

Research on the Development of Cold Chain and Less-than-truckload Logistics in Dazhou City against the Backdrop of E-commerce

Qingxiang Wang

Sichuan University of Arts and Sciences, Dazhou Sichuan 635000, China.

Abstract

With the development of e-commerce as well as sound economic, political and industrial environment, cold chain and less-than-truckload (LTL for short) logistics in Dazhou city shows its own features, as it boasts its unique geographical advantages. This paper has worked on the following two points: first, it has analyzed flaws in areas like logistics nodes, routes and price systems of cold chain and LTL logistics in Dazhou city, making a suggestion about better governmental supervision and accelerated industrial integration; second, it has encouraged strategies, as professional third-party cold chain logistics spreads its influence through networking. In this connection, this paper serves as a reference for the development of cold chain and LTL logistics in Dazhou.

Keywords

Logistics; cold chain; e-commerce; less than truckload.

1. Analysis of the Backdrop of the Development of Cold Chain Logistics in Dazhou

1.1. Economic Environment

With improved living standards of people, inhabitants have higher demands for fresh fruit and seafood as well as better functioned integrated wholesale markets. Logistics has become a comprehensive industry that integrated relevant industries such as transportation, warehousing, freight forwarding, and information industry, thereby representing a significant socio-economic player.

1.2. Political Environment

Despite weak economic growth in 2016, cold chain logistics has enjoyed stable progress. On the one hand, local governments and relevant authorities attaches great importance to cold chain logistics, issuing a number of favorable policies for cold chain and giving more financial support to it. On the other hand, those corporations pertaining to cold chain seek innovations and transformations and they just strive to work step by step.

1.3. Industrial Environment

In 2017, we have witnessed greater demands in cold chain markets and a sound, speedy and stable momentum for growth of cold chain logistics. Cold chain logistics has improved its logistics systems and development modes of this industry has diversified, with its larger scale of infrastructure and its better positioned equipment. According to Cold Chain Logistics Committee of China Federation of Logistics and Purchase, in 2018, the total demand for cold chain logistics in China will reach 180 million tons, registering an increase of 33 million tons (that's 22.1%) from that of 2017. It's been calculated that the net profit of this industry is 1.78%. In addition, according to the statistics provided by Huang Funing, a senior manager of National Equities Exchange and Quotations, in 2015, 6883 corporations, listed on the New Third Board, had an average turnover of 164 million yuan, with an average net profit of 12.936 million yuan.

As Cold Chain Logistics Committee of China Federation of Logistics and Purchase expects, the continued improvement in infrastructure and equipment of cold chain further represents the rapid rising of demands in third and fourth-tier cities.

2. Realities in the Growth of Cold Chain in Dazhou City

2.1. Geographical Conditions of Dazhou

Dazhou located in eastern Sichuan province, won its name, as it is a place that leads to everywhere. As a junction, it negotiates Sichuan, Hubei, Shaanxi province and Chongqing municipality, serving as a distribution and commercial center. With its geographical advantages, it is a regional logistics base that of great significance and a regional mega city planned by Sichuan provincial government as well as a secondary logistics node city.

2.2. Key Points in Cold Chain Logistics in Dazhou

Cold chain logistics of agricultural products is an indispensable part of the development of modern logistics industry. At first, priority has been given to developing cold chain distribution systems of meat, especially pork. Active actions have been done in promoting cold chain distribution of aquatic products and of special local fruit, such as kiwis, grapes, oranges, pears, peaches, apples and the like. In late 2015, turnover rate of cold chain logistics of fruits and vegetables, meat commodities and aquatic products has risen to 18%, 30% and over 30% respectively and their refrigerated transport rate has reached around 25%, 50% and 60% respectively. Under the same timeframe, distribution rotting rate of them, have reduced to lower than 20%, 8% and 10% respectively. At the moment, the agricultural and sideline product market of Tatuo has become partners of over 20 agricultural and sideline production bases in China, with an agricultural product base of 8235.2 acres, which spreads its influence across areas that cover neighboring regions 20 times its base. It also shows its presence in regions near Qinling Mountains and Ta-pa Mountains, five provinces and twelve cities, with 55 million people being engaged in the wholesale and distribution of agricultural and sideline products.

2.3. The Development of LTL Logistics in Dazhou

Last five years have seen enormous demand for cold chain and LTL logistics in Dazhou city. In 2016, its market scale has reached 800 million yuan, increasing 30% from the level of 2015, leaving far behind the average extension rate of other cold chain logistics markets. It is said that SF Cold Chain, the leading role in the cold chain and LTL markets, gained turnover of 1.36 billion yuan in 2016, enjoying rapid growth. High demand of cold chain and LTL logistics in Dazhou shows the following features:

First, with companies' own logistics systems at its core, third-party services just plays an auxiliary role. There are trends that increasing third-party services find its place in the market. Whereas those logistics systems set up by corporations has long been made for their internal business. However, with higher quality of their professional services and larger quantities of orders that they have to deal with, a large number of internal logistics branches of different companies hope to be independent corporations, their share of external business improving. For instance, the Yuanmei Cold Chain Logistics is maximizing the tap of its logistics resources as an independent business.

Second, transformations in distribution channels led to attendant changes in customers and services of cold chain companies. Internet plus retail and catering gave rise to diversified industries such as e-commerce of fresh food, retail O2O (Online to Offline), catering takeaway and so on. This is opportunities yet challenges faced by those cold chain corporations. At this point, Dazhou is included in the business scope of Jingdong, enjoying cold chain services of the

online shopping giant the whole time. Meanwhile, quite a number of cold chain and LTL logistics companies also would like to be engaged in the market.

Third, higher industrial competition leads to collaboration among companies to seek common development. "Cooperation" has become a "buzzword" in cold chain industry during 2017. Due to higher competition in traditional logistics industry, those giants of the industry march on the cold chain logistics market. In recent years, S.F. Express, ZTO Express, China Post and China Ocean Shipping (Group) Company have entered the market of cold chain and LTL logistics alike. In this context, China Railway Corporation and local metro authorities have launched many routes of cold chain line. This is coupled with diversified demands of customer, from consumers' simple and regional needs to their comprehensive and nationwide ones.

3. Analysis of Reasons for the Boom of Cold Chain and LTL Logistics in Dazhou

First of all, as a big agricultural city with a large population, Dazhou boasts a great spending power of 7 million people and abundant resources of agricultural products. Endowed with geographical advantages, Dazhou is one of the 179 main transport hubs of road transport and one of the 12 regional secondary hub cities in Sichuan province. As such, convenient transportation enable agricultural products in Dazhou to have nationwide access and quality products from home and abroad to enter markets of Dazhou.

Besides, restaurant chains and convenience stores have made fast nationwide extension, especially in third and fourth-tier cities as well as large and medium-sized cities in remote areas. Last but not the least, with the rapid growth of fresh food e-commerce, the trends of nationwide trade of fresh food is more prominent. Because it is individual consumers that are involved in fresh food e-commerce, their fragmented demands and requirements for home delivery in a timely manner make growing factories and shopping platforms choose cold chain and LTL logistics for fast delivery.

4. Challenges Faced by the Development of Cold Chain and LTL Logistics in Dazhou

Although the growth of demands for cold chain and LTL logistics is rapid, there are still the following challenges lying ahead.

First, there are no standard price systems. Generally, quite a lot of parts are involved in cold chain and LTL logistics, including home goods collection, labelling, carpooling, transport, unloading and the like. Therefore, it is hard to set a definite price standard that suits for all. However, if cold chain and LTL companies want to move forward in both size and strength, they have to make standardized and transparent price systems in an effort to gain their clients' trust.

Second, we have seen locally perfect LTL routes yet isolated areas excluded from those routes. Looking at the present development of the cold chain and LTL market, major routes mainly cover economically developed areas. In Dazhou, for a lack of sound infrastructure of cold chain and a small number of large and medium-sized corporations engaged in cold chain logistics, there is no complete cold chain and LTL networks.

Third, there is a lack of connections between LTL and delivery. Most cold chain and LTL companies can only provide main-line transportation services, thereby lack of the ability to meet clients' integrated needs for cold chain logistics. Branch-line and regional delivery bothers clients to find another supply, which may give rise to troubles like loss and damage of the goods during the handover and even the delay of consignment.

Fourth, there are limited LTL nodes, inadequate handling capacity of collection and distribution of goods and irregular shipment and consignment time. Without stable suppliers, cold chain

and LTL companies often have to decide shipment time based on the time that their trucks full up. The delay of shipment due to hard fill-up of their trucks may cause losses of their clients. Without effective attraction and distribution of logistics among stops, trucks' loading and liquidity rate must be maximized in an attempt to improve companies' turnover of logistics.

Fifth, it is common for the mixed loading of refrigerated, frozen and normal goods to happen. Cold chain and LTL products are far from uniform and they have their own requirements for different temperatures. Seeking to a higher loading rate, some cold chain corporations make a carpooling with various goods, which results in lower quality of products.

5. Analysis on Strategies That Contribute to the Development of Cold Chain and LTL Logistics in Dazhou

First, channel capital and give incentives to establish industrial fund projects. Industrially, with increasing industries that need cold chain logistics services, such as fruits and vegetables, meat and aquatic products and more prominent modular trends in those industries, we have witnessed a much higher needs for cold chain logistics. From the perspective of capital, increasing industrial fund projects need to be built up, external capital must be infused into the cold chain market and cold chain logistics markets, especially third-party cold chain logistics markets, must be actively integrated. If so, we will see a better functioned market, making an easier formation of price systems.

Second, governments supervise the industry and give a spur in industrial integration. Stronger governmental supervision, intense competition and a large amount of capital input will stimulate faster industrial integration. In future, those medium and small-sized companies without core competitiveness and differentiated services will barely survive. Cold chain industrial competition is still regional, that means there is still no national, comprehensive leading corporations in cold chain industry. If companies want to stand out, they need faster integration.

Third, encourage professional third-party cold chain logistics companies to spread their influence through networking. Logistics represents economies of scale. A sound logistics network is the very basis of logistics companies to lower costs, improve efficiency and upgrade. Those companies whose services can only cover a section of logistics or regions find it is increasingly hard to meet their customers' needs, thereby of less value. Shen Zhihua, a member of the committee, held that public service platforms are needed and third-party cold chain logistics must be given a push. He said, "Professional third-party cold chain logistics companies will be the mainstream of the competitors in the cold chain logistics market." The officer advised that policy makers must give greater support in policies, capital, technologies and talents, in an effort to promote the growth of third-party cold chain logistics. Public service platforms of cold chain logistics must be built up, as a way to stimulate the socio-economic development.

Fourth, add professional systems to platform controls. Concentrate those customers who need to deliver goods to supermarkets, restaurants and communities such as distributors, traders, logistics providers and fresh food wholesale markets. Then, provide clients with access to order platform through the Internet. After that, according to optimized, shared routers, process those orders through logistics information technology and distribute them to neighboring qualified cold chain logistics providers, creating greater value of supply chain for consumers.

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