

Chapter 3 China's E-commerce Service Industry

E-commerce service industry is an emerging industry, “a new service form that emerges with the development of information network technology, the refinement of division of social labor, and the upgrade of consumption structure.”^① The development of E-commerce industry is essential “to accelerate the transformation and upgrade of traditional industries, and to promote the development of tertiary industry, especially modern tertiary industry.”^② This chapter focuses on the development of trading services, supporting services and derivative services in Chinese E-commerce industry in 2012.

3.1 The development of trading services of E-commerce

3.1.1 Overview of the development of E-commerce service industry in 2011

1. The number of enterprises engaged in E-commerce service industry continued to grow steadily

The number of Chinese E-commerce service enterprises achieved further growth in 2011. The survey by the Ministry of Commerce concerning typical E-commerce service enterprises indicates that the number reached 29 860, an increase of 24.2% compared to 2010 (See Figure 3-1).

2. The revenue size of E-commerce service enterprises

The survey by the Ministry of Commerce concerning typical E-commerce service enterprises in 2012 indicates that small and medium B2B and B2C accounted for 70% of the whole industry (See Table 3-1)^③.

① Ministry of Science and Technology of the People's Republic of China. Notice on the issuance of the modern service industry science and technology development planning of the 12th Five-Year Plan. [R/OL](2012-02-22)[2013-04-20]. The website of Ministry of Science and Technology of the PRC:

http://www.most.gov.cn/fggw/zfwj/zfwj2012/201202/t20120222_92619.htm.

② Hu Jintao. Unswervingly along the Path of Socialism with Chinese Characteristics, Strive to Build a Well-off Society in An All-round Way—Report at the eighteenth National Congress of the Communist Party of China[R/OL] (2012-11-08)[2013-04-20]. The website of the Central People's Government of the People's Republic of China: http://www.gov.cn/ldhd/2012-11/17/content_2268826.htm.

③ E-commerce and Information Technology Division of the Ministry of Commerce, China Internet Network Information Center. The Report on Chinese E-commerce Service Industry Development in 2012 [R]. 2012-03-05.

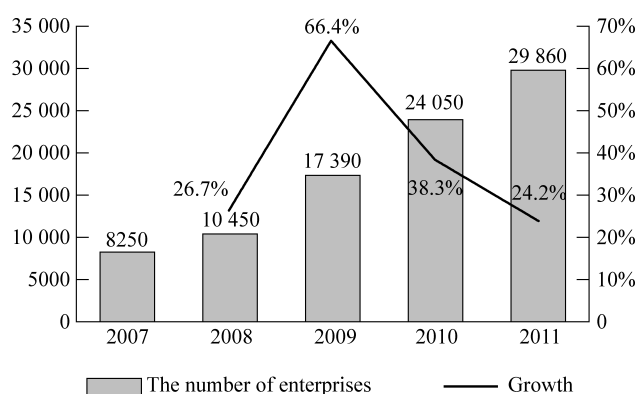


Figure 3-1 The Number of Chinese Enterprises Engaged in E-commerce from 2007—2011

Data sources: E-commerce and Information Technology Division of the Ministry of Commerce, China Internet Network Information Center.

Table 3-1 Operating Revenue Distribution of E-commerce Service Enterprises

	Operating Revenue	Number of Enterprises	Proportion of Enterprises
B2B enterprises	Less than 500 thousand	51	12.1
	500 thousand to 1million	22	5.2
	1million to 5 million	94	22.3
	5 million to 10 million	49	11.6
	10 million to 50 million	88	20.9
	50 million to 1 billion	89	21.1
	More than 1 billion	29	6.9
Online-shopping Enterprises	Less than 500 thousand	39	9.8
	500 thousand to 1million	26	6.5
	1million to 5 million	78	19.5
	5 million to 10 million	46	11.5
	10 million to 50 million	98	24.5
	50 million to 1 billion	95	23.8
	More than 1 billion	18	4.5

Data sources: E-commerce and Information Technology Division of the Ministry of Commerce, China Internet Network Information Center.

3.1.2 The development of the third party B2B E-commerce service

1. The overall size of small and medium B2B marketing service

The statistics by Enfodesk shows that the B2B market produced 13.61 billion RMB yuan in revenue for Chinese E-commerce in 2012, an increase of 16.6% (See Figure 3-2)^①.

① Enfodeks. China B2B E-commerce market data quarterly monitoring report(2012Q4) [EB/OL](2013-02-04) [2013-04-25]. Enfodeks website: <http://www.enfodesk.com/SMinisite/maininfo/article/detail-id-348059.html>.

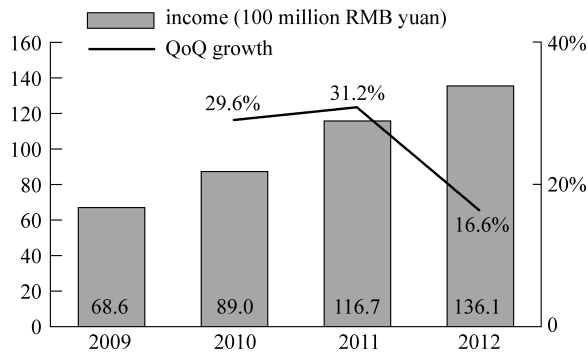


Figure 3-2 The Income Scale of the B2B Market of Chinese E-commerce from 2009 to 2012

Data sources: Enfodesk(www.enfodesk.com) Feb, 2013.

2. The platform share of small and medium B2B enterprises

In 2012, the total revenue share of the top 8 small and medium B2B enterprises that provided platform services accounted for 66.4% of the whole revenues, a decrease of 8.4% over last year. Alibaba(www.1688.com) remained the number one, Global Sources(www.globalsources.com), Mysteel(www.mysteel.com), HC360(www.hc360.com) ranked second to fourth. From the aspect of operating revenue, Alibaba, Global Sources, HC360, and DHGate(<http://seller.dhgate.com>) ranked first to fourth, accounting for 60% of the industry (See Figure 3-3).

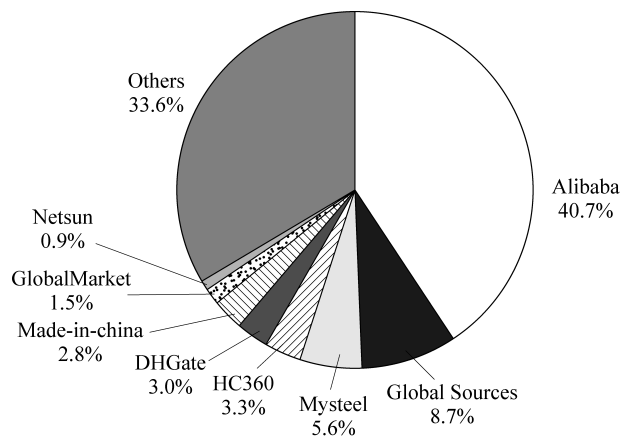


Figure 3-3 The Market Structure of Chinese B2B Service Industry in 2012

Data sources: Iresearch (www.iresearch.com.cn) Jan, 2013.

Note: The income of B2B operators contains the income from platform and self-built platform services.

On the whole, China's principal B2B enterprises have strengthened marketing executive ability and innovative ability to some extent. Enterprises have sought differentiation according to their own advantages and characteristics, making the industry in a period of change.

3. Key features of the B2B market composed of small and medium B2B enterprises

(1) The growth is slowing down. Compared with 2010 and 2011, the development pace of the B2B market of Chinese E-commerce slowed down significantly in 2012. One reason is that the growth of total exports slowed and the domestic market demand was relatively weak due to the influence of macroeconomic environment. Another reason is the increase of operating costs and inventory pressures of Chinese SMEs and the decrease of the purchasing wishes.

(2) The integration of B2B and B2C is accelerating. The main trend of B2B market in 2012 was the integration of B2B platforms and B2C platforms. In April 2012, Amazon (www.amazon.cn) made an attempt in B2B and operated AmazonSupply (www.amazonsupply.com), which is a B2B E-commerce platform pertaining to vertical marketplaces. In May 2012, Metro, a retail chain giant, operated B2B business in China. Meanwhile, Global Sources began to discuss the cooperation with Companies of JD(www.jd.com), Amazon, Yihaodian(www.yihaodian.com), Dangdang(www.dangdang.com), Suning(www.suning.com) to help B2C enterprises find quality suppliers. Amazon became the membership enterprise of “Cai-Gou-Tong” of HC360 in June 2012. At the same time, Chinese B2C enterprises such as JD, Dangdang, Vancl(www.vancl.com), Uya100(www.uya100.com), 365(www.365.com) also expanded business via HC360.

(3) The consolidation of the industry has deepened. B2B industry was consolidated, restructured, upgraded, and innovated in 2012. On March 26, 2012, SZ37(www.sz37.net), the biggest B2B website in South China, was determined to transform into an E-commerce solution provider with its new domain name—www.taojindi.com. After delisting from HKEx on June 20, Alibaba Group started the overall structure adjustment. Its B2B service was divided into small-enterprise service and international service, providing the E-commerce service for more SMEs on the basis of the existing of information dissemination among enterprises, purchase orders, and large wholesale market. At the same time, Alibaba integrated AliExpress and Alibaba information platform into Department of Ali International business, which is a unified crossover trading platform where English is used as the communication medium, supporting global SMEs to expand overseas market. On August 17, Busytrade (<http://china.busytrade.com>) closed its Chinese website and focused on the English website.

(4) The financial value-added service has become a new hot spot. Many B2B platforms deepened their financial service in 2012. Collaborating with banks to provide the lending service, these platforms has built credit database with the transaction data available, decreasing the lending cost, enabling enterprises with good credit to get more efficient money flow. Aliloan(www.aliloan.com) has lent 13 billion RMB yuan to small and micro enterprises in the first half of 2012.

(5) The platform has become the focus. In October 2012, DHGate started the first foreign trade mobile management platform, combining the E-commerce management with mobile internet to tackle the problem of timely communication and jet lag disorder in the cross-border transaction. On November 26, turnover from American buyers increased 12 times, overseas traffic has risen 8 times, turnover has climbed 9 times. The above events indicate it has become a trend that B2B E-commerce transforms from information platform into transaction platform, because the former information service can't meet the transaction need of SMEs. The transaction platform will definitely help buyers and sellers do business via the platform, and will provide the sellers' certification for buyers, thus facilitating the business.

3.1.3 The development of online retail services

1. The structural changes of the online retail market

In 2012, the transaction volume of Chinese online retail market reached 1.311 trillion RMB yuan, amounting to 6.23% of the total retail sales of consumer goods that year. Judging from the structure of the online-retail-market transaction, C2C online retail still predominates. B2C, however, is trying to catch up. In 2012, B2C accounted for up to 37%, an increase of 7% over 2011 (See Figure 3-4).

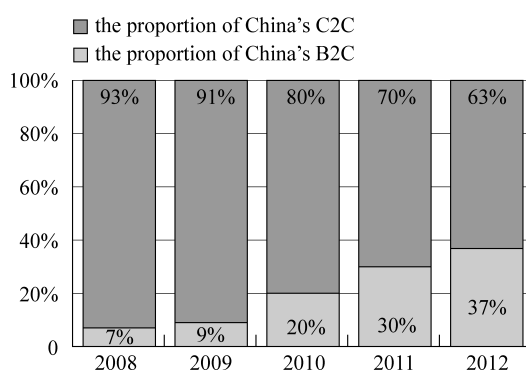
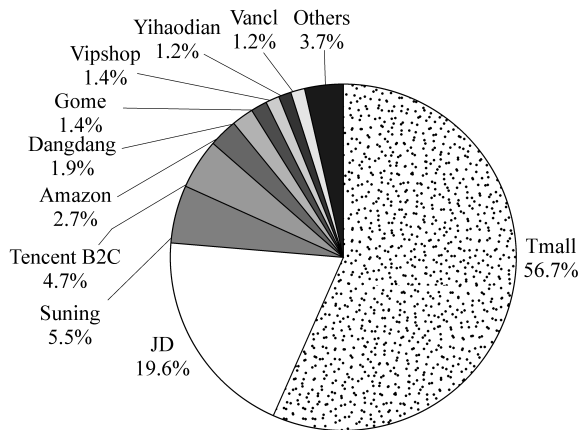


Figure 3-4 The Proportion of China's B2C and C2C from 2008 to 2012

Data sources: Enfodesk(www.enfodesk.com), Feb 2013.

B2C market has accelerated its readjustment with repeated completion campaign kicked off by E-commerce dealers. Suning and TencentB2C maintained the second position by purchasing vertical E-commerce dealers, developing comprehensive production lines, and strengthening integration. While platform-based E-commerce dealers are developing prosperously, vertical dealers are facing increasing pressure, e.g. the market share of Vancel, M18, and Newegg has declined substantially (See Figure 3-5).



Note:

- (1) The statistics only include online sales if the operator has complex sales channels.
- (2) B2C websites are divided into platform-based B2C and self-operating B2C in accordance with different profiting models. Platform-based B2C include websites such as Tmall(www.tmall.com), which get most revenue by means of commission; self-operating B2C websites include websites such as JD, which get most revenue from margin between selling and purchasing price on merchandise.
- (3) Suning also includes Redbaby(www.redbaby.suning.com); TencentB2C includes BuyQQ (www.buy.qq.com), MallQQ, 51buy(www.51buy.com); Gome includes Gome(www.gome.com.cn) and Coo8(www.coo8.com).

Figure 3-5 The Market Share of China's B2C Shopping Websites' transaction

Data sources: Iresearch(www.iresearch.com.cn) Jan, 2013.

2. Key features of the online retail market

(1) The online retail continues to develop rapidly. Maintaining the situation in 2011, the online retail market developed with the rapid growth of 67.5%, ranking first over all in China's economic growth. Price wars, which were sparked by major B2C dealers to compete for market share, had become the direct drive raising the online retail transaction. The increase of individual online shops and netizens consumption ratio has also promoted the growth of online retail transaction. In accordance with the exchange rate at the end of 2012, the turnover of China's online retail transaction has reached USD 208.6 dollars, close to the turnover of United States, which amounted to USD 225.5 billion dollars. In terms of growth rate, however, China's rate (76.5) is 4.27 times that of America. Therefore, the turnover of China's online shopping transaction from 2013 to 2014 will probably exceed that of America from the perspective of growth trend.

(2) The open trend of the online shopping platform is increasingly obvious. In 2012, the shopping platform was developing towards two directions: the comprehensive platform covering all categories and the vertical platform focusing on market segment. At the same time, with the obvious situation of gradual development from proprietary websites to third-party platform, open platform has become a trend. Following open platform of Jingdong Mall, Dangdang, the Amazon, Suning also opened platform. TMall, Tencent, Vancle and other platforms further opened up in the way from only absorbing the previous brand businesses to

receive other online retail platforms. However, the open platform also brings a series of problems, such as an increased probability of buying fakes, difficult returns.

(3) Traditional retail dealers have quickened the pace of online business. On November 11, 2012, the volume of “double 11” transaction which was started by Alibaba reached 19.1 billion RMB yuan, exceeding the volume of America’s Cyber Monday in 2012, which amounted to USD 1.5 billion dollars. Shocked by this volume of transaction, traditional retail dealers intensified the operation of online channels. At the same time, retail dealers such as Suning, Gome, and Yintai also increased the investment in their own E-commerce platforms.

(4) The market competition is increasing fierce. The competition on the online retail market was extremely fierce in 2012, when E-commerce dealers launched price wars. The price war between JD and Suning on August 15 was the most tragic, while Taobao(www.taobao.com) and Tmall(www.tmall.com) became the biggest winner on November 11. Though the price war effectively publicized the effort made by E-commerce dealers to strengthen their market influence, it also reflected the deficiency of promotion and management experience.

3.1.4 Development of other online retail service platforms

1. Online group purchase

By the end of 2012, China’s websites of online group purchase amounted to 2695, a decrease of 35.5% over the beginning of 2012, when there were 3652 websites. After experiencing the market integration which started from 2010, websites of online group purchase having survived the fierce competition in 2012 took pains to improve their quality. Firstly, group-purchase enterprises made commitment such as “customers would get refund that they should consume but not do it” “consumers would get the refunds because their consumptions were overdue”, and other service commitments, to resolve the user’s worries about “refunds” and build industry credit system. Secondly, they optimized team building and adjusted the speed and scale of urban sub-station construction, so that they could go forward with a light pack. Thirdly, they sought innovation and change, leveraging technological innovation multiplier, such as improving mobile client building, making overall arrangement of the mobile group buying markets.

China’s websites of online group purchase regained the boost after a year’s integration operation which had overcome fund chain breaks and adjusted operating strategy. www.manzuo.com announced that it had made profit of 1 RMB yuan in October 2012; 55tuan(www.55tuan.com) declared that it had made profit of 1 million RMB yuan in November 2012; Meituan(www.meituan.com) proclaimed that it had acquired the overall profitability at the same time.

In 2012, there were over 200 thousand kinds of group-purchase products available daily

in China with more than 30 thousand new kinds arising daily. Customer's favorites included movie tickets, repast, travel products, and commodities.

By the end of 2012, China's group-purchase customers have reached 83.27 million, an increase of 28.8% over 2011; the utilization rate rose to 14.8%, an increase of 2.2% over 2011^①.

Throughout 2012, the volume of revenue from China's group-purchase market, including Jutaoobao(www.ju.taobao.com), has amounted to 34.885 billion RMB yuan, an increase of 61% over 2011 when the volume was only 21.632 billion RMB yuan.

2. Mobile shopping

The volume of revenue from China's mobile shopping market reached 55.04 billion RMB yuan in 2012, an increase of 380.3% over 2011. The proportion of mobile online shopping transaction in the overall online market tended to increase, amounting to 4.2%. In terms of the market share, the proportion of MTOP, m. 360buy.com, and buy.qq.com accounted for 76.4%, 5.2%, and 3.9% respectively, ranking the top three^②.

In the second quarter of 2012, the turnover of Taobao via mobile phone showed an average year-on-year growth of 683%, the client transactions for the first time exceeded WAP (Wireless Application Protocol), new login users have reached 18 million. More and more consumers favored mobile online shopping, more than 758 000 people collected goods and shops via Mtaobao(<http://m.taobao.com>) per day; more than 1.18 million people used the shop cart via Mtaobao per day; 155 000 pieces of goods were purchased via Mtaobao per hour^③.

Mobile shopping and network group purchase service also show the fusion trend. In 2012, the group purchase mobile phone users increased by 88.8%, reaching 19.47 million. As of December 31, 2012, the transactions of group purchase handling life and service from the mobile terminal have increased 27 times over 2011, mobile transactions have accounted for over 15% of all transactions.

The overall layout of 3G network and the accelerated penetration of intelligent mobile phones with big screens and table computer, which provide better shopping environment and user experience, have promoted the rapid growth of mobile shopping. On the other hand, more detailed, it has improved products and services provided by the traditional business

① China Internet Network Information Center. Statistical Report on Internet Development in China(January 2013)[R/OL] (2013-01-15)[2013-06-20]. China Internet Network Information Center:
http://www.cnnic.net.cn/hlwfzyj/hlwzbg/hlwjbg/201301/t20130115_38508.htm.

② Iresearch. 2012 China mobile shopping transactions reached 55.04 billion RMB yuan in 2012[EB/OL] (2013-01-29)[2013-04-03]. Iresearch website:
<http://wireless.iresearch.cn/value-added/20130129/192287.shtml>.

③ Mtaobao. Report of E-commerce data in second quarter of 2012[R/OL](2012-08-20)[2013-04-03]. Ali research website:
<http://www.aliresearch.com/?m-cms-q-view-id-73551.html>.

enterprise in the mobile terminal that have also facilitated the fast development of the mobile shopping market.

3. Overseas purchase

In 2012, the turnover of China's online overseas purchase reached 48.3 billion RMB yuan, an increase of 82.2% over 2011, when the volume was 26.5 billion RMB yuan. Among the most favorite goods, Cosmetics, milk powder and bags were the tops three, followed by clothes, accessories, and electronic products.

In the field of online overseas purchase, new websites such as Bancl(www.bancl.com), Gobaltaobao(www.gobal.taobao.com), and Yide(www.yide.com) sprung up. On Taobao website, 3600 shops can be found with key words "overseas purchase"; the average monthly sales of the top three shops exceeded 5000 orders; the highest monthly sales of cosmetics purchase reached 6679 orders.

The data released by Taobao shows that the overseas purchasing turnover of luxury goods has increased by 100% per year, reaching 15 billion RMB yuan in 2011^①. This situation has caused certain impact on China's import. In September 2011, State Administration for Industry and Commerce (SAIC) issued *Notice on Strengthening the Supervision of Network Purchase of Foreign Milk Powder*. In March 2012, the General Administration of Customs of China issued *No. fifteenth Notice of General Administration of Customs in 2012* and *On the Policy of No. fifteenth Notice of General Administration of Customs*. These three documents have produced good effect on standardizing the network purchasing and safeguarding China's customs security.

3.2 The development of E-commerce supporting service

3.2.1 The development of electronic payment service industry

1. The overall number of enterprises providing the third party e-payment service

After issuing third-party payment licenses to 79 companies in 2010, People's Bank of China issued licenses at twice to the third-party e-payment enterprises in 2012. By the end of 2012, the third-party payment enterprises holding the payment license of non-financial institutions have reached 195. Such payment enterprises in Shanghai, Beijing, Guangdong, Zhejiang, Jiangsu amounted to over 10 respectively. Table 3-2 shows the distribution of the 195 third-party e-payment enterprises in various parts of China.

^① Ali research. Taobao published *Net purchase luxury goods industry analysis report*[R/OL](2012-05-20)[2013-04-03]. Ali research website: <http://www.aliresearch.com/?m-cms-q-view-id-72577.html>.

Table 3-2 The distribution of third-party e-payment enterprises in China

Area	Number	Area	Number	Area	Number	Area	Number
Shanghai	50	Chongqing	4	Hebei	2	Liaoning	1
Beijing	42	Sichuan	4	Hainan	2	Jilin	1
Guangdong	20	Anhui	4	Heilongjiang	2	Xinjiang	1
Zhejiang	12	Hunan	4	Inner Mongolia	2	Henan	1
Jiangsu	12	Shanxi(Qin)	3	Guizhou	2	Gansu	1
Fujian	7	Shanxi(Jin)	3	Yunnan	2	Jiangxi	1
Shandong	6	Tianjin	3	Guangxi	2	Hubei	1

Data sources: People's Bank of China, January 2013.

The 195 third-party payment enterprises holding the payment license of non-financial institutions provide services ranging from Internet payment, currency exchange, mobile telephone payment, fixed telephone payment, bank card acquiring, digital television payment, to issuance and acceptance of prepaid cards, among which digital television payment has been approved for the first time in 2012.

Kunming Kahuka Co. Ltd., Shanghai Orientpay Co. Ltd., China TV Pay Co. Ltd. and Beijing Sumavision Co. Ltd. have obtained the license of digital television payment. For users, particularly for elderly users, digital television payment enable them to pay water, electricity, gas, telephone, property costs etc. without leaving home. They can also make hospital outpatient appointment via TV.

Half of the enterprises with payment license are engaged in the business of prepaid cards, they focus on the local business, issuing and pre-accepting prepaid cards in a province or some areas of China.

2. The market scale of third-party internet payment service industry

As of December 2012, online payment users in China have reached 221 million, the utilization rate has increased to 39.1%, an increase of 53.89 million and a rise of 32.3% over 2011^①.

In 2012, transactions of China's third-party Internet payment have reached 3.8039 trillion, an increase of 76% over 2011(See Figure 3-6)^②.

① China Internet Network Information Center. Statistical Report on Internet Development in China(January 2013)[R/OL](2013-01-15)[2013-06-20]. China Internet Network Information Center:
http://www.cnnic.net.cn/hlwzfzyj/hlwzxbg/hlwjtjbg/201301/t20130115_38508.htm.

② Enfodeks. Enfodeks data: China's Third-party Internet Payment Market Scale Reached 1.2159 Trillion RMB yuan in the Fourth Quarter of 2012[EB/OL](2012-05-20)[2013-04-03]. Enfodeks website :
http://data.eguan.cn/dianzishangwu_154605.html.

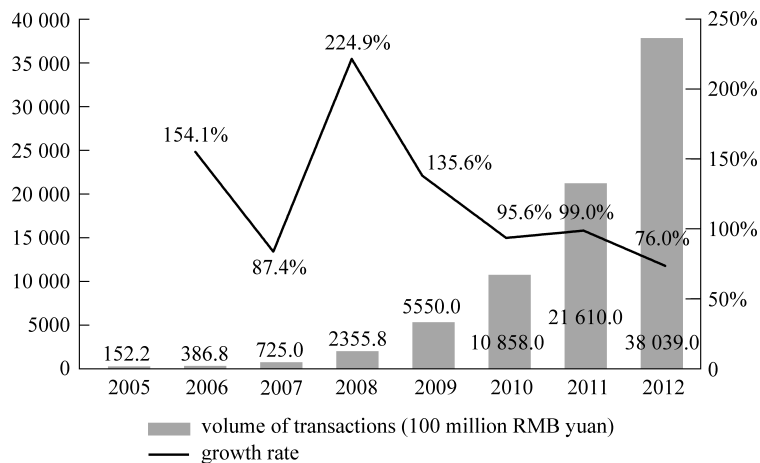


Figure 3-6 The market scale of China's third-party Internet payment from 2005—2012

Data sources: Enfodesk(www.enfodesk.com) Feb 2013.

As a new force of electronic payment, China's mobile payment industry relies on the rapid development of intelligent terminal, the mobile Internet technology and applications; it also draws support from the effective layout of capital and industry chain in the field of mobile payment. In 2012, its annual trading volume exceeded 100 billion, up to 151.14 billion RMB yuan, an increase of 89.2%. Payers via mobile phone had reached 55.31 million, an increase of 80.9% over last year, and the utilization rate was 13.2%.

The first reason why China's mobile payment market has grown rapidly is the rapid popularization of mobile intelligent terminal—China mobile phone and intelligent mobile phone users reached 1.104 billion and 324 million respectively in 2012. The second reason is the rapid growth of mobile payment requirements driven by the mobile Internet, especially the mobile E-commerce—China's mobile E-commerce transactions amounted to 55.04 billion RMB yuan in 2012, a year-on-year increase of 380.3%. The third reason is that, after the third-party payment licenses and mobile payment industry standards have been issued step by step, and the mobile payment ecosystem has been gradually established, the mobile payment industry accelerates the application of the domestic mobile payment and market development.

3. The market share of third-party internet payment service industry

From the perspective of the overall market, with 200 enterprises holding third-party payment licenses, electronic payment market competition was very fierce in 2012, internet payment service in such segments of the market as online shopping, aviation, games continuously upgraded. In such overall background, "Diversity" has become the important strategy of third-party payment enterprises, which seek the balance between scale and profits instead of the size of market.

According to the data issued by the People's Bank of China, Internet payment market composed of payment institutions continued to show a higher market concentration degree in 2012. The volume of internet payment via 10 payment institutions reached 100 billion RMB yuan, and these 10 institutions made 8.048 billion payments with the volume of 5.706 747 trillion RMB yuan, accounting for 81.89% and 91.92% respectively of all the internet transactions via China's payment institutions, among which alipay made 5.588 billion payments with the transaction volume of 1.505 088 trillion RMB yuan, accounting for 56.86% and 24.24% of all the internet transactions via China's payment institutions.

The third-party Internet payment market remained stable in 2012, Alipay, Tenpay, Unionpay online payment ranked top three with nationwide market shares of 46.6%、20.9% and 11.9% respectively (See Figure 3-7).

From the perspective of transaction scale and structure of Internet payment subdivision, the top one is online shopping, accounting for 41.5%; the second is air tickets, accounting for 15.3%; telecommunication payment, B2B E-commerce, online games accounted for 6.2%, 3.9% and 3% respectively; creative industries have been making continuous contribution (See Figure 3-8).

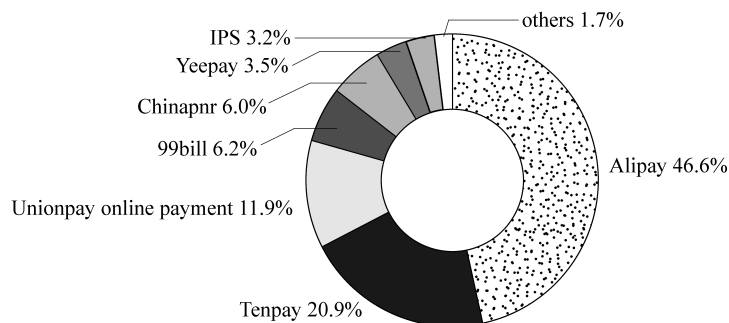


Figure 3-7 Market share of China's third-party Internet payment industry

Data sources: www.enfodesk.com Feb 2013.

Note: the above data is based on manufacturers' interviews, and Enfodesk's data & study model.

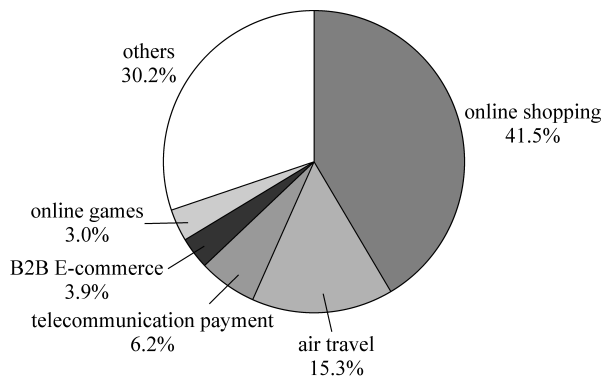


Figure 3-8 Transaction scale structure of China's third-party Internet payment subdivision

Data sources: www.enfodesk.com. Feb 2013.

4. Key features of electronic payment market

(1) The setup of electronic payment industry has basically formed. People's Bank of China continued to issue payment licenses in 2012, gradually allowing third-party payment enterprises to do payment and settlement business, which was once limited in traditional financial field. After obtaining payment licenses, the third-party payment industry shows the trend of diversified development—payment enterprises have determined diversified layout of business, Internet payment, mobile payment, bank card acquiring and so on have begun to develop, gradually forming a stable business pattern.

(2) Banks started to promote electronic payment businesses. To meet enterprises and individuals' demands for payment and settlement, China's commercial banks have opened electronic payment channels to replace traditional counter payment channels. In 2012, China's electronic payment industry had over 500 million users and made 20 billion payments, reflecting measures taken by People's Bank of China to promote electronic payment industry have come into effect. People's Bank of China issued *Mobile Technology Standard of Financial Industry, General Specification for Information Security of Online Banking System*, and *The Measures for the Administration of Internet Payment Institutions (Draft)* in 2012, effectively regulating the online payment business development and improving the safety level of Internet banking.

(3) Emerging application segments of market continuously deepened and expanded. E-commerce has been popularized in the traditional retail and manufacturing industry, making traditional enterprises demand electronic payment. Meanwhile, new segments of payment market such as insurance, funds, colleges and universities, and cross-border payments have been developed, forming a new wave of non-cash transaction in society.

(4) Electronic payment showed diversified trend. In 2012, represented by Internet payment, mobile payment etc., the emerging electronic payment has been accepted and used by more and more people, becoming a leading force in the development of electronic payment. At present, the most parts of China's electronic payment industry are using bank cards and the Internet payment, which coexist with telephone payment, mobile payment, digital TV and other electronic payment channels.

3.2.2 The development of E-commerce logistics and distribution services

1. The market scale of logistics and distribution services

In 2012, China's volume of social logistics reached 177.3 trillion RMB yuan, an increase of 9.8% over 2011. Especially driven by the rapid development of E-commerce such as online shopping, logistics related to people's livelihood, express developed considerably with a

year-on-year increase of 23.5% over 2011, 13.7% higher than the total social logistics^①.

In 2012, income of postal enterprises and national-scale express service enterprises (not including direct revenue of postal savings banks) reached 198.09 billion RMB yuan, a year-on-year increase of 26.9%; revenue amounted to 203.68 billion RMB yuan, a year-on-year increase of 26.7%. National-scale express service enterprises handled 5.69 billion deliveries with revenue of 105.53 RMB yuan, a year-on-year increase of 54.8% and 39.2% respectively (See Figure 3-9)^②. Express business revenue has accounted for 53.3% of that of postal industry.

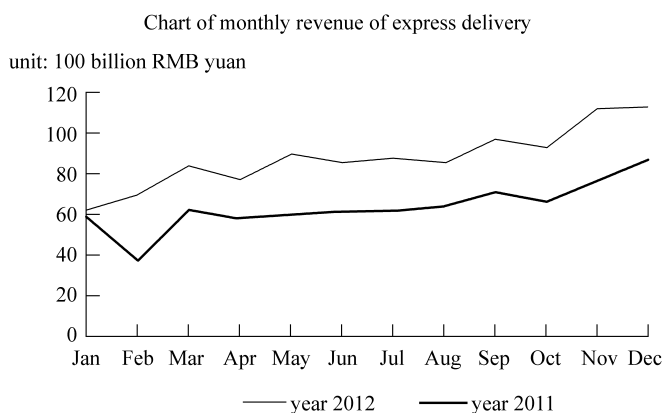


Figure 3-9 Revenue of China's express delivery from 2011 to 2012

Data source: State Post Bureau of the People's Republic of China, January 2013.

In terms of the distribution of express deliveries, the top five were provinces and cities with well-developed retail network. From the perspective of express business volume growth, express business volume growth rate rose in provinces where retail network developed rapidly (See Table 3-3). Ningxia was particularly notable for its growth rate of 337.1%, which was closely related to the rapid development of Ningxia's retail network. In the past two years, a growing number of Ningxia specialty shops got involved in E-commerce. 1250 shops selling wolfberry (a specialty in Ningxia) registered in Taobao in 2012.

2. Characteristics of the development of E-commerce logistics and distribution services

(1) The deliveries of online shopping have increased. In 2012, China's deliveries of

① National Development and Reform Commission, National Bureau of Statistics of China, China Federation of Logistics & Purchasing. Bulletin on the National Logistics Operation in 2012 [EB/OL](2013-02-26)[2013-04-20]. The website of China Federation of Logistics & Purchasing: <http://www.chinawuliu.com.cn/xsyj/201302/26/210443.shtml>.

② State Post Bureau of the People's Republic of China. The report released by State Post Bureau of the People's Republic of China on the operation of the postal industry in 2012 [EB/OL](2013-01-16)[2013-04-20]. The website of State Post Bureau of the People's Republic of China: <http://www.spb.gov.cn/folder87/2013/01/2013-01-16119806.html>.

shopping increased rapidly. Taobao and Tmall, which are affiliated to Alibaba, sent 12 million packages of goods daily; furthermore, packages of goods from these two E-commerce enterprises reached 72 million on November 11, when people celebrated the so-called “double eleven festivals”. Deliveries from online business have accounted for 63% of the express delivery industry, a year-on-year increase of 5%.

Table 3-3 The statistics of the top five express business volume and growth rate of express business volume in 2012

Ranking	Area	Express business volume /10000 deliveries	Ranking	Area	Growth rate of express business volume
1	Guangdong	133 770.5	1	Ningxia	337.1
2	Zhejiang	81 986.8	2	Guangdong	76.7
3	Jiangsu	63 870.5	3	Jiangsu	65.9
4	Shanghai	59 905.3	4	Zhejiang	65.1
5	Beijing	48 073.7	5	Fujian	62.4

Data source: State Post Bureau of the People's Republic of China, January 2013.

(2) Deliveries by air were increasing rapidly. In 2012, SF EXPRESS's had 27 aircraft and charter planes; the logistics department of China's EMS had 17 aircrafts; Yuantong Express 3 charter planes; FedEx (China) 2 charter planes; United Parcel 2 charter planes; the total number of aircraft and charter planes increased by 6 over 2011. Express delivery enterprises transported packages mainly through the passenger aircraft belly hold besides freighter aircraft. According to the estimate of Express Logistics Advisory Network, in 2012, the amount of air express shipments accounted for more than 25% of all express volume, and accounted for about 35% of air cargo volume, which is the fastest growing of the year. Air express provides a quick means of transport for “reaching it next day” where the destination is more than 800 kilometers far, and it is one of important signs for express industry to make it bigger and stronger.

(3) The express delivery service and retail network were promoted to develop collaboratively. In view of the fact that delivery volume produced by online shopping was not balanced, the State Post Bureau of China has taken four measures to solve the problem in peak period and normal period. Firstly, the State Post Bureau has issued Suggestion on Guaranteeing Express Delivery Service in Peak Period to establish the emergency system guaranteeing service in peak period. Secondly, it has strengthened supervision of services during the peak period. Thirdly, it complies with Guiding Opinions on Promoting the Collaborative Development of Express Delivery Service and Online Retail issued by the State Post Bureau and the Ministry of Commerce to promote information sharing, standard docking, and to make online shopping distribution more fast and convenient. Lastly, it has released

information of express packages and consumption tips, enabling the consumer to adjust their consumption habits and avoid asking for service during peak period.

(4) Private express delivery enterprises played an important role in the online shopping delivery. There were three types of online shopping delivery enterprises in China in 2012. The first type of enterprises included EMS, SF EXPRESS, and FedEx, which provided high-end services and accounted for about 5% share of the online shopping express market. The second type of enterprises consisted of Eyoubao, ZJS Express, and UNI-TOP, which provided mid-end services and accounted for 10% of the online shopping express market. The third type of enterprises were comprised of STO, Yunda, Yuantong, Tiantian, Huitong, which provided affordable services and accounted for 85% of the online shopping express market.

(5) China's domestic express market has made a breakthrough in opening to the outside world. In September 2012, FedEx and United Parcel, two foreign express enterprises, obtained China's domestic express business operation license. They were the first to carry out domestic express business (excluding domestic mail delivery) in cities of Shenzhen, Guangzhou, Hangzhou, Shanghai, Tianjin, Dalian, Zhengzhou, Chengdu, and Xi'an. This event demonstrated how Chinese government fulfilled its commitments to WTO, and showed that China had opened up its domestic express market. Foreign enterprises would vigorously promote competition of China's express delivery business, and provide services of higher level for China's online shopping delivery.

3. E-commerce dealers' self-built logistics

Some E-commerce enterprises began to build their own logistics system because they had high business volume and were dissatisfied with the quality of third-party delivery services. At the present, enterprises such as Amazon, JD, Dangdang, Vanel, Yhd, Suning have built their own logistics network. Table 3-4 shows some E-commerce dealers' self-built logistics in 2012.

Table 3-4 Some E-commerce dealers' self-built logistics in 2012

Name of E-commerce dealers	The present situation of logistics
Tmall	Tmall has decided to set up China's smart logistics network with related logistics enterprises, capital and financial institutions. 100 billion RMB yuan will be invested in the first phase. In 8 ~ 10 years, the network will be able to support the daily average retail sales of 30 billion RMB yuan, and deliver goods to any places in China within 24 hours
JD	JD has built six logistics centers in North China, East China, South China, Southwest, Central China, Northeast, and warehousing centers in 25 cities, with a total area of more than 1 million square meters. It has about 15 000 deliverymen, has built more than 900 self-distribution terminals and more than 300 self-pickup spots in 360 core cities

(continued)

Name of E-commerce dealers	The present situation of logistics
Suning	Suning has built 60 large-scale logistics bases, 10 sorting center for small packages with more than 3000 staff. It has obtained express delivery business license in 11 areas and cities. Over the next three years, suning.com will invest 22 billion RMB yuan in its logistics project
Vancl	Vancl has built distribution company "Rufengda" with its full investment. By the end of 2011, the distribution team had expanded to 5000 staff. Rufengda withdrew from second-tier and third-tier cities, leaving the delivery business to third-party logistics companies
Yhd	It has logistics centers and staff in 34 cities throughout China

There are more disputes about the E-commerce dealers' self-built logistics at present.

In terms of service, self-built logistics can help E-commerce enterprises to control the logistics service quality. Nevertheless, from the angle of cost and efficiency, the third-party logistics has more advantages. Globally, few E-commerce dealers build their own logistics, e.g. amazon.com, America's biggest E-commerce dealer, do not have the self-built logistics system but cooperate with the third-party logistics companies like FedEx and UPS.

3.2.3 Development of E-commerce authentication service business

1. The size of the market for E-commerce authentication services business

Electronic certification service is the indispensable base of constructing online trust system, and building a reliable and secure network space. As of December 31, 2012, there were 34 electronic certification service institutions in China, which had issued 87 311 524 effective electronic certificates (See Table 3-5).

Table 3-5 Statistics of electronic certificates in December 2012

Types of certificate	Volume of Holding	Increase in December 2012	Quarter-on-quarter growth/%
Institution's certificate	14 293 251	720 498	5.31
Individual's certificate	71 302 777	9 918 428	16.16
Equipment's certificate	1 715 496	131 663	8.31
total	87 311 524	10 770 589	14.07

Data source: Ministry of Industry and Information Technology of People's Republic of China, January 2013.

2. Development of electronic authentication service

In order to promote recognition of electronic signature certificate in the field of trade and service of Guangdong and Hong Kong , to improve services for E-commerce integrity , and to speed up cooperation and development of service and trade of Guangdong and Hong Kong, the *Method of Mutually Recognizing Electronic Signature in Guangdong and Hong Kong* was issued on August 10th 2012 . This document was approved by Ministry of Industry and Information Technology of People's Republic of China, the government of Guangdong Province and the government of the Hong Kong Special Administrative Region.

University of Shanghai for Science and Technology (USST), Shanghai New World Information Industry Co. Ltd, and Shanghai Electronic Certificate Authority Center Co. Ltd have jointly developed the negotiation and signing system of electronic contracts. Combining the online business contract negotiation with the electronic signature, the system has realized the commercial application of electronic signature. At present, the system has been applied in www.taowujin.com.cn, and has started the pilot phase.

On September 5, 2012, Chongqing Economic and Information Technology Commission and Jiangsu Economic and Information Technology Commission jointly held the Pilot Project Conference on Electronic Certification Application Innovation in 12th Five - Year – Plan, which also launched the Project for Contracting Security of Reliable Electronic Signature and Data Message Application at China National Convention Center in Beijing. The units participating in the project signed Cooperation Agreement on Pilot Project for the Contracting Security of Reliable Electronic Signature and Data Message Application.

“Twelfth Five-Year Plan” of Electronic Authentication Service Industry focuses on pilot application of reliable electronic signature and data message, which has three aims. The first aim is to construct electronic contracting security service platforms, to dock electronic authentication service business transactions with electronic platforms, and to secure identity authenticity of transaction subjects, non-repudiation of transaction behavior and fund safety. The second aim is to explore a new mode of electronic certification application based on contract lifecycle safety management of electronic contract including contract signing, preservation, and verification. The third aim is to study and put forward technical standards of electronic contract, the contract signing process specification to meet the requirements of reliable electronic signature and credible data message.

3.2.4 Development of E-commerce data services

1. Development of cloud computing industry for E-commerce

Cloud computing is one of the fastest-growing emerging industries in China. Data from Ccidconsulting shows that market scale of China's cloud computing reached 48.198 billion

RMB yuan in 2012, an increase of 67.22% over 2011. As of September 2012, China country had a total of 117 cloud computing centers, among which 72 centers were set up by government, accounting for more than 61.54%^①.

While entering 2012, the words “big data” was mentioned on more and more occasions while people are increasingly aware of the importance of data to enterprises. Taobao Website now has China's largest data volume of E-commerce transaction totaling more than 30 PB, which increases at a speed of 3 PB per month. That is to say, Taobao Website has more than 1 billion pieces of product information and transaction information of over 500 million users, and it has been visited for 80 million times per day. On November 11 2012, when Chinese celebrated the so-called Double 11th Day, cloud.tmall.com processed orders for more than 20% of the total amount of tmall.com., helping complete 650 000 transactions, an increase of 20 times than usual. It provided services to 12 000 tmall.com shops and 170 000 taobao.com sellers without delay, omission, miscalculation. On November 11 2011, however, taobao.com lost 500 000 RMB yuan due to network latency, system fault and omission of 20 000 orders. Ali's cloud computing was successfully applied in large-scale practice of E-commerce for the first time.

Cloud maturity index released by VMware shows that, a growing number of Chinese enterprises adopted cloud computing in 2012, and 31% respondents said they had used cloud computing technology, which was used by 20% respondents in 2011, and 16% in 2010. More and more government agencies and enterprises have realized the value brought by cloud computing application. Especially with the development of such public cloud platforms, such as Alicloud(www.aliyun.com), Grandcloud(www.grandcloud.cn), SinaAppEngine (<http://sae.sina.com.cn>), Baiduyun(<http://yun.baidu.com>), cloud computing has been put into practice.

In 2012, China's the market scale of IDC (Internet Data Center) amounted to 21.05 billion RMB yuan, representing a growth rate of 23.2% (See Figure 3-10). Although there was a larger decline in growth than that in 2011, but compared with Europe and the United States, the growth rate was still high. The market scale IDC service reached 13.72 billion RMB yuan with a growth rate of 20%. The market scale of IDC value-added service reached 7.33 billion RMB yuan, with a growth rate of 29.7%. IDC market value-added business has become the main force driving the growth of the IDC market^②.

Twelfth Five-Year Plan for Developing Cloud Technology issued by Ministry of Science and Technology of China emphasizes that cloud computing application and service mode

① Ccidconsulting. Annual Report on Development of China's Cloud Computing Industry Talent from 2012 to 2013[R/OL] (2012-12-30)[2013-04-25]. Ccidconsulting online:

<http://www.ccidconsulting.com/cn/ndbg/elys/zxcy/yjs/webinfo/2012/12/1362675786884508.htm>.

② IDCQuan(www.idcquan.com). Research Report on the Development of Chinese IDC Industry from 2012—2013[R/OL] (2013-03-14)[2013-04-03]. IDCQuan website: <http://www.idcquan.com/special/2013baogao/>.

should be promoted in areas such as manufacturing, agriculture, tertiary industry. Traditional industries will be encouraged to use cloud computing to improve informatization level, thus promoting the transformation and upgrading of traditional industries. Large-scale promotion of cloud computing in E-commerce is important to improve service level of E-commerce^①.

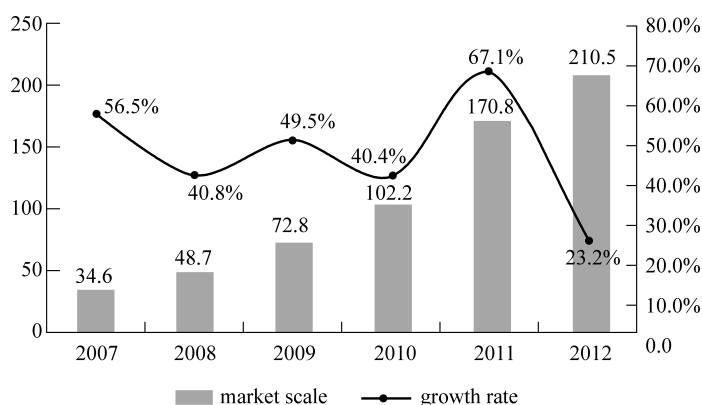


Figure 3-10 Market Scale and Growth of China's IDC Market from 2007 to 2012

Data source: IDCQuan, March 2013.

2. The development of E-commerce-oriented data mining services

Data mining service is a collection of function, behavior involved in data mining, including data selection, data preprocessing, data integration, mining and analysis, results presentation and evaluation. The new composite applications will be formed by mixing and matching the above functions. The progress of data mining technology and the improvement of composite ability have brought more business opportunities.

In 2012, a number of data mining service enterprises emerged with the development of E-commerce in China. *Solution to Information Application in China Import and Export Trade* developed by China Cuslink Co. Ltd. has been applied by companies such as CEIEC, CMEC. As an international trade information application service provider, Shanghai DoubleClick Co. Ltd. has built a “business intelligence services platform of international trade” based on the integration of its official trade database and Internet information resources, providing services such as international market analysis, purchaser information, global competitive intelligence analysis to Chinese import and export enterprises and freight forwarding and shipping enterprises. Tianjin Hyland Co. Ltd. collected massive, diverse, unstructured Internet data and structured, screened, indexed the data via Reidx platform, thus meeting enterprises' demand for public opinion analysis, competitive intelligence acquisition and so on.

① Ministry of Science and Technology of the People's Republic of China. China's Special "twelfth five-year" Plan of Development of Cloud Science and Technology[EB/OL](2012-09-03)[2013-04-20]. The website of the Central People's Government of the People's Republic of China: http://www.gov.cn/zwgc/2012-09/18/content_2227470.htm.