

Research on Logistics Industry Transformation and Upgrading based on Resource Integration and Sharing

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Abstract. The logistics industry, as a basic service industry, occupies an extremely important strategic position in the process of economic development. With the continuous improvement of global economy, economic development enters the new normal, and the logistics industry meets an important opportunity of transformation and upgrading. On the basis of analyzing the present situation of logistics industry development and the opportunity of transformation and upgrading, this paper puts forward the direction of logistics industry transformation and upgrading, combining with the new technology of logistics development at the present stage, to realize the integration and sharing of resources. Hence the logistics industry's service level and logistics efficiency can be improved.

1. Introduction

“Belt and Road Initiative” is a new mode of international regional economic cooperation proposed by China to promote the further development of economic globalization. Its core objectives are to promote the orderly and free flow of economic elements, to realize the efficient allocation of resources and the deep integration of markets, and to promote broader, higher-level and deeper regional cooperation that will create openness, inclusiveness, balance and an inclusive framework for regional economic cooperation.

The logistics industry as the basis of the service industry, occupies an extremely important strategic position in the process of economic development. In the new normal situation of the economic growth, the logistics industry should take the new pattern of “Internet +logistics” to accelerate the cultivation of new growth momentum, provide quality and effectiveness by the reforms of the supply side, enhance the market active degree and social creativity, promote online and offline interaction and improve logistics and distribution activities. Hence the logistics industry can be realized the healthy growth effectively, and extended to the high end of the industrial chain.

Based on the resource integration and sharing, this paper studies the transformation and upgrading of logistics industry from the innovation mode, transformation method and efficiency. Also, the study can be realized as a result, providing supply chain integrated logistics service, improving logistics service quality and operation efficiency, and supporting the healthy and rapid development of logistics industry.

2. Analysis of the current situation of the logistics industry development

2.1. Current situation of the logistics industry

With the rapid growth of the global economy and the high speed transmission of materials, commodities and information, the logistics industry has maintained a strong growth momentum, and



the scale of the logistics market has been expanding. Also, due to the continuous optimization and upgrading of the consumption structure and product structure, the level of logistics specialization will continue improving.

2.2. Development trend of the logistics industry

With the continuous emergence of new logistics enterprises, the logistics park is faced with transformation and upgrading. It should optimize the internal structure, change the convergence of different logistics activities, and build a highly efficient logistics operation mode. With opening up, the international trades are increasing day by day. In order to meet the different customers and realize international requirements, it is very difficult for a logistics enterprise to provide different logistics services. Logistics alliance will become the new trend. Logistics enterprises scale, rapid development of network and logistics information will enter a mature stage. Logistics enterprises should use merger and reorganization, resource integration and service upgrading into large-scale and network. So logistics platform economy will become mainstream.

2.3. Problems in the development of logistics industry

The basic motive force of the logistics industry growth lies in the demand of the logistics market. At present, insufficient effective demand of logistics market has become an important obstacle to restrain the production and development of logistics enterprises, especially many small and medium-sized logistics enterprises. The main contradiction of insufficient demand in logistics industry lies in the prominent structural contradiction of supply. The traditional logistics business can not meet the demand of producers and consumers for high-end services. On the other hand, due to the insufficient input of incremental resources, it is difficult to create new demand. This leads to a decline in the quality of supply and insufficient effective supply.

3. An analysis of the development opportunity of the logistics industry

3.1. Opportunities for the development of the logistics industry brought by "Belt and Road Initiative"

With the implementation of "Belt and Road Initiative", the trades between China and other countries along the route will increase, the effective demand of logistics market will increase and the flow of goods will continue to expand, especially the cross-border logistics trades will continue to increase. At the same time, the strategy of "Belt and Road Initiative" brings global economic and trade ties. Logistics is the transport carrier of manufacturing products. The expansion of economic and trade ties makes manufacturing and logistics more closely linked. More and more manufacturing enterprises and logistics enterprises begin to reintegrate upstream and downstream logistics activities from the supply chain. It promotes the logistics enterprise to innovate the development model and achieve transformation and upgrading.

3.2. Opportunities for the development of logistics industry in the new normal economy

The new normal economy emphasizes stable structural growth, which will be used for development. The logistics industry has also entered the "new normal" period of high growth, showing the characteristics as follow:

- The industries are in the moderate and high growth.
- The cost of production factors increases constantly.
- The effective demand of the logistics market becomes the driving force of growth.
- Innovation and integration become normal.

This puts forward strict requirements for the developing logistics enterprises and brings important opportunities for transformation and upgrading.

Compared with the rapid growth of the logistics market demand, a single logistics enterprise can't meet the diversified needs of customers. Logistics alliance will be a new trend of development. For example, in order to meet the new requirements of logistics distribution, logistics enterprises need to

build distribution interest community according to the market demand, and establish a convenient and efficient, standardized and orderly urban distribution system. To build a regional logistics service network for the needs of manufacturing, e-commerce and so on is becoming a new mode of regional and international development of logistics industry.

3.3. Opportunities of the logistics development under supply reform

Innovation has become an important concept of development. In manufacturing lean logistics, e-commerce logistics, cold chain logistics, agricultural products logistics, hazardous chemicals logistics, medical logistics, emergency logistics, logistics park, special transport, express service and other areas with innovative service potential, the development opportunities should be seized.

4.Strategy of the logistics industry transformation and upgrading based on resource integration and sharing

4.1. Establishing cross-border logistics network channels

The construction of the cross-border logistics network channels, that mainly involve central hub, business scale, service level, operational efficiency and cost, should aim at improving the efficiency of the whole cross-border logistics network and achieving high efficiency and precise docking.

(1)The hub city should give full play to the advantages in constructing the fast passage of cross-border logistics network. In order to construct the cross-border logistics rapid passage network with the hub city as the core, the city with important geographical position will be set up as the transit center. Thus the strategic advantage and cultivating industrial agglomeration zone is formed. Then the logistics industry cluster with reasonable logistics, dry port linkage and international transit can be realized all functions through the main channels of cross-border logistics network.

(2)Based on the specialization of cross-border logistics integrator, it can give full play to its organizational role in the whole logistics chain, and realize the coexistence of multiple integrator. Cross-border logistics integrator dominate the logistics chain, and manufacturing integrator organize supply chain activities.

(3)Giving full play to the role of public hub in the trade and logistics of cross-border logistics network will help maximize the benefits of integration gravity. For example, a international hub as the core can form the logistics enterprise alliance by taking advantage of the resource sharing. The logistics related industry is taken as the integration to play the organizing role. And it can form industrial agglomeration, cargo transit and business radiation node in inland international transit hub port to construct the cross-border logistics main channel network.

4.2. Building platform logistics

4.2.1. Platform logistics construction based on international cooperation. The platform should use its agglomeration function to form an integrated body, such as logistics integration, manufacturing integration and trade integration . Then the field line of the logistics platform is operated through the leading role of the logistics integrator. With the full use of the logistics platform, it will provide services to customs, quarantine, finance and tax. Thence the port linkage operation system and cross-border logistics industrial belt are formed to enhance the effectiveness of cross-border logistics integration operation. The logistics integrated schematic body is displayed in the following Fig.1.

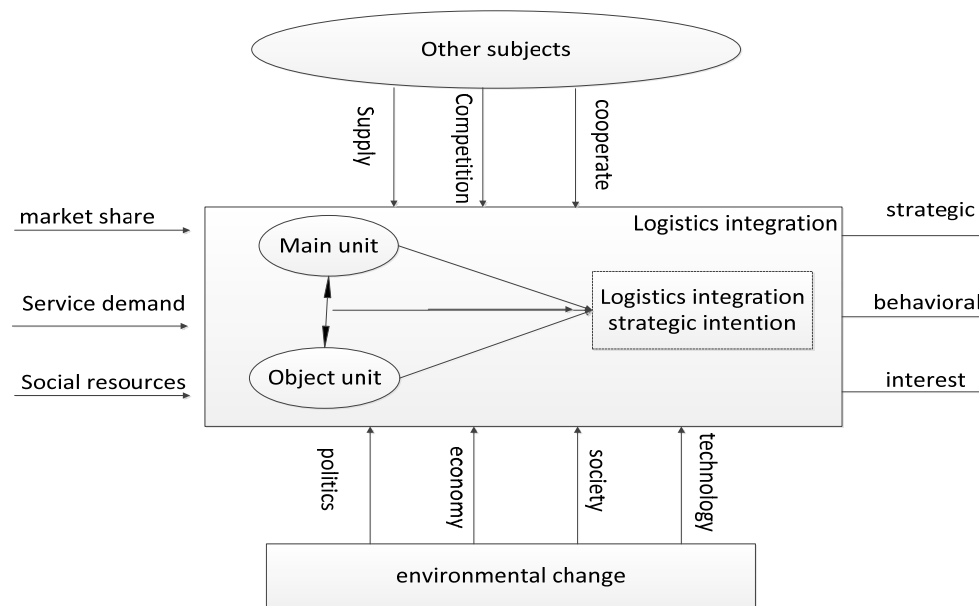


Fig. 1 Logistics Integrated schematic body

(1) Construction of logistics service cooperative platform

The logistics service cooperative platform is used to integrate the leading logistics chain to realize the mode innovation of supply chain business, to form the on-time feeding mode based on manufacturing station, the highly centralized regional industrial organization chain model and the cross-border logistics channel network mode.

(2) Construction of regional logistics cooperation platform

The international hub of the “Belt and Road Initiative” is used as the public infrastructure. Its integration power is built with the attraction of resources, and the location advantage is maximized to form the mutual and win-win platform for the convergence of enterprises, logistics, harbour district, port and city. Thus the goal of mutual benefit can be achieved.

(3) Construction of multiparty exchange and shared resources platform

The platform mainly serves international logistics and regional production logistics. In the market organization of international logistics field, the following problems are solved by platform design, such as supply, return, tariff, process, information, system and so on.

4.2.2. Platform logistics construction based on e-commerce terminal distribution.

(1) Construction of interests community

E-commerce enterprises and logistics enterprises should build a resource-based and process-based linkage. The two kinds of connections are used to reconstruct the community of interests based on terminal distribution, so as to realize the development of terminal distribution based on platform. As the executor of the final link of e-commerce, the third party logistics enterprises, whose main function is distribution, should improve their service quality and their ability to cope with different changes.

(2) Construction of common distribution center

In the e-commerce terminal distribution activities, trade associations take the lead in setting up the distribution system “big data” platform. It is used to realize the data sharing between B2C e-commerce enterprises and logistics express enterprises, and on this basis to construct the joint distribution center of the linkage between electric commerce and express industry, providing terminal services to customers. Its advantages lie in providing consumers with a good experience of online shopping and distribution, reducing costs for e-commerce and logistics express companies, and reducing the number of motor and non-motor vehicles engaged in “last-kilometer distribution” on the

road for society. Thus it could save energy, protect environmental and avoid repeated waste of resources.

4.3. Constructing “Internet +Highway Port” logistics platform

According to the overall planning of logistics activities and the idea of “big customs clearance, high agglomeration, multi-market, big development”, guided by market development and supported by the information, it should construct a logistics integration of streams, logistics, business, information and service. So the integrated body of “Internet +Highway Port” will be formed based on highway port. And it will cut into the supply chain with information, technology and resource to create a new logistics service model.

4.3.1. Platform construction.

(1) Structure of logistics platform

The “Internet +Highway Port” logistics platform consists of three major support platforms, namely, the international city of the airport, the integrated free trade zone of the airport and the logistics highway port. Integrating and superposing the effectiveness of customs highway transit supervision and international container areas will extend the ports and its functions to highway ports, and create a brand-new international highway port.

(2) Construction of information platform

The “Internet +Highway Port” information platform consists of cloud computing, internet of things and three networks. The information platform is an open platform, oriented to the society, aimed at the logistics industry, and can also serve the government's effective supervision and control. It is a comprehensive, full information and one-stop shop in the logistics field. The intelligent logistics public information demonstration platform gathers online and offline resources. In the course of operation, it can obtain information so as to elucidate the information and make a decision plan, so that commodities can be tracked and handled from the source, and the transmission of information can be faster than the physical. Also, distribution can be realized as a result, making automation, information transmission and networking automated through RFID, sensors and real-time means of communication, etc.

4.3.2. Field line operation

(1) Domestic field line operation

With the platform of “Internet +Highway Port” and the existing transportation network, logistics activities are completed through different transportation modes.

(2) International field line operation

“Internet +Highway Port” logistics platform gives full play to its strategic position in large logistics channels. Its convenience, efficiency and low cost of road, rail and sea transport can attract more international sources of goods to highway ports. With the help of the powerful integration gravity of the integrated body, the highway port will attract different types of customers, raise its diversification level, deepen the development of foreign trade, and take this opportunity to continuously promote the development of the logistics industry, thus the economic development of the whole city circle can be promoted.

(3) Field line service process

In the whole operation process, customers can order for goods through the internet or mobile phone APP, and the information platform can make efficient and reasonable logistics plans by classifying orders within a certain period of time. The intelligent supply chain logistics information platform is used to track and monitor the goods and vehicles in the whole process to ensure that the goods information can be grasped in real time. After the goods arrive at the destination area distribution center, they will be confirmed by acceptance, then the terminal transaction can be completed by using the online payment form such as Alipay.

4.3.3. Service model

The operation mode of the “Internet +Highway Port” logistics platform is a supply chain integrated manager which is based on the management platform, and is the mainstay of the logistics service. However, It is not the benefit side of logistics. It is through its own advantages of information technology, the ability of resource integration to provide a complete supply chain solution to the demand side, from which the platform obtains profits. Its main function is to reduce the cost of enterprises, realize the effective integration of resources, and rely on the third-party logistics providers, technical suppliers, management consulting and other value-added service providers to provide professional and effective supply chain operation for customers.

5. Conclusion

The purpose of this paper is to solve the transformation and upgrading of logistics industry under the “Belt and Road Initiative” strategy, improve the efficiency of operation and promote the rapid development of logistics industry and economy. Aiming at the problem of insufficient effective demand and outstanding structural contradiction in logistics market, this paper focuses on the opportunities and strategies of the logistics industry transformation and upgrading. That is constructing cross-border logistics network channels based on integration of public infrastructure and logistics platform, constructing logistics platform to realize the coordinated development of the region and to improve the terminal distribution, and forming different logistics integrator using the logistics platform of “Internet +Highway Port” to enhance the efficiency of the whole logistics operation.

The integration field theory is applied to guide the transformation and upgrading of logistics industry, to change the logistics development mode by the integrated operation, to guide the logistics field line operation, to cut into the logistics activities for the logistics integrated body with different linkage keys. But further research on how to ensure the stable and efficient operation of the linkage key after it has cut into the logistics activities is still needed to be further studied. Only by ensuring the stability of the link key, can the operation efficiency of the whole logistics system be improved.

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