

# Advantages of Self-Logistics and the Third-Party Logistics -Taking Jingdong Electronic Shopping Mall as an Example

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**Abstract.** Previous research on logistics shows that third-party logistics is of great significance to the development of e-commerce. The purpose of this study is to compare third-party logistics and self-run logistics from different perspectives, including delivery speed, capital cost, customer satisfaction, etc. By collecting the data of China post and the published research papers, the advantages of third-party logistics and self logistics can be compared, then able to summarize the development trend of e-commerce logistics, by strengthening the development of self logistics, combining with the third-party logistics to fill the gap, dividing different logistics charging standards, and improving the logistics supply chain to promote its development.

## 1 INTRODUCTION

Since 2010, online shopping has become more and more popular in the world, and e-commerce has developed rapidly. E-commerce logistics is a series of logistics activities based on the demand for e-commerce. Therefore, it is very important to determine which logistics mode can provide more benefits for e-commerce platforms. According to the 2018 China Express development index report released by China Post, China Express development index (CEDI) reached 814.5, up 23.6% year on year; the volume of express delivery reached 50.1 billion, up 26.6% year on year, higher than the total volume of express delivery in the United States, Japan, and Europe.[1] With the rapid development of e-commerce, the significance of logistics strategy is increasingly apparent. In this paper, it uses the logistics model of Jingdong e-commerce platform, one of the leading online business platform—the third-party logistics model and the use of its own logistics model—for comparative analysis. The purpose of this study is to establish the advantages and disadvantages of the third-party logistics and self-logistics from multiple perspectives, and to explore how to improve the third-party logistics and self-logistics in the future development process.

## 2 LITERATURE REVIEW

According to Xueying Tian's research paper entitled *analysis of advantages and disadvantages of Jingdong logistics distribution model and countermeasures* is trying to figure out how self-logistics and third-part logistics are benefiting Jingdong e-mall[2]. Data were collected from different clusters of people including first-tier, second-tier,

third-tier cities, and remote rural areas. Jingdong's self-logistics system and third-party logistics by analyzing the delivery time, customer satisfaction, item's degree of damage, and capital cost. The result turns out that self-logistics can provide faster and better services. However, its capital cost is much higher than that of third-party logistics. Third-party logistics are convenient and easy for a company to cooperate with, but customer satisfaction and the company's reputation are compromised. The other outcome reveals that the third-part logistics best fits rural and not well-developed areas, and self-logistics is made for developed areas like first-tier cities. It concludes that the future path for Jingdong e-mall is to combine self-logistics and third-part logistics, so that Jingdong can develop a wider and more comprehensive logistics system to both satisfy customers and increase the Gross Merchandise Volume.

Likewise, Shuyuan Zheng's study named *a comparative study on the logistics model of e-commerce platform enterprises in China - Taking Taobao, the largest e-commerce platform and Jingdong e-mall as examples* outlines the strengths and weaknesses of two different logistics model, and each logistics model's impact on their own development[3]. This research collected data from the China Post's official reports and 2 different kinds of questionnaires for Taobao users and Jingdong users. Adopting qualitative comparative analysis, it compares a wide array of factors, including delivery time, item's degree of damage, number of customer complaints and capital costs. It shows that Taobao's third-party logistics can help company to lower capital cost, because the gross profile rate of logistics has been reduced from 40% to only 10%. The disadvantages are increasing number of customer complaints, with 35 complaints in 2013 and 2014, and 35 complaints from January to August in 2015, and low efficiency of delivery, according to the data of third-party

logistics that most items were received in 5 to 6 days as shown by statistics data in 2015. Jingdong's self-logistics brings them high efficiency of delivery and better customer satisfaction, from the calculation that Jingdong logistics' average delivery time in cities is around 1 day and other areas is no more than 2 days, the package is also well protected and it receives 20% less customer complaints compared with those of other logistics enterprise. The self-logistics also exerts huge pressure on Jingdong e-mall. Information from Jingdong logistics shows that from 2009 to 2013, Jingdong's capital input was 144 million yuan, 477 million yuan, 1.515 billion yuan, 3.061 billion yuan, 4.109 billion yuan respectively, and Jingdong logistics have to face the problem of extremely heavy losses every year and exert heavy burden on Jingdong e-mall. The assumption made in the article of Shuyuan Zheng is that in the future, most e-commerce platforms are going to combine self-logistics and third-party logistics, improve and complete the logistics model, and try to develop integrated supply chain service.

Therefore, this paper adopts the method of qualitative comparative analysis to compare the advantages of third-party logistics and self-run logistics through the official website of Jingdong and the data published by the Chinese government about e-commerce logistics. Through the development process and brilliant achievements of Jingdong's self-logistics, demonstrates the huge advantages of self-logistics compared with third-party logistics. At the same time, through the reading of the two articles cited above, discover the disadvantages of self-run logistics and the highlights of third-party logistics. Finally, based on the article *Jingdong announced five strategic plans for its business in 2019*[4] and the analysis of the advantages of self-run logistics and third-party logistics, the future development strategy of Jingdong and the future development trend of e-commerce logistics are speculated.

### 3 ANALYSIS

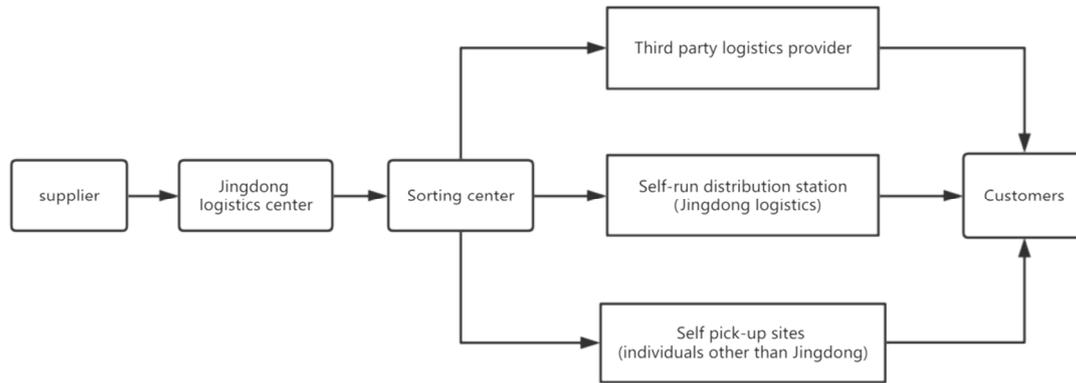
With the rapid development of the Internet, e-commerce has developed rapidly. According to statistics, China's e-commerce transaction market ranked the first in the world in terms of operation scale in 2016, with the transaction volume of e-commerce exceeding 20 trillion yuan, which has become a key link in the total social retail volume.

E-commerce and logistics were completely separated in the past, while with the development of society and new needs, e-commerce and logistics are gradually integrated. E-commerce logistics emerges as the era heralds, providing logistics services for e-commerce activities. The emergence of e-commerce logistics is inevitable. Compared with traditional logistics, e-commerce logistics needs a larger distribution range, a significantly larger number of orders, and substantially more information to process, which is also an indispensable link in e-commerce[5].

### 3.1 Jingdong logistics model's development

In order to improve its competitiveness, Liu Qiangdong, CEO of Jingdong, decided to build its own logistics in 2007, and then the first station of the Panjiayuan station located in the third ring road of east Beijing was officially opened. Jingdong logistics is more of a logistics platform built on the basis of improving consumption experience, providing consumers with faster and more efficient delivery services. The core of Jingdong logistics is to establishing regional warehouse operations in different major cities through self-established logistics system. Then according to the purchase data, the size of the scale, complete inventory, and timely replenishment, and then it achieves point to point distribution from the warehouse to the consumer's home. The integrated warehouse distribution model of Jingdong logistics, through the construction of more and more warehouses, makes goods closer and closer to consumers, resulting in shorter and shorter distances for goods movement, so it generates ever-turning faster speed with constantly-lowering costs. Therefore, the mode of Jingdong logistics at that time was to improve consumer experience through this positive cycle. This is also regarded as the trump card of Jingdong, which will not only reduce its own logistics costs, but also improve the consumer experience and benefited the whole industry[6].

In 2010, Jingdong logistics launched 211 delivery, which simply means that orders placed before 11:00 am will be delivered on the same day. Order by 11:00 p.m. and sent the next day. In the whole logistics industry, this business was considered impossible at that time. Nowadays, Jingdong logistics's 211 time-limited delivery has gradually become the benchmark of e-commerce logistics and distribution service. In 2012, Qinglong system was launched to realize the full chain management of goods from delivery to receipt and logistics distribution; In 2014, the first intelligent logistics center of Jingdong, Asia 1, was officially put into operation in Shanghai. In 2016, Jingdong logistics was fully open to the society through branding operation. In April, the Jingdong announced a merger between Jingdong and Dada (another logistics company) to launch the just-in-time delivery business. In April 2017, Jingdong logistics group was established. After that, the independently operated Jingdong logistics has made great efforts to expand its business and scale. In 2018, Jingdong logistics released the globalization strategy, and cooperated with partners to build the global intelligent supply chain basic network (GSSC), and launched six products including Jingdong supply chain, Jingdong express, Jingdong quick dispatch, Jingdong cold chain, Jingdong cloud warehouse and Jingdong cross-border. At the same time, the personal express service went online. In 2019, more than 23 smart logistics parks will be built in Asia's no.1 smart logistics park, forming the largest smart logistics warehouse group in the field of e-commerce logistics in Asia[7].



**Fig1.** Jingdong logistics distribution mode

### 3.2 Advantages of Jingdong's self-logistics distribution model

Firstly, this model can ensure the timeliness and safety of logistics distribution. In recent years, e-commerce has developed rapidly, whereas, the logistics industry in China started late. In order to follow the pace of the development of e-commerce, many logistics enterprises pay attention to the development speed rather than the distribution quality. Therefore, it is difficult to ensure the timeliness and safety of logistics distribution. However, self-logistics can solve the problem of object flow more efficiently. Self supporting logistics is directly controlled by e-commerce enterprises, which can guarantee the service quality and efficiency of logistics to a large extent and meet the needs of customers. For example, the 211 time limited delivery service implemented by Jingdong since 2010 reflects the efficient and timely advantages of its own logistics[8]. At the same time, if the third-party logistics participate in the logistics distribution of Jingdong, there will be a series of unsafe possibilities, which will also hinder the development of Jingdong to a certain extent. However, the own distribution team of Jingdong will not provide this service like the third-party logistics, which can ensure the safety of goods and maintain a good corporate image at the same time.

Secondly, self-logistics system can help e-commerce enterprises to carry out advertising, and can effectively help enterprises to establish a brand image, such as making uniform clothing and vehicles with a brand logo for couriers. On December 7, 2011, Liu Qiangdong announced the establishment of a large transport fleet composed of trucks to serve the offline logistics of Jingdong. At present, Jingdong Express has its own vehicles around China, with standard and unified trucks shuttling between cities, which becomes a sensation in households and promotes its corporate brand image.

Thirdly, Jingdong's self-supporting logistics can better control the market, reduce the distance between enterprises and consumers, so as to directly and quickly understand the needs of enterprise consumers, provide customers with better services, and make consumers satisfied. Meanwhile, from another point of view, the self-supporting logistics of Jingdong helps to retain old customers and increase repurchase rate. Proper marketing can increase the benefits of enterprises by increasing

consumers' favorable feelings. In terms of return and exchange, its high efficiency can not only ensure the quality but also reduce unnecessary cost waste.

Fourthly, Jingdong's self logistics is created by Jingdong itself and is completely in charge of Jingdong. Unlike third-party logistics, Jingdong can strictly control its own logistics and provide real-time feedback at each link, so as to better reflect the needs of customers and their own shortcomings, so as to make improvements. Such timely feedback is impossible for third-party logistics to provide, leading to the loss of customers due to the inability of some e-commerce platforms to obtain customer demand. Jingdong's own logistics perfectly solves this problem.

### 3.3 Advantages of Jingdong's third-party logistics distribution mode

Firstly, this model can reduce the logistics cost. The cost of the self-logistics system of Jingdong is high. If part of the logistics and distribution services are handed over to a third-party logistics company, the logistics and distribution costs of Jingdong will be greatly reduced. At the same time, in some remote areas, the revenue of Jingdong's self-logistics will be seriously reduced, so the use of local third-party logistics has become the choice of Jingdong to save costs. Third party logistics companies have rich experience in logistics and distribution. They can use the familiar logistics and distribution network to improve transportation efficiency and reduce transportation costs.

Secondly, this model can distribute the risk. To a certain extent, the third-party logistics adopted by Jingdong can reduce the fixed cost and make better use of the saved fixed cost, so as to increase the investment of capital in other aspects. In this way, the logistics cost can be reduced to the maximum extent, so that the enterprise can share the operational risk and adapt to the changes of the external environment.

## 4 FINDINGS

### 4.1 Strengthening the development of self-logistics

The biggest advantage of Jingdong's self logistics lies in

the high-speed and efficient express delivery in developed areas. Jingdong can use its signboard to attract new customers and retain old customers. Now Jingdong has even launched the "same city one-hour delivery" service, which makes more people choose Jingdong for efficiency. At the same time, the self-logistics of Jingdong is being reformed, and the new intelligent logistics center of Jingdong has been put into operation, which uses only robots as labor and big data and cloud computing to control. Now the sorting work no longer needs manpower, and almost no mistakes will occur. Similar innovations are cropping up on Jingdong self-logistics, and Jingdong has put more resources into the innovation of new logistics. It is the rapid development of Jingdong logistics that makes it adapt to and lead the current surging market demand in China.

#### **4.2 Combining with the third-party logistics to fill the gap**

The advantage of third-party logistics lies in its low cost, which can be used to expand the distribution scope with low cost, covering more areas that Jingdong's self-logistics can't reach, so as to attract new customers. At the same time, if any risk is found, it can be shared with the third party logistics. This can ensure Jingdong to expand the distribution scope as much as possible with less fixed cost expenditure. Jingdong can also use third-party logistics as a springboard to develop its own logistics in the local area, better adapt to the local demand and improve the customer's satisfaction.

#### **4.3 Dividing different logistics charging standards**

According to the actual situation, the division of charging standards can meet the needs of different consumers. Fees can be divided into different charging standards according to different regions, or different charging standards according to different times. Jingdong can also use different modes of transportation for products distributed according to customers' needs, and then set stratified charging standards. In this way, different transportation schemes can be formulated to meet the needs of customers. Besides, Jingdong also saves more freight.

#### **4.4 Improving the logistics supply chain**

Strengthening the construction of the whole logistics industry chain is the inevitable choice for the future development of Jingdong. In the future, Jingdong should improve the efficiency of the supply chain and comprehensively improve the logistics supply and service capabilities. For example, at present, Jingdong self-logistics has launched integrated supply chain services such as warehousing, supporting, customers, after-sales, etc. to provide a full range of supply chain solutions for the merchants, brands and vertical platforms of Jingdong platform.

## **5 CONCLUSION**

Based on the comparative study of third-party logistics and self-logistics, this paper takes Jingdong as an example to illustrate the point of view, focusing on the advantages of each type of logistics. Through the comparative analysis between the third-party logistics and self-logistics, it is predicted that Jingdong will promote their development in the future by strengthening the development of self logistics, combining with the third-party logistics to fill the gap, dividing different logistics charging standards, and improving the logistics supply chain to promote its development.

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