

Research on the Development Status and Problems of JD's Integrated Supply Chain Logistics

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Abstract: There are many e-commerce platforms in China, and JD.com is one of the well-known platforms of the 3C (Computers, Communications, and Consumer Electronics) network. It is one of the most popular and influential e-commerce websites in the field of Chinese e-commerce, and its integrated supply chain logistics have become the key to its core competitiveness. This paper aims to analyze the current development status of JD's supply chain logistics and explore the main problems it faces. Through literature review, this paper first provides an overview of JD's logistics system, including the logistics model based on JD.com and the development layout of the integrated supply chain logistics model. Subsequently, through SWOT analysis, the advantages, disadvantages, opportunities, and threats of JD's logistics model were evaluated. Through analysis, this paper points out that JD has problems in terms of supply chain logistics management level, logistics informatization level, and professional talents.

Keywords: JD, Integrated supply chain, Logistics management, Informatization, Talent introduction

1. Introduction

In January 2004, JD.com opened up an experimental field for entrepreneurship in the field of e-commerce, and JD.com Multimedia Network was officially opened, and a new domain name was launched. In June 2007, Jingdong Multimedia Network officially changed its name to Jingdong Mall, standing in the domestic B2C market with a new look. At the beginning of 2008, Jingdong Mall completed the construction of the whole line of 3C products and became a veritable 3C online shopping platform. This paper is based on the research and analysis of the actual situation of JD Mall's supply chain management, mainly studying the following aspects. Firstly, the interview method is used to analyze the current situation of supply chain management of JD Mall, and the development layout ideas of logistics mode based on JD Mall, the logistics model of JD integrated supply chain and the management of JD integrated supply chain logistics mode are analyzed. Then, SWOT is used to analyze the development of JD's integrated supply chain logistics model. This paper has certain practical significance for the improvement of the management efficiency and cost of JD's integrated supply chain logistics.

2. Analysis of the Current Situation of JD's Integrated Supply Chain Logistics

2.1. Overview of JD's Integrated Supply Chain Logistics System

2.1.1. The Logistics Model of Jingdong Mall

JD Mall is China's largest integrated retail website, since it entered the field of e-commerce in 2004, it has developed rapidly, and now JD Mall occupies 49% of China's self-operated B2C market share, and is one of the most popular and influential e-commerce websites in China's e-commerce field. JD.com continues to expand its advantages in China's e-commerce market with the whole supply chain, and has established six logistics centers in North China, East China, South China, Southwest China, Central China and Northeast China, and has established core city distribution stations in more than 360 cities across the country. JD.com online stores sell more than 120,000 kinds of goods in four categories, including household appliances, mobile phone digital, computer products and daily necessities. At present, JD.com has more than 3.5 million registered users and more than 300,000 daily orders. In 2010, JD.com became China's first online retail enterprise with a scale of more than 10 billion yuan, with a growth rate of more than 200% for six consecutive years, and now occupies 35.6% of China's online retail market [1]. The third-party logistics model and the self-built logistics model are two logistics models commonly used by e-commerce enterprises in China, the former is represented by Alibaba, and the latter is JD.com. This paper focuses on the analysis of JD's self-built logistics company, that is, JD's integrated supply chain logistics. JD's integrated supply chain logistics is operated independently by JD from warehousing to sorting, packaging, trunk transportation and terminal distribution. Warehousing and transportation are the two major modules of JD's integrated supply chain logistics, the former is responsible for storage and production, and the latter is responsible for the transportation and distribution of parcels. Through the construction of JD's integrated supply chain logistics, JD has achieved efficient, fast and intelligent logistics services, provided consumers with a high-quality shopping experience, and promoted the rapid development of the e-commerce field.

2.1.2. The Development Layout of the Logistics Model of JD's Integrated Supply Chain

Logistics problems have been restricting the further development of e-commerce enterprises, and under the influence of increasing market competition, JD.com has been greatly restricted and affected. In order to control logistics to a greater extent in their own hands, and form control over the supply chain, self-built logistics plays a decisive role in the rapid development of JD.com, accelerates the circulation of goods, saves logistics costs, improves its own competitiveness, and enables JD.com to have greater decision-making space to deal with competitors. The development idea of JD's integrated supply chain logistics is to improve distribution services, JD has opened self-pickup points in self-operated cities, and adopted self-operated, community cooperation, convenience stores and other forms of cooperation, so that customers can choose distribution methods according to their own needs, which has greatly improved the shopping experience of customers. Now, most of the country has been covered by warehousing radiation and terminal distribution, and in those areas that are not covered by JD's integrated supply chain logistics, JD has cooperated with local express companies to complete the distribution of goods. The accumulation and improvement of these years is enough to reflect that Jingdong has a long-term layout in warehousing and logistics. JD integrated supply chain logistics has six major warehousing and logistics centers in the country, suppliers will transmit goods to these JD warehouses for warehousing, and the system automatically matches the nearest warehouse for delivery after the customer initiates the order, which greatly reduces the customer waiting time and greatly increases customer satisfaction. The combination of self-built logistics

system and self-built logistics system + third-party logistics makes JD's distribution services fast and agile [2].

2.1.3. Management of JD's Integrated Supply Chain Logistics Model

In JD's integrated supply chain logistics model, warehouse management plays an important role in the entire logistics model. As we all know, the core of JD Mall is the warehouse, and a large part of JD's employees are actually employees of the warehousing department of JD's integrated supply chain logistics. Wuxi Yupei's platform warehouse has an average of 60 employees in a warehouse, of which production and shelves account for the largest proportion, accounting for about 70%. Warehouse management is not only the management of the behavior of warehouse employees, but more importantly, the arrangement of personnel work, the design of commodity locations, and the overall layout of warehouse shelves. The development in recent years has made warehousing informatization, intelligence and standardization more and more mature [3].

2.2. Development and SWOT Analysis of JD's Integrated Supply Chain Logistics Model

2.2.1. Development of JD's Integrated Supply Chain Logistics Model

Scattered traditional manufacturers gradually transformed into large-scale extensive manufacturing, and began to apply e-commerce sales, on behalf of the platform is Taobao, followed by serious homogenization, frequent price wars between merchants, and increased marketing costs, so they have outsourced logistics business to save costs, resulting in poor buyers' shopping experience, loss of confidence in online shopping. The e-commerce industry should slow down its development and shift to a refined operation that focuses on the customer experience. As a result, JD's self-built logistics came into being, and the combination of JD's integrated supply chain logistics and third-party logistics model gives customers a better consumer experience and higher customer satisfaction than Taobao's operation model. In addition, Jingdong Express provides a variety of distinctive distribution services, such as 211 time-limited delivery, Jingzunda, Jingzunda, university agents, etc., which are more in line with the needs of customers and greatly reduce the number of delivery failures [4].

2.2.2. SWOT Analysis of the Current Situation of JD's Model

The SWOT analysis was proposed by Kenneth Andrews in the 60s of the 20th century. SWOT is an abbreviation for Strengths, Weaknesses, Opportunities, and Threats. Through a SWOT analysis, JD.com can better understand its competitive position and identify potential risks and opportunities.

There are four advantages of JD.com, the first point is to reduce expenses, and JD.com's internal personnel do logistics to make customers more assured. The second point is the increased control of logistics. The third point is to be able to maintain strong competitiveness for a long time. The fourth point is that self-operated logistics that closely combines logistics, information flow, commodity flow and capital flow can improve work efficiency and reduce the consumption of capital and time.

There are three disadvantages of JD.com, the first is that the investment burden of enterprises has greatly increased, and the anti-risk ability of enterprises has weakened. The second point is that too much money is invested, and the early system management cannot keep up. The third point is that there are too many SKUs stored, which is not easy to manage.

There are three opportunities for JD.com, the first is that the network coverage is getting wider and wider, and the number of netizens is growing rapidly. The second point is the gradual improvement of the delivery service. The third point is that self-operated logistics is increasingly attracting new investors, and the addition of new funds will accelerate the development of JD's integrated supply chain logistics [5].

There are two threats for JD.com, the first is the high competitive pressure caused by competitors and other logistics companies. The second point is that self-built logistics will become the choice of many e-commerce companies in the future.

3. The Problems of Jingdong Integrated Supply Chain Logistics

3.1. Backward Supply Chain Logistics Management Level

The warehouse management level of Jingdong Wuxi Yupei Logistics Park is relatively backward, and the main problem in Jingdong warehouse management is to rely on experience for management. Due to the imperfection of the system, there is no planning in advance, and the warehouse management is in an inefficient state. However, the management methods of the management are not sound and there is no corresponding incentive system, resulting in employees not having the desire to improve work efficiency and low work enthusiasm. Employees often come in batches and go in batches, and it is difficult to retain people, so on-the-job employees are often new employees with only three or four months of work experience, and they cannot deal with abnormal situations at work well [6]. In addition, the sudden departure of employees will lead to insufficient manpower to deliver goods at a normal speed, which will affect the efficiency of logistics. If this happens, they will provide temporary support from other positions, and the efficiency of the original position will be reduced. The lack of efficiency has to be compensated for with more time, and employees can't leave work at normal times. Frequent overtime will breed dissatisfaction in the hearts of employees, and the lack of protection of employees' health will lead to the resignation of a group of people, so the vicious recycling storage system will be paralyzed. Once this happens, customer satisfaction will decline, which is fatal for JD.com [7].

3.2. Low Degree of Logistics Informatization

The low degree of warehousing informatization in Jingdong Yupei Logistics Park is first manifested in the lack of a reasonable business process, it easily leads to a time difference between system entry and business process. In addition, due to the large workload of employees, the work efficiency is not high, and the corresponding position data has to be created repeatedly, and there are too many tasks to be completed, and the time is used on repetitive and simple labor, which affects the research work of the branch. Due to manual input, there is a high probability that there will be wrong data, which will affect the subsequent series of work. Taking receiving goods as an example, the collection steps for new products are simple but cumbersome. Moreover, because the WMS system is not completely perfected, if the manual input is incorrect, such as the second longest side is greater than the longest side, it can still be entered into the system, resulting in disagreements with the supplier when checking the amount [8].

At present, JD.com's management is generally experienced middle-aged managers, who are still mainly manual warehousing operations, although they are trying to adapt to the new management model, but the effect is not very good. At present, the technical department often updates the system. The new system will be implemented soon, but the way of thinking of the management personnel is still at the old level. The error rate is higher when using the new system, so that it is not much faster than the manual, and some staff are not skilled in the use of computers, and the efficiency of warehousing informatization is low and difficult to play a role [9].

3.3. Lack of Supply Chain Logistics Management Talents

The effective supply of logistics talents restricts the development of China's logistics industry. On the one hand, the quality requirements are high, and the talent reserve is insufficient but the demand is

tight; On the other hand, the number of training is small, the training mechanism is too backward, and it is difficult to effectively supply talents.

Modern warehousing operations require checking and issuing a large number of documents, passing a huge amount of inventory, mastering the use of computers, and analyzing the needs of goods, all of which require professional personnel. However, due to the fact that JD's employee assessment has not been strengthened, the professional level of employees is not high, and many jobs can only be done by a small number of people with professional knowledge, resulting in low work efficiency, which limits JD's warehousing concept modernization level.

4. Conclusion

This paper is based on the actual situation of JD Mall's supply chain management, and the main research results are reflected in the following aspects. Firstly, the interview method was used to analyze the current situation of supply chain management of JD Mall, and then SWOT was used to analyze the development of JD's integrated supply chain logistics model. Finally, it was found that the main supply chain problems include: suppliers not cooperating with JD Mall; In the logistics distribution system, the cost of self-built logistics is high, the management is difficult, and JD Mall lacks effective management of third-party logistics. This paper has not been deeply discussed in terms of the countermeasures to the supply chain management problems of JD Mall. Future research can also focus on the solutions to the warehousing problems of Jingdong Mall and the solutions to the problems of the logistics and distribution system.

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