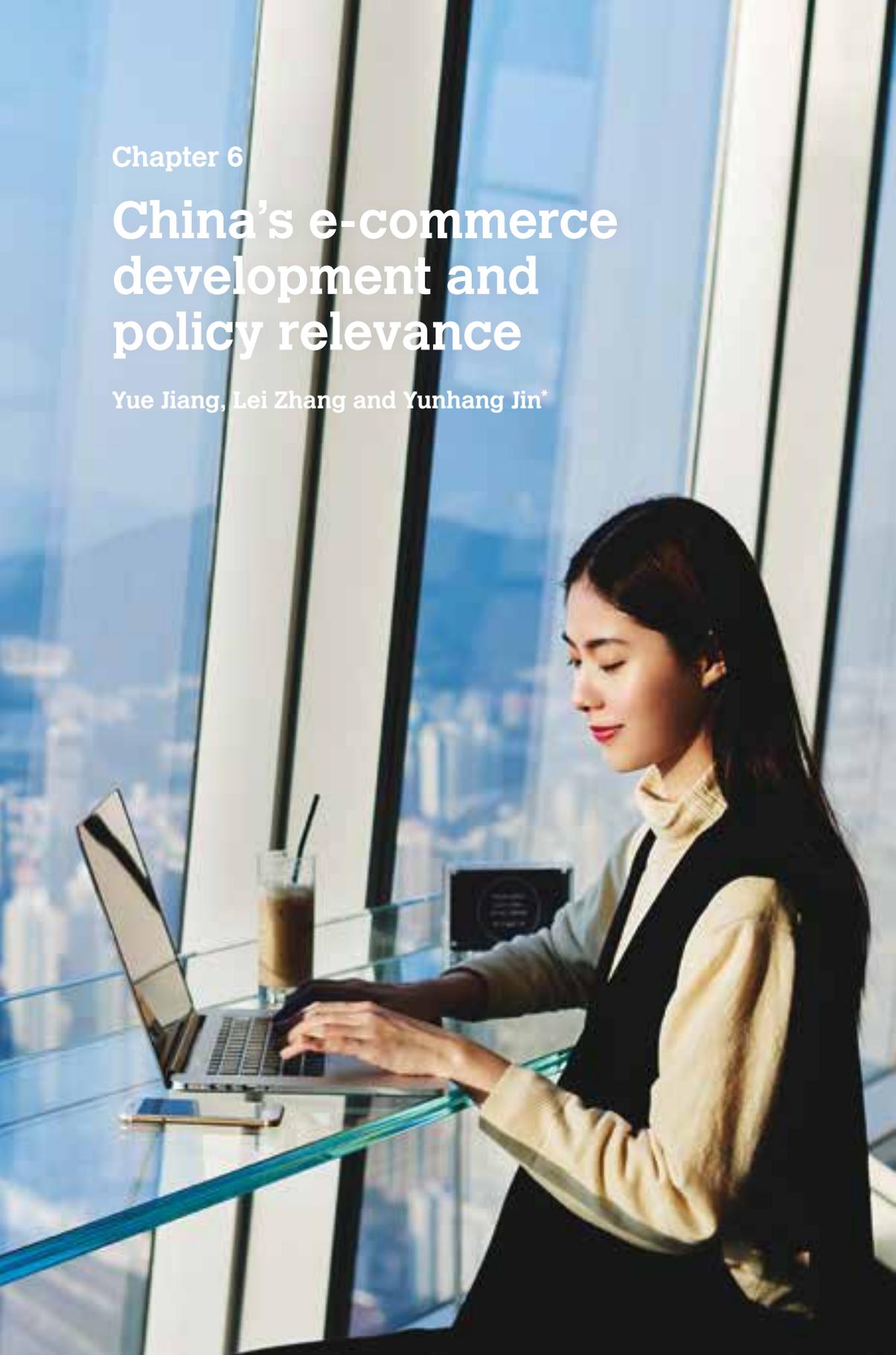


Chapter 6

China's e-commerce development and policy relevance

Yue Jiang, Lei Zhang and Yunhang Jin*





Abstract

The dollar value of e-commerce transactions in China has increased enormously over the past 20 years, supported by improved infrastructure, the rapid growth of mobile telephony and increased financing. The market also is characterized by increasing diversity, for example, the growth of e-medical services, the expansion of cross-border e-commerce and the development of online-offline transactions. China's national government has played an important role in the development of e-commerce through policies elaborated in five-year plans, while regional governments also have participated in planning and adjusting the e-commerce policy framework in light of local conditions.

** The contents of this chapter are the sole responsibility of the authors and are not meant to represent the position or opinions of the WTO or its members.*

China's e-commerce development: past and current situations

China's e-commerce market emerged 20 years ago. China's e-commerce transactions increased from only US\$ 1.16 trillion (CNY 8 trillion) in 2012 to US\$ 4.58 trillion (CNY 31.63 trillion) in 2018 (Figure 1). In 2018 (the last year for which data are available on the composition of e-commerce), e-commerce transactions of goods and services equalled US\$ 4.44 trillion (CNY 30.61 trillion) with a year-on-year growth rate of 14.5 per cent.¹

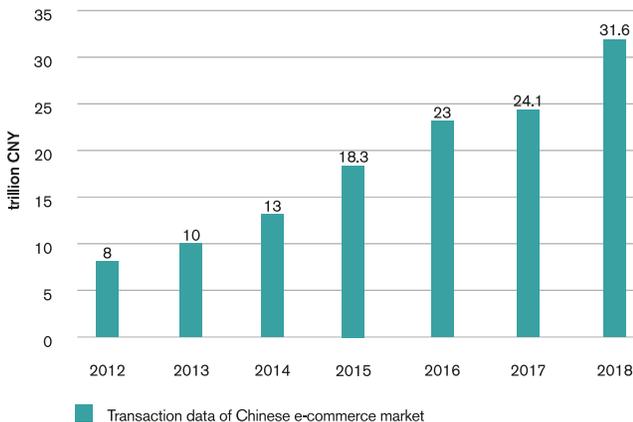
In 2018, the transaction scale of China's online retail sales reached US\$ 1.3 trillion (CNY 9 trillion), accounting for 28.5 per cent of the market.² Sales of e-commerce services have increased rapidly since their development in 2013. According to Yang (2016), the online-to-offline (O2O) transaction volume of local living services was expected to reach

US\$ 144.81 billion (CNY 999.2 billion) in 2017, with a year-on-year growth rate of 71.5 per cent.

China's e-commerce development has experienced four phases (Yin, 2018):

1. Germination stage (1997–1999)
During this period, few people were informed about the market or participated in online shopping, and online shopping platforms were in their infancy. The main impact of e-commerce was to assist small and medium-sized enterprises (SMEs) to participate in international business-to-business (B2B) transactions. The demand for customer-to-customer (C2C) transactions had not yet arisen. Major e-commerce companies during this period were Alibaba, 8848 and EachNet.
2. Construction stage (2000–2007)
The internet bust led to a reshuffling of e-commerce firms, as over one-third of internet websites

Figure 1: China's e-commerce transactions have increased rapidly



Source: Research report on market prospects and investment opportunities of China's e-commerce industry in 2019–2024, China Business Industry Research Institute, 2019, available at: <https://www.askci.com/news/chanye/20190722/1129101150117.shtml>.

disappeared. Nevertheless, increased acceptance of online shopping led to the rapid development of C2C transactions. However, there were important defects in logistical support for e-commerce, and sales of counterfeit goods were a major issue.

3. Evolution stage (2009–2015)

China's e-commerce market was fully developed, and competition among e-commerce enterprises was fierce. 3G was officially commercialized in 2009 (Shen and Chen, 2018). The number of user clicks for online shopping reached 100 million. The business-to-consumer (B2C) platform Tmall went online. Purchases of clothing, shoes and handbags, as well as of household goods and services, increased. The number of internet users and firms providing express logistics services showed explosive growth, while the use of mobile phones to undertake e-commerce transactions rose sharply.

“The market also is characterized by increasing diversity, for example, the growth of e-medical services, the expansion of cross-border e-commerce and the development of online-offline transactions.”

4. Mature stage (2016 until the present)

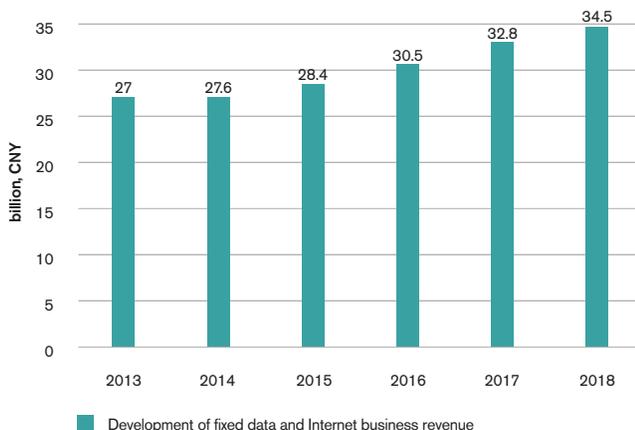
China's e-commerce platform pattern has evolved into a new stage with the emergence of new business models. After several years of high-speed growth, the mobile shopping market growth rate started to slow down in 2016 and the e-commerce Monthly Active Users (MAU) increment also decreased. At

the end of 2016, Alibaba launched a new retail concept, leading e-commerce enterprises to enter the offline market. At present, Alibaba has emerged into a relatively mature operational mode. In addition to continuous increases in the variety of goods and services offered and improvements in logistics and after-sales services, e-commerce enterprises are also actively expanding their cross-border online shopping, developing rural e-commerce, and providing maternal and child medical care, home decoration, local living services and other services to consumers. SMEs have joined the platform, and market segment competition is intense.

Key segments of the e-commerce market, in particular B2C transactions in rural areas and cross-border transactions, are expected to continue to grow. The collection and analysis of user data, particularly through use of artificial intelligence techniques to mine “big data” to glean insights into consumer behaviour, is an important and growing market.

The rapid growth of e-commerce is inseparable from the development of internet software and hardware, as well as other infrastructure. In 2018, revenue from fixed data and internet services reached US\$ 34.5 billion, with a period average of US\$ 32.6 billion (Figure 2). Revenue from mobile data and internet services reached

Figure 2: Revenues from fixed data and internet businesses in China have increased sharply



Source: Ministry of Industry and Information Technology of the People's Republic of China (billion CNY), <http://www.miit.gov.cn/n1146312/n1146904/n1648355/c6633265/content.html>.

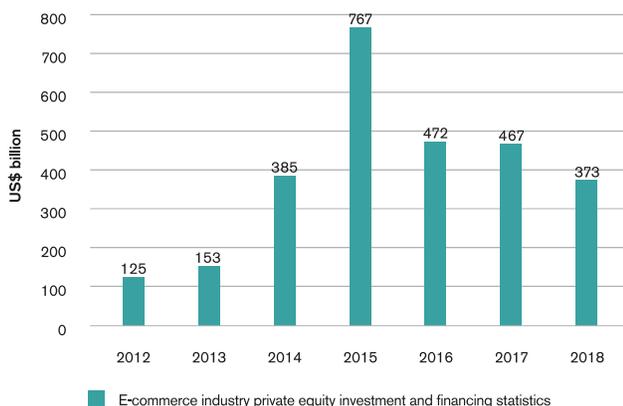
US\$ 100.95 billion, and accounted for 46.6 per cent of total telecom revenue (Shen, 2016).

had been registered in China.³ However, the increase in the share of the population using a mobile phone is expected to slow.

The use of mobile phones has risen sharply. As of September 2019, about 1.6 billion mobile phone subscriptions

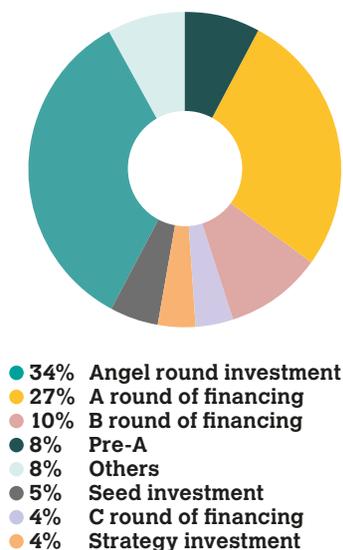
Firms involved in e-commerce have absorbed considerable equity

Figure 3: Financing of e-commerce firms



Source: "E-commerce industry private equity investment and financing statistics: China mobile internet industry private equity investment and financing pattern analysis", China Business Industry Research Institute, 2019, available at: <https://www.askci.com/news/chanye/20190722/1129101150117.shtml>.

Figure 4: Forms of equity investment in e-commerce firms, 2018



Source: "E-commerce industry private equity investment and financing statistics: China mobile internet industry private equity investment and financing pattern analysis", China Business Industry Research Institute, 2019.

investment and other forms of financing. Total private equity investment and financing peaked at US\$ 767 billion in 2015, but had fallen to US\$ 373 billion by 2018 (Figure 3). The largest share of financing came from angel investors, followed by the A round of financing and the B round of financing (Figure 4).

Characteristics of Chinese e-commerce

1. Industry distribution

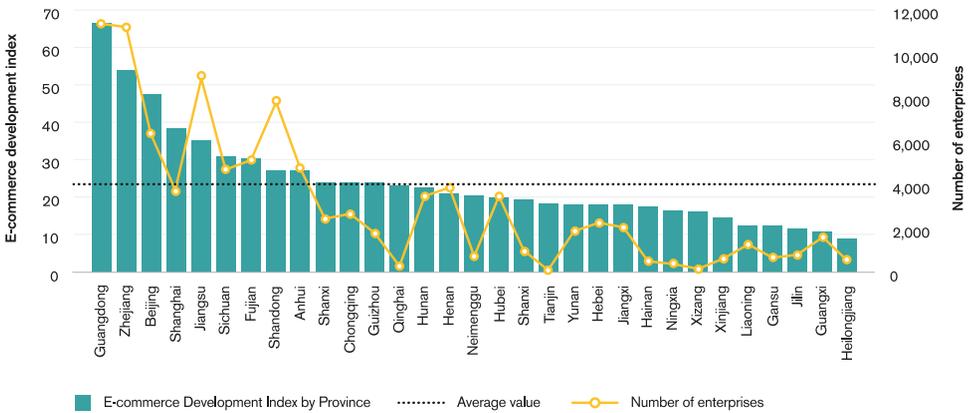
Of the CNY 85,597.78 billion in e-commerce purchases⁴ in 2018, the bulk represented manufacturing (44.2 per cent) and wholesale and retail trade (39.1 per cent). The rest of the market consisted of information

services, including information transmission, software and information technology services (3 per cent) and leasing and business services (2.1 per cent). The gross merchandise volume (GMV) of China's e-commerce in 2018 totalled CNY 152,424.5 billion, again dominated by manufacturing (36.7 per cent) and wholesale and retail trade (22 per cent), followed by information transmission, software and information technology services (7.3 per cent), transportation, storage and postal services (3.4 per cent), and leasing and business services (2.8 per cent).⁵

2. Spatial distribution

The level of e-commerce development varies greatly across provinces in China. In 2018, e-commerce enterprises were mainly located in the eastern coastal areas, including the provinces of Beijing, Fujian, Guangdong, Jiangsu, Shandong and Zhejiang. The total number of enterprises engaged in e-commerce transactions was more than 5,000 per province, and Guangdong, Shandong and Zhejiang reached more than 10,000 each in 2018. From the coast to the inland, the development of e-commerce in the provinces of Anhui, Chongqing, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangxi, Liaoning, Shanghai, Shanxi, Sichuan and Yunnan is only moderate, with the number of enterprises engaged in e-commerce transactions ranging from 1,000 to 5,000 per province. The development of e-commerce in the vast central and western regions and parts of the northeast provinces is limited, with the number of enterprises engaged in e-commerce transactions below 1,000 per province. On the whole, the level of e-commerce development declines as one moves

Figure 5: An index of the development of e-commerce across provinces is closely related to the number of firms, 2017



Source: 2017–2018 China E-commerce Development Index Report.

from east to west, which is closely related to the level of economic development and degree of marketization in each region.

The number of firms is not a very precise indicator of the potential of the e-commerce market. An index has been constructed to measure the level of e-commerce development in each province, taking into account the scale, growth potential, market penetration and supporting environment. According to this e-commerce development index, Guangdong, Zhejiang, Beijing, Shanghai and Jiangsu have had the highest level of e-commerce development for some time. While each province's ranking in the e-commerce development index is closely associated with the number of enterprises engaged in e-commerce transactions, the ordering of provinces according to these two indicators of e-commerce development is not identical. For example, in 2017, Shanghai was ranked fourth according

to the e-commerce development index, but ninth according to the number of firms engaged in e-commerce. In 2017, the e-commerce development indexes of nine provinces were above the average, and the indexes of two more provinces were very close to the average (Figure 5).⁶

3. Platform distribution

New e-commerce platforms in China have emerged in recent years. Alibaba, JD.com and NetEase Koala are the major traditional e-commerce platforms, while WeChat, Pinduoduo and Xiaohongshu are promoting the use of social e-commerce, which has intensified competition for the traditional platforms. Alibaba has accounted for more than 90 per cent of traditional e-commerce transactions since 2014. The total turnover of Tmall products (owned by the Alibaba Group) reached CNY 2.13 trillion in 2018, accounting for the largest market share of China's e-commerce industry. Social e-commerce remains smaller, but its growth has been quite

rapid. WeChat transactions have increased seven times from 2014 to 2019, and Pinduoduo has doubled its sales since 2017. Xiaohongshu released e-commerce services on its platform for the first time in 2015, and its average annual turnover has increased by 100 per cent since then.⁷

The central government's plan for the development of e-commerce

The Chinese government formulates a plan every five years to promote the development of e-commerce. Since 2006, there have been three five-year plans addressing e-commerce development, each emphasizing different issues.

1. The characteristics and changes of the three five-year plans

The 11th five-year plan in 2007 put forward the strategic task of developing the e-commerce service industry for the first time. The plan defines e-commerce services to include web-based transaction services (web-based procurement, sales and related authentication, payment, credit investigation and other services), business outsourcing services (web-based product design, manufacturing, management and other outsourcing services) and information technology system outsourcing services (mainly web-based equipment rental, data hosting,

information processing, application systems, technical consulting and other outsourcing services).⁸

First, the 11th five-year plan clearly emphasizes the construction of public e-commerce service projects and promotes the formation and development of e-commerce service formats with third-party platform services (Mao, 2007). The plan urges government departments to make full use of specialized third-party e-commerce service platforms to outsource information processing, data hosting, application systems and other information technology applications.

These efforts should help to establish stable and large-scale demand for such services. Second, the 11th five-year plan emphasizes the importance of popularizing e-commerce applications to attract greater involvement by SMEs and consumers (Qiongni, 2014). The plan urges SMEs to use third-party e-commerce service platforms, comprehensively implement outsourcing of various production and business activities, and strengthen their management and profitability. At the same time, the plan

encourages the development of new services for different levels of consumers, focusing on the development of mobile e-commerce including new technologies, new applications and new models, and further enhancing the market penetration of e-commerce applications (Wang, 2007).

“The dollar value of e-commerce transactions in China has increased enormously over the past 20 years, supported by improved infrastructure, the rapid growth of mobile telephony and increased financing.”

The 12th five-year plan emphasizes various efforts to boost the role of e-commerce in economic and social development. Key areas include research to accelerate the transformation of the e-commerce market, efforts to popularize and deepen e-commerce applications, creation of a strong institutional and social environment to support e-commerce security and improving the efficiency of resource allocation (Meng, 2017). The plan calls for pragmatic steps to support the healthy and orderly development of e-commerce, a focus on innovation and effectiveness, and development of technical standards.

The 13th five-year plan pointed out the importance of integrating traditional industries into e-commerce. According to the 13th five-year plan, e-commerce development should be led by “coordination and innovation” that promote the integration of e-commerce into traditional economic fields; steadily promote the integrated development of e-commerce in agriculture, manufacturing, logistics, related services and other sectors; and comprehensively drive the transformation and upgrading of traditional industries. Policies should strengthen the integrated development of e-commerce in manufacturing, agriculture and industry. Efforts should be made to support innovative enterprises (to demonstrate the value of innovations to other firms) and to assist manufacturing enterprises in

“Key segments of the e-commerce market, in particular B2C transactions in rural areas and cross-border transactions, are expected to continue to grow.”

the use of e-commerce platforms to expand marketing channels by means of market-based operations such as equity investment, risk compensation and interest rate discounts. The regions should encourage e-commerce platforms to cooperate with manufacturing enterprises to optimize the product supply chain and supporting services and to build a new generation of e-commerce platforms closely connected with manufacturing enterprises. Efforts also are required to promote innovations in O2O e-commerce applications and to facilitate the combination of online and offline trading, with an emphasis on innovations in business models and technology innovation. Finally, the regions should also create O2O e-commerce models and cultivate new formats for the provision of e-commerce services.

The 13th five-year plan provides for improvements in the legal framework for e-commerce, based on the three principles of simultaneous development and standardization, parallel competition and coordination. Compared with the previous exhortation of “standardizing in the development and promoting the development by standardizing”, the new development principle not only guarantees and maintains stakeholders’ rights, but also requires them to fulfil corresponding obligations and responsibilities. New ideas are required to promote development

Table 1: Evolution of the five-year plans

	11 th five-year plan	12 th five-year plan	13 th five-year plan
E-commerce applications	Popularize	Deepen	
E-commerce regulation		Standardize	Open
E-commerce platform	Construction	Upgrade	
Traditional industries			Integration

and standardization and to create a more open e-commerce business environment. The government also will continue to standardize development through innovative approaches to establish an open, fair and honest e-commerce market. Efforts to ensure competition and coordination will be designed to protect fair competition and minimize administrative interference in the market. At the same time, the government will promote the complementary and coordinated development of e-commerce and traditional industries, online and offline, as well as e-commerce activities in urban and rural areas. The government gives equal emphasis to openness and security, and encourages enterprises to actively participate in international market competition, so as to develop international e-commerce featuring convenient logistics, mutual recognition of standards, complementarity of production capacity and market sharing.

In general, three five-year plans have specific emphasis in regard to e-commerce based on different development periods. Because 2007 witnessed the construction

period of e-commerce development, the 11th five-year plan emphasized the construction of public e-commerce service projects and the importance of popularizing e-commerce applications. With the gradual popularization of e-commerce applications, the 12th five-year plan emphasized deepening e-commerce applications in order to improve the efficiency of resource allocation. The 13th five-year plan highlighted strengthening the integration of e-commerce and traditional industries and improving the legal framework for e-commerce.

The changes in the plans concentrate on four aspects over time (see Table 1). The 11th five-year plan proposed to construct the e-commerce platform, while the 12th five-year plan proposed its upgrade. The emphasis in the plans changed from popularizing e-commerce applications to deepening them over time. E-commerce regulation in the plans changed from emphasizing standardized principles to emphasizing open norms. Additionally, because e-commerce development has now entered the mature stage, the 13th five-year plan proposed the integration of traditional industries and e-commerce.

2. The value of the plans

The plans facilitate the upgrade of e-commerce platforms. The plans regard e-commerce platforms as a core to improve the efficiency of allocation of social resources, and they advocate for enterprises to take full advantage of the “internet +”. To illustrate, firms need to make full use of the internet, cloud computing, big data, mobile internet and other technologies, with the aim of constantly improving platform functions to make them more user friendly. E-commerce platforms should promote the integration of multiple resources in the industrial chain, including producers, traders, users, financial institutions, logistics agencies and technical service agencies; eliminate information barriers; optimize resource allocation; and realize operation coordination and optimization on the whole. By upgrading e-commerce platforms, firms could use the advantages of internet connectivity and resource integration to create more value.

“Fast logistics is the foundation for the rapid development of China’s e-commerce.”

The plans help to build a standardized service system. Standardization of product information and delivery processes is the basis for the efficient operation of e-commerce. However, China is relatively lagging in standardization of product information and delivery process, lacking a standard process for warehouse management, logistics distribution, financing management and contract management. Plans encourage enterprises to actively participate in the construction of e-commerce regulations and establish a real-name

system for the e-commerce market based on a unified social credit system. E-commerce enterprises take the five-year plans as guides, establish a traceability mechanism that includes online product transactions and offline service, and gradually develop standardized operations, professional management, standardized logistics and scientific supervision.

The plans are conducive to creating a benign and open e-commerce environment. The plans propose to optimize the governance environment of e-commerce, emphasizing the need to strengthen the construction of

e-commerce information infrastructure, and to implement effective supervision based on internet technology regulations and law. The development of e-commerce needs to reinforce industry guidance and create a healthy and open environment. The

development of e-commerce also needs to abide by the basic principles of equal emphasis on competition and coordination, adhere to the promotion of fair market competition and open development, prevent and suppress monopolistic and vicious competition, and establish an open, fair and honest market order through supervision.

The plans contribute to deepening the integration of traditional industries and e-commerce. Due to incomplete market competition and asymmetric information, enterprises are faced with four major difficulties in production and operation decisions – what to produce, how much to produce, for whom and how to produce. The plans proposed

that e-commerce firms may effectively solve the difficulties of what to produce, how much to produce and for whom by integrating online and offline transaction resources and creating an integrated ecosystem of production and distribution, including procurement, sales and logistics, etc. In order to solve the problem of how to produce, e-commerce enterprises need to further promote the integration of big data into the traditional industrial chain, including manufacturing, operation management and sales services. Through the sharing of knowledge and information, e-commerce enterprises may break down the boundaries between sectors and realize intensive production and the coordination of production, service, procurement and sales. The deep integration of the e-commerce and traditional industries facilitates the cultivation of modern online businesses and the upgrade of production.

The role of government in the development of e-commerce

Government has the opportunity to play a leading role in the development of e-commerce in four areas.

1. The government promoted the development of the basic e-commerce infrastructure based on the development characteristics and realities of local enterprises.
2. The government helped facilitate the popularization of e-commerce. The primary task of government is to carry out a wide range of e-commerce training and popularization activities. In addition, government can guide the spontaneous formation of business associations and other non-governmental organizations within the region to promote the popularization, dissemination and penetration of e-commerce awareness, knowledge and skills (Deng, 2013).
3. The government can take steps to support production and processing supply chains, find and cultivate modern online businesses and assist with operation and marketing links. A key principle is to encourage trials and innovation, which allows for mistakes and failures.
4. The government should provide policy and legal guarantees for the development of e-commerce and help solve data security and related problems.

Local governments also play an active role in boosting the development of e-commerce. Zhejiang province, for example, is a leader in the field of e-commerce in China, and it vigorously promotes the e-commerce applications of industrial enterprises and encourages SMEs to rely on third-party e-commerce platforms to carry out online sales. Zhejiang also encourages qualified enterprises to develop online brands and supports the rapid establishment of online retail and distribution systems for industrial products that suit the characteristics of Zhejiang industry.

Lessons from China's experience of rapid e-commerce development

1. Fast logistics

Fast logistics is the foundation for the rapid development of China's e-commerce. There are many logistics companies in China's e-commerce

market, such as Shunfeng, Yuantong and Yunda. China's goods delivery systems consist of a "backbone transportation network" with high-speed rail, highways and civil aviation; a "general mainline network" with high-grade highways, ordinary speed railways and inland waterways; and a "service network" with rural roads and branch railways.⁹ Developing countries should strengthen transport infrastructure and promote competition among various courier companies to improve the speed and quality of their logistics services.

2. Convenient platform

The availability of a user-friendly internet platform is a major feature of the rapid development of China's e-commerce. Consumers can easily search for various products and compare their function and price through the platform. Various means of payment are available, including through online commercial banks, Alipay and WeChat. Upgrading e-commerce shopping platforms is essential to facilitating consumers' online purchases.

3. Regulating market

The rapid development of China's e-commerce also benefited from regulating e-commerce, based on international agreements. China continues to fulfil the Agreement on Information Technology proposed at the WTO Ministerial Conference in Singapore in 1996. In addition, China has participated in the negotiation of the Information Product Agreement, and China may participate in the negotiation of the e-commerce agreement. Accordingly, developing countries should actively join the WTO's agreement on e-commerce, which will facilitate the

entry of their information technology products in international markets and promote the development of e-commerce.

Endnotes

- ¹ Research report on the development and market prospects of China's e-commerce industry in 2019, China Business Industry Research Institute, available at <https://wk.askci.com/details/410b8e0556bd4223b5085696e00028d0/>
- ² China E-commerce Development Report 2018–2019, 2019 Global Electronic Commerce Conference, Xiamen, 8 September 2019.
- ³ See <https://www.statista.com/statistics/278204/china-mobile-users-by-month/>
- ⁴ E-commerce purchases here refer to the total goods and services purchased by enterprises through online orders.
- ⁵ Data from National Research Network Database, available at: data.drcnet.com.cn (accessed 13 January 2020).
- ⁶ Ibid.
- ⁷ "WPP China Social E-commerce White Paper", 2019.
- ⁸ Liu, Guiqing, 2007, Highlights of the 11th five-year plan for the development of e-commerce Shanghai Business (08): 28-29.
- ⁹ "Backbone transportation network", "general mainline network" and "service network" refer to three types of logistics in China based on transport infrastructure developments and geographical features. "Backbone transportation network" is the most common one, followed

by “general mainline network” and “service network”.

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Comments



QING YE*

E-commerce transactions, including the cross-border ones, have been growing rapidly and have transformative effects on the global economy. As Chapter 6 indicates, China's e-commerce transactions have seen a tremendous growth in the past 20 years. In fact, China has become one of the largest e-commerce markets in the world. The global value of e-commerce reached US\$ 29 trillion in 2017, which corresponds to 13 per cent growth over the previous year, according to estimates by the United Nations Conference on Trade and Development (UNCTAD, 2019b). China's total e-commerce sales value was estimated at US\$ 1.9 trillion in 2017, making it the third largest e-commerce market after Japan and the United States. However, according to UNCTAD's Digital Economy Report 2019, China's total e-commerce sales value in 2017 represented only 16 per cent of its gross domestic product (GDP) (UNCTAD, 2019a). This share was nearly three times less than in the United States and four times less than in Japan. It indicates China's e-commerce market still has tremendous potential to grow, particularly in business-to-business (B2B) e-commerce and cross-border e-commerce.

Statistics typically include both domestic and international transactions, so it is important to single out cross-border

e-commerce. This chapter discusses China's e-commerce growth in general; China's cross-border e-commerce development could also be included and further illustrated. In fact, cross-border e-commerce in China began to grow significantly in 2011 and has become an important part of Chinese foreign trade. Cross-border e-commerce transactions, particularly in business-to-consumer (B2C) terms, encompass e-transactions, e-payments and logistics. There are a mass of cross-border e-commerce market players in China, including e-platforms, e-payment operators, e-vendors, warehousing operators and express shippers, which jointly operationalize massive online transactions and offline deliveries on a day-to-day basis. According to Chinese Customs' statistics,¹ the value of China's cross-border e-commerce trade in goods was around CNY 134.7 billion in 2018, with an annual growth rate of 20 to 30 per cent for the period from 2013 to 2018. It is noteworthy that exports took the majority share of China's total cross-border e-commerce transactions in goods at the level of 83.1 per cent in 2015; however, imports surpassed exports in less than three years and reached 58 per cent of the total share in 2018.

Cross-border e-commerce impacts economies in different ways. For example, it: (i) enables diversified

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products from all over the world to be supplied to consumers; (ii) encourages small and medium-sized enterprises (SMEs) to participate in international trade; (iii) improves economic competitiveness; (iv) spurs innovation (e.g. many Chinese e-platforms are utilizing “big data” to analyse and monitor cross-border e-commerce transactions); and (v) creates jobs – there are over 2 million people working in the field of e-commerce in China (WCO, 2017).

Chapter 6 divides China’s e-commerce development into four phases – germination, growth, accelerate and mature – that follow the same logic as that of other scholars.²

Differences mainly occur when defining the later stages; if marked by milestones in government policies, later stages could also be classified as “The Standardization Stage” and “The Globalization Stage” (Yue, 2017), which is compatible with Chapter 6’s government policy discussion. The Standardization Stage covers the period from

2008 to 2014, when key policies to promote e-commerce development in China were formulated and regulatory policies for China’s e-commerce had launched by its end. The Globalization Stage has developed with the significant growth of China’s cross-border e-commerce. In June 2015, the Chinese government rolled out its strategy to foster cross-border e-commerce in a document titled “Guiding Opinions to Promote Healthy and Rapid Development of Cross-Border E-commerce”,³ which encompassed the following measures:

- encouraging enterprises to engage in international trade through e-commerce;
- strengthening major e-platforms;
- enhancing customs and quarantine procedures;
- improving cross-border payment services;
- providing financial support to e-commerce companies; and
- promoting the functions of trade associations.

“E-commerce transactions, including the cross-border ones, have been growing rapidly and have transformative effects on the global economy.”

Other initiatives include encouraging e-commerce cooperation with countries along the Belt and Road, increasing the efforts to support Pilot Free Trade Zones to deepen reform and opening up and facilitating cross border e-commerce. At the local level, municipal governments in some cities are encouraged to explore ways in which they can integrate

different administrative resources and provide comprehensive services in order to promote cross-border e-commerce. For example, Zhejiang Province has established a cross-border e-commerce work mechanism, with Hangzhou and Ningbo as the main pilots, for a management system and set of rules on global cross-border e-commerce, especially a “single window” for logistical and legal matters.

Critical lessons learned from China’s experience of rapid e-commerce

development can be summarized as follows: (i) creating well-designed national strategies and roadmaps for boosting the development of e-commerce; (ii) refraining from measures that may stifle the development of e-commerce, such as streamlining the administrative procedures for taxing related businesses and enhancing services; (iii) providing a more conducive business environment based on trust, fostering entrepreneurship and innovation, and providing access to financing for digital start-ups; and (iv) strengthening the protection of intellectual property in the cross-border e-commerce industry and cracking down on counterfeiting and infringement.

Most of the debate on digitalization and development has concentrated on the extent to which countries have affordable access to various technologies and whether the technologies benefit each country. The digital divide remains a real concern to many developing countries, particularly least-developed countries (LDCs), and many face challenges of drawing benefits from vibrant digital trade owing to the lack of adequate digital capacities. Further studies on the policy implications of China's e-commerce development can help developing countries to engage in and benefit from the expansion of e-commerce. In practice, the following key policy areas need to be addressed when formulating national e-commerce strategies: information and communications technology (ICT) infrastructure, trade logistics, legal and regulatory frameworks, online payment solutions, digital skills, public e-procurement and stakeholder participation in policy formulation and implementation (OECD and WTO, 2017, Chapter 7).

Improving access to reliable and affordable ICT infrastructure is essential for e-commerce to thrive. Strengthening logistics and transport infrastructure is imperative for both domestic and cross-border e-commerce facilitation. Poor logistics remain a barrier to e-commerce in many developing countries, and investment in infrastructure is often much needed. The solution may partly lie in providing direct government funding in infrastructure investment or adopting private-public partnerships for the deployment of networks, as China did in its e-commerce development growth phase. Taking the best practice from the globalization phase of China's e-commerce development, policymakers could explore and harness relevant opportunities to embrace cross-border e-commerce and create conditions, procedures and resources that enable cross-border e-commerce to thrive.

On a global scale, international cooperation plays an important role. In certain markets, regulatory requirements regarding cross-border e-commerce fail to keep up with the dynamics and trends of e-commerce in terms of their efficiency and effectiveness, posing substantial demands for international cooperation on trade facilitation, customs revenue collection, cybersecurity, etc. Existing trade facilitation solutions, such the WTO Trade Facilitation Agreement (TFA), include provisions that aim to modernize border clearance procedures and streamline processes. Such efforts become even more important in the evolving development of cross-border e-commerce. Implementation of the TFA will improve customs procedures and formalities so that shipping time can be reduced, which is critical for small parcels sent

from SMEs on the cross-border e-commerce platforms.

When considering legal frameworks, a key question for policymakers is to ascertain whether existing laws and regulations allow for a level playing field between e-commerce and regular trade. This particularly applies to physical goods that can be digitized and sent across borders digitally. Since the WTO General Council adopted the Work Programme on Electronic Commerce in 1998, WTO members have periodically renewed, on a provisional basis, the commitment not to apply customs duties on electronic transmissions. Other cross-cutting issues include an adequate legal and regulatory framework on cross-border data flow, cybersecurity, competition laws and intellectual property rights. To facilitate cross-border e-commerce, it is important to develop a global regulatory framework that supports the growth of digital trade for all. This will require an ongoing dialogue and a collaborative effort among all countries, from all regions of the world and all levels of development.

Endnotes

¹ See <http://english.mofcom.gov.cn/article/newsrelease/press/201902/20190202837696.shtml>

² Mao and Zhao (2015) present in six phases: germination, growth, accelerate, mature, outbreak and transformation. From the perspective of industry economic theory cycle, Wang (2017) identified China's e-commerce evolution in four periods: germination, growth, eruption and integration.

³ See <https://www.chinalawupdate.cn/wp-content/uploads/sites/206/2015/06/E-Commerce-guidelines.pdf>

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