

Research on Coordinated Development of Intelligent Logistics and Integrated Transportation

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Keywords: Intelligent logistics; Integrated transportation; Coordinated development

Abstract. Based on the analysis and study of the existing literature, this paper makes a qualitative analysis of the development status of intelligent logistics and comprehensive transportation, and then puts forward some countermeasures to promote the coordinated development of intelligent logistics and comprehensive transportation.

Introduction

Intelligent logistics construction in China is still relatively short time to carry out, the concept of development and development structure is not yet mature, and comprehensive transportation conforms to the trend of the times, is in the process of modernization. Logistics and transportation, as the basic industries of China's economy, are hard to avoid the influence from each other in their independent development process. Their coordinated development will have a great impact on the development of China's economy. Therefore, in order to have a scientific and rigorous understanding of the actual construction of intelligent logistics and integrated transportation, this paper analyzes the coordinated development of intelligent logistics and integrated transportation from the qualitative point of view, and puts forward corresponding coordinated development countermeasures.

The Analysis of the Coordinated Development of Intelligent Logistics and Integrated Transportation

Intelligent Logistics began to build in China in 2009, so far has not formed a large scale; Integrated Transportation in China has developed for many years, the basic framework has taken shape, but with the changes of the times, new era factors continue to inject the connotation of integrated transport development, so its development model has not been able to get the final. Perfect. However, it is undeniable that the development status of integrated transportation is superior to intelligent logistics in terms of infrastructure construction and development level. And the emerging industries wisdom logistics to thrive, it must be in line with the pace of other related industries, especially the integrated transport industry, because it is directly linked to the logistics transportation link, its importance is self-evident. New things and old things in the run-in period is always difficult, which is also applicable to the coordinated development of intelligent logistics and integrated transportation process. This chapter will start with the development status of China's intelligent logistics and integrated transportation, combined with the general operation mode of the coordinated development of the two industries, focusing on the analysis of practical factors that restrict the coordinated development of intelligent logistics and integrated transportation.

The Development of Intelligent Logistics in China.

According to statistics, in 2014, China's total social logistics volume is estimated to exceed 21 billion yuan, an increase of 8% in 2013, continuing a small downward trend in recent years; logistics costs exceed 970 billion yuan, an increase of 8% in 2013, and the proportion of GDP remains at about 18%. With the continuous expansion of information network, the tentacle of e-commerce logistics extends to rural and overseas markets, and the scale of logistics market is further expanded. At the same time, various logistics related platforms have been built, which promote the renewal of

traditional logistics model, and the management mode of logistics industry is changing, such as public supervision and service level of road freight vehicles. Taiwan's national network not only promotes the informationization level of the logistics industry, but also promotes the integration of logistics and other industries. Multi-industry linkage is an innovative development model of logistics, the formation of which will enhance the length and value of the logistics chain. Integration, China is a big logistics country, and is developing towards the direction of logistics power.

Development Status of Comprehensive Transportation in China.

In the development environment of economic network in all directions, a single traditional mode of transport has long been replaced by comprehensive transportation. The increasing speed of China's economic development has put forward new requirements for comprehensive transportation. Building a convenient, safe, economical and efficient comprehensive transportation is the current development goal.

At present, the overall development of China's comprehensive transportation is in good condition. As China's economy enters a new normal, from January 2014, China's transportation industry has entered a stage of adjustment. Until the end of November, China's total freight volume reached 39.31 billion tons, and the monthly freight volume has rebounded. However, the volume of individual freight of the five modes of transport in the integrated transport system has shown a downward trend compared with last year. Despite the poor economic situation, 2014 China's comprehensive transportation industry has achieved fruitful results. Firstly, Internet enterprises invest in the vehicle networking market to help the information construction of comprehensive transportation; secondly, 14 provinces and municipalities in China have realized the ETC networking of expressways, breaking the long-standing situation of the separation of comprehensive traffic management in China; thirdly, the establishment of the Ministry of Communications in China has been completed smoothly, and the operation mode of comprehensive transportation will soon be huge. Great changes. Finally, bus city construction is progressing smoothly, and the urban traffic layout is scientifically planned.

Generally speaking, China's comprehensive transportation has been hovering in the primary stage, with only a few links approaching the development level of the intermediate stage. This is the result of the long-term independent development of the five modes of transportation, which is manifested in the low degree of integration of comprehensive transportation, immature mode of transport connection, and difficult management.

Restricting Factors of Coordinated Development of Intelligent Logistics and Integrated Transportation

Differences in Development Goals are Caused by Different Subjects.

In China, intelligent logistics and comprehensive transportation belong to different management departments, which to a certain extent affects the coordinated development of the two. As far as intelligent logistics and comprehensive transportation are concerned, different decision-makers will inevitably lead to different development goals. As an independent system, there are also different economic individuals in the system, and their behavior will lead to the deviation of the system development goals. Taking comprehensive transportation as an example, the central government should consider the operation of other industries from the perspective of decision makers at different levels. Throughout the overall situation, the final development goal set is that the national economy as a whole runs well; the local government is based on the development status of comprehensive transportation in the local decision-making investment, the pursuit of the overall economic interests of the region is maximized, rarely considering whether it will affect or even inhibit the economic development of other regions; The development principle is the lowest cost, the best quality, and the development goal is to maximize the economic benefits of the enterprise. Although the decision-making actions of the three decision-making levels will be constrained each other, the essential decision-making principle will not change.

From another point of view, the separation of the main body will result in the division of management methods, so that their development direction can not be scientifically predicted, directly leading to the coordinated development of the top-level design is difficult to complete. Government

and business will not affect the overall effect. Although China has always encouraged the "enterprise-based, government-assisted" mode of operation for economic development, in the actual operation process, the market-oriented behavior of the industry will be largely guided by national policies. Intelligent logistics in China is mainly market-oriented development, and comprehensive transportation is the state-led construction. In 2014, great changes have taken place in the economic development model of China's integrated transportation. At the beginning of the market-oriented reform of integrated transportation, the construction investment of integrated transportation was first introduced into private investment. The state-led management model will be transformed into the government-to-enterprise co-management. However, the government has long-term development experience and absolute leadership in the construction of comprehensive transportation, and the voice of enterprises is slightly weak.

Restriction of Market Regulation and Cultivation.

"Rule without square circle" is the reason why laws and regulations exist in the economic market. They can legally regulate unreasonable behavior in the market, and then maintain the healthy competition order of the market. Taking the logistics market as an example, first of all, with the promotion of national policies, the number of logistics enterprises is increasing rapidly, and the competition among enterprises is extremely fierce. In order to win more customers, it is common that the prices of each other are depressed, which leads to only the logistics enterprises with abundant funds or the small logistics companies with irregular operations can make profits and become successful. Long term logistics companies have suffered the biggest losses, and the logistics market is running ill. Secondly, although the number of China's logistics parks is gradually increasing, but most of the lack of unified management, development in a spontaneous state, resulting in the logistics park is difficult to play its due role, resulting in the waste of social resources. Finally, due to the pricing of logistics companies in the state of follow-up, resulting in the instability of the logistics competition environment. To sum up, China's logistics market is in a state of disorderly competition, which not only leads to the huge waste of China's economic resources, but also destroys the healthy order of the economic market. Transportation is a national basic industry, and the chaos of traffic order has a greater impact on the country. Unorderly competition in the transport industry is mainly reflected in the transport of goods: unlicensed driving of large trucks raises the road risk factor, illegal operation of transport vehicles destroy the fair competition mechanism of the industry, increased traffic insecurity. For the above market behavior which disturbs the order of fair competition in the market, we need to use compulsory means to control it. This is the main content of the legal construction of logistics and transportation.

In view of the disorderly competition between logistics industry and transportation industry, China has also intensified its legal system construction in recent years. Relevant national standards, laws and guiding opinions have been issued, such as Transportation and Logistics Standard System, Transportation and Information Standard System, Postal Law of the People's Republic of China, and Traffic Law. These laws and regulations effectively maintain the market competition order and improve the market competition environment. However, with the increase of logistics market and comprehensive transportation modernization factors, the means of competition of enterprises are also changing. The maintenance of market competition order requires the expansion of the scope of legal system construction.

Internal and External Operational Constraints of the System.

The prerequisite for the coordinated development of intelligent logistics and integrated transportation is that the internal development of the two systems is in good condition. But the logistics supply chain includes transportation, warehousing, procurement, packaging, distribution and other nodes. The integrated transportation includes five transportation modes: highway transportation, railway, water transportation, shipping and pipeline. The two systems contain many subsystems, which are poorly connected with each other and are independent, making it difficult to achieve good coordination within the system. State. Taking comprehensive transportation as an example, at present, many businesses need more than two modes of transportation to realize the flow of goods. Due to the different management modes and operation requirements of different modes of

transportation, it leads to the waste of resources when the mode of transportation is changed, reduces the overall efficiency of comprehensive transportation, and indirectly affects the development level of intelligent logistics. Therefore, in order to improve the coordinated development of China's intelligent logistics and comprehensive transportation, we should take into account the internal development of the two systems. Only by doing both can we achieve a good coordinated development effect.

The Coordinated Development of Intelligent Logistics and Integrated Transportation

Decision Level: Top Level Design.

At present, China's economic transformation and development is no longer bottom-up exploratory development model, but began to use top-down overall development model, that is, top-level design. In top-level design, decision-makers need to clarify the economic development situation, improve the economic development situation, and formulate economic policies. The content and design principles of top-level design require the role of decision-makers to be taken by the government. This not only applies to the operation of the national economy as a whole, but also applies to the coordinated development process of intelligent logistics and comprehensive transportation. When the government carries out the top-level design of the coordinated development of intelligent logistics and comprehensive transportation, it needs to formulate the development goals reasonably, create a good atmosphere for the development of both, and also need to formulate an evaluation system.

Make reasonable development goals. In qualitative analysis, the different management systems and objectives restrict the coordinated development of intelligent logistics and comprehensive transportation in China. At present, China's intelligent logistics development is in its infancy, infrastructure is still perfect; the pace of comprehensive transport development is being adjusted; under normal circumstances, the expansion rate of industrial scale will be doubled at this time, the development goals of enterprises will be extremely far-reaching. In order to effectively coordinate the development between industries, the government needs to calmly analyze their development prospects, reasonably estimate the development costs and results, evaluate the development intensity, and finally formulate a reasonable development goal to guide the grass-roots level to carry out scientific development, which can not only avoid the waste of social resources, but also avoid production. The late adverse effects caused by the over-expansion of the industry promote the coordinated development of China's intelligent logistics and comprehensive transportation.

Create a good atmosphere for development. After the government determines the development goals, enterprises will evaluate the cost of development according to the policies issued by the state. Only when the rate of return on investment is high enough, enterprises will invest in construction. However, the regulatory and nurturing system of the Chinese market has constrained the coordinated development of intelligent logistics and comprehensive transportation in China, so the government needs to create a good atmosphere to promote the coordinated development of both.

On the one hand, the government has opened a green channel to provide a channel for enterprises to accelerate their development. The development of intelligent logistics needs the joint promotion of many enterprises. As intelligent logistics is a new industry, the development model is not yet clear, and the enterprises need to explore the way forward. That is to say, in the process of developing intelligent logistics, enterprises will experience many twists and turns, such as capital difficulties, test failure, and so on, to combat the enthusiasm of enterprises for development. In order to sustain the development of smart logistics in China, the government needs to open up a green channel for the development of smart products, such as granting subsidies for enterprises to develop smart products, providing a series of positive incentives such as loan priority, to help enterprises to build smart logistics.

On the other hand, the state has formulated a perfect legal system to maintain the order of market competition. The market competition order of logistics and comprehensive transportation market in China is chaotic; under the background of big data, with the information exchange and networking of intelligent logistics and comprehensive transportation, the unfair competition means among

enterprises also become invisible, the effect of moral condemnation gradually weakens, and the state urgently needs to use compulsory legal means to correct the market.

Develop a scientific assessment system. A scientific assessment system should be formulated and the results calculated accurately. The establishment of the evaluation index system directly affects the output of the analysis results. Therefore, first of all, in the process of building the index system, we can not blindly take the economic benefits obtained as a benchmark to measure the industrial development situation. For example, Chaijing's "Under the Dome" in 2015 has aroused renewed public concern about the environment. People realize that rapid economic development may mean sacrifice to the ecological environment and human health. At this time, the amount of economic benefits is no longer the only target for the coordinated development of intelligent logistics and comprehensive transportation. Therefore, the state needs to always pay attention to social hot spots, combined with the focus of national economic development, to build an evaluation index system. Secondly, the index system needs to keep pace with the times and constantly update. Logistics and transportation have a long history in China. The construction of evaluation index system has a fixed pattern. But with the development of the times, the development connotation of logistics and transportation is increasing. The development of intelligent logistics can not be simply measured by logistics evaluation system. The modernization of comprehensive transportation can not only rely on freight transportation. Therefore, the evaluation index system of the coordinated development of intelligent logistics and comprehensive transportation should be replaced or updated in real time according to the actual situation of the country.

Coordination Level: Micro Adjustment

After determining the macro-development direction of intelligent logistics and comprehensive transportation, due to the differences between the actual situation of different provinces and the national development level, the starting point of development is different, it is necessary to adjust the macro-policies at the coordination level to adapt to the local development. The coordination level of this paper refers to the local government and industry associations, which are the bridge between the central government and enterprises, the microphone of the national order, and the conveyor of the needs of enterprises. The main task of the coordination level is to formulate a set of action plans in line with local development in accordance with regional principles and according to the development advantages and disadvantages of different regions. In the process of making the action plan, we should further solve various practical problems such as capital flow.

On the one hand, the reform and development system will reduce the conflict of interests. In the general operation of the coordinated development of intelligent logistics and comprehensive transportation, due to the different ownership of the departmental system, resulting in the emergence of interest disputes, which is the coordinated development of the key regulatory content. Therefore, in order to reduce the root cause of the contradiction, we need to reform the development system. For example, in the reform of highway toll system of China's comprehensive transportation, the "two lines of revenue and expenditure" have achieved the goal of reducing disputes of interest.

On the other hand, the clear responsibilities of various departments are conducive to the overall development of the country. In the institutions of intelligent logistics and comprehensive transportation, too many departments are divided and business duplication occurs, which leads to the ineffective implementation of transformation reform. In view of this problem, the relevant departments of comprehensive transportation have begun to reform the system, the Department of Transportation has replaced the original Ministry of Transportation, and the provinces and municipalities have also carried out department integration in line with the pace of national reform. However, as the reform of the system has just begun, the orientation and development direction of relevant departments and personnel have not been clearly defined, leading to the reform. The result of leather is not significant.

On the one hand, the implementation of national policies depends on the implementation of local governments. In the process of national policy implementation, the role of local government in the local management is not only related to the degree of implementation of the policy, but also

determines the fate of enterprise development. The functions of local governments play an important role.

On the other hand, formulating policies with local characteristics will help to implement the implementation of national policies. Because of the difference between the national and provincial conditions, it is necessary to formulate policies with local characteristics according to the local development characteristics and under the condition that the core content of national development remains unchanged, so as to give full play to the greatest advantages of the local areas and reap the greatest economic benefits.

In recent years, the proportion of China's logistics cost to GDP has not declined significantly, and it has been doubling that of developed countries. Professionals have calculated that if only one percentage point is reduced, China's economic returns will increase by more than 400 billion yuan. Therefore, over the years, China's logistics industry has been committed to reducing this proportion. . We should adjust the cost reasonably and reduce the proportion of cost to GDP. The excessive pressure of logistics cost limits the development of logistics enterprises, so the relevant industry associations and local government departments should conduct in-depth research and improvement in this area. Firstly, the increase of logistics cost is not only caused by logistics links, but also related to the activities of other participants. Therefore, it is necessary to improve the overall level of collaboration of supply chain participants and enhance the overall management level. Secondly, in China's logistics industry, there are often excessive after-sales service phenomenon, not only cause the waste of service resources, but also cause duplicate costs, so we need to improve the service level of the logistics industry standards, and further reduce logistics costs. Furthermore, in the information society, there are numerous Internet trading platforms, which can not only effectively shorten the operation time of the business, but also improve the accuracy of the business, avoid duplicate labor costs. Therefore, through high-tech, reduce intermediate costs. Finally, because of the numerous links and industries involved in logistics, the development emphasis of different industries is also different. When formulating the development countermeasures, we can not generalize all the industries. We need to formulate the logistics cost according to the characteristics of the industry.

Broaden the channels of capital and increase the source of funds. Intelligent logistics and comprehensive transportation in China has been the national guide development, construction funds are mainly from the national treasury, in order to better coordinated development, but also need to continue to invest funds. The state has recently launched the Public-Private-Partnership (PPP) model, aiming at undertaking the construction of the national infrastructure industry through the cooperation between the government and enterprises; the state grants enterprises the franchise and enterprises invest capital, which can not only reduce the pressure on the state treasury, but also expand the scale of the development of enterprises. Market operation is introduced into the state monopoly industry to further effectively allocate social resources.

Executive Level: Comprehensive Coordination

The executive level is the implementer of the national development policy and directly perceiving the effectiveness of the policy. As a member of the national economic development army, each enterprise should fully cooperate with the implementation of national policies and contribute its own strength to economic development. Under the requirements of the development of the times, informatization is the only way for the coordinated development of intelligent logistics and integrated transportation. The "Internet +" proposed in 2015 shows the government's encouraging attitude towards the development of information economy and the importance of information construction. The implementation of this concept means the renewal of system, the change of consciousness and the adjustment of pace.

The implementation of state policies relies mainly on the grass-roots employees of enterprises. In this regard, the top management needs to influence the work attitude of the grass-roots people through the spread of corporate culture. Enterprise employees can be said to be a small screw in the national economic operation. If their development consciousness does not keep up with the national rhythm in time, it will loosen the national development structure, and then affect the national

economic progress. Therefore, it is necessary to formulate a positive corporate culture to support the development of the country. Only in this way can the core content of the national policy be implemented into the work of employees through corporate culture.

The development of intelligent logistics and comprehensive transportation in China is restricted by the different operation capability inside and outside the system and the level of scientific research and information construction. Therefore, it is of great significance for the coordinated development of intelligent logistics and comprehensive transportation in China to research and develop high-tech and improve the level of information construction.

Research and development of new and high technology to promote the modernization of intelligent logistics and integrated transportation. In the era of big data, the Internet of things, big data, cloud computing and other high-tech changes with each passing day, has become a new force to promote the transformation and upgrading of traditional industries. According to the requirement of changing the mode of transportation development, the application of new and high technology can meet the development requirement of the current society, that is, under the concept of sustainable development which coordinates the development of economy and society with the population, resources and environment, the development of green transportation should run through the construction of comprehensive transportation system, and the resources should be fully constructed. A conservation minded and environment-friendly society improves the efficiency of resource utilization and reduces the impact on the environment. Practice has proved that the popularization of information technology in transportation related industries can not only improve the operational efficiency of infrastructure, but also promote the effective docking and resource sharing of various modes of transportation within the integrated transportation system, which points out the transformation of the mode of transportation growth and the promotion of overall social economic benefits. Direction of development. Referring to the development experience of foreign successful enterprises, we can realize the importance of information technology more. Robinson's global logistics model, which is the largest road transport enterprise in the United States, not only solves the integration analysis between the shipper and the third party by means of information technology. This requires information platform cooperation between different systems, which can avoid the repetitive construction of the running section. At the same time, the cooperation of information platform can not only provide guarantee for the scientific decision-making of enterprises, but also break the phenomenon of information isolated island, get rid of the restriction of scientific research and information construction, and set up a chess game idea of the whole country and multi-industry.

Informatization construction promotes the steady development of intelligent logistics and comprehensive transportation. The development of intelligent logistics in China is "Internet + logistics". The development trend of integrated transportation is "Internet + integrated transportation", which means the emergence of new formats. The development history of logistics and comprehensive transportation is longer than that of the Internet. In the running-in development of the two, it is inevitable that the traditional "Big Brother" will lead the development of the industry, which is an incorrect concept of development. In the 2015 government work report, "Internet +" advocated equal status in the industry and equal right to speak, that is, to maintain a cooperative relationship. This is also the state that intelligent logistics and integrated transportation should achieve in coordinated development: mutual consultation and joint cooperation.

We need to realize that in the era of large data, information construction is the foundation of economic development, and the coordinated development of it and intelligent logistics and integrated transportation is the relationship between the car head and carriage, that is, information construction drives the coordinated development of intelligent logistics and integrated transportation.

In the era of big data, the information construction of comprehensive transportation is backward and can not be effectively linked up with other industries. This is a factor restricting the coordinated development of intelligent logistics and comprehensive transportation in China. In view of this phenomenon, enterprises in the development should increase the throttle, while focusing on the development of intelligent logistics, help the country to carry out comprehensive transportation information transformation project.

In the process of the coordinated development of intelligent logistics and integrated transportation in China, talents are most lacking. Because only relying on talents, R & D work can be carried out, and management work can be carried out. Whether it is the introduction mechanism of talents or the concept of talent cultivation, China is lagging behind. Therefore, in terms of personnel training, China can send students to countries with advanced technological concepts abroad for further study, while introducing advanced machinery and equipment to create a professional research and development conditions for the independent training of domestic talent. The most direct way to introduce talents is to improve the treatment of talents and meet the requirements of R & D. Only by doing both can we make up for the shortage of talents in the process of economic development to a great extent.

Acknowledgement

Project of Shandong province university research project in 2018, subject number: J18RB095

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