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Department of Management and Administration

**MASTER’S THESIS**

**Title: “Improvement of the management of logistics costs of the company  
«JD.COM»”**

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**TASK  
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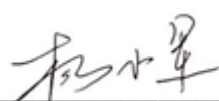
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3 . Development of recommendations for improving management system of JD.COM and solutions to the problem of express cost management.

#### 4. Work plan

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1	Approval of the thesis content
2	Preparation of the thesis' first section
3	Completion of the first section according to the supervisor recommendations. Writing the thesis' second section
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5	Completing of the third section according to the supervisor recommendations. Preparation of a report for a scientific conference with a presentation of the main results of the thesis
6	Writing of the introduction, conclusions of the thesis. Making references list
7	Submission of the thesis to the Department of Management and Administration

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## INTRODUCTION

**Relevance of the topic.** Logistics costs often represent a substantial portion of a company's operating expenses, particularly for businesses operating in sectors such as e-commerce, retail, manufacturing, and distribution. By improving the management of logistics costs, companies can achieve cost savings, enhance profitability, and maintain competitiveness in the market.

In today's dynamic and competitive business environment, efficient logistics operations can provide a significant competitive advantage. Companies that can effectively manage and optimize their logistics costs are better positioned to offer competitive pricing, improve customer service levels, and respond quickly to market demands.

Logistics cost management is integral to optimizing the efficiency and performance of the entire supply chain. By streamlining logistics operations, reducing lead times, and minimizing transportation and warehousing costs, companies can enhance supply chain responsiveness, reduce stockouts, and improve overall operational agility.

Efficient logistics operations play a crucial role in ensuring timely delivery, accurate order fulfillment, and superior customer service. By improving the management of logistics costs, companies can enhance the overall customer experience, build brand loyalty, and differentiate themselves from competitors.

Effective management of logistics costs directly impacts a company's bottom line and financial performance. By reducing unnecessary expenses, optimizing resource utilization, and maximizing operational efficiency, companies can improve profitability, increase shareholder value, and achieve sustainable growth over the long term.

Inefficient logistics operations can expose companies to various risks, including inventory obsolescence, stockouts, transportation delays, and cost overruns. By implementing robust logistics cost management practices, companies

can mitigate these risks, improve supply chain resilience, and enhance business continuity.

Logistics cost management is closely linked to sustainability initiatives, as it involves reducing energy consumption, minimizing carbon emissions, and optimizing resource utilization. By adopting environmentally friendly logistics practices, companies can achieve cost savings, meet regulatory requirements, and demonstrate corporate social responsibility.

Insights gained from research on the improvement of logistics cost management can inform strategic decision-making processes within the organization. By understanding cost drivers, identifying inefficiencies, and evaluating the impact of strategic initiatives on logistics costs, companies can make informed decisions that align with their overall business objectives.

Thus, the research on the improvement of the management of logistics costs of a company is highly relevant and essential for achieving cost optimization, maintaining competitive advantage, enhancing supply chain efficiency, improving customer satisfaction, driving profitability, mitigating risks, promoting sustainability, and informing strategic decision-making. By focusing on improving logistics cost management, companies can unlock significant value and position themselves for long-term success in the marketplace.

JD Logistics System is a core business of JD Group, which is committed to providing one-stop supply chain solutions and logistics services for global users. It is a highly integrated and intelligent logistics management system, covering multiple links such as warehousing management, transportation management, distribution management, and order management.

This paper mainly focuses on the logistics cost management issues of JD.com. By analyzing the current situation of logistics cost management in the company, a series of targeted improvement measures are proposed.

By optimizing the logistics transportation network, improving warehousing efficiency, and strengthening supply chain collaborative management, feasible

suggestions have been provided for JD to reduce logistics costs and improve operational efficiency. This paper also explores the application of information technology in logistics cost management and proposes corresponding improvement plans, aiming to provide reference for JD to build a more efficient logistics management system.

This paper conducts research and analysis on the problems in logistics cost management of JD.com, and proposes optimization management strategies with the goal of reducing logistics costs and improving the company's operational efficiency. Through in-depth analysis of the constituent elements and influencing factors of logistics costs in JD.com, this paper explores the shortcomings of the current management model and proposes improvement plans and implementation suggestions. Summarized the importance of optimizing management strategies and proposed feasible suggestions for JD's logistics cost management.

The **goal of the research** is to provide a theoretical basis for improving the JD management system, and formulate methodical methods and practical suggestions.

To achieve this goal, the following **research objectives** were solved:

- to describe of the costs of a logistics system of the enterprise;
- to define the main directions of the costs of a logistics business;
- to characterize the main factors affecting logistics costs;
- to analyze cost composition of a logistics system of the enterprise «JD»;
- to develop practical recommendations for the improving the quality of costs logistic system of the company «JD».

**The object of the research** is socio- and technical-economic processes of the management system of JD.

**The subject of the research** is theoretical, methodological and organizational aspects of the management system of JD.

**Research Methods.** Theoretical and methodical base of this research is the position of a modern economic theory, a scientific experience of national and foreign scientists and specialists in a sphere of JD.

To achieve the goal of this research and resolutions of set tasks, a complex of such methods was used: theoretical generalization to disclose the content and nature of main concepts and categories definition; deduction, induction, analysis, synthesis, and abstraction - to determine the economic essence and content of conceptual apparatus; tabular-graphical method - to compare and for visual representation of empirical data, justification of number of tasks to increase the efficiency of JD management system; economic and statistical methods, such as: surveys, comparison, methods of synthesis, analogy, etc. - for processing of the statistical data and for analysis of the indicators characterizing the studied processes.

**The information base of the research** are written articles, newspaper articles, historical records, statistical data from organizations, articles from encyclopedia, secondary data, data collected from oral life stories and experiences of real people, online conducted surveys, various analysis from figures and tables and pages of Books.

**The practical meaning of the results** obtained is that the practical recommendations for the improvement of the management system of JD can be applied in the practical activities of JD enterprises.

**The structure of the thesis** corresponds to the tasks and consist of introduction, three sections, conclusions, references. The total number of pages in qualification work is 72. The work contains 2 tables, 1 figures. The references contain 50 titles.

## **SECTION 1**

### **THEORETICAL APPROACHES TO LOGISTICS COST MANAGEMENT**

#### **1.1. Understanding the concept and definition of Logistics Cost Management**

Logistics Cost Management (LCM) stands as a pivotal aspect within the broader domain of supply chain management (SCM), focusing specifically on the identification, assessment, control, and optimization of costs associated with the movement and storage of goods and materials throughout the supply chain.

At its core, Logistics Cost Management encompasses the strategic and tactical activities undertaken by organizations to minimize expenses incurred in the logistics function while maximizing the value delivered to customers. It involves a comprehensive evaluation of all cost components associated with the procurement, transportation, warehousing, and distribution of products, with the overarching goal of achieving operational efficiency and competitiveness.

##### **Key Components of Logistics Cost Management.**

Logistics Cost Management comprises various components, each contributing to the overall cost structure of the supply chain:

1. **Procurement Costs:** These entail expenses associated with sourcing raw materials and finished goods from suppliers, including purchase price, negotiation costs, and supplier relationship management expenses.
2. **Transportation Costs:** Transportation expenses encompass the costs incurred in moving goods from suppliers to warehouses, between facilities, and ultimately to end customers. This includes freight charges, fuel costs, transportation equipment maintenance, and carrier selection expenses.

3. **Inventory Costs:** Inventory carrying costs, including warehousing expenses, holding costs, and inventory carrying charges, form a significant component of logistics costs. Efficient inventory management practices are essential to mitigate these expenses while ensuring adequate stock availability to meet customer demand.

4. **Warehousing Costs:** Warehousing costs encompass the expenses associated with storing and managing inventory within facilities, including facility lease or ownership costs, labor expenses, utilities, and equipment maintenance.

5. **Order Processing Costs:** These include expenses related to order fulfillment processes, such as order picking, packing, and shipping, as well as administrative costs associated with order management systems and personnel.

#### Objectives of Logistics Cost Management.

The primary objectives of Logistics Cost Management revolve around achieving cost efficiencies, enhancing service levels, and maximizing profitability within the supply chain. By systematically analyzing cost drivers, implementing cost-saving initiatives, and leveraging technology and process optimization techniques, organizations can streamline their logistics operations and gain a competitive edge in the marketplace.

In summary, Logistics Cost Management encompasses a multifaceted approach to managing expenses associated with the movement and storage of goods within the supply chain. By understanding the various cost components and implementing effective cost management strategies, organizations can optimize their logistics processes, improve operational performance, and drive sustainable business growth.

The logistics industry is one of the industries with the best development momentum in China, which plays an important role in the development of the national economy, especially the development of the real economy, and the promotion of exchanges between social groups. According to the data, as of 2016,

there are nearly 7,000 enterprises in China that have obtained logistics business licenses, nearly 65,000 logistics business outlets, and more than 700,000 logistics personnel.

Major private logistics companies in china include: SF EXPRESS, BEST EXPRESS, ZTO EXPRESS, STO EXPRESS, YT EXPRESS, YUNDA EXPRESS, etc.

According to the survey, the proportion of logistics costs in China's GDP is about 25%, while in most developed countries, such as the United Kingdom, the United States, Japan and South Korea, the proportion is only 15% and below. Generally speaking, for enterprises, in addition to the cost of raw materials, the cost of logistics enterprises is the largest part, accounting for about 35%-45% of the total cost [1]. Therefore, there is still a lot of room for savings in logistics management. In such a situation, how to strengthen cost management and reduce enterprise costs is a major problem that logistics companies have to face.

Although China's logistics industry started late, China's logistics demand is huge, coupled with the country's "Logistics Industry Adjustment and Revitalization Plan", and with the continuous development of Taobao, JD and other e-commerce platforms, the logistics industry has become more powerful, and has also entered a period of rapid development.

How to help logistics companies stand out through effective cost management is the top priority in the process of enterprise management. As a case study, we will discuss the cost control of JD Logistics and propose corresponding improvement measures for its specific problems. The issues and measures discussed in this article have certain reference significance for the future development of the logistics industry.

Logistics cost: This concept is a macro concept that refers to the overall cost of the logistics industry.

Assistant has stopped speaking, and hands back control to the human.

Investment in technology and automation plays a crucial role in improving the

efficiency and transparency of the entire logistics system. By leveraging information technology for real-time information exchange and management, companies can streamline their operations and reduce the risk of errors and delays caused by human factors. Automation equipment not only reduces labor costs but also enhances operational accuracy and efficiency.

Additionally, automation can help companies better adapt to changes in consumer preferences and market trends, enabling them to stay ahead of the competition (table 1.1).

Table 1.1 – Key Cost Drivers in Logistics Management

Key Cost Drivers	Description
Transportation Costs	Expenses related to the movement of goods from one location to another, including fuel costs, vehicle maintenance, and driver wages.
Inventory Carrying Costs	Expenses associated with holding and storing inventory, such as warehousing costs, insurance, and obsolescence.
Labor Costs	Wages, benefits, and training expenses for employees involved in logistics operations.
Technology and IT Costs	Expenses related to software, hardware, and IT infrastructure needed to support logistics operations.

In addition to investing in technology and automation, it is essential for companies to continuously update and upgrade their technology and equipment to stay competitive in the rapidly-changing market. Collaborating with suppliers to invest in shared logistics facilities and technology can further reduce costs and

improve resource utilization. By implementing these measures, companies can effectively manage logistics costs, optimize operations, and maintain a leading position in the industry.

Furthermore, investing in technology and automation can also enhance customer satisfaction by improving the speed and accuracy of order processing and delivery. With the ability to track shipments in real-time and provide customers with timely updates, companies can enhance their reputation and build customer loyalty.

Overall, investment in technology and automation is not only a cost-effective measure but also a strategic decision that can drive growth and success for companies in the logistics industry.

By embracing innovation and leveraging the latest technologies, companies can transform their operations, improve efficiency, and deliver superior value to customers.

**The cost of logistics enterprises:** This concept is a micro concept, which refers to the cost of providing services to specific logistics companies.

**Multi-dimensional profitability analysis:** This concept is to analyze and consider the profitability of logistics enterprises according to the dimensions of customer base, flow direction, flow and business type.

**Internet of Things (IoT) system:** This concept refers to a system that enables the exchange of information between items over the Internet.

**Activity costing:** An accounting method that classifies all economic activities and allocates costs according to the cost of the operation by tracking the operating units [1-5].

## 1.2 Cost characteristics of logistics enterprises

Understanding the cost characteristics specific to logistics enterprises is essential for effective management of logistics costs. These characteristics encompass various factors that influence the cost structure and dynamics within the logistics function.

### 1. Cost Variability

Logistics costs exhibit inherent variability influenced by factors such as demand fluctuations, seasonality, and market dynamics. Variability in transportation costs, for instance, may arise due to changes in fuel prices, route availability, and capacity constraints. Similarly, inventory carrying costs may fluctuate based on inventory levels, storage requirements, and obsolescence risks. Recognizing and managing this variability is critical for logistics enterprises to adapt to changing market conditions and optimize cost performance.

### 2. Economies of Scale

Economies of scale play a significant role in shaping logistics cost structures, particularly in transportation and warehousing operations. Larger shipment sizes and higher order volumes often lead to lower unit costs per item transported or stored. By consolidating shipments, optimizing transportation routes, and maximizing warehouse utilization, logistics enterprises can leverage economies of scale to reduce per-unit costs and enhance cost efficiency.

### 3. Cost Drivers

Various factors act as primary drivers of logistics costs, exerting significant influence on overall cost performance. These include fuel prices, labor wages, infrastructure investments, regulatory requirements, and technological advancements. Understanding the impact of these cost drivers and implementing strategies to mitigate their effects is essential for managing logistics costs effectively. For instance, investments in fuel-efficient vehicles, automation

technologies, and supply chain visibility solutions can help minimize transportation costs and enhance operational efficiency.

#### 4. Cost Allocation

Accurately allocating costs across different functions and activities within the logistics process is crucial for assessing cost performance and making informed decisions. Cost allocation methods may vary depending on the nature of the cost (e.g., direct vs. indirect costs), the level of granularity required, and organizational preferences. Common cost allocation approaches include activity-based costing (ABC), which assigns costs based on the activities that drive them, and cost-to-serve analysis, which allocates costs according to customer or product profitability.

#### 5. Cost Containment Strategies

Logistics enterprises employ various cost containment strategies to manage and control expenses while maintaining service levels. These strategies encompass a range of initiatives, including process optimization, supplier negotiations, inventory management, and route optimization. By continuously evaluating cost containment opportunities and implementing targeted initiatives, logistics enterprises can minimize costs without compromising service quality or customer satisfaction.

The cost characteristics of logistics enterprises are multifaceted, influenced by factors such as variability, economies of scale, cost drivers, cost allocation methods, and cost containment strategies. By understanding these characteristics and their implications, logistics managers can develop effective cost management strategies to optimize cost performance, improve operational efficiency, and drive sustainable growth.

#### Cost composition of logistics enterprises

The cost structure of logistics enterprises is basically divided into three types: information processing, transportation and distribution, and warehousing and inventory

The cost of information processing is the cost incurred by logistics enterprises to carry out rapid service work after receiving the information provided

by customers. The most critical service of logistics enterprises is the collection and sorting of information, which is the most complex and largest in the whole process, and the relevant information changes quickly and the timeliness is also very strong, so information processing is particularly important.

Expenses incurred in transporting goods, as well as expenses for loss and damage, are the main costs of transportation and distribution. Shipping costs account for the largest proportion of the total cost of courier services [4]. Depending on the goods themselves, time constraints and the different needs of customers, there are various modes of transportation, and each method has its own advantages and disadvantages, such as air transportation, which is fast and safe, but also the most costly. If the goods are lost or damaged during transportation, the enterprise may lose potential customers and affect the long-term development of the enterprise. Generally speaking, this process is to sort the goods in a certain area together, and then plan the most reasonable route to deliver the goods to each customer. In the process of stocking, tallying, and delivery, if there is a situation such as price, resource allocation, and inventory delivery, it is easy to cause greater cost pressure on enterprises

Warehousing and inventory costs are the warehouse management fees incurred during the delivery period and the storage costs of inventory items [6]. Although the services of general logistics enterprises pay great attention to speed and timeliness, resulting in a small proportion of this part of the cost, in order to achieve reasonable and scientific distribution, the goods are classified and reorganized and sent out, this process is indispensable, therefore, warehousing and inventory costs are still an integral part of the logistics cost.

#### Cost classification of logistics enterprises

Due to the different scales, the cost classification of logistics companies is also different. It can be roughly divided according to the operation link, accounting, cost and business volume.

According to the operation link: information processing cost, packaging cost,

sending and sending cost, transit cost, water, land and air transportation cost, customs cost, claims cost, etc. This classification method is formed according to the activity costing method, which requires the identification of the operation link and the establishment of the operation center. Moreover, according to the operation link, it is more conducive to logistics enterprises to have an in-depth understanding and control of their business activities and costs.

According to the accounting, it is divided into: main business costs, financial, administrative and sales expenses, etc. [7].

This classification method is a product of the traditional accounting method and is also required by the accounting standards for business enterprises, which is a classification method that considers the cost of an enterprise from a financial point of view.

According to the quantitative relationship with the volume of business, it is divided into fixed, variable and mixed costs, etc. [8]. This is a classification according to the relationship between cost and quantity, which can reflect the relationship between business volume and cost from another perspective, so as to control costs and maximize benefits.

The cost of logistics enterprises is implied.

The cost we are discussing generally appears "backlash" phenomenon and "iceberg" phenomenon, that is, the whole body is affected, and the change of a certain cost will have an impact on other costs or other elements, and a large part of the logistics cost can not be refined into the corresponding expense account, often there is me, I have you, not only that, only a small part of the cost can be accounted for, but it is a pity that people often only take this small part of the cost as all the logistics costs.

The quantity, time, service, and cost elements of logistics can be achieved more, faster, better, and lower than what we are looking forward to. Obviously, it is difficult to meet all the requirements. Therefore, the cost of logistics enterprises is often implicit, and it is difficult to reflect their corresponding

objective logistics activities.

Outsourcing costs, personnel salaries, and transportation costs account for a significant proportion

Table 1.2 can clearly show that in JD 's operating costs, outsourcing costs account for the largest proportion, followed by employee compensation and transportation costs; compared with 2015, in 2016, the absolute value of employee compensation has increased, but the proportion has decreased significantly; the absolute value of outsourcing costs has doubled, and the proportion has increased sharply; transportation costs have remained basically unchanged; information costs have a tendency to expand and become an important component; total operating costs have increased.

Table 1.2 – Composition of JD Logistics' Operating Costs (Unit: 10,000 yuan)

Project	Amount (2016)	Share of operating costs (2016)	Amount (2015)	Share of Operating Costs (2015)	Year-on-year increase or decrease
Employee compensation	944313	20.44%	1517820	40.34%	-37.78%
Outsourcing costs	2085664	45.18%	8112145	21.55%	157.10%
Shipping costs	739693	16.02%	724733	19.25%	2.06%
Information technology fees	26138	0.57%	18478	0.49%	41.46%
Total cost of doing business	4616517	100%	3764898	100%	

### 1.3 Factors affecting logistics costs

Understanding the multitude of factors that influence logistics costs is fundamental for developing effective cost management strategies within enterprises. These factors encompass a wide range of internal and external variables that impact the cost structure and dynamics of logistics operations.

#### 1. Transportation Costs

Transportation costs constitute a significant portion of logistics expenses and are influenced by various factors:

- **Distance and Mode of Transport:** The distance traveled and the mode of transportation chosen (e.g., road, rail, air, sea) directly impact transportation costs. Longer distances and specialized transport modes generally incur higher expenses.
- **Fuel Prices:** Fluctuations in fuel prices significantly affect transportation costs, particularly for road and air transport. Volatility in fuel prices can lead to variations in operational expenses and necessitates proactive fuel cost management strategies.
- **Regulatory Compliance:** Compliance with transportation regulations, including vehicle emissions standards, weight limits, and driver hours-of-service regulations, can impact operational costs through associated administrative expenses and compliance-related fines.

#### 2. Inventory Costs

Inventory management practices and inventory-related factors influence logistics costs in several ways:

- **Inventory Holding Costs:** Costs associated with holding inventory, such as warehousing expenses, insurance, and inventory carrying costs, directly impact logistics expenses. Efficient inventory management practices are crucial for minimizing these costs while ensuring adequate stock availability.

- **Stockouts and Overstocking:** Stockouts result in lost sales and potential customer dissatisfaction, while overstocking ties up capital and incurs additional storage costs. Balancing inventory levels to meet demand while minimizing stockout and overstock risks is essential for optimizing logistics costs.

### 3. Warehousing Costs

Factors influencing warehousing costs include:

- **Facility Location:** The location of warehousing facilities relative to suppliers, customers, and transportation networks affects transportation costs, lead times, and overall logistics expenses.

- **Storage Capacity and Utilization:** Efficient utilization of warehouse space and optimization of storage layouts impact warehousing costs. Maximizing storage density and minimizing unused space contribute to cost savings.

### 4. Labor Costs

Labor-related factors influencing logistics costs include:

- **Wages and Benefits:** Labor wages and benefits constitute a significant portion of logistics expenses, particularly in labor-intensive operations such as order picking, packing, and inventory management.

- **Labor Productivity:** Employee productivity levels, training programs, and workforce management practices influence labor costs. Improving labor productivity through training, performance incentives, and process optimization can lead to cost savings.

### 5. External Factors

External factors, including economic conditions, market trends, regulatory changes, and geopolitical events, can also impact logistics costs. Fluctuations in exchange rates, trade tariffs, and geopolitical tensions, for example, may disrupt supply chains and lead to increased logistics expenses.

Factors affecting logistics costs are multifaceted and encompass various internal and external variables, including transportation costs, inventory costs,

warehousing costs, labor costs, and external factors. By understanding and effectively managing these factors, logistics enterprises can optimize cost performance, enhance operational efficiency, and maintain competitiveness in the marketplace.

The factors that affect the cost of logistics enterprises include competitiveness, product, environment, management and other factors <sup>[9]</sup>.

#### Competitive factors

There is competition between enterprises, as the saying goes, "shop around". In addition to price, features, quality, customer satisfaction is also an important indicator. The important factors that affect customer satisfaction are the following:

1. Availability. Customers attach great importance to the scope of logistics services and all-weather service capabilities, but they are not particularly concerned about the number and quality of transportation vehicles, so they should strive to expand their service coverage and multi-time service availability, so that their logistics services can be easily obtained.

2. Reliability. Customers value timely delivery and fast delivery, whether the goods are damaged or reduced. Delivery of goods within the specified time, without loss or damage to the goods, is a manifestation of the reliability of its services. Logistics companies need to enhance reliability, improve satisfaction, and form service advantages.

3. Responsiveness. Customers also value the response to situations such as the rapid processing of orders, the timely notification of emergencies during express delivery, and the handling of complaints and suggestions, but the responsiveness of the logistics service so far is not perfect, so it is necessary to pay attention to improvement.

4. Professionalism. Relevant route planning, price level and other professional issues, enthusiasm and responsibility during reception, and whether customers can get active communication and understanding from the staff are some of the criteria that reflect the professionalism of the service. Therefore, logistics

companies require front-line staff to have professional business capabilities, communication habits with customers, and friendly performance when providing services.

5. Integrity. Door-to-door service and personalized service are the innovative growth points of logistics services. Inventory storage for customers, provision of goods packaging, consulting services for customers, extension services after delivery, and help customers settle payments, etc., are all requirements for a comprehensive and complete logistics service.

#### Product Factors

1. The value of the goods. Generally speaking, the higher the value of the goods, the faster and safer the logistics transportation method is required, and the corresponding transportation equipment is more expensive. For example, the high value of luxury goods determines the high cost of goods, which makes the cost of transportation, loading and unloading correspondingly higher. The price of the product will seriously affect the cost of the logistics industry, and the level of freight can reflect the risk of the product.

2. Quantity of goods. The number of products is related to the level of product operating costs. Generally speaking, when the quantity of goods is fixed, the smaller the number in the warehouse, the lower the unit storage cost. Moreover, in the transportation process, the more goods are transported in the same direction, the lower the unit transportation cost will be under the condition that the total cost remains the same.

However, it is important to note that you can't focus too much on unit cost at the expense of overall efficiency and safety. Therefore, there is also an upper limit to the cargo capacity of a certain transportation route and the inventory of the warehouse, and the bigger the better.

3. Service scrap rate. Logistics costs are also affected by product quality issues and delivery errors, losses, and other issues. If any of the above situations occur due to the logistics process, then the logistics service will be scrapped and

the cost of compensation and compensation will also be paid. The most irretrievable thing is that the image and reputation of the company providing logistics services will be greatly reduced.

#### Environmental factors

Environmental factors include a combination of spatial, geographical, and traffic conditions. This factor mainly refers to the location of the warehouse and logistics operation equipment of the logistics company. If the distance between the logistics company and the distribution center is too long, coupled with traffic congestion, it is likely to cause transportation and miscellaneous expenses and loading and unloading costs to increase. Therefore, the warehouse transit center should be built in a reasonable place considering various factors, so that not only the storage cost is not high, but even the transportation cost will be reduced accordingly.

Geographical factors are related to population, economy, etc., and these factors are closely related to logistics. To put it simply, where the transportation is convenient and the geographical location is good, the logistics will also be more developed. However, such a geographical location often means high land prices and rents, so how to lay out logistics transit centers and warehouses more reasonably and affordably is worth careful planning. Not to mention the traffic situation, "if you want to get rich, build roads first", transportation can be said to be the most critical to the development of the logistics industry.

#### Management factors

Excellent enterprises are inseparable from efficient management. Modern logistics enterprises must rely on data technology such as the Internet to complete the changes in management and control involved in the logistics process, and realize the full tracking and management of logistics commodities on the network. The first is to provide logistics services quickly, timely and accurately according to the requirements of customers, and the second is to establish a strategic logistics tracking and operating system within the enterprise.

Management factors include many factors, such as: corporate culture, strategic planning, reward and punishment system, reform and innovation, learning and training, etc. Corporate culture, that is, the values of the enterprise, is what can be done, what can not be done, and what should be done. What not to do. Generally speaking, the value of people is higher than the value of things, the value of collective is higher than the value of individuals, and the value of users is higher than the value of corporate profits.

Strategic planning, that is, planning for the overall situation and long-term, should not be quick and short-sighted. Excellent enterprises can always walk ahead of other enterprises, plan the layout in advance, and carry out transformation and upgrading.

The system of rewards and punishments is not only to mobilize people's enthusiasm but also to be fair. It is no longer the era of the people's commune, where more work is more, rewards and punishments should be punished. However, it is worth noting that the system of rewards and punishments must be institutionalized and must not lose its fairness. Reform and innovation, continuous progress, there is no best, only better.

Enterprises can never rest on their laurels, just like Kodak, although he has done nothing wrong, but the times and industry development have eliminated him. Learning and training, in the era of knowledge economy, only continuous learning, advancing with the times, in order to adapt to the development of the times. Whether it is a person or an enterprise, learning and transformation is the eternal theme.

## 1.4 Logistics cost analysis method

Logistics Cost Analysis is a systematic approach to evaluating and understanding the various costs associated with the movement and storage of goods throughout the supply chain. It involves collecting, analyzing, and interpreting cost data to identify cost drivers, inefficiencies, and opportunities for improvement within logistics operations. The method typically includes several key steps:

1. **Data Collection:** The first step in logistics cost analysis involves gathering comprehensive data on various cost components throughout the supply chain. This includes procurement costs, transportation costs, warehousing costs, inventory carrying costs, order processing costs, and other relevant expenses. Data can be collected from internal accounting systems, financial records, supplier invoices, transportation contracts, and other sources.

2. **Cost Classification:** Once the data is collected, it needs to be classified into different cost categories to facilitate analysis. Common cost categories include fixed costs (e.g., facility lease payments, annual contract fees), variable costs (e.g., transportation expenses, order processing costs), and semi-variable costs (e.g., labor costs that vary with production levels).

3. **Cost Allocation:** After classification, costs need to be allocated to specific activities, products, or customers to identify cost drivers and assess cost performance accurately. Activity-based costing (ABC) is a commonly used method for allocating costs based on the activities that drive them. By identifying cost drivers and tracing costs to specific activities, ABC provides a more accurate picture of cost behavior and enables targeted cost reduction efforts.

4. **Cost Benchmarking:** Comparative analysis against industry benchmarks and peer performance metrics helps identify areas of inefficiency and opportunities for improvement. Benchmarking allows companies to assess their cost

competitiveness relative to industry standards and best practices, identify performance gaps, and set realistic improvement targets.

5. **Cost Variance Analysis:** Cost variance analysis involves comparing actual costs against budgeted or standard costs to identify discrepancies and understand the underlying causes. Variance analysis helps pinpoint areas of cost overruns or underspending, enabling managers to take corrective actions promptly.

6. **Cost Modeling and Simulation:** Cost modeling and simulation techniques, such as activity-based costing (ABC), cost-volume-profit (CVP) analysis, and scenario analysis, help predict the impact of strategic decisions on logistics costs. By simulating different scenarios and analyzing their cost implications, managers can make informed decisions and optimize cost performance.

7. **Continuous Improvement:** Continuous monitoring and evaluation of logistics costs are essential for driving ongoing improvement initiatives. By establishing key performance indicators (KPIs) and performance targets, companies can track cost performance over time, identify trends, and implement corrective actions as needed to achieve cost reduction goals.

Application for Improvement of Logistics Cost Management at an enterprise:

- **Identifying Cost Drivers:** By conducting a comprehensive logistics cost analysis, JD.com can identify key cost drivers across its supply chain, such as transportation, warehousing, and inventory holding costs. Understanding these cost drivers enables JD.com to prioritize cost reduction efforts and allocate resources effectively to areas with the greatest potential for savings.

- **Optimizing Transportation Routes:** Logistics cost analysis can help JD.com identify inefficiencies in transportation routes and modes. By analyzing transportation costs per mile or per unit shipped, JD.com can optimize route selection, consolidate shipments, and negotiate favorable freight rates with carriers to reduce transportation expenses.

- **Streamlining Warehousing Operations:** By analyzing warehousing costs and inventory carrying costs, JD.com can identify opportunities to streamline

warehouse operations, improve inventory turnover rates, and minimize storage costs. Implementing lean inventory management practices, optimizing warehouse layouts, and investing in automation technologies can help JD.com reduce warehousing expenses while maintaining service levels.

- **Supplier Negotiations:** Logistics cost analysis provides JD.com with valuable insights into procurement costs and supplier performance. By analyzing supplier pricing, lead times, and service levels, JD.com can identify opportunities for cost savings through supplier negotiations, volume discounts, and supply chain collaboration initiatives.

- **Performance Measurement and Benchmarking:** By benchmarking its logistics costs against industry standards and best practices, JD.com can assess its cost competitiveness and identify areas for improvement. Establishing performance metrics and KPIs for logistics cost management allows JD.com to track progress over time and evaluate the effectiveness of cost reduction initiatives.

- **Investment Prioritization:** Cost modeling and simulation techniques enable JD.com to evaluate the potential impact of strategic investments on logistics costs. By simulating different scenarios, such as investment in transportation infrastructure or warehouse automation, JD.com can assess the cost-benefit trade-offs and prioritize investments that offer the greatest potential for cost savings and operational efficiency gains.

Logistics cost analysis is a powerful tool for improving the management of logistics costs within companies like JD.com. By systematically analyzing cost data, identifying cost drivers, and implementing targeted cost reduction initiatives, JD.com can optimize its logistics operations, enhance cost competitiveness, and drive sustainable business growth.

The American Institute of Management Accountants pointed out in the "Logistics Cost Management Bulletin" issued in 1992: "Logistics costs refer to the expenses incurred by enterprises in the process of planning, implementing, and controlling internal and external logistics activities. Specifically, logistics costs

include expenses incurred by a business in typical logistics activities such as procurement, transportation, warehousing, material and inventory management, order processing, customer service, forecasting and production planning, related information systems, and other logistics support activities. However, these expenses do not include the cost of purchasing raw materials, the cost of production of finished products, marketing and sales expenses, and other expenses not directly related to logistics activities". The Ministry of International Trade and Industry (MITI) published the Logistics Cost Accounting Manual in 1992, which defines logistics costs as: "Logistics costs refer to the costs required for the physical flow of tangible or intangible material resources from the supplier to the demander, including the costs incurred in various logistics activities such as packaging, loading and unloading, transportation, storage, and information processing."。

In 2006, China promulgated and implemented the national standard "Calculation and Composition of Enterprise Material Flow Costs" (GB/T20523-2006), which pointed out: "Logistics cost refers to the monetary performance of physical labor and living labor consumed in enterprise logistics activities, including the sum of manpower, material and financial resources consumed in the process of transportation, storage, packaging, loading and unloading, circulation processing, logistics information, logistics management, etc., as well as the cost of working capital occupation related to inventory. The cost of inventory risk and the cost of inventory insurance."

In the contemporary economic society, logistics cost has developed into a specialized field of study and is widely used in various aspects. In addition to the original transportation and warehousing costs, logistics costs are derived from diversified direct and indirect costs, explicit and implicit costs.

The composition of logistics costs is relatively complex, involving a wide range, and it is very difficult to define when dividing logistics costs, and there is a certain degree of difficulty in actual operation. At present, there are two popular

methods for calculating logistics costs in the world:

The first is the calculation method based on the basic functions of logistics. According to this method, logistics cost is composed of logistics transportation cost, logistics warehousing cost, logistics inventory cost, logistics inventory cost, logistics capital cost, logistics administration cost and logistics information cost.

The second is the calculation method based on the logistics work link. This method considers the logistics cost to be equal to the sum of the people, money and materials consumed in the operation of logistics activities.

Characteristics of logistics costs. Logistics costs are hidden costs. When people interpret the financial statements of logistics enterprises, they will only pay attention to the financial account data related to logistics costs in the report, which can only reflect a part of the real logistics costs, so there are many logistics costs that cannot be seen in the report.

Multiplication effect. The multiplicative effect of logistics cost control is similar to the principle of leverage. It is very difficult for companies to increase sales revenue, and they have to spend a lot of money on marketing strategies, but it often backfires. But if you work logistics costs, not only logistics costs will be reduced, but also all procurement costs will be greatly reduced, and profits will increase significantly. Therefore, the profit potential of the logistics field will be valued by the world.

Contrarian benefits. "Trade off", any link in the logistics system to gain, will inevitably have a loss to some other links in the whole system. If logistics services are improved, then logistics costs will inevitably rise.

## **Conclusions on Section 1**

Logistics costs account for a large proportion of the cost of e-commerce enterprises, in order to improve corporate profits, control logistics costs is a very effective measure. At present, although many enterprises are aware of the importance of logistics cost control, because logistics has been ignored by enterprises for a long period of time, the current logistics cost control methods of enterprises are not mature.

This paper focuses on the analysis of JD Logistics' distribution model and cost control, and compares and analyzes it with typical domestic B2C e-commerce, discusses their advantages and disadvantages, and gives suggestions and strategies from various aspects to help enterprises control logistics costs and improve logistics quality.

## **SECTION 2.**

### **ANALYSIS OF THE CURRENT SITUATION OF COST MANAGEMENT OF JD LOGISTICS**

#### **2.1 JD Logistics' business advantages and the merits of its cost management**

In 1993, JD Logistics was established in Shenzhen, Guangdong. From the perspective of business scale, network coverage and market share, JD , as a private enterprise, ranks second. JD Logistics has 38 direct branches, nearly 200 transit yards, 5 distribution centers, and more than 7,800 grassroots business outlets, covering all 31 provinces, nearly 300 medium and large cities, and more than 1,900 county-level cities or towns<sup>[10]</sup>.

At present, for private enterprises such as JD , the competitive pressure is still very great, and the power of China Post and foreign logistics companies cannot be underestimated. The market share of EMS has shrunk from a monopoly in the 80s to less than 10%, but it still has policy advantages and network advantages. EMS is a veteran state-owned enterprise, registered in 2006, with a capital of 80 billion yuan, and is currently the largest express delivery enterprise in China. At the same time, foreign express delivery is also gradually booming, such as the United States FedEx (FEDEX), Germany DHL International (DHL) and other international express giants have also extended their business to China and achieved a certain market share.

#### **JD Logistics' business advantages**

JD's business services have always been known for their safety and speed, so its high price makes sense, and the following are the advantages of JD Logistics:

1. High-quality service level. JD Logistics has always attached great importance to the security of express delivery, through a large number of resources to reduce the loss rate and damage rate, at the same time, through close and timely communication with customers, so that customers feel the real quality service at all times. Although this approach is costly, it is well worth it, in exchange for the core competitiveness of its services.

2. Fast shipping speed. JD has always attached great importance to the speed of transportation, and has invested a lot of resources to integrate key factors such as transportation methods, transportation channels and distribution to improve the efficiency of collection and delivery. Again, this approach is more costly, but it also comes with core competitiveness.

3. Rich and diverse business system. So far, the logistics industry has experienced from the initial provision of a single delivery and distribution service to the provision of on-site collection and delivery services, warehousing and distribution integration services and e-commerce logistics park integration

Four phases of service. JD Logistics is at the forefront of the domestic logistics industry and has already begun to focus on the construction of e-commerce industrial parks. Continuously enriching its business system, through the investment and establishment of the e-commerce industrial park, JD Logistics has begun a strategic transfer.

#### Advantages of JD Logistics Cost Management:

1. Operating cost advantage. Generally speaking, distribution is the strength of logistics companies, while warehousing is their inevitable disadvantage <sup>[11]</sup>. JD Logistics uses JD Airlines' transportation efficiency to expand its advantages, avoid excessive warehousing, and reduce its disadvantages. In 2015, JD established a large-scale distribution center and warehouse distribution, and carried out operations such as ordering, warehousing, sorting, and allocation through

electronic intelligence, which greatly improved the transportation speed, and the logistics timeliness of a single ticket was increased by about 30 hours compared with before, and the operating cost was reduced by 20%. With the rapid development of information technology and the Internet, JD Logistics can further improve the integration process of warehousing and distribution, and informatize the warehouse network management process, thereby reducing its operating costs.

2. Capital cost advantage. JD Logistics can roughly divide the logistics process into seven parts: business processing, item transportation, item acceptance, item warehousing, item warehousing, item delivery, and item distribution<sup>[12]</sup>。 JD Logistics uses the operation cost method to calculate the cost of goods in each logistics link, and then calculates the total cost, finds the over-consumed links through the use of funds in each link, and takes corresponding measures to control the cost, and finally achieves the optimal allocation of resources. The advantage of building operating costs from the logistics level can be based on capital flow.

3. Management cost advantage. JD logistics is a direct sales model, from the headquarters to the subordinate institutions and agents to implement the same management model, information flow in the supply chain within the enterprise, occupy the upper hand of timeliness and consistency, reduce the cost of time and error correction. The in-depth management of customers not only improves customer loyalty, but also helps staff to understand the dynamics of customers in real time, reduce the cost of maintaining customer relationships, and thus reduce business risks.

4. Manpower and construction cost advantages. In 2015, JD and other express companies jointly invested in the development and operation of the "Feng chao" smart express locker that is open 24 hours a day. In 2015, more than 10,000 units have been launched into the network in 33 key cities across the country. Not only that, JD Logistics has also carried out extensive and in-depth cooperation with

many real estate companies and property management companies. Such a strong alliance can share resources and achieve economies of scale, thereby improving service quality and efficiency while further reducing labor costs and investment and construction costs.

5. Relationship cost advantage. Since 2009, the airline has purchased 40 cargo planes and purchased more than 530 passenger aircraft belly cabins, with a daily shipment of nearly 1,800 tons, and established a transportation network centered in Shenzhen and facing the whole country. JD Logistics reduces the maintenance and procurement costs of professional logistics equipment by establishing long-term and stable relationships with equipment suppliers; JD Logistics bundles upstream and downstream suppliers and sellers and other stakeholders together by integrating the logistics supply chain, and optimizes the overall situation, thereby reducing relationship costs; JD Logistics relies on efficient services, large-scale business expansion, achieves economies of scale, reduces the unit cost of its logistics products, and obtains greater profit margins.

Company Profile.: JD is China's largest self-operated e-commerce company, with a 49 percent share of China's self-operated e-commerce market in 2014, according to Research, a third-party market research firm. At present, JD Group has JD Mall, JD Finance, Paipai.com, JD Intelligence and overseas business divisions. In May 2014, JD was officially listed on the NASDAQ stock exchange in the United States, which is China's first large-scale integrated e-commerce platform to be successfully listed in the United States, and ranks among the top ten Internet companies in the world together with Chinese Internet giants such as Tencent and Baidu. In 2014, the trading volume of JD 's market reached 260.2 billion yuan, and its net income reached 115 billion yuan.

JD is committed to providing consumers with an enjoyable online shopping experience. Through a content-rich and user-friendly website (www.JD ) and

mobile app, JD offers a wide range of products and services of excellent quality at competitive prices, delivering them to consumers in a fast and reliable manner, and providing flexible and diverse payment methods. In addition, JD also provides a series of value-added services such as online sales platform and logistics for third-party sellers.

JD offers a wide range of high-quality products, including computers, mobile phones and other digital products, home appliances, auto parts, clothing and footwear, luxury goods (e.g., handbags, watches and jewelry), home and household goods, cosmetics and other personal care products, food and nutrition, books, e-books, music, movies and other media products, maternal and child products and toys, sports and fitness equipment, and virtual goods (e.g., domestic air tickets, hotel reservations, etc.).

JD has the largest warehousing facility in China's e-commerce industry. As of December 31, 2014, JD had 7 major logistics centers across the country, operated 123 large warehouses in 40 cities across the country, and had 3,210 distribution stations and pick-up points, covering 1,862 districts and counties across the country. JD's professional delivery team can provide consumers with a series of professional services, such as: 211 time-limited delivery, next-day delivery, night delivery and three-hour speed, GIS parcel real-time tracking, after-sales 100 points, fast return and exchange, and home appliance installation and other services, to ensure that users enjoy excellent, comprehensive logistics and distribution and a complete "end-to-end" shopping experience.

JD is a technology-driven company that has invested heavily since its inception to develop its own technology platform that is reliable, capable of continuous upgrading, and centered on e-commerce application services. We will continue to strengthen our technology platform to better improve internal operational efficiency while providing exceptional service to our partners."。

### The principle of JD Mall's delivery service

**211 time limit:** spot orders submitted before 11:00 a.m. on the same day (before 10 a.m. in some cities) will be delivered on the same day based on the time when the order is shipped out of the warehouse to complete the picking, and spot orders submitted before 11:00 p.m. (calculated from the time point when the order is picked after the order is shipped) will be delivered before 15:00 the next day. As of December 31, 2014, "211 Time Limit" has covered 134 districts and counties across the country.

**Next-day delivery:** Spot orders submitted before a certain point in time (calculated from the time when the order is picked after the order is shipped) will be delivered the next day. In addition to the "211 time-limited delivery" service, JD's "next-day delivery" service also covers 866 districts and counties across the country.

**Speed:** A personalized paid value-added service provided by JD for consumers. After the consumer successfully submits the order through the "online payment" method or the "cash on delivery" method, and checks the "speed" service, JD will deliver the goods to the address left by the consumer within 3 hours during the service time. At present, the "Speed" business provides services in six cities: Beijing, Shanghai, Guangzhou, Chengdu, Wu han and Shenyang.

**Night-time distribution:** JD provides consumers with a faster and more convenient value-added service. When consumers place an order, select the "19:00-22:00" time period in the calendar, which is within the scope of the "night delivery" service, and JD will arrange the delivery staff to deliver the goods to the door at 19:00-22:00 on the evening of the day selected by the consumer. At present, the "night distribution" business provides services in six cities: Beijing, Shanghai, Guangzhou, Chengdu, Wuhan and Shenyang.

The basic situation of the logistics development of domestic e-commerce

enterprises is that the logistics demand of the industry as a whole is large, the single order is relatively small, and the geographical dispersion makes it difficult to exert economies of scale. In terms of inventory, it is required that there are many SKU categories, and at the same time, the picking area must be able to meet the storage of multiple categories, and a lot of zero-splitting and positioning are also required, and the number of single SKUs is very small; Based on partition shelves, with boxes as units rather than pallets, due to the rapid update of SKUs, dynamic and random picking positions are required, and many of the above aspects have high requirements for the correctness and real-time performance of the entire flow operation. Therefore, e-commerce companies need to work hard from both the software and hardware aspects of the flow if they want to improve service quality through logistics, "grasp with both hands, and both hands should be hard," but not all e-commerce companies have this strength and level. First of all, e-commerce logistics must have a lower logistics damage rate, different packaging technology, sorting technology, storage technology generated by the logistics damage rate is not the same, and the characteristics of e-commerce logistics are mainly small pieces, the unit price of the product is very high, such as electronic products, high-end cosmetics, gold and silver jewelry, luxury goods, etc., because the general profit of this type of goods is higher, so the cost paid on the packaging is correspondingly very large. On the contrary, because of the low unit price, large distribution cost and thin profit of book and audio-visual products, the packaging should be relatively inferior, and the logistics defects caused by different packaging are different. At the same time, due to the different products sold by enterprises, the requirements for distribution services are also different. Different levels of logistics services also lead to great differences in logistics defects. Secondly, there must be a high flexibility of logistics services, to adapt to the requirements of small batches and multiple batches, to enhance the ability to

consolidate goods, and to reduce the distribution error rate as much as possible. The biggest difference between the distribution of e-commerce enterprises and the distribution of traditional retail enterprises is the logistics requirements of small batches, multiple batches, and personalization.

However, traditional enterprises can effectively concentrate on the sales population, such as large department store retail enterprises have been operating for many years, and have a basic grasp of the shopping needs of customers in a certain area, and will consider the more concentrated large-scale and small-batch procurement when purchasing products, and have lower requirements for logistics intensity and packaging. However, the customers of e-commerce companies are scattered, and the needs of each customer are very different.

This places high demands on the procurement, inventory management and distribution of goods. In addition, it is necessary to have a more complete logistics distribution network to shorten the logistics distribution time and reduce the distribution cost of logistics. E-commerce companies compete with traditional enterprises to play the low-price card, so the profit margin of a single product is extremely low, and some even lose money to buy food and drink, and at the same time, in order not to affect the customer experience and need to be delivered quickly, if the logistics cost cannot be reduced, the development of the enterprise will be difficult. Therefore, in the process of carrying out e-commerce, e-commerce enterprises must choose a logistics model suitable for themselves according to their actual situation.

At present, the logistics models of domestic e-commerce enterprises mainly include self-operated mode, third-party logistics mode, self-operated logistics mode and third-party logistics supplemented logistics mode [1]. The nature of the industry and the characteristics of each enterprise are different, so there are great differences in the development model. At the same time, since the research in this

paper mainly focuses on B2C e-commerce enterprises, the following mainly focuses on the logistics development of three early B2C e-commerce enterprises in China. At the beginning of the establishment of the three enterprises, there were few commodity categories, and when choosing the logistics model, it was mainly considered in terms of the profitability of the enterprise and the safety requirements for distribution. However, with the expansion of the scale of the business and the changes in the general environment of China's e-commerce, the business of these three companies has gradually become homogeneous, and they have all begun to enter the retail department store industry. Important changes have also taken place in the supply chain management of logistics.

The warehousing and distribution links are the most significant, and the performance is as follows:

1. In terms of warehousing operation: Dangdang chose third-party logistics at the beginning of its establishment, and with the growth of business, Dangdang began to build a new warehousing center in the country and operate its own warehousing links. The IT system automatically assigns the orders placed at the front desk to the warehouse closest to the customer, and each product will set a replenishment reminder for the supplier's supply cycle to improve the picking efficiency and achieve inventory optimization. However, Dangdang has not established an urban distribution center, and there are still third-party suppliers such as local publishers and Xinhua bookstores responsible for warehousing and distribution. Dangdang effectively uses the supplier's warehousing center and reduces its own operating costs. At the same time, the third-party distribution company of Dangdang Holdings has established an independent logistics development platform, which provides commodity sorting, packaging and cash on delivery services. Although the platform is established and operated by a third-party logistics company, the service quality of Dangdang can be fully ensured

through the jointly established service standards and strict service assessment system. In terms of logistics and distribution: Dangdang adopts flexible logistics service standards. If it is an ordinary express delivery, you need to purchase less than 29 yuan to get free shipping. Users in 6 cities and areas, including Beijing, Shanghai, Tianjin, Guangzhou, Shenzhen, and Lang fang, can choose expedited express mail or night door-to-door delivery service according to the user's needs in the "delivery method".

2. At the beginning of the establishment of Jing dong Mall, it chose to build its own logistics and set up a large-scale distribution center, and established an urban distribution station within the scope of the distribution center, which was distributed by JD's distribution personnel, and at the same time, according to the needs of business development, it chose to cooperate with third-party logistics in some remote cities, forming a layout structure of self-operated logistics and third-party logistics. In addition, self-pickup points have been set up in some colleges and universities to facilitate the purchase and pick-up of goods by students. In the process of distribution, Jing dong Mall adopts its own developed GIS parcel tracking system, which equips all delivery personnel with PDA equipment, and customers can track the location and delivery of purchased goods on the road in real time through electronic maps.

3. Excellence network and Dangdang network are very similar but slightly different, it chooses to lay out its own warehousing center and corresponding distribution center in large cities, and adopts the mode of focusing on its own distribution and cooperating with third-party logistics during the peak period of logistics. Door-to-door delivery service has been opened in large and medium-sized cities, and for the distribution of large and medium-sized cities, after the goods are distributed in the warehouse, they will be transported to the local distribution site through the logistics freight company, and then delivered by the

sales man doors, and distribution stations generally do not have warehouses 。

In terms of warehouse management, with the support of Amazon's advanced database technology services, with the help of the computer industry positioning system, the barcode pasted on the shelves and goods is the "locator" of various commodities. The scanner in the hands of the picker will first display the nearest commodity shelf to his location, and after picking up the commodity and scanning, the scanner will locate the shelves of other nearest commodities according to the position of the picker. This increases the speed and efficiency of picking. This is one of the great advantages of excellence. At the same time, Excellence.com will fully open its own logistics and warehousing center to earn storage fees and logistics management fees. Customers can use professional logistics and warehousing management to achieve scientific procurement and timely distribution.

To sum up, we find that domestic e-commerce companies have great differences in the choice of logistics models. Some enterprises choose the third-party logistics model, and some enterprises choose to build their own logistics and third-party logistics to combine the logistics development model, which depends entirely on the logistics objectives and internal advantages of the enterprise. Each logistics model also has its own operating characteristics, and the needs of enterprises for logistics at different stages of development will also change greatly, so there is no one model that is optimal for enterprises, and enterprises need to choose the appropriate logistics model according to their own development.

## 2.2 JD Logistics Cost Analysis

### Advantages of JD Logistics' distribution model

#### (1) Ensure the timeliness and safety of delivery services

China's logistics industry started late, and the logistics management system is not perfect, so it is difficult to find a courier company with good service, high efficiency and reasonable charges among many express companies. And in this regard, self-operated distribution can do a good job. JD can bring more timely services to customers through self-operated distribution, so as to ensure the quality of services and meet the needs of customers. It is also through self-operated distribution that the new service proposed by JD can be completed - "211 limited time delivery" service.

So far, most customers still prefer payment on arrival as a payment method, and JD also provides this service to its users. If the third-party logistics comes to help JD Mall deliver goods, there will be insecurity factors in terms of payment on arrival, which will be unfavorable to JD. However, if JD 's own delivery team does this service, there will be no such problems, and the safety of the delivery service can be guaranteed.

#### (2) Ensure business stability during special periods

Every national holiday, especially during the Spring Festival, most express companies will take a holiday in advance. But the holiday season happens to be a peak time for customers to shop online. If you only rely on third-party logistics to deliver goods, you will be unable to deliver. Through the self-operated distribution of the enterprise, the business can be successfully completed in the special period and ensure the stability of the business level during this period.

Strong logistics capabilities bring a good shopping experience, which has

always been the golden sign of JD to attract and seize users. When it comes to JD, the first thing that comes to people's minds is the self-built and self-operated logistics system.

After completing the C round of financing in 2021, Liu Qiangdong said that "JD will invest more than 10 billion yuan in the next three years to strengthen the logistics system". Three years have passed, how big is the scale of investment in JD Logistics? How strong is the processing capacity? How much cost has been saved by self-built and self-operated logistics compared with through a third party? Will the huge investment in fixed assets become a burden? Until the disclosure of the prospectus documents, all kinds of questions about JD Logistics can finally be answered.

Several sets of data and facts related to logistics: built size, processing capacity, investment amount, etc

#### 1. Built scale

Since its launch in 2004, JD has successively set up logistics distribution centers in Beijing, Shanghai and Guangzhou. The whole process of goods from suppliers to customers is handled by JD, and under the monitoring and support of IT systems, inventory data can be shared with suppliers.

From the perspective of personnel composition (there are 41,400 custodians, couriers, and customer service combined), JD is a labor-intensive enterprise.

#### 2. Processing capacity

JD's logistics system is not only huge, but also efficient. With the help of this system, JD can achieve "same-day delivery of orders" in 43 cities and "next-day delivery of orders" in 265 cities, accounting for 70% of the total number of orders. JD's beautiful operating data is due to its strong logistics processing capabilities, with 320 million orders completed in 2013 and a net turnover of 103.9 billion yuan.

With strong logistics, JD Mall provides services and commissions for an increasing number of third-party products. In 2013, of the total transaction value of 103.9 billion, third-party goods accounted for 36.9 billion, accounting for 35.5%. And the commission rate has been increasing year by year, from 4.0% in 2011 to 6.3% in 2013. By the end of the first quarter of 2014, the number of third-party sellers reached 29,000.

### 3. Investment amount

In 2011, Liu Qiang dong said that he would invest 10 billion yuan to build a logistics system. Later, Liu Qiang dong said on many occasions: "70% of the financing will be used for the construction of the logistics system", "logistics and R&D account for 70% of the total cost". According to the prospectus, JD raised more than US\$1.8 billion (excluding the US\$214 million invested by Tencent this year), equivalent to about 11.6 billion yuan. According to Liu Qiang dong, the investment in JD Logistics should be more than 7 billion yuan. The logistics investment mentioned here includes the purchase of land, the construction of warehouses, the purchase of facilities, equipment and system software research and development, etc. These investments are all fixed assets, but the prospectus documents show that as of 2013, the fixed assets on the books of JD were 3.53 billion yuan (including 598 million yuan for land use rights, 1.02 billion yuan for equipment and software, and 1.24 billion yuan for projects under construction).

In other words, JD 's investment in logistics over the years will not exceed 3.5 billion yuan, which is a disappointing figure. Use the logistics system as a signboard to support a market value of 150 billion, and 3.5 billion is too reluctant.

More than 11 billion yuan was raised, 3.5 billion yuan of fixed assets were formed, and the rest of more than 8 billion yuan were lost, and only the prospectus documents disclosed three fiscal years (2011, 2012, 2013) lost 3.934 billion.

### 4. Increasingly heavy depreciation and amortization

Although the 3.5 billion fixed assets are somewhat disappointing, the depreciation and amortization burden of JD is not light.

For land use rights (intangible assets), they are amortized on an average basis over 40 to 50 years. In 2011, 2012 and 2013, JD 's depreciation and amortization were 73.95 million yuan, 186 million yuan and 293 million yuan, respectively. According to the plan disclosed in the prospectus, the total value of JD 's fixed assets will exceed 10 billion within three years, with annual depreciation and amortization exceeding 1 billion. For JD , which has been losing money year after year, they will make the profit look even more distant.

5. A considerable number of leased properties do not have property ownership certificates

In response to the phrase that the radish is fast and does not wash the mud, JD 's prospectus said that "18% of the lessors of warehouses, 39% of distribution stations and 41% of office space did not provide us with the necessary licenses to prove their ownership."

Dick Si Renting Houses Know to Look at the Real Estate Deed. JD is a large company, and it is going to be listed in the United States, and the leased property must of course look at the property ownership certificate, and the owner will of course show it to JD if he has it. Most of JD 's 1.5 million square meters of logistics-related buildings are leased, which greatly discounts the value of the logistics system. It's okay to lease it, but if you don't even get the title certificate, it's too lax. To some extent, JD 's logistics system is built on the beach.

#### 6. Massive inventory

JD 's huge logistics body has accumulated a large amount of inventory, and the number of inventory turnover days has decreased slightly in the past three years, but the amount has risen sharply.

Especially in the first quarter of 2014, the inventory amount jumped to 8.62

billion yuan. In 2013, the number of days of inventory turnover was 32.1 days. These inventories are provided by 6,000 suppliers with an average maturity of 38.6 days.

Chinese know best what "average" means, 6,000 to settle 100 billion accounts, the thousands behind the comprehensive strength, may have to wait two or three months to receive payment, which means that JD occupies the valuable liquidity of cooperative enterprises. The user experience is good, but the supplier experience is poor.

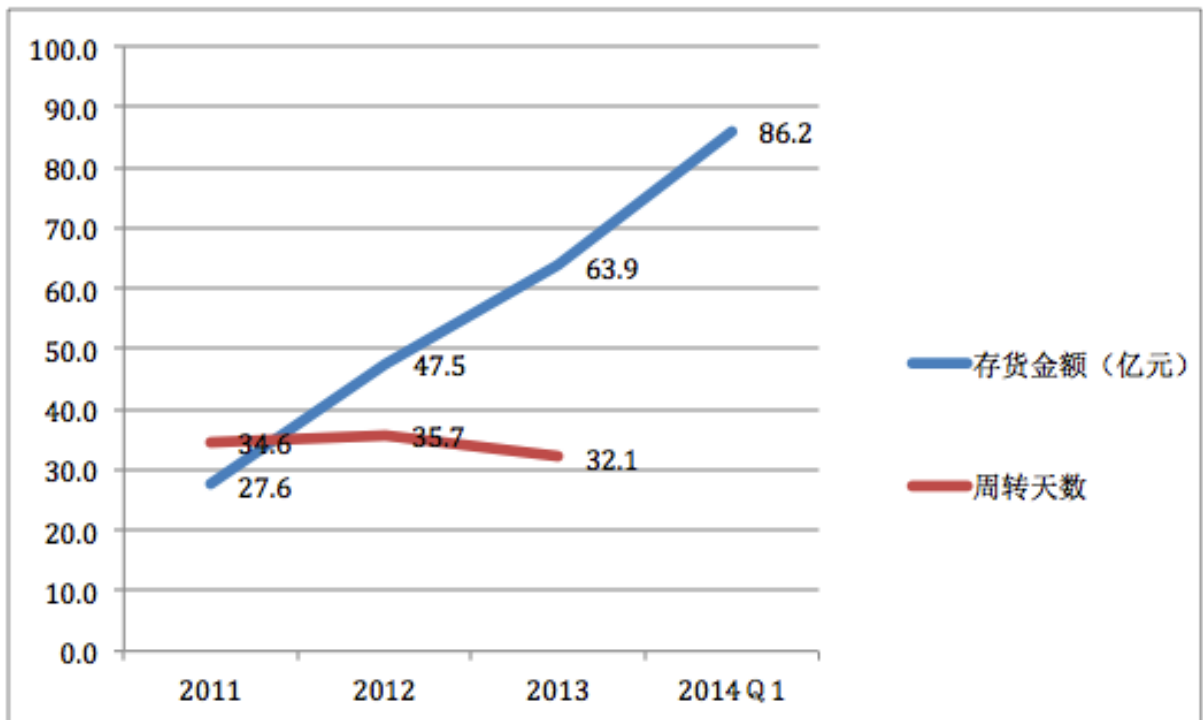


Figure 2.1 JD amount and the number of days of inventory turnover

## 2.3 JD Logistics Cost Control Strategy

JD 's current three delivery models. Self-operated logistics

Enterprise self-operated logistics refers to the enterprise's own logistics business, each link of enterprise logistics distribution is planned and managed by the enterprise itself, and the distribution task of the enterprise is completed through the establishment of a complete distribution system.

JD Mall has built its own logistics system in Beijing, Shanghai, Guangzhou, and Chengdu, because customers in these cities are the main customers of JD , so it has built large-scale logistics centers in these four cities. Taking the East China Logistics Center as an example, JD can normally process 25,000 orders per day, and the daily order processing capacity reaches 50,000 orders. The goods in Beijing are basically delivered by JD 's own delivery team, and they generally arrive on the same day or the next day. In 2009, JD Mall announced the establishment of its own express company, investing 20 million yuan to set up an express company in Shanghai, and wanted to establish its own distribution network nationwide. At the same time, distribution stations have also been opened in seven cities: Suzhou, Hangzhou, Tianjin, Shenzhen, Nanjing, Wuxi and Ningbo. And it wants to build a larger logistics center next to the East China logistics center to support the company's self-operated distribution model. It can be seen that establishing its own logistics system and relying on its own distribution team is a way favored by JD . It is also with the support of JD's self-operated distribution model, JD officially launched the "211 time-limited delivery" service in April 2010, that is, orders are placed before 11 o'clock every day, arrive in the afternoon, and place orders before 23 o'clock and deliver them the next morning. The efficient service has achieved higher customer satisfaction, and at the same time, JD .com's order volume has been on the rise.

### Pick-up point

In the process of operation, Jing dong Mall also realized that students from colleges and universities are also major customers. However, when doing delivery services for college students, it was found that this customer group had the same characteristics: (1) they were in class during the day and could not guarantee the receipt of the goods; (2) the school security guards did not allow the courier to enter the school and could not contact the consignee in time. In response to the above two points, Jing dong Mall has set up a "university agent" in various universities. The goods will be delivered to the university agent, and they will arrange the delivery to each customer on behalf of the customer to prevent the wrong delivery problem caused by the delivery time error.

After the emergence of campus pick-up points, considering the inconvenience of office workers to receive couriers during working hours and the inability of security guards or doormen to collect couriers and inspect the goods, self-pick-up points specifically for the public began to appear. This move allows customers to flexibly choose the delivery mode, which is convenient for customers to the greatest extent, and makes JD win the recognition of customer service.

### Third-party logistics

JD Mall chooses to cooperate with local express companies to complete the distribution of goods in areas that cannot be reached by self-operated distribution, and remote areas are basically cooperated with postal services. In addition, when distributing large items, JD also chooses to cooperate with manufacturers, because the logistics and distribution costs of large items are high, and the cost will be higher than the profit if JD ships it by itself.

For example, the average cost of large items sent from Chengdu to Chongqing is more than 200 yuan. However, if you cooperate with local manufacturers and rent warehouses in them, the distribution cost of each piece is only 100 yuan, and you can save 50%. The manufacturer has its own partners and has its own service outlets. Cooperation with manufacturers can not only save

costs, but also use the popularity of manufacturers to promote JD .

In terms of reverse logistics, JD has also adopted a model of cooperation with express companies. Since 2010, JD 's customers have provided free door-to-door pick-up service for any goods they have purchased. This service was originally undertaken by JD itself, and it can only be provided in about 40 cities. Now, JD has partnered with YTO Express to expand this service to the whole country.

### **JD's logistics structure is optimized**

At present, JD has urban distribution stations and self-pickup points in provincial capitals and some more developed prefecture-level cities across the country.

JD 's large-scale logistics centers are all built in densely populated large cities, and each logistics center has its own distribution scope. In small cities between the various logistics centers, a large number of distribution stations and pick-up points have been established. This kind of logistics development idea is to follow the footsteps of the popularization of the Internet, and the same transition from developed areas to the west, and from cities to rural areas.

### **The principle of JD's self-built logistics**

The logistics cost is calculated on a per-package basis, and has little to do with the unit price. In the past, no matter how much the customer unit price is, no matter how low the gross profit margin, the warehousing and logistics costs are always calculated according to the package, so that the gross profit of the order with a small customer unit price is almost swallowed up by the express fee. The more orders, the bigger the loss. The gross profit of e-commerce is all contributed to logistics companies. Moreover, third-party logistics is more about sending documents, in order to grab the speed and not delay the time, customers are not allowed to try on and unpack. Third-party logistics makes customers have a bad experience with e-commerce. Lose your own users in vain. If you choose a high-quality third-party logistics, it is too expensive to afford. Self-built logistics

can better protect customer information. Funds are withdrawn faster. As a result, major e-commerce companies began to build their own logistics. The logistics needs of e-commerce enterprises are low logistics costs, emphasizing distribution attitude, personalized service, speed, and considering the return and exchange rate. If the return rate is too high, it will bring about a backlog of inventory, product discounts, and capital occupation, and the loss will be greater.

The logistics cost of third-party logistics is calculated on a per-package basis, and has little to do with the unit price. Self-built logistics can increase the number of orders issued in the same region or build a self-built warehousing center to effectively reduce logistics costs. In 2010, the average cost of large appliances from Beijing to Xi'an was more than 400 yuan per piece. But if you rent a warehouse in Xi'an, the delivery cost of each piece is only 48 yuan, which can save 90%, so we have stopped the distribution of major appliances in many cities. The average cost of large appliances sent by Jing dong from Beijing to Xi'an is more than 400 yuan per piece. But if you rent a warehouse in Xi'an, the delivery cost of each piece is only 48 yuan, which can save 90%, so Jing dong has stopped the distribution of major appliances in many cities.

Self-built logistics can ensure service quality, reduce the return and exchange rate, and reduce the frequent events of third-party logistics, such as package transfer, late arrival, damage, and bad attitude. For consumers, these things will be counted on the head of e-commerce, resulting in poor reputation of e-commerce and loss of customers.

For example, when using third-party logistics, the return rate is 10%, and after using self-built logistics, the return rate is only 5%. Self-built logistics not only solves the cost of returns It also solves the problem that the return rate is too high, which will bring about overstock, product discounts, and capital pressure, and the loss will be greater.

Third-party logistics can reduce the investment burden of enterprises. Enterprises only need to establish cooperative relations with service providers and

pay a certain service fee, which avoids a large amount of infrastructure investment, saves costs and reduces investment burden. For smaller e-commerce companies, it may be more economical to outsource logistics because the order volume does not reach a certain level。

### **Integrate upstream and downstream management**

(1) Abandon the overly monolithic logistics model. JD's self-operated logistics currently only provides services for JD Mall, which is a single distribution model, resulting in a large waste of resources and low logistics efficiency. Compared with the two-way logistics services of ordinary express companies, the cost of JD's self-operated logistics is too high, which lowers corporate profits. The fundamental reason for the sharp rise in logistics costs is the low logistics efficiency caused by its non-professional service system and single-line logistics model, which has formed a large number of short behaviors compared with professional logistics companies. All, for the rational use of resources, JD Logistics can gradually transform to third-party logistics, and make JD Logistics independent, so that it can undertake express delivery services for some customers while distributing to JD。

(2) Strengthen upstream and downstream management and improve the quality of distribution personnel. Due to JD 's self-sale and self-delivery sales model, there is a lack of third-party supervision, which makes the infringement of consumer interests often occur. At this time, JD must strengthen management and strictly require employees to provide excellent service for customer service in accordance with the company's system and not cut corners. To achieve this goal, the company needs to identify the confidence at the same time, but also need to improve the quality of employees, teach them to the end, and cultivate the spirit of their duty to serve customers.

(3) Strengthen the control of third-party logistics. For businesses outside the scope of JD's distribution, JD will hand over to third-party logistics, such as postal

services. Because Jing dong is mainly self-operated logistics, it does not pay enough attention to third-party logistics, and lacks a convenient and fast complaint and rights protection process like Taobao, which has caused inconvenience to consumers to a certain extent. Therefore, in order to provide better services, it is necessary to strengthen the management and control of third-party logistics.

(4) Stop blind expansion and reduce risk investment. Jing dong Mall's self-built logistics system has achieved certain results, but with the increase in financial pressure, if it continues to blindly expand its own logistics system, it will bring serious investment risks.

At this time, Jing dong Mall can appropriately use the temporarily idle land in its hands for rent, and absorb working capital by collecting rent. In addition, Jing dong should avoid its own geographical and resource disadvantages, and selectively hand over some logistics projects to third-party logistics companies to complete in sub-regions, form an alliance with them, share relevant information and returns, share risks, and share logistics facilities, technology, talents, etc., so as to reduce logistics costs, reduce investment, alleviate financial pressure, and achieve a win-win situation.

(5) Optimize the integration of the supply chain and improve the efficiency of distribution. JD Mall must strengthen the construction of informatization, realize data sharing within the enterprise and information sharing with suppliers, ensure the timeliness of products, improve distribution efficiency, and avoid multiple delivery of products.

After the internal integration of the enterprise reaches a certain level, JD can build a unified supply chain management platform with core suppliers to strengthen the management of suppliers to control product quality, optimize resource allocation, improve procurement performance, etc., so as to achieve external integration of product supply chain.

(6) Cultivating talents is the key to improving enterprise competitiveness. JD Mall can cooperate with colleges and universities, whose logistics majors cultivate

the talents they need, and JD provides internship opportunities for school students. In addition, JD can send its employees to colleges and universities for further study, learn advanced management methods and technical means of e-commerce, become senior managers of enterprises, and improve the management level of enterprises themselves.

## **Conclusions on Section 2**

**Warehouse management:** JD logistics system has a huge warehousing network, including large-scale logistics centers, urban distribution sites and community pick-up points. Through advanced warehouse management technology, efficient warehousing, storage, and outbound operations have been realized.

**Transportation management:** JD logistics system has a nationwide coverage of the transportation network, including land transportation, air transportation, railway transportation and other modes. Through the intelligent transportation management system, the fast, accurate and safe transportation of goods is realized.

**Distribution management:** JD logistics system adopts advanced distribution management technology, including automated sorting systems, unmanned delivery vehicles, drones, etc., to achieve fast and accurate last-mile delivery.

**Order management:** Through the deep integration with the JD e-commerce platform, the JD logistics system realizes real-time synchronization and rapid processing of orders, improving the efficiency of order processing and the shopping experience of users.

Through big data, artificial intelligence, cloud computing and other technologies, JD logistics system realizes real-time collection, analysis and decision-making of logistics information, which greatly improves the efficiency and quality of logistics services. At the same time, JD Logistics System also provides logistics services for third-party enterprises to help them improve the efficiency and

level of supply chain management.

Logistics and distribution is the core competitiveness of the development of e-commerce enterprises, and the quality of logistics and distribution should be ensured while chasing business volume and sales. At a time when the profit margin of commodity sales is already small, reducing logistics costs has become the focus of e-commerce enterprises, and it has also become an important issue for academic research and discussion.

## **SECTION 3.**

### **DEVELOPMENT OF RECOMMENDATIONS FOR IMPROVING MANAGEMENT SYSTEM OF JD AND SOLUTIONS TO THE PROBLEM OF EXPRESS COST MANAGEMENT**

#### **3.1 Problems in JD logistics cost management**

JD 's cost accounting and management methods still have limitations, which can only account for explicit costs and fail to reflect all costs, so it cannot provide accurate cost information, and it is difficult to effectively reduce costs, which restricts the development of enterprises. The main problems in JD's logistics cost management are:

Transportation costs and management costs are too high. In recent years, the cost of China's logistics industry has remained high, and JD is no exception.

The data shows that in 2012, China's total logistics costs accounted for 22% of the total logistics costs, compared to only 15% in the United States, while transportation costs accounted for 55%, while the United States accounted for about 48% <sup>[33]</sup>.

Enterprises blindly pursue high-speed development and ignore the quality improvement of enterprises, which is easy to breed inefficient management. The lack of understanding of business distribution, informatization and technical level need to be improved, resulting in insufficient information processing related to logistics services, which ultimately leads to an increase in transportation costs and other costs.

There are obvious flaws in cost accounting. The express delivery industry belongs to the whole network joint operation, with a wide variety of services, less direct costs and more indirect costs in transportation projects. The previous accounting method can not accurately obtain the cost information of each part,

moreover, JD logistics is only the initial introduction of the operation cost method, the cost information of each part can not be accurately calculated, the lack of accurate distribution rate of the overhead cost allocation of the service, and the cost of logistics services is likely to be distorted.

The means and methods of cost control are immature. JD 's approach to reducing its logistics costs mostly depends on the company itself, failing to find the root cause of cost control from a macro perspective, nor does it well predict the impact of the external environment on costs.

The more the economy develops, the more unpredictable the market, the greater the risk to the survival of the enterprise, and if the development of the logistics enterprise itself and the prevention of external risks cannot be both, then the potential risk cost will be greatly increased.

JD attaches enough importance to its own development, but does not have enough prevention of external risks. At the same time, JD focused too much on tangible costs and ignored intangible costs, failing to take advantage of all the advantages of cost management.

It is difficult to support the multi-angle profitability analysis of cost management.

Based on the diversity and complexity of JD Logistics' goods, a comprehensive discussion is conducted from the perspectives of demand, flow direction, flow and business characteristics, so as to complete a more reasonable one-to-one comparison of costs.

However, the cost accounting method implemented by JD can not ensure the accuracy of the corresponding allocation of indirect costs, nor the cost of corresponding services, so it is difficult to support multi-angle profit analysis, which drags down the company's cost management.

Complete, specific, and usable cost information for pricing is missing. The factors to be considered in the pricing of JD logistics services include route selection, type of goods, specific time, settlement method and industry quotation,

etc., and the current cost accounting method has not been able to fully discuss the above factors. At the same time, service pricing is quite cost-sensitive, so it is not possible to fully grasp whether each specific product and service line is profitable or loss-making.

The difficulty in confirming the optimal path leads to the lack of accuracy of cost information. Product classification and price setting are closely related to transportation routes, however, JD Express's network is complex, and the cost of a certain route for each product cannot be accurately measured, and the so-called optimal path may not be the optimal path.

This shortcoming seems to be difficult to overcome, somewhat similar to the concept of "systemic risk", and it is true that no matter how advanced technology and how effective management is, there will always be mistakes, and the so-called optimal path may not exist.

Therefore, when determining the optimal path, it is necessary to add conditional restrictions, for example, the most reasonable route that can be planned under the given data is the optimal route that we can find at present, or whether the planning and cost of other enterprises in the same industry on the same route are lower, so that the relatively optimal path option can be found, so as to calculate the logistics cost of a certain route more reasonably, and then set a reasonable price to win the price advantage.

After analyzing the advantages and disadvantages of JD Logistics, let's do a thought, what is the connection between the advantages and disadvantages of JD Logistics?

Operation is inseparable, whether it is its business advantages or cost management advantages, many are based on the strength and operation of JD logistics, and its disadvantages are mainly compared with the first-class logistics groups in developed countries in Europe and the United States, high transportation costs, cost accounting methods are relatively lagging behind, are the gap between JD and the world-class logistics group.

Therefore, the advantages are temporarily relative to other domestic logistics companies, while the disadvantages are compared with the first-class level.

### **3.2 Enhance the awareness of cost saving for all employees**

The awareness of cost saving goes up to the management level, down to every grassroots financial personnel and front-line express delivery personnel.

The awareness of cost saving should not only be standardized from the system, but also from the ideological concept.

The company's rules and regulations need to turn the concept of cost saving into a code of conduct, such as rewarding couriers who serve without errors according to the prescribed procedures, punishing couriers with a high loss rate and damage rate, etc. The company can also actively create a cost-saving atmosphere, select the top ten pacesetters for saving, and create a corporate culture with cost-saving connotations.

Enhance the cost saving awareness of all employees, first of all, we can give subsidies economically, such as taking encouraging dividend measures, bonuses according to work performance, etc.; secondly, we can promote employees to develop a sense of cost saving by meeting the spiritual needs of employees, so that express front-line employees and grassroots financial personnel can feel a sense of honor and consciously contribute to the company's cost savings.

#### **Introduce and train professional information and management talents**

Talent gap is a deep-seated factor that affects the quality and disadvantage of enterprise cost management. Talent gaps can be encountered in the early, middle and even late stages of enterprise development, and the situation of talent gaps varies from stage to stage.

Therefore, enterprises must cultivate their own informatization professional

compound talents. Combined with the development of the internal and external markets, we should formulate effective recruitment and training plans for employees to improve the overall level of employees.

Due to the wide range of express delivery industries, such as warehousing, transportation, real estate, wholesale and trade.

Therefore, managers are required to have strong professionalism and high comprehensive quality, and be able to open up the market, maintain and explore customers.

The service personnel of specific positions should also have certain insights into many elements of the logistics industry, and should become standardized and professional distribution and sorting personnel; enterprises should develop a scientific staff training mechanism to continuously enhance the proficiency of employees; and finally formulate a unified company work standard, so that the work can be completed more smoothly, improve the efficiency of express delivery work, and then save costs and improve enterprise efficiency.

If it can introduce high-quality information talents, it will directly promote the information construction of enterprises, but the introduction of difficulty is high, the cost is also high, and the more prudent way is to cultivate such talents. JD Logistics can be based on the characteristics of the logistics express industry and the prerequisites of the entire environment to provide employees with on-the-job, Special, full-time way to carry out post, professional, management training, so as to improve the professional knowledge and skills of employees.

JD Logistics' informatization training team can be composed of outstanding employees and professional technicians within the enterprise, and special training institutions can be hired to give lectures when necessary.

The cultivation of managerial talents is a necessary choice for the long-term development of enterprises. JD Logistics has a lot of resources, how to make full use of resources to manage enterprises and employees is the goal of management talent training.

The cultivation of managerial talents not only requires the trained employees to have professional knowledge and outstanding comprehensive quality, but also needs them to have a sense of responsibility and mission, as well as a high sense of recognition of the company's value, only such a manager can better serve his enterprise and lead his enterprise to prosperity.

### **3.3 Improvement the accounting of logistics costs**

The current logistics cost accounting is mainly composed of two aspects: on the one hand, the direct cost, which can be allocated to the specific service process according to a certain standard and then generate a cost table, and then the indirect costs in the business process are apportioned according to the proportion of the cost table.

However, each business process has its own peculiarities, so it is necessary to understand the flow of each logistics operation and use the corresponding operation center to account for it. In the accounting, you can introduce logistics cost accounting accounts, such as "logistics cost" and "main logistics cost". Due to the needs of accounting regulations, logistics costs now need to be accounted for and listed in the statements according to the accounting method, especially for listed companies and large enterprises, which have more external attention, and are more out of financial needs rather than management and strategic needs.

Therefore, JD logistics in the improvement of this kind of accounting methods at the same time, internal cost management can be more diversified, such as continue to improve the introduction of the operation cost method, more reasonable classification of the operation center and links, to review their own attitude to calculate the cost of logistics enterprises, so that they know it, the significance of such logistics cost accounting is not to give external personnel

"appreciation", but to find out the defects in cost management, make up for the shortcomings, and provide cost-related data support for internal decision-makers.

### **Reduce transportation costs**

Transportation costs account for a large proportion of the total cost, and there is more room for reduction. In order to improve the speed of logistics services, many express delivery companies, including JD Logistics, have adopted methods to increase transportation costs.

Although increasing the cost can indeed improve a certain service quality, according to the principle of diminishing marginal effect, when the transportation cost reaches a considerable level, each unit of service quality needs to pay more or even a huge cost, so the logistics cost also has a certain ceiling.

First of all, simplify the transportation system, reduce intermediate links, scientifically and rationally plan and lay out transportation routes, and make full use of electronic maps to avoid repetition and roundabout transportation, and effectively improve the actual cargo rate and round-trip cargo rate of vehicles. Secondly, it effectively diversifies the combination of water, land, air and other transportation methods to actively overcome the difficulties of express delivery due to geography, climate, road blockage, etc.

Finally, vigorously develop third-party logistics, that is, business outsourcing, hand over the weaknesses of JD Logistics to the third-party logistics company to complete, and concentrate on doing a good job in their own strong transportation profession, so as to reduce risks and costs.

### **Strengthen the construction of enterprise informatization and establish an Internet of Things system**

First of all, through Internet technology, voice and face recognition technology, intelligent machine operation and other technologies in the era of big data to solve the monitoring and processing of logistics activities and improve

work efficiency.

Second, enterprises should actively use communication equipment and networks to achieve timely communication and feedback with upstream suppliers and customer groups, and adjust the logistics plan in the shortest possible time, for example, according to the prompts of the automatic replenishment system, logistics companies can timely distribute, replenish, and meet the requirements of customers to track and query goods at any time. Third, JD should also develop a database to proactively discover useful customer information and provide data support for managers' decision-making, such as warehousing optimization and transportation optimization.

Finally, modern equipment is also essential, JD has done a good job in this regard, fast service requires fast equipment such as airplanes, various automatic sorting machines to improve transportation efficiency.

JD can also capture and process logistics information by building an IoT system. The Internet of Things system can be applied to the automatic identification and data collection of items, electronic data exchange of logistics information, intelligent positioning, logistics tracking and investigation management, logistics automation facilities and logistics management software systems, logistics information systems and logistics public information platforms [14]. The establishment of the Internet of Things system plays a vital role in the intensive development of logistics enterprises, the enhancement of competitiveness, the improvement of information level, the improvement of service levels, the reduction of operating costs and the increase of profit sources.

### **Continue to improve the activity costing method**

The in-depth development of the logistics industry, the increasing requirements for its services, the increasing competition in the industry, the greater the survival pressure of various logistics enterprises, and the traditional cost accounting methods have many defects and are no longer applicable.

First, a fixed overhead allocation rate is prone to erroneous cost information.

Secondly, this method has great limitations on the accounting of service-oriented products.

Finally, inappropriate costing methods often obscure much of the relevant information in some cases <sup>[45]</sup>.

There are certain highlights of the activity costing method, and its way of thinking is similar to that of logistics.

Logistics services are strange, and their overhead costs are higher than those of general industrial enterprises, so this method can not only scientifically and effectively calculate, analyze and control various expenditures, but also reasonably match other expenses.

The first step is to further rationally divide and improve the operation center. The division of operations needs to be appropriate, and sometimes it is necessary for departments to intersect with each other, but too broad and too detailed is not conducive to operations.

The second step is to confirm the motivation. Distinguish whether it is due to resource or activity motivation, and match it to the corresponding cost base. The third step is to reasonably collect the cost of the operation center and calculate the relatively accurate cost.

The fourth step is centralized management. Use relevant factors, plan to differentiate responsibility centers, familiarize yourself with the process, identify important points, and then look for actionable ways to improve cost management. Based on the activity costing method, the total cost of the entire business process is examined, and the "non-value-added" operations are subtracted, and the low-contribution operations are completed and the business process is reintegrated

## Conclusions on Section 3

In this section, we have addressed the pressing issue of improving the management system of logistics costs within JD.com, a leading e-commerce platform. Through an in-depth analysis, we identified several key problems hindering effective cost management and proposed recommendations to mitigate these challenges.

1. **Problems in JD Logistics Cost Management.** Our investigation revealed several significant challenges within JD's logistics cost management framework. These include inefficiencies in route optimization, lack of transparency in cost allocation, and inadequate utilization of technology for cost-saving initiatives. Addressing these issues is paramount for JD to enhance its competitiveness and sustain profitability in the dynamic e-commerce landscape.

2. **Enhancing Awareness of Cost Saving for All Employees.** One of the crucial recommendations for JD is to foster a culture of cost consciousness across all levels of the organization. By instilling a mindset of frugality and resource optimization, employees can actively contribute to identifying cost-saving opportunities in their respective domains. Implementing regular training programs and incentivizing cost-saving initiatives can further reinforce this cultural shift and drive sustainable cost reductions.

3. **Improving the Accounting of Logistics Costs.** Effective accounting and tracking of logistics costs are essential for JD to accurately assess its operational expenses and identify areas for improvement. Our recommendation includes the adoption of advanced cost accounting systems and robust data analytics tools to capture real-time cost data, facilitate accurate cost allocation, and enable proactive decision-making. Furthermore, integrating cost performance metrics into the performance evaluation framework can incentivize accountability and drive

continuous improvement in cost management practices.

In conclusion, addressing the challenges outlined in this section requires a multi-faceted approach encompassing organizational, technological, and cultural dimensions. By implementing the proposed recommendations, JD can streamline its logistics cost management processes, enhance operational efficiency, and ultimately, bolster its competitive position in the global e-commerce market.

## CONCLUSIONS

This paper discusses the general characteristics of the cost of logistics enterprises, and highlights the two characteristics of logistics cost, and then introduces the four major elements that have an impact on it.

Then, taking JD Logistics as an example, the basic situation of JD Logistics as a logistics enterprise was introduced, and some problems in its cost management were analyzed, and finally six targeted suggestions were put forward. With the in-depth development of China's economy, JD logistics and other logistics enterprises should pay more attention to the cost management of enterprises, introduce and train management personnel, and enhance the awareness of cost savings of all employees; strengthen the construction of enterprise informatization, borrow the Internet and data to realize the modernization and informatization of logistics enterprises; introduce the operation cost method to improve the real and reliable cost information for managers, and provide data support for the development of enterprises, so as to enhance the competitiveness of enterprises.

JD has become the largest B2C e-commerce company in China, and is also one of the most popular and influential e-commerce websites in China's e-commerce field.

To stand out among many e-commerce companies, JD also has its own unique advantages and commendable services, and JD's own logistics model is also one of the reasons why consumers are favored. JD mainly operates its own logistics in urban areas, and exchanges high logistics costs for high-quality distribution services, which attracts many consumers to choose JD.

E-commerce is a trend of modern economic development and a product of the information age, which has changed the traditional business model and is a new direction of social development.

With the rapid development of e-commerce, our requirements for logistics

are gradually increasing, and the development of logistics must be synchronized with the development of e-commerce. The logistics of e-commerce enterprises has become the core competitiveness of enterprises, so this paper focuses on the logistics mode and cost control of e-commerce enterprises.

#### Research implications

(1) By analyzing the current situation of JD Mall logistics, find out its existing problems, put forward improvement plans, optimize the distribution structure for the weak links in logistics distribution, and improve the level of the entire logistics link, so as to control logistics costs and enable enterprises to obtain more profits.

(2) Logistics has become the core competitiveness of e-commerce enterprises, and logistics distribution efficiency and service level are the main factors for e-commerce enterprises to be recognized by consumers. By developing new forms of e-commerce logistics models, it is possible to improve the understanding of e-commerce logistics.

(3) JD is the leader of domestic B2C e-commerce, and through the study and analysis of JD's case studies, we can find the common problems in logistics in the industry, so as to point out the direction for the logistics development of the e-commerce industry.

E-commerce enterprises do not pay enough attention to logistics cost control, in China, e-commerce enterprises pay attention to sales, but ignore the importance of logistics cost control, logistics management is more extensive. This paper focuses on the research on the logistics distribution mode and cost control of JD Mall, analyzes the advantages and disadvantages of JD distribution mode, and formulates a logistics cost control strategy.

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