

Research on Coupling Mechanism and Path Optimization of Coordinated Development of New Retail and Modern Logistics

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Abstract: With the rapid development of information technology, China's new retail market is increasingly prosperous, and the requirements for modern logistics are also higher and higher. There is a close relationship between new retail and modern logistics. They influence each other and prosper together. However, there are insurmountable problems between modern logistics and new retail. Compared with new retail, the development of modern logistics is slow, which restricts the development of new retail. The synergy between the two is weak, especially when the output value of new retail increases in a short period of time. Therefore, the deep integration of modern logistics and new retail is not only an inevitable requirement to enhance the competitiveness of new retail industry, but also an important breakthrough to promote the development of modern logistics

1. Introduction

Under the background of the slowdown of domestic economic growth and the impact of e-commerce enterprises, physical retailing is facing unprecedented challenges. Enterprises such as department stores perform poorly and often suffer from performance decline. Break the separation of online and offline, promote the deep integration of “Online + offline + logistics”, and “new retail” should be delivered. “New retail” was put forward for the first time in October 2016. It uses advanced technologies such as big data to reshape business structure and ecosystem, and deeply integrates online service, offline experience and modern logistics. The new retail will transform and upgrade the traditional online and offline retail modes, and provide consumers with products and services that can better meet their needs. Its core is people. It has five major characteristics: Omni channel, digital & intelligent, new stores, online orders exceeding offline orders and de stocking. According to the research on the stock market, there are 32 listed companies in the “new retail sector”, and the top 8 companies with sales volume are Antarctic e-commerce, Shanghai 900, Hualian shares, supply and marketing Daji, Xinhua capital, Hubei Wushang a, Jiayu shares and small commodity city. For the top 8 enterprises in the profit margin of new retail concept enterprises from 2015 to 2016 and their development potential, we can briefly analyze the development status and prospects of China's new retail industry.

2. Research Status At Home and Abroad

2.1 The Reform of Modern Logistics System under the Background of New Retail

Despite the rapid development of e-commerce in recent years, e-commerce retail industry still accounts for only about 10% of the total retail sales even though the turnover record has been set repeatedly during the “double 11” period. Most of the traffic and consumption is still offline. Cong Wenjun (2018) believes that e-commerce has entered the bottleneck period of development, and it needs to take data as the driving force to realize the transformation of retail industry through the development of new technologies and upgrading of user experience, so as to realize the transformation and upgrading of the retail industry and realize the leap to the “new retail” mode. Li Yitian et al. (2017) analyzed the current situation and problems of agricultural products sales under the traditional mode, and proposed the research strategy of “reverse new retail”, that is, agricultural products from remote areas are distributed to big cities to realize the collective transportation of logistics. Cao Lei (2017) mentioned that “new retail” is a new round of transformation of e-commerce, also known as “the fourth retail revolution”. He analyzed the impact of “new retail” on the whole retail industry from the user level and commodity level. Zeng Jianmin (2015) believes that the content of modern logistics system includes logistics operation, logistics management, modern logistics infrastructure and logistics information system; the basic objectives include perfect logistics service, fast distribution, low cost, optimized scale and reasonable inventory; the basic framework includes production material supply, transportation and information network, Sales and third-party logistics must be guaranteed from the aspects of facilities construction, policy support, talent education, management innovation, etc^[1]. In recent years, the overall growth rate of e-commerce has significantly slowed down, and enterprises gradually recognize and tap the value of offline. The deep integration of online and offline has promoted new retail. On the one hand, the decline of e-commerce growth rate is affected by the slowdown of macroeconomic growth, on the other hand, the stage of rapid penetration of e-commerce by various consumer goods industries has passed. At the same time, in this process, the purchase behavior of users is also changing, more emphasis on experience and more accessible logistics network. Therefore, under the background of new retail, the reform of modern logistics system is imperative. Through the comprehensive analysis and qualitative research on the goal, content, approach and technical means of modern logistics system reform, we can accumulate sufficient theoretical and practical basis, and provide a solid foundation for the further research of this paper.

2.2 Index System of Collaborative Development of Modern Logistics and New Retail

With the continuous development and popularization of computer and network technology, information technology has been unprecedented development in various fields, retail industry has gradually attached importance to the development of online industry, and online businesses are also looking for the possibility of offline development. In the new era of online and offline deep integration of retail sales, logistics industry is faced with new requirements constantly put forward, and reform is imperative. As the logistics industry plays an important role in the operation and management of enterprises, a sound coordination evaluation system is necessary to promote the coordinated development of logistics system under the background of new retail. New retail puts forward new requirements for logistics from two aspects of consumers and enterprises. From the perspective of consumers, in order to obtain a better consumption experience, higher requirements are put forward for the timeliness, accuracy and convenience of distribution^[2]. From the perspective of enterprises, fast and efficient logistics service is the goal of enterprises to open up multiple channels, shorten the supply chain, and deliver goods to consumers faster, so as to reduce inventory,

speed up and meet the needs of consumers. At the same time, an important part of the new retail mode is the problem of the last mile. Smart cabinets and crowdsourcing express will help to solve the problem of the last kilometer and realize faster and more efficient distribution.

2.3 Collaborative Method of Modern Logistics and New Retail System

The order parameter is a parameter which indicates the macro order degree of the new structure of the system. Aiming at the order parameter problem of modern logistics system under the background of new retail, a method of order parameter identification of logistics collaborative system based on grey correlation method is proposed. Firstly, the function of order parameter principle in logistics coordination system is analyzed, then the coordination elements of logistics system are determined, and the state parameters of logistics system are established, and then the solution method of order parameters is proposed. There are many research results on collaborative evaluation of logistics system at home and abroad, some of which involve the collaborative evaluation of logistics system under the conditions of e-commerce or Internet, which provides a lot of theoretical and practical basis for the research of this paper^[3]. However, due to the particularity of modern logistics system brought by the development of new retail, the research on collaborative evaluation of logistics system has become a hot topic, Therefore, the depth and breadth of collaborative development theory need to be further strengthened.

3. Coordinated Development of Modern Logistics and New Retail System

3.1 Actively Promote the Application of Advanced Technologies Such as Big Data and Cloud Computing, and Improve the Capacity of New Retail Services

First of all, the government should encourage enterprises to strengthen research and development investment in big data, cloud computing and other new technologies by means of preferential policies and financial and tax subsidies, and promote the application of advanced technologies such as Internet, cloud computing and big data, so as to lay a foundation for the interconnection of data on modern logistics and new retail information platform. Secondly, the government should provide perfect infrastructure conditions for the development of advanced technologies such as big data and cloud computing, including increasing Internet broadband access ports and extending the length of long-distance optical cable lines. Finally, enterprises should constantly improve the ownership rate of automation and intelligent facilities and equipment, and improve the internal business information system and management system. On the basis of vigorously developing modern information technology, enterprises should establish a collaborative information platform for modern logistics and new retail, so as to enhance the contact and cooperation between enterprises, It is a powerful guarantee to promote the rapid and healthy development of the composite system^[4]. A perfect collaborative information platform can not only connect logistics enterprises with new retail enterprises, but also combine national government agencies, industry associations, scientific research institutions, manufacturers, suppliers, retailers, customers, etc., and accurately grasp the demand and resource status of modern logistics and new retail market by mining multiple information, On this basis, it realizes resource sharing, data sharing and information exchange, so as to realize the information sharing and exchange on the platform and the effective integration of resources, so as to improve the operation and management level of enterprises, and provide a strong guarantee for the promotion of the synergy between modern logistics industry and the new retail system.

3.2 Accelerate the Investment of Intelligent Cabinet and Other Facilities, and Improve the

Level of Modern Logistics Service Infrastructure

The coordinated development of modern logistics and new retail needs complete basic hardware support, including electronic shelf tags, intelligent cabinets and other infrastructure. Among them, the efficiency of Alibaba's adoption of cloud based e-commerce is far higher than that of domestic enterprises of the same type. Therefore, the government needs to introduce relevant policies and measures to focus on the popularization of cloud based e-commerce, so as to improve the overall operation efficiency of new retail enterprises^[5]. Intelligent cabinet is an emerging and effective equipment to realize the convenient and efficient operation of modern logistics system. Because the intelligent express cabinet can realize 24-hour uninterrupted service, solve the problem of delivery time conflict, and can effectively wait for a long time for express delivery. With the continuous improvement of business model, it has great development potential, and is the most effective alternative for end express delivery in the future.

3.3 Enhance the Attraction of Modern Logistics and New Retail Service Talents

(1) Many problems, such as improving the treatment of relevant talents, promoting the inflow of professional talents, low treatment of logistics and new retail employees, imperfect salary reward mechanism and unreasonable position promotion system, directly lead to serious brain drain and unable to form an efficient and professional talent team. Therefore, we should not only reduce the loss of basic talents, but also increase the introduction of high-level logistics and new retail talents. In particular, we should strengthen the reserve of artificial intelligence talents and give more preferential treatment for the life and employment prospects of relevant personnel, including formulating a reasonable salary reward mechanism, improving the position promotion system, and increasing the security of all kinds of talents to settle down, In education, medical care, housing and other aspects to provide the best services for talents, so as to promote the relevant personnel to invest more enthusiasm and efficiency in the collaborative development of the composite system. (2) Strengthen the training of talent skills and improve the level of talents. Due to the low education background of logistics and new retail employees and the lack of relevant professional training, the collaborative level of the composite system has not been improved. In order to improve this phenomenon, the establishment of professional logistics and new retail employment platform mechanism, strengthen the skills assessment and identification of relevant talents, is conducive to strengthen the work quality of logistics and new retail practitioners and improve the employment threshold, and lay a good talent foundation for the coordinated development of the composite system^[6]. At the same time, it is necessary to vigorously cultivate professionals with various talents, not only with the unilateral talent of logistics or new retail, but also to be able to combine the two, so as to realize the all-round integration of modern logistics and new retail system.

4. Conclusion

In the new retail era, the development of logistics industry must grasp the characteristics of new retail marketing, meet the new requirements of the logistics industry in the new retail era. While striving to improve the awareness of intelligent construction of logistics enterprises, we should strengthen the supervision of each link of logistics and do a good job in all-round logistics services. But these are only the more superficial problems. What deeper hidden problems still exist in the logistics industry in the new retail era? With the development of all walks of life, what requirements will be put forward for the logistics industry, which needs to be further discussed.

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