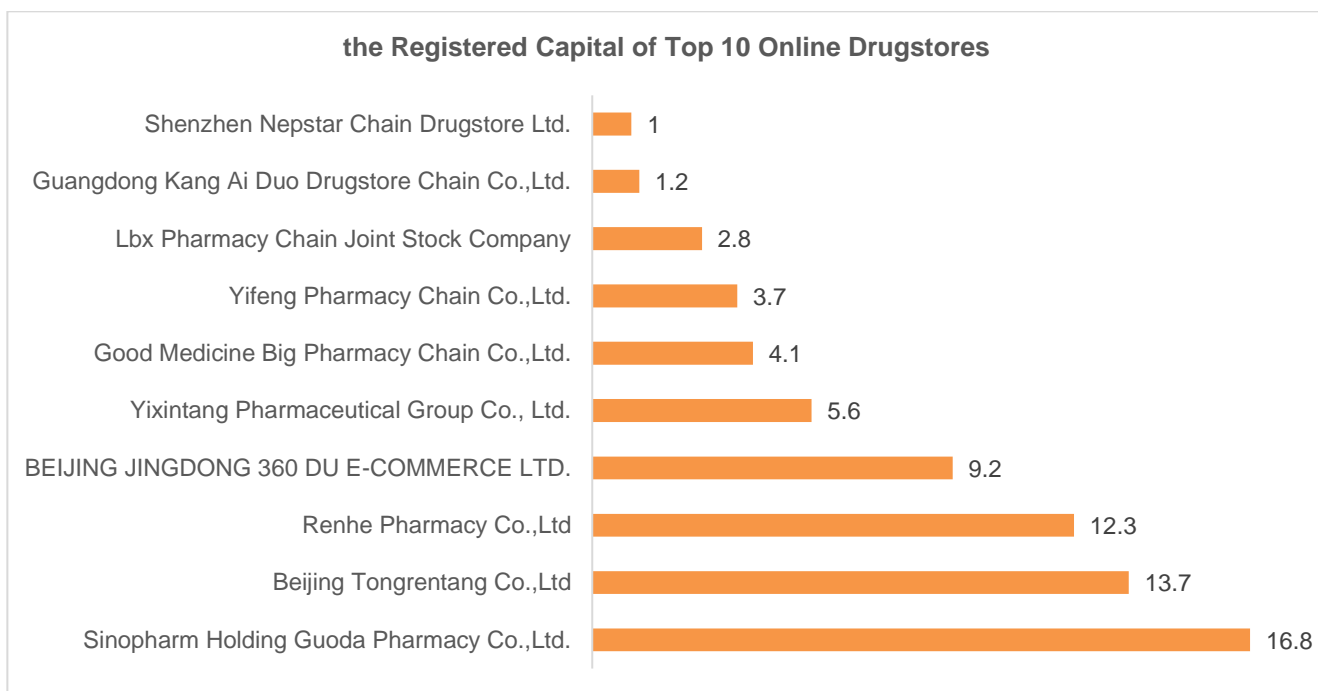


Figure 10 The registered capital of top 10 online drugstores (Billion Yuan)

3. Conclusion

With “Internet Plus” strategy and the era of big data, the online drug retail market is not only facing new opportunities but also challenges. The current political environment and economic environment are conducive to the development of the online drug retail industry. The number and market scale of pharmaceutical e-commerce enterprises will continue to grow, and the market

position of online drugstores will gradually enhance. In the future, the development direction of online drugstores should be based on offline drugstores, explore the mode of B2C and O2O, and improve user experience. Although there are still problems such as insufficient purchasing power of consumers, unbalanced regional development, imperfect payment mode and distribution system, etc., with the continuous promotion

of “Internet Plus” strategy and benign competition in the market, China's online drug retail market will develop rapidly.

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