

Supply chain integration, circulation industry development and unified large market---From the perspective of Internet popularization

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Abstract: The construction of a unified big market is the inevitable requirement of China's continuous deepening of reform, which plays an important role in eliminating the urban-rural gap and promoting the domestic and international double cycle. The key to building a large, unified national market is to promote high-standard connectivity of market facilities, continue to deepen and popularize through the Internet, combine supply chain integration with the development of the circulation industry, reduce institutional transaction costs and explicit costs such as raw materials, labor and logistics, break local protection, curb market segmentation, and update infrastructure. In this way, market transaction costs can be reduced, scale advantages can be leveraged and resource allocation can be optimized.

1. China's unified large market

On March 25, 2022, the Central Committee of the Communist Party of China and The State Council issued the Opinions on Accelerating the Construction of a Large and Unified National Market, which emphasized the need to continue to promote the efficient and smooth expansion of the domestic market and the need to promote high-standard connectivity of market facilities, including the construction of a modern circulation network, improving market information exchange channels and promoting the optimization and upgrading of trading platforms. The central idea of a unified Grand market is that in a regional market, goods, services or elements should not be divided according to their source, and that subjects within the market have the same rights, responsibilities and obligations^[1].

1.1 Building a unified large market is an inherent requirement for socialist common prosperity

Common prosperity is the goal of the CPC, the essential requirement of socialist society, and an important feature of Chinese path to modernization. For a long time, China's economic development has been unbalanced between the eastern and western development, unbalanced urban-rural development, and unbalanced resident income. For example, in 2022, the per capita disposable income of rural residents reached 20133 yuan, a real increase of 4.2%, and the per capita income ratio of urban and rural residents was 2.45; In 2022, the per capita GDP of 7 provinces and cities along the eastern coast is over 100000 yuan, the per capita GDP of 8 provinces in

the central region is between 70000 and 100000 yuan, and the per capita GDP of 9 provinces and cities in the western region is less than 70000 yuan. The building of a large unified national market will benefit more low-income people, stimulate development momentum in rural areas, further remove barriers to the free flow of goods, and firmly promote common prosperity.

1.2 Building a unified large market is an important basis for the "double cycle"

After the novel coronavirus epidemic, the world economy is in a bit of a slump, the tide of anti-globalization is rising, and the driving effect of China's net exports on the economy is slowing down, and the domestic market needs to play a bigger role in economic growth. The national unified big market can expand domestic demand and effectively increase the consumption potential of the people, which is the top priority of the new development pattern. Local protection, market segmentation, oligopoly, and urban-rural disparities are issues that arise from both local governments and enterprises, as well as imperfect market mechanisms. If these problems are allowed to exist, a unified market cannot be established, and the "internal circulation" cannot be smooth, thus laying the foundation for the "dual circulation" development pattern.

1.3 The popularization of the Internet is a new advantage of the unified large market

According to the 51st Statistical Report on the Development of the Internet in China, as of December

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2022, the number of Internet users in China was 1.067 billion, and the Internet penetration rate reached 75.6%, an increase of 2.6 percentage points year-on-year, especially in rural areas, the Internet penetration rate increased to 61.9%, further narrowing the gap with urban and rural areas. Data from the National Bureau of Statistics show that from 2012 to 2021, the scale of China's digital economy grew from 11 trillion yuan to more than 45 trillion yuan, the proportion of digital economy in GDP increased from 21.6% to 39.8%, and the popularization of Internet applications accelerated, deepening the application in the circulation industry, supply chain integration and other fields. The rapid development of emerging technologies such as 5G, intelligent manufacturing, and artificial intelligence has injected new vitality into technological innovation and high-quality economic development in all walks of life.

2. Supply chain integration is the micro basis of the national unified large market

Supply chain integration refers to the process of a company working with its supply chain partners to manage the supply process within and between its organizations, so as to more effectively integrate raw materials, semi-finished products, information and financing for production.

First, supply chain integration can reasonably allocate supply and demand resources. Supply chain integration can calculate the optimal cost and benefit plan for enterprises, and realize the value improvement of the whole supply chain through the collaborative integration of upstream and downstream industries. Take a manufacturing enterprise as an example, through close cooperation with suppliers, it organizes raw material assembly according to order scheduling, and allocates raw materials directly and accurately to the production line to maximize storage pressure, and in the same production line, supply chain integration can reach more than twice the output in the past^[2].

Second, supply chain integration and optimization of resource allocation. The survey shows that supply chain integration through changing production plans, optimizing procurement processes, diversifying procurement, warehousing, order, inventory management and transportation management, Achieve improvements in cost, quality, diversity and service levels^[3]. Taking Jingdong Group as an example, as of December 31, 2022, Jingdong Logistics operated more than 1,500 warehouses, adding more than 700 warehouses in the past three years, and the total area of the warehouse network, including the cloud warehouse area managed by Jingdong Logistics, has exceeded 30 million square meters. The number of employees of Jingdong system has increased from 260000 at the beginning of 2020 to more than 550000 at the end of 2022, and 290000 new employees have been added. The huge supply system makes Jingdong achieve "same-day" and "next-day" in major cities, significantly improving the competitiveness of Jingdong Mall^[4].

Third, the popularization of the Internet strengthens

the integration of supply chains. The Internet has a key role to play in advancing the goal of supply chain integration, and access to the Internet can play an important role throughout the manufacturing lifecycle, including services such as design analysis and simulation, suppliers, manufacturers, maintenance, and quality testing. Moreover, the Internet is capable of redefining back-end operations, from product design and development, procurement, production, inventory, distribution, after-sales service support, and even marketing. Through the Internet, these processes are not only able to connect, but more importantly, they can work together to form an efficient and flexible innovation system, achieve unified procurement channels, establish centralized warehousing, unified distribution systems, implement supplier management, etc., continuously optimize business processes, achieve close collaboration between upstream and downstream enterprises, and become one of the core competitiveness of enterprises.

By adopting an e-commerce approach to supply chain integration, businesses can realize significant returns through increased efficiency, improved asset utilization, faster time to market, reduced total order fulfillment time, enhanced customer service and responsiveness, penetration of new markets, improved return on assets, and ultimately increased shareholder value.

Fourth, unified large market and supply chain integration promote each other. The formation of a unified large market can form diversified consumer demand, which forces the supply chain to carry out product style reform, customized production, and shorten the innovation time. With the development of digital technology, especially the continuous deepening and popularization of the Internet, the members of the supply chain can optimize the allocation of resources and improve the effective utilization of resources through efficient information transmission. Taking BYD Automobile as an example, in the transformation of individual consumer demand in the market, it makes use of its own vertical supply chain system, and through independent research and development of core components such as batteries, motors, electric controls, etc., its products cover from A-class cars to D-class cars, and from MPV (multi-Purpose Vehicles). utility vehicle) to sport utility vehicle (SUV)^[5-6].

3. The development of the circulation industry is the inevitable requirement of the national unified large market

Generally speaking, the circulation industry refers to the intermediate link from production to consumption, usually referring to the wholesale industry, retail, catering and logistics industry four major circulation branches. In 2022, the total amount of social logistics in China reached 347.6 trillion yuan, an increase of 3.4 percent year-on-year based on comparable prices. The total cost of social logistics was 17.8 trillion yuan, up 4.4 percent year on year^[7]. The ratio of total social logistics expenses to GDP was 14.7%, 0.1 percentage points higher than the previous year.

First, the circulation industry promotes economic transformation and upgrading. The circulation industry uses modern technology to improve efficiency, such as improving storage technology, optimizing resource flow, and reducing costs. In the process of China's economic development, social logistics has been constantly upgrading the value chain to promote economic transformation and upgrading. The total social logistics increased from 197.8 trillion yuan in 2013 to 347.6 trillion yuan in 2022, a total increase of 75.73%, and the total social logistics cost increased from 10.2 trillion yuan in 2014 to 17.8 in 2022, a total increase of 74.51%^[8].

Second, the popularization of the Internet is a new trend in the development of circulation industry. The popularization and deepening of the Internet has brought about fundamental changes in the logistics industry. The market scale of e-commerce, mobile payment, online ride-hailing, and mobile takeout has continued to expand. In areas with higher concentration of the logistics industry and resource endowment, the efficiency of Internet popularization has become more obvious. At the same time, under the background of the deepening popularization of the Internet, it has promoted the rapid development of logistics distribution and information dissemination. Data from the National Bureau of Statistics show that in 2022, online retail sales in China reached 13.79 trillion yuan, an increase of 4.0% over the previous year on a comparable basis. Online retail sales of physical goods reached 11.96 trillion yuan, an increase of 6.2% over the previous year on a comparable basis, accounting for 27.2% of total retail sales of consumer goods^[9].

Third, the circulation industry narrowed the gap between urban and rural areas. The continuous development of the circulation industry can accelerate the docking of production and consumption, promote the sustainability of consumption, promote the formation of rural industrial clusters and the innovation of agricultural industrial structure, and connect the logistics network between urban and rural areas more closely with the logistics hubs between various regions. On the one hand, the expansion of large supermarkets and convenience store chains has driven consumer demand in rural areas, and on the other hand, it has also provided channels for agricultural products to urban areas. By 2022, China will increase the storage capacity of agricultural products by 10.8 million tons, build 1500 county-level logistics and delivery distribution centers, 7600 township express delivery and mail processing stations, and 95% of administrative villages will achieve direct express delivery^[10].

4. Policy suggestions

The construction of a unified big market is a global, gradual, and leapfrog process, which is a process of quantitative change leading to qualitative change^[11]. It can take five key breakthroughs: internet popularization, government support and guidance, promoting technological innovation, supply chain finance, and rural

revitalization, and lead the construction of a unified big market nationwide through a point to area approach.

First, vigorously promote the construction of digital platforms, give full play to the positive role of Internet popularization, and effectively improve the scale effect of supply chain integration and the synergy effect of circulation industry development. Build an efficient circulation system, reduce barriers to the circulation of factors between urban and rural areas and between regions, and take differentiated measures according to local conditions. In 2022, the proportion of online retail sales in the east, central, west and northeast regions in the country will be 83.92%, 8.87%, 5.73% and 1.48%, respectively, and there is still considerable room for Internet popularization.

Second, increase government public budget expenditure and promote the construction of supporting systems and facilities such as transportation and industrial standards^[12]. The spread of the Internet has also improved the efficiency of government services. According to the United Nations e-Government survey report, China's e-government service Index ranking has risen from 78th in the world in 2012 to 9th at present. Relying on the policy dividend of building a national unified large market, break the urban-rural division and local protection of the development of the circulation industry, and promote the digitalization, intelligence and modernization of the circulation industry to improve the economic quality.

Third, adhere to technological innovation and improve the efficiency of technology landing. Establish a supply chain science and innovation center to provide supply chain solutions to more enterprises in a market-oriented way. We will support enterprises to increase investment in innovation and research and development for their own supply chain technologies, protect intellectual property rights, and expand spillover effects. We will jointly tackle key problems with enterprises, universities and research institutes, and promote cooperation in major technology R&D among research institutions and upstream and downstream of the industrial chain.

Fourth, do a good job in supply chain finance. Supply chain finance is a financing activity provided by financial institutions with banks as the main body for core enterprises, logistics enterprises and upstream and downstream supporting enterprises, and is an integrated solution of supply chain capital flow management. Taking the opportunity of building a unified large market, explore and improve the online and digital level of supply chain financing settlement, increase support for core enterprises and logistics enterprises, and improve the financing efficiency of small, medium-sized and micro enterprises' accounts receivable.

Fifth, strengthen the construction of rural logistics infrastructure and narrow the consumption gap between urban and rural areas^[13]. Further strengthen the construction of logistics and communication infrastructure such as roads, transportation, warehousing, mobile base stations, optical cables, etc., increase support for rural agricultural farmers, promote the digital transformation of rural circulation industry, improve

agricultural production efficiency, increase farmers' income, and expand the consumption demand of rural residents with the modernization, digitization, and intelligence of rural circulation industry^[14]. Create a good cycle between rural revitalization and the construction of a unified market.

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