THE INFLUENCING FACTORS OF CUSTOMERS' SATISFACTION WITH LOGISTICS DELIVERY MODE OF JD PLATFORM

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ABSTRACT

Committed to the satisfaction of consumers, coupled with the characteristics of self-operated express delivery, JD has become one of the most popular and influential e-commerce websites in the field of e-commerce in China. At present, under the background that the annual turnover of the mall is more than 10 billion, due to the continuous expansion of its business, the logistics distribution model restricts the development of the mall. In order to break through the bottleneck of logistics, this study decided to put a lot of energy into the self-operated logistics distribution system, but it also brought a series of problems. Therefore, the objectives of this study were: 1) To explore the main factors affecting the satisfaction with the logistics delivery mode of JD platform; 2) To analyze the issues existing in the operation of the logistics delivery mode of JD platform.

Based on theories related to logistics management and customer satisfaction, this study adopted the quantitative research methodology, and then distributed 300 questionnaires and collected 280 questionnaires. It further investigated the logistics and distribution related situation on the JD platform through questionnaire data, and finally drew the conclusion: 1) The factors that affect the satisfaction of the logistics delivery mode of JD platform are enterprise impression, delivery service price, logistics delivery service quality, quality expectation of delivery service and communication situation of delivery service; 2) The issues existing in the operation of the logistics delivery mode of JD platform are the following: the cost of delivery is increasing; the quality of delivery is reduced and the after-sales service is poor.

Keywords: JD platform; logistics delivery mode; satisfaction; influence factors of logistics delivery

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In view of the limitations of my level, this article is unavoidable omissions and mistakes, please professors and teachers to criticize.

Declaration

I, HaiPeng Li, hereby certify that the work embodied in this independent study entitled "Study on The Influence Factors of Logistics Delivery Mode of JD Platform" is result of original research and has not been submitted for a higher degree to any other university or institution.

Li Haipeng

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Chapter 1 Introduction

1.1 Background of the Study

With the popularity of the Internet, e-commerce is proliferating, and the number of online shoppers is increasing. China Internet Network Information Center (CNNIC) recently released the 48th Statistical Report on China's Internet Development, showing that by 2021, the online shopping substitution rate of online shoppers has reached 89%. Compared with 2020, the scale of online shopping users and the utilization rate of online shopping have significantly increased (Kuang,2022). Especially with the replacement of traditional mobile phones by smartphones, the large-scale development and popularization of mobile Internet, and the further accelerated development of the Internet, the number of mobile Internet users has increased substantially, and the number of people who use mobile online shopping has also continued to grow. Many e-commerce companies have also developed their mobile apps. The rapid growth of the number of online shoppers means the increase in the number of parcels daily and the increase in the demand for logistics. In short, the rapid development of the Internet has led to the rapid expansion of e-commerce, which has also led to a continuous increase in the demand for logistics scale (Zhang & Zhang ,2021).

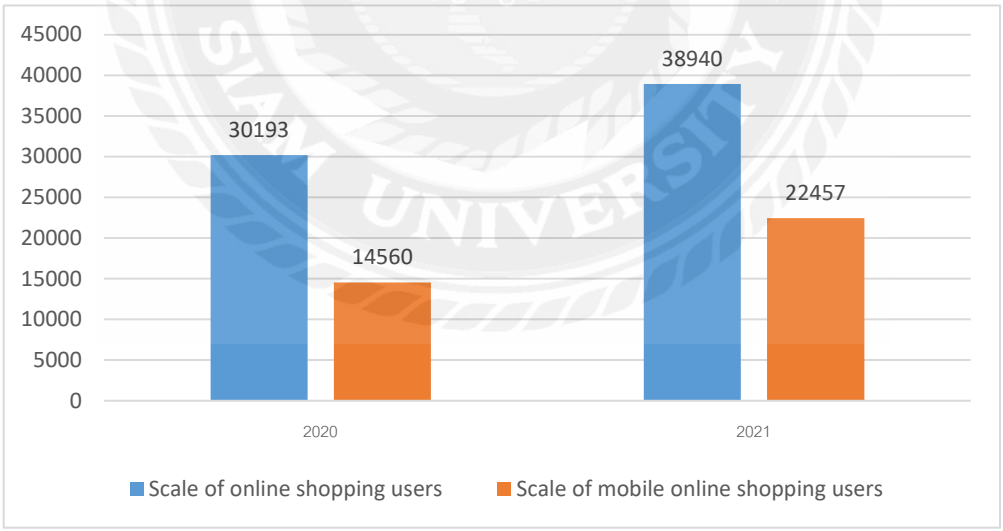

Figure 1.1 Statistical Chart of Online Shopping/Mobile Phone Online Shopping Users in 2020-2021

In the last ten years, the number of e-commerce packages has increased from 860 million per year to more than 20 billion. Online shopping has gradually penetrated people's lives, and formed the buying habit of users. At the same time, consumers and online merchants are increasingly demanding logistics services. Looking at the current

situation of logistics services in China, the problem is not satisfactory (Wang, 2022). Some survey results show that the logistics experience effect of online shoppers is not very good. More than 68% of online shopping consumers can't get an excellent shopping logistics experience. There are many problems in logistics service, such as: the express delivery process taking too long, which delays the customer's time; There is a problem with express delivery during transportation; The information of express delivery is inaccurate; The service attitude of the courier is not good; Customer satisfaction is low when dealing with the event of setting up a complaint; These problems, such as the low delivery speed of courier companies, not only reduce the satisfaction of logistics experience, but also reduce the satisfaction of online shopping users (Shi & Liang, 2021).

B2C company is the e-commerce company most affected by logistics problems. As the largest B2C website in China, JD Platform has not been spared. To overcome this bottleneck, JD Platform has chosen a unique logistics operation mode: e-commerce logistics integration mode. Maximizing the logistics in the enterprise itself, this logistics operation mode has brought a solid impetus to the development of the JD platform, which has rapidly grown into the largest self-operated e-commerce company in China since it entered the e-commerce industry in 2004, and then became the fourth largest Internet company after the three major BAT companies (Wang & Zhang, 2019). JD's B2C model can be said to be an extension of the supply chain, which integrates e-commerce with logistics and forms an integrated business model of purchasing and marketing. The integration of e-commerce and logistics in JD is the inevitable result of adapting to the rapid growth and development of e-commerce industry and the increasing preferences and requirements of customers, and it is also an essential decision for JD platform to face the growing uncertainty of logistics market demand. However, the integration problem has become the focus of scholars' research. The integration of e-commerce logistics has brought great success to the JD platform. At the same time, due to the rapid development and other reasons, various problems in the logistics operation mode of e-commerce logistics integration in JD have gradually surfaced, which has seriously hindered the further expansion of JD platform (Chen et al,2022). Therefore, through further research on the logistics delivery mode of JD platform, this study deeply understands the relevant needs of online shopping users for the platform logistics, and then puts forward the countermeasures to improve the logistics operation mode of JD platform.

1.2 Problems of the Study

With the continuous development of the Internet and e-commerce, online shopping customers have more and more service requirements. Logistics is the artery of the whole e-commerce. The core of the development of e-commerce enterprises, including the JD platform, is to improve the logistics system. Obviously, the existing logistics system can not meet the growing demand of online shopping users, although JD has now established a unique logistics operation mode, which has been improved. However, with the extension of time, various problems have gradually emerged. If it is not found and improved in time, it is difficult for the JD platform to develop rapidly. Therefore, the problems of this study are as follows:

On the one hand, the main factors affecting the satisfaction of the logistics and distribution methods of the Jingdong platform are analysed. As a relatively famous logistics platform, the majority of people said that most people agree with Jingdong's logistics and distribution methods because it is relatively fast, but some individuals are not satisfied with it (Wang, 2022). The main problem is that Jingdong's logistics and distribution can sometimes be characterised by poor service attitudes and poor communication conditions at the time of delivery. From the current competitive situation in the market, Jingdong Logistics is facing relatively strong rivals, such as the rise of the pole rabbit, with its low price to seize the market quickly. Then SF's service quality to improve, so that more consumers praise it, in this case, the Jingdong platform logistics should focus on the improvement of the satisfaction of the delivery method, only to find out the relevant factors, and breakthrough each one of them to ultimately obtain the recognition of the consumer, so this is one of the issues that this study needs to focus on.

On the other hand, problems exist in the operation of the logistics and distribution model of the Jingdong platform are studied. As an independently used logistics platform, Jingdong's logistics and distribution model is famous for its speed, but there are also many problems that need to be improved (Zhang, 2022). Therefore, after analysing the factors affecting the distribution satisfaction of Jingdong logistics platform, this topic is an in-depth investigation of the main problems existing in the process of its operation, with the main purpose of proposing relevant solution strategies for the problems. At present, Jingdong Logistics is facing fierce market competition after the epidemic, how to solve its own operational problems to return to the competition track is the way to highlight the heavy for. Therefore, this study in the second aspect of the research is mainly to study the main problems of the Jingdong logistics distribution model.

1.3 Objectives of the Study

On the surface, JD logistics model can be efficient, but many problems are emerging. The purpose of this study is to put forward the improvement strategy of logistics operation mode in JD platform, so as to bring better logistics experience to customers and promote the better development of JD Logistics. The main purposes of this study are as follows:

(1) To explore the main factors affecting the satisfaction with the logistics delivery mode of JD platform;

(2) To analyze the issues existing in the operation of the logistics delivery mode of JD platform.

1.4 Scope of the Study

This study mainly explores the related contents of JD platform logistics delivery mode. Based on the core competitiveness theory and customer satisfaction theory, this paper reviews more than 50 articles related to JD platform and more than 30 articles related to logistics mode, and understands the development status of JD platform logistics delivery mode, thus providing effective reference for improving the service quality of JD platform logistics delivery mode and meeting the relevant needs of online shopping users.

1.5 Significance of the Study

(1) Theoretical significance

With the popularity of Internet technology, online shopping has become an indispensable part of daily life. However, in the mode of e-commerce, the transaction between buyers and sellers can only be achieved through logistics, so the logistics link is particularly important in online shopping. On the basis of exploring the logistics delivery mode of JD platform, this study further explores the main problems existing in the logistics delivery mode of JD platform, and puts forward corresponding countermeasures and suggestions in combination with the actual situation of enterprises,

realizing the integration of online shopping consumers' logistics preferences and enterprise logistics strategy optimization, which has certain theoretical significance for enriching the relevant research theories and methods of strategy optimization.

(2) Practical significance

As a leader in the e-commerce industry, JD platform is a representative of self-operated logistics mode. If you want to gain the trust of more customers and strengthen the willingness to repeat purchases, you must rely on the effective way of improving logistics services. Therefore, with the help of questionnaires, this paper analyzes the specific evaluation of JD platform users on their logistics delivery mode, spies on users' willingness to choose logistics, and makes an in-depth analysis of the evaluation system in combination with the existing literature research results, which has certain reference value for optimizing the logistics service capacity of JD platform. At the same time, it is of great practical significance for JD to better understand the logistics needs of consumers, improve its logistics service level and further promote the development of enterprises.

1.6 Limitation of the Study

First, the representativeness of the survey sample needs to be improved, compared with the JD platform. The range of its users is large, and the evaluation of logistics service satisfaction varies with gender, age, education level, monthly income and occupation. Therefore, a control sample should be set up to expand the sample to other ages and regions to make the research results more universal.

Secondly, based on the analysis of users' satisfaction with the logistics delivery mode of JD platform, this paper applies the questionnaire method in the in-depth exploration, and finds that there are some shortcomings in the analysis depth. Therefore, in the future research, we can deepen the practical research and the investigation results. In recent years, e-commerce logistics has risen and developed rapidly, and the focus of major express logistics delivery enterprises has gradually shifted to the direction of customer satisfaction. I hope that the research and suggestions put forward in this paper, taking JD platform as the research object, can be used for reference and inspiration for other e-commerce enterprises and logistics enterprises.

1.7 Hypothesis

H1: Enterprise impression has a impact on the satisfaction with JD Platform logistics delivery mode;

H2: Delivery service price has a impact on the satisfaction with JD Platform logistics delivery mode;

H3: Logistics delivery service quality has a impact on the satisfaction with JD Platform logistics delivery mode;

H4: Quality expectation of delivery service has a impact on the satisfaction with JD Platform logistics delivery mode;

H5: Communication situation of delivery service has a impact on the satisfaction with JD Platform logistics delivery mode.

Chapter 2 Literature Review

2.1 Introduction

This chapter expounds the logistics delivery mode, the influencing factors of logistics delivery, and analyzes, collects and organizes the research progress of related literature discussion at home and abroad, and expounds the research framework of this study.

2.2 Literature Review

With the vigorous development of digital information technology and Internet environment, Amazon, Taobao, JD and other companies with network platform operation mode appear in large numbers production, life and service. Their rapid development speed and extensive industry expansion have caused impacts and changes to many industries, and the network platform operation mode has become increasingly the trend of development. Platform, as an important economic phenomenon, has been highly valued by the international academic circle.

2.2.1 Logistics Delivery Mode

With the continuous development of information technology, people have higher and higher requirements for e-commerce enterprises. The bottleneck problem restricting the development of e-commerce is the lagging development of logistics industry. E-commerce logistics must be supported by a robust the logistics system. To better and faster development of e-commerce, we must constantly improve logistics capability, and the development of logistics is inseparable from the drive of e-commerce. After the continuous development of modern logistics distribution mode, the major domestic e-commerce has explored three ways to solve the e-commerce logistics, and developed the third-party logistics distribution mode, logistics joint distribution mode and self-operated logistics distribution mode.

(1) Third-party logistics distribution mode. The main body of logistics services provided by third-party logistics is a third party that is not a producer or end user, and the products supplied by it do not belong to them (Jin & Yang, 2019). E-commerce enterprises will part or all of the logistics distribution services to a third party to complete. The advantages are that the enterprise can focus on the core business, so that

the enterprise can have more specialized and flexible logistics services in a shorter time, and reduce the initial investment in fixed assets (Cui,2022). However, in cooperation with third-party logistics, special attention should be paid to problems such as irregular storage of goods, delayed delivery and untimely service.

(2) Self-operated logistics distribution mode. Self-operated logistics distribution mode refers to the mode in which an enterprise establishes, organizes and manages all aspects of logistics distribution to achieve internal and external logistics distribution (Hu et al. 2017). The advantage of this mode is that it can meet the actual needs of enterprises to the maximum extent, and can control the level and quality of logistics and distribution service of enterprises. It can reasonably plan the distribution center and the receiving place, and effectively reduce the number of distribution vehicles. At the same time, increase mechanized equipment to improve the efficiency of receipt and delivery further (Yao & Liu,2021). However, the early construction needs enterprises to invest a lot of workforce, financial and material resources. The construction of distribution-related supporting services, related system software and management systems, and the training of personnel will take a long time, which may lead to higher distribution expenses and the increase of enterprise costs.

(3) Joint distribution mode. Joint distribution mode is to improve the efficiency of logistics, within a specific range, severa enterprises to jointly carry out distribution. The goal of co-distribution is to rationalize distribution. A joint distribution mode can improve the utilization rate of equipment and reduce the cost of enterprises to save costs for customers. However, the operation of joint distribution is complicated and requires the cooperation of multiple parties (Li et al. 2021).

2.2.2 Influencing Factors of Logistics Delivery

(1) Enterprise Impression

Wu (2005) believed that customers are the basis for the survival and development of enterprises. The source of profits for enterprises is not only to attract customers, but more importantly to maintain and retain customers, and the key to achieve this goal is to satisfy customers, thus creating loyal customers and obtaining the customer career value of enterprises. In recent years, after years of rapid development, China's communication industry has shifted from the seller's market to the buyer's market, and the market is in a relatively saturated state. In this case, how to "customer satisfaction" as the center to organize the enterprise's production and operation activities, to understand the customer's recognition of the enterprise's marketing performance,

satisfaction evaluation, find out the shortcomings, improve the competitiveness are critical issues. Li &Wang(2007) believed that when Chinese telecom enterprises encounter brands, brands are not only the identity of enterprises, but also the cognition, evaluation and impression of enterprises and their products by society, market and consumers, and are also the most precious resources for enterprises. Bai(2008) thought that logistics enterprises are service-oriented enterprises whose main product is logistics services. The meaning of service brand is that logistics enterprises give customers the instant impression that is different from other enterprises, and play a role in demonstrating service brand, service concept, service quality and service value. Logistics enterprises can provide their service brands to customers, potential customers and other capital owners through various possible media, such as equipment trademarks, printed symbols and television advertisements, delivery trucks and staff uniforms, etc. The content, quality and value of their services will affect customers' understanding of the enterprise brand. He & Sun (2006) proposed that with the continuous popularity of e-commerce logistics, express logistics enterprises must pay attention to improving customer satisfaction. Corporate image, customer expectation reliability, service responsiveness perception, value perception and security perception are the key factors to improve customer satisfaction. Teasdale (2010)explored how social enterprises can utilize the multiple identities of social enterprises to access start-up funding. The social entrepreneur exhibited multiple organizational faces to external stakeholders to acquire resources. However, resource holders were not passive recipients of these managed impressions. Each had a strategic interest in the social enterprise being presented in a particular way and exerted coercive pressure on the social enterprise to conform to these co-constructed impressions. Utilizing organizational impression management helped the social enterprise resist these coercive pressures.

(2) Delivery Service Price

So (2000) pointed out these firms will exploit their distinctive firm characteristics to differentiate their services when there are heterogeneous firms in the market. Assuming all other factors being equal, the high capacity firms provide better time guarantees, while firms with lower operating costs offer lower prices, and the differentiation becomes more acute as demands become more time-sensitive. Furthermore, as time-attractiveness of the market increases, firms compete less on price, and the equilibrium prices of the firms increase as a result. Our findings provide important implications about firm behaviour under price and time competition. Ha (2003) showed that delivery frequency, similar to delivery speed in time-based competition, can be a source of competitive advantage. It also allows firms that sell identical products to offer complementary services to the customer because she can lower her inventory with deliveries from more suppliers. In general, higher delivery

frequencies lower the value of getting deliveries from the second supplier and therefore intensify price competition. Assuming the cost structures do not change and the suppliers are identical, it showed that when the customer controls deliveries, he would strategically increase delivery frequencies to lower prices. Koyuncu & Bhattacharya (2004) found that individuals prefer to buy more from the Internet since on-line shopping allows them to do their shopping quicker and provides better prices. On the other hand, individuals opt to purchase less from the Internet due to the fact that on-line payments involve some risk and on-line orders require longer delivery time. These results remain valid for the most part, when we do the same analysis for individuals with different on-line shopping frequencies.

Wang (2007) believed that at present, most distribution centers in China are still mainly providing functional logistics services such as warehousing agency and transportation agency. And the overall lag behind. There are some problems, such as slow development, low utilization rate, high distribution cost, socialization, organization, low degree of specialization, low informatization level, long circulation cycle and low timely delivery rate. In terms of service concept, it stays in the stage of "making money" through traditional distribution; it passively accepts the transportation requirements of customers in the operation mode, and competes through the price war of service rate.Ko et al (2018) proposed two strategies for a company's decision making regarding adjusting market density and price by developing a pricing and collaboration model based on the delivery time of the last mile process. A previous mile delivery time function of market density is first derived from genetic algorithm (GA)-based simulation results of traveling salesman problem regarding the market density. The pricing model develops a procedure to determine the optimal price, maximizing the profit based on last mile delivery time function. In addition, a collaboration model, where a multi-objective integer programming problem is developed, is proposed to sustain long-term survival for small and medium-sized companies.

(3) Logistics Delivery Service Quality

Generally speaking, logistics service includes all service activities from the time when customer orders are accepted to the time when goods are delivered to customers. It measures the time value and space value created by a logistics system for a certain commodity or service. The logistics industry has been fully developed since the 1960s, and the research on logistics service is more extensive and deep. The definition of logistics service quality is mostly based on the 7RS theory put forward by American scholars, which explains the most basic content of logistics service. With the increase of logistics service content, the definition of logistics service quality also changes (Kilibarda et al 2020).

According to the change of research perspective, the research on logistics service quality can be divided into two stages. In the first stage, from the perspective of marketing, logistics service quality is defined as the transportation activities provided by enterprises to meet customers' needs, and the service work can make customers feel satisfied, thus making enterprises get favorable comments. However, the research at this stage is still one-sided and does not consider from the customer's point of view (Yan, 2007). Due to the change of market focus and angle, in the second stage, in view of the shortcomings of the previous stage, from the customer's point of view, three dimensions are formed to measure the quality of logistics services, including timeliness, quality and availability, in order to meet the needs of customers (Fu, 2019). Sun &Zhu (2022) pointed out in Theory and Practice of Modern Logistics that logistics enterprises should provide personalized and differentiated services according to customer needs and their own characteristics, so as to improve customer satisfaction as much as possible.

Hartmann (2011) found that the use of logistics packaging and the competitiveness of logistics service industry have increased dramatically in the past ten years. In this environment, enterprises must find ways to improve their competitiveness. Therefore, the conceptual model of logistics service providers and its influence on customer loyalty are studied. Huma et al. (2020) found that the service quality of operational logistics and relationship logistics have a significant impact on customer loyalty. In addition, the relationship quality is the key factor to improve customer loyalty. Shi (2020) pointed out that there are two pressures in the logistics industry, one is competition pressure, and the other is complaints from customers about service quality, and that the service quality of express delivery industry can be improved by strengthening market supervision system and establishing quality evaluation system. Feng & Xin (2019) based on the theory of SERVQUAL and LSQ, established the evaluation index system of express logistics service quality, determined the weight by entropy weight method, built a model, and evaluated the logistics service quality. Shi & Xu (2019) based on online review data, analyzed the influencing factors of express service quality, conducted a scientific and systematic study by combining qualitative and quantitative methods, and analyzed the express service quality by using online review data, which fully reflected the subjectivity and objectivity of service quality.

To sum up, the quality of logistics service in this paper refers to the ability of enterprises to meet the logistics requirements of customers, which usually includes the quality of transportation, delivery and warehousing services, and this definition is the basis of this study.

(4) Quality Expectation of Delivery Service

Bebko (2000) gave among the areas which need to be addressed in service quality research is the nature of consumer expectations across the range of intangibility. Previous research has compared consumers' service quality expectations across services, but different groups of subjects were evaluated for each different service. The problem with using different subjects for each service is that the subject's demographic characteristics may be responsible for the significant differences in expectations of quality.

Yang& Shuai (2007) analyzed the elements of service quality of logistics enterprises, and then determined the key needs of customers for logistics services through quality planning in QFD, so that logistics enterprises could quickly find the key factors to determine and improve service quality, and thus guide the service quality management of logistics enterprises. Zhang&Xu(2019) proposed that from the perspective of demand and production capacity, users' demand should be adjusted and balanced with supply capacity by means of marketing management methods such as price, distribution and communication for hot season, holidays and large-scale sales, and targeted logistics service quality standards should be formulated according to production characteristics to manage customer expectations. Make the quality of logistics services meet or even exceed consumer expectations. Xu(2019) believes that driven by new retail, logistics and e-commerce are increasingly integrated, and the improvement of logistics service quality has become the key to the success of e-commerce. At present, customer dissatisfaction caused by the quality of logistics service is not uncommon. Constructing an evaluation system of logistics service quality of e-commerce and accurately evaluating the level of logistics service quality is crucial to promote the high-quality and rapid development of e-commerce, and the determination of evaluation indicators and the selection of evaluation methods are the premise of the evaluation of logistics service quality. New retail e-commerce pays more attention to the realization of people-oriented consumption concept, and can further improve the existing e-commerce logistics service quality evaluation system by increasing the two indicators of product quality and value-added services, so as to better reflect the level of e-commerce logistics service and its ability to meet consumer needs.

Yang (2011) that the third party logistics enterprises in the middle zone, connecting suppliers and distributors, provide service is better than the traditional logistics mode, belongs to the modern service industry, with professional human guarantee, can ensure the smooth circulation of agricultural products from origin to pin, not only can improve the quality of agricultural products, and realize the value appreciation in the process of circulation. The third-party logistics enterprises with the ultimate goal of maximizing

enterprise benefits take customer satisfaction as the purpose of providing services. Customer satisfaction is a kind of subjective feeling of customers, which reflects customers' cognition of product and service quality. According to the research of relevant experts, customer satisfaction, the product itself and the service level of the service process determine customer satisfaction. When the actual service level reaches or exceeds the customer expectations, the customer will obtain the expectation level of subjective judgment, which achieves the customer satisfaction; if the service level is lower than the customer expectations, the customer will cause subjective dissatisfaction.

(5) Communication Situation of Delivery Service

Communication is a process of information exchange, the exchange of information, opinions and understanding between two or more people. Communication is also the main form of information exchange between economic organizations in the process of selling goods and providing labor services. Jia (2014) found that with the business development of logistics companies, Logistics management links are becoming increasingly detailed, The business process is constantly refined, The company's original semi-manual working mode and computer stand-alone data storage has seriously hindered the expansion of the company's business, at the same time, Management process of the branch company and the head office, The business connection process is still basically realized through manual telephone communication, With a large increase in business volume, Not only will mistakes go mistakes, And the link is chaotic, Informational data is often lost, Excessive pressure on the employees, Work efficiency is difficult to improve, Company leaders cannot achieve real-time supervision, Unable to assist in decision-making, Low customer service quality. Chen (2015) proposed that company A should provide customers with convenient service and good communication when considering customers' needs, so as to ensure the service quality and service efficiency. In marketing, we should not only take the needs of customers as the guidance, but also consider the market competition, take relationship marketing as the core, and pay attention to the interactive relationship with customers, aiming to establish a long-term and stable relationship with customers.

Ocicka & Raźniewska (2016) thought to improve communication tools in E-customer logistics service it is necessary to consider customer needs and expectations. E-customers expect that the time of online order completion will be comparable to the time of going to the shop, purchasing and picking up goods. This is the basic condition of the online shopping service quality assessment. Wu & Zhang (2009) proposed that with the acceleration of economic globalization, more and more enterprises have changed their business concepts, and the concept of customer service has begun to spread widely around the world. Excellent enterprises have established their own

customer service management system to close the relationship with customers, to better meet the needs of customers, so as to establish and improve the competitive advantage of the company. It can be said that the era of customer service has arrived. What enterprises need to do is to establish the correct concept of customer service, strengthen communication with customers, and provide effective services for customers.

(6) JD Platform Logistics Delivery Mode Satisfaction

Wang (2022) pointed out that JD Fresh customer satisfaction index system including reliability, timeliness, security and convenience was finally constructed, and the results showed that the four dimensions affecting JD Fresh customer satisfaction were reliability, timeliness, security and convenience in order of importance. The satisfaction evaluation score of JD Fresh is 4.0326, which is between very satisfied and satisfied. From the overall situation, consumers' satisfaction evaluation of JD Fresh is high, but the evaluation of APP design experience, product price and service attitude is not very ideal, which needs to be paid attention to. Wang (2021) compared JD's self-operated logistics model with Taobao's third-party logistics model, and analyzed how modern e-commerce industry should choose logistics model and its impact on enterprises by using comparative analysis and internal and external factor analysis. Select the appropriate logistics mode according to the different development levels, fully consider their own enterprise scale and strength, platform construction, e-commerce enterprise human resources, according to cost control to measure the development of logistics, the impact of logistics on the enterprise itself and the ability of the enterprise in logistics control. JD Mall combined with its own development situation to choose self-operated logistics model, and JD logistics to create a brand, to promote the good development of enterprises. Taking JD as an example, Feng(2021) respectively investigated their satisfaction with JD's self-run logistics delivery service and third-party logistics delivery service, and quantified customer satisfaction with these two aspects by applying fuzzy comprehensive evaluation method, calculated the customer satisfaction value of JD's logistics delivery service, and then put forward suggestions according to the analysis results: improve the customer load of JD logistics delivery It is necessary to reduce the cost of commodity distribution to improve the cost performance, take into account customer experience to improve the distribution method, and establish an information protection mechanism through innovative logistics technology. Ma(2020) summarized the factors of end-customer satisfaction of JD Mall into five dimensions: delivery responsiveness, delivery reliability, delivery convenience, professional service and communication solution. Based on the 5 dimensions and 15 influencing factor indicators analyzed and summarized, the paper tries to build a hierarchical structure model of influencing factors of customer satisfaction of end-delivery in JD Mall. AHP is adopted to analyze the established hierarchical structure

model and determine the weight of each influencing factor. The questionnaire survey results are used to analyze the current customer satisfaction and concern about these indicators Each factor is scored according to the degree of concern for each indicator. At the same time, the automatic verification function of YAAHP software is used to properly adjust unreasonable score values so as to pass consistency verification, so as to determine the weight and ranking of influencing factors of customer satisfaction of end-delivery in JD Mall.

2.2.3 Customer Satisfaction Theory

The concept of customer service comes from the' customer concept' in marketing, that is, in the changing market environment, the marketing strategy of enterprises should be based on customers, and the loyalty of customers should be improved by giving them personalized services or products, so as to increase the willingness of customers to buy again and improve the profits of enterprises. Some scholars believe that customers' satisfaction with goods or services is directly proportional to the impact of repeated consumption. The higher the satisfaction, the more willing customers are to spend again. Of course, apart from special conditions, such as family environment, expectations of products, demand and different stages of development of the times, it should be within the set conditions (Nigel et al 2007).

This kind of research discusses how to form a set of index system including various factors that affect customer satisfaction from the perspective of enterprises, through which customers' satisfaction with enterprise products or services can be measured. Through the periodic measurement and longitudinal comparison of satisfaction, enterprises can find the breakthrough point to improve product quality or service level; Through the horizontal comparison of satisfaction, we can find out the relationship betweenCompetitor in the same tradeAdvantages and disadvantages of comparison. The basis of satisfaction research is Performance model, that is, customers form satisfaction judgments according to the performance of various attributes of products. In practice, the measurement of satisfaction often follows the following steps: (1) to understand the evaluation factors of customers on products, which usually show various attributes and characteristics of products; Let customers evaluate the products of enterprises and competitors for each attribute; Let customers evaluate the overall satisfaction of enterprises (Ren,2012).

Therefore, when investigating the customer satisfaction with online express delivery services in China and summarizing the relevant literature, It can be analyzed the customer satisfaction with express delivery services from two perspectives(Zuo,

2016): the first is the state perspective, in which customer behavior is the fundamental basis for generating customer satisfaction, which determines the level of customer satisfaction and thinks that this level is mainly due to the customer's feeling; The second is the viewpoint, which is the result of the comparison between the customer's expected consumption experience and the actual consumption experience. This viewpoint holds that customer satisfaction comes from the customer's satisfaction.

Therefore, this study focuses on the customer satisfaction of JD platform, explores whether the specific services of JD platform logistics delivery model meet the needs of platform users, and puts forward reasonable improvement suggestions.

2.3 Company Background

As the largest self-operated e-commerce enterprise in China, JD platform has a market share of 49% in 2014. With the continuous development of JD, there are now several major sections under the JD Group, such as shopping malls, finance, paipai and so on. At the same time, it was officially listed in the United States in May 2014, and entered the top ten international Internet companies list together with other Internet giants such as Baidu. In 2014 alone, the transactions in the JD market made an amazing number, with a transaction volume of 260.2 billion, of which the net income was 115 billion. JD mainly focuses on making consumers have a pleasant shopping experience when shopping online. Rich content, humanized website, reasonable price, complete product range and high standard of quality and service all provide strong competitiveness for JD to survive in many e-commerce platforms (Qin ,2017). In other aspects, such as JD, it not only provides a shopping platform for consumers, but also provides convenient and fast logistics services for some businesses. There are a wide range of goods in JD platform, including all walks of life, such as digital products, home appliances and auto parts, clothing and shoes, nursing products, books, etc., both physical and virtual products are available, which makes people dazzling. JD is also the e-commerce platform with the largest storage facilities in the e-commerce industry in China. By the end of 2014, there were 7 national large logistics centers in JD, with 123 large warehouses and 3,210 delivery stations and self-delivery points. Such a huge storage facility provides great convenience for JD's logistics. For example, JD's own logistics team can deliver services such as the next day's delivery, the three-hour delivery and the 211-hour delivery, so that users and consumers can feel the excellent delivery speed and service. Besides logistics and services, JD is also a company integrating science and technology platform. Since its establishment, JD has invested a lot of money in technology development, and then gradually upgraded. With the development of technology, it has now become an e-commerce enterprise with its own

technology platform (Zhang ,2022).

At present, JD is the only enterprise with six major logistics networks, namely, large-sized, medium-sized and small-sized, B2C, cross-border and crowdsourcing. By September 30, 2018, JD had operated more than 550 large warehouses nationwide, with a total area of about 11.9 million square meters. In 2019, double 11 JD Logistics will reach 90% districts and counties in 24 hours. JD Logistics' "Express Delivery to Car" service has covered consumers in 246 cities across the country, with an average coverage rate of nearly 95%, and the scope of this aging service is expanding rapidly (Liu et al 2019). On December 18, 2019, JD Logistics announced that it would make full use of Dongguan, the largest integrated intelligent logistics center in Asia. The center has a construction area of nearly 500,000 square meters and handles 1.6 million orders a day. An automated warehouse can store more than 20 million items at the same time.

JD has established a wide-ranging logistics service network throughout the country. In 2018, JD operated 521 large warehouses with a construction area of about 11.6 million square meters. JD has established seven logistics centers with Beijing, Shanghai, Guangzhou, Shenyang, Wuhan, Xi 'an and Chengdu as the centers, so that most areas of China are covered by the JD logistics service network, providing customers with more convenient logistics services.

Table 2.1 Coverage of Logistics Delivery Service Center in JD platform

JD logistics delivery service center	Coverage area
Beijing logistics delivery center	Beijing, Tianjin, Hebei, Shanxi, Inner Mongolia and Shandong
Shanghai logistics delivery center	Jiangsu, Zhejiang, Shanghai, Anhui and Diaoyu Islands
Guangzhou logistics delivery center	Guangdong, Guangxi, Fujian and Hainan regions
Chengdu logistics delivery center	Sichuan, Chongqing, Guizhou, Yunnan and Tibet
Wuhan logistics delivery center	Hubei, Hunan, Jiangxi and Henan provinces
Shenyang logistics delivery center	Liaoning, Jilin and Heilongjiang regions
Xi' an logistics delivery center	Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang regions

The rapid development of e-commerce industry requires faster and higher-level logistics services. JD has put forward door-to-door delivery and self-service in logistics and distribution. With the continuous increase of JD's market share, logistics and delivery services such as next-day delivery and speed delivery have emerged, which has further improved the quality of logistics services. In 2010, the "211 time limit" service was implemented to ensure the timeliness and quality requirements of delivery services. JD's order processing flow chart is shown in Figure 2.1.

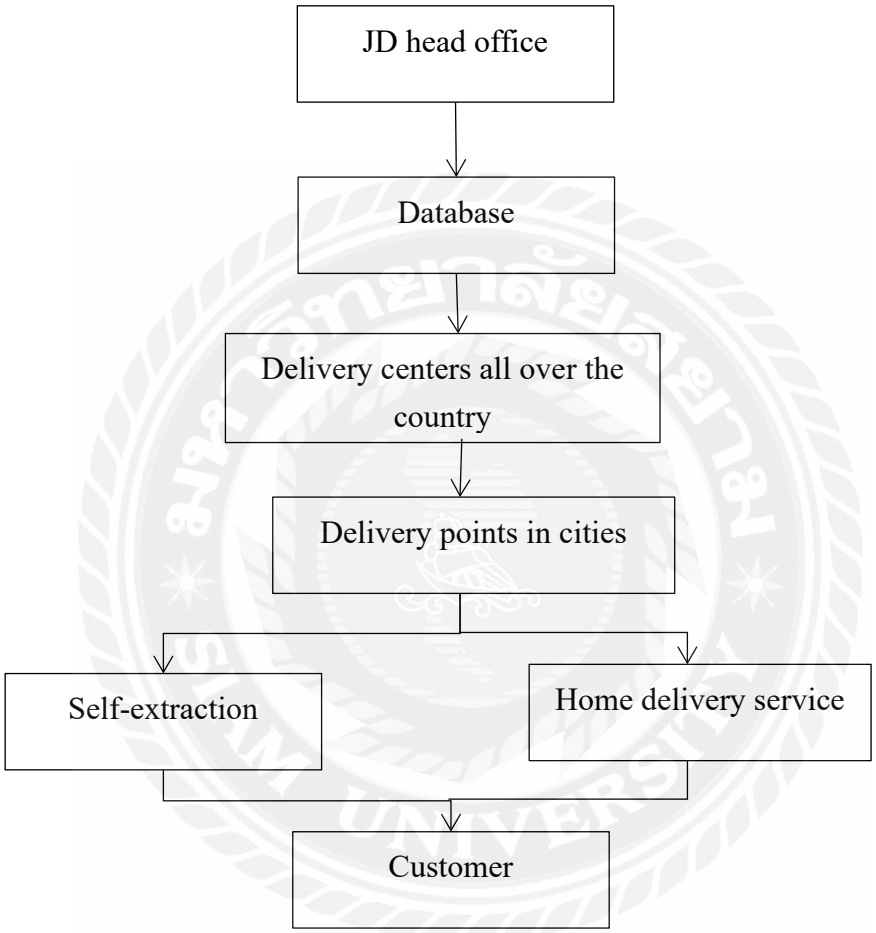

Figure 2.1 JD Order Processing Flow

2.4 Research Framework

Through the analysis of research background and research objectives, we can basically determine the conceptual framework of this study as shown in Figure 2.2 below:

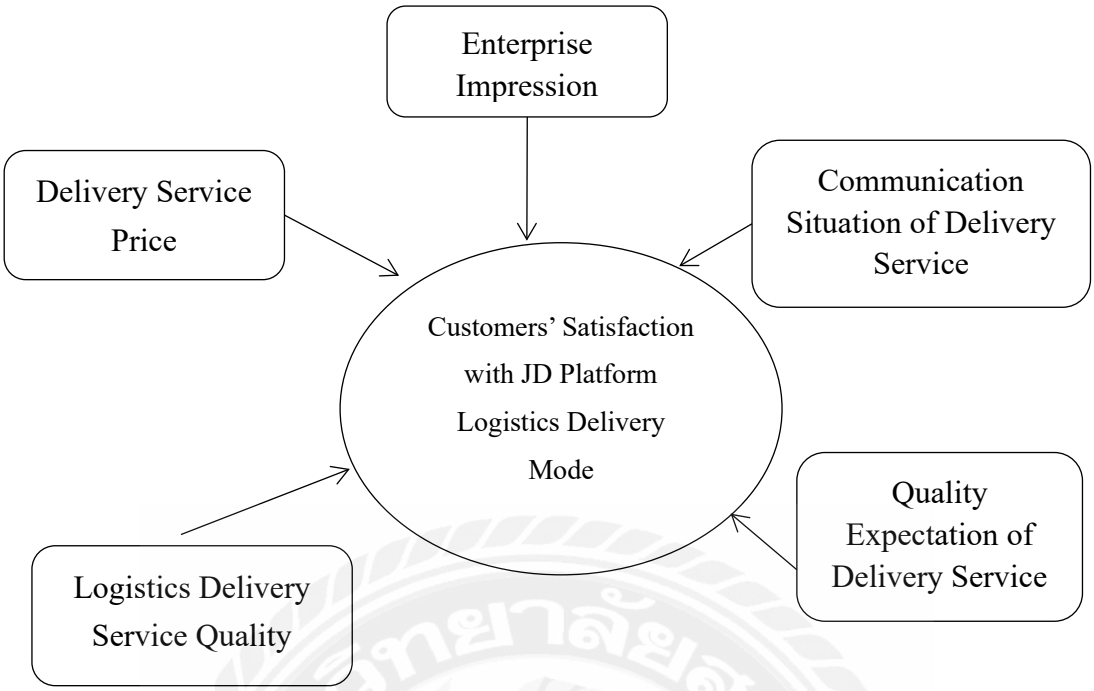

Figure 2.2 Research Framework

Chapter 3 Research Methodology

3.1 Introduction

This study mainly adopted the method of quantitative research method. This chapter first analyzes the research design, gives the sample size related to this study and the specific data collection process and methods, and finally tests the reliability and validity of the questionnaire, which lays the foundation for the result analysis.

3.2 Research Design

The purpose of this study is to analyze the satisfaction evaluation of online shopping users on the logistics delivery mode of JD platform, so as to deeply analyze the areas that need to be improved in the logistics delivery mode of JD platform. According to the relevant evaluation index system, designing an easy-to-understand questionnaire survey is conducive to the respondents to fill in, but also to collecting information and understanding the customer's satisfaction with various indicators. Therefore, the design content of this questionnaire is as follows:

(1) Questionnaire Survey

The first part is to investigate the basic information of customers. Specifically, it includes basic issues such as the age, gender and online shopping frequency of the respondents. The second part, the degree of customer satisfaction with each evaluation index. Mainly understand which factors customers pay more attention to the quality of logistics and delivery services. This part is the main part of the whole questionnaire, which requires customers to score every specific index of the overall logistics delivery service quality of the selected shopping website according to their actual perception.

(2) Likert Five-point Scale Method

In order to make the evaluation process and results objective, the evaluation indicators should be quantified when evaluating customer satisfaction, and customer satisfaction evaluation is a process of quantitative analysis of indicators. Customer satisfaction will eventually be reflected by data, so it is necessary to quantify the evaluation indicators. The research shows that the Likert scale method is widely used in all measurement methods, and the evaluation of customer satisfaction requires the

respondents to express their views on each evaluation index, that is, to show their satisfaction or dissatisfaction with each index, the Likert scale is easier to design and process the data, and the respondents are easier to understand. Therefore, this study uses Likert scale to evaluate the customer satisfaction of logistics delivery service. In this paper, Richter's five-level scale is used, that is, the customer's attitude score to each evaluation index is divided into five grades from low to high, that is, very dissatisfied, dissatisfied, average, satisfied and very satisfied, and each grade corresponds to one of the five-level scale, and the corresponding assignment is made.

(3)SPSS Analysis

Statistical analysis and descriptive statistical analysis of the basic information of the questionnaire were carried out by SPSS software. Then, reliability analysis and validity are used to test whether the questionnaire is reliable and internally consistent. The results show that the model has good reliability and effectiveness, and it is suitable for the service quality evaluation of JD logistics distribution.

3.3 Population and Sampling

In order to quantify the evaluation index values of e-commerce logistics and delivery service quality, it is very important to collect data from all aspects, and it is very important to clarify the subjects of the questionnaire. The scope of the respondents selected in this questionnaire is very wide, and the respondents are mainly people who often participate in online shopping and are familiar with the online shopping process. The survey found that most of the online shopping subjects are college students and women, and the online shopping users are mainly 19-45 years old. They are not only the main force of online shopping, familiar with logistics services and online shopping, but also have a clearer understanding of various services in online shopping logistics, and their evaluation has more important reference value for the research results. Not limited to this, the questionnaire also covers different types of people in the country.

3.4 Data Collection

Collection method: design the format and content of the questionnaire, and then distribute it in two channels, namely, paper questionnaire and online questionnaire. The questionnaire is divided into two forms: on-site paper questionnaire and online questionnaire distribution. In terms of rapid delivery and collection of questionnaires,

the delivery of questionnaires on the Internet has great advantages, and it can obtain data more easily and quickly.

Collection results: This survey was conducted in November-December, 2022. The online questionnaire survey was conducted among shopping users of JD platform in the form of quiz stars. During the survey period, 300 questionnaires were distributed online, and invalid questionnaires such as short answering time and incomplete questionnaire data were excluded. Finally, there were 280 valid questionnaires, and the effective questionnaire rate was 93.3%.

3.5 Data Analysis

3.5.1 Design Principles of Evaluation Indicators

(1) Principle of Integrity. There are many factors involved in logistics service satisfaction, so the evaluation index must consider the principle of integrity, but also fully consider every aspect, collect various factors to build an index framework, and then classify the indicators to reflect the evaluation object scientifically, objectively and comprehensively. Evaluation indicators are not simply combined, but should be designed and evaluated as a whole. Therefore, the first consideration is the principle of integrity to ensure the reliability of the research.

(2) Principle of Accuracy. When selecting evaluation indicators, we must make clear the meaning of each indicator, discard unimportant indicators and put the most telling indicators into the model. If the evaluation index is not accurate enough, it will affect the final evaluation result and make it impossible to evaluate the satisfaction of logistics services.

(3) Economy and Practicality. The data needed to construct the index system are relatively easy to obtain, and the cost of obtaining does not need to spend a lot of manpower and financial resources. At the same time, by considering the actual situation and fully grasping the statistical principles, the selected indicators should also be clearly defined and quantifiable, and the calculation method is simple.

3.5.2 Selection of Evaluation Indicators

Evaluation is to analyze and judge something or a person, get a reference value,

measure the system attributes of the object according to the purpose, and convert these attributes into operational values. Simply put, evaluation is to evaluate something and its value. In order to make the evaluation results scientific and reliable, it is necessary to establish the corresponding evaluation index system. In the e-commerce environment, the importance of logistics service satisfaction gradually emerges. Therefore, e-commerce logistics enterprises need to pay attention to the degree of customer satisfaction brought by the logistics services they provide.

The index system of customer satisfaction is to set the customer's feeling as a grading index, that is, to express the customer's satisfaction evaluation at different levels in the form of classification and summary. The customer satisfaction index system of e-commerce logistics delivery service is divided into two levels, and the indicators of each level are launched by the indicators of the previous level. Take enterprise contact, delivery service price, logistics delivery service quality, delivery service communication and delivery service quality expectation as the first-level indicators, and expand them according to the different characteristics of different indicators, as shown in Table 3. 1. The evaluation system will also be elaborated from these five aspects, including 5 first-level indicators and 21 second-level indicators. Finally, through questionnaire collection and statistics, the corresponding results are analyzed.

Table 3.1 Questionnaire Sample

Primary index	Secondary index
Enterprise impression	JD popularity
	JD public image
Delivery service price	Price level of logistics charges
	Diversity and transparency of charging methods
Logistics delivery service quality	Employee's business ability
	Employee's working attitude
	Employee work efficiency
	Access to logistics information
	In-transit information tracking ability
	Arrival rate on time
	Completeness of outer packaging
	Commodity integrity

	Accuracy of delivery quantity
	Commodity loss rate
Quality expectation of delivery service	Service quality expectation of delivery staff
	Process expectation of delivery service quality
Communication situation of delivery service	Door-to-door satisfaction
	Satisfaction degree of personalized packaging
	Number and coverage of business outlets
	Rationality of communication time
	Communication hotline unblocked
JD Platform logistics delivery mode satisfaction	Overall service attitude
	Overall service quality
	Overall service efficiency

3.6 Reliability and Validity Analysis of the Scale

3.6.1 Reliability Analysis

Reliability analysis, also known as reliability analysis, is an effective analysis method to measure whether the comprehensive evaluation system has certain stability and reliability. Because the established index system must pass the reliability test, the reliability index is an index system that has passed the reliability test. Reliability inspection can be used for both index inspection and overall system inspection. The reliability of the whole questionnaire and the questions under each latent variable are analyzed one by one, as shown in Table 3.2.

Table 3.2 Reliability analysis of the survey questionnaire

Variables	N	Cronbach's Alpha
Enterprise impression	2	0.719
Delivery service price	2	0.849
Logistics delivery service quality	10	0.879

Quality expectation of delivery service	2	0.718
Communication situation of delivery service	5	0.820
JD Platform logistics delivery mode satisfaction	3	0.720

In this study, every survey result is tested for reliability, and Cronbach's Alpha value is mainly used to judge the reliability. Cronbach's Alpha coefficient is between 0 and 1, and the closer the value is to 1, the higher the reliability of the questionnaire is. It is generally believed that Cronbach's Alpha coefficient above 0.9 means that the index is set up very well, and above 0.8 means that the index effect is good, and above 0.7 is acceptable. As shown in Table 3.2, the test results show that after Cronbach's Alpha test, the Cronbach's Alpha values of latent variables are all greater than 0.7, indicating that all measured variables have good consistency and validity, so they are considered as reasonable available data, indicating that this survey questionnaire has good reliability.

3.6.2 Validity Analysis

Validity is validity, which is the validity of the measurement results. This study uses factor analysis in SPSS software to test the validity of the data and verify whether the extracted principal components meet the requirements of questionnaire design. If they are consistent, it can show that the designed questionnaire is good, if not, whether it needs to be adjusted.

Table 3.3 Test Results of Validity of Variables

The KMO values and the Bartlett spheroid test		
Number of KMO sampling suitability quantities		0.901
The sphericity test of the Bartlett	Approximate chi-square	2056.436
	df	210
	Sig.	0.000

The data are analyzed by SPSS software, as shown in Table 3.3, and the KMO value and the sphericity test of Bartlett are obtained. The KMO value is 0.901, which is greater than the standard value of 0.5 and close to the optimal value of 0.1, indicating that factor analysis can be carried out. Bartlett's sphericity test results show that Sig=0.000<0.5, which shows that the correlation between variables is high and the data is valid.

Chapter 4 Findings

4.1 Introduction

The main content of this chapter is to calculate the satisfaction score of logistics service in JD platform through the design and analysis of questionnaire survey, which leads to the further discussion on the problems existing in the logistics delivery mode of JD platform.

4.2 Factors Affecting the Satisfaction of the Logistics Delivery Mode of JD Platform

4.2.1 Analysis of Statistical Samples

In this survey, the proportion of men is 40.7% and that of women is 59.3%, which is relatively balanced. 11.3% of the respondents were under the age of 18, 53.3% were aged from 19 to 35, 28.7% were aged from 35 to 50, and 6.7% were over 50. Because this survey is about people who are shopping online, it is not suitable to be too old or too young. Young people have a strong desire to consume, so it is normal for them to be 19-35 years old. Most of the respondents were college students and employees of enterprises and institutions, accounting for 53% and 21.7% respectively, while individual merchants, retirees and other personnel accounted for 14.3%, 7.3% and 3.7% respectively. The average monthly online shopping frequency is less than 7 times, accounting for the largest number of people, reaching 72% of the total number. The number of online shoppers with a history of 3 to 5 years is the largest. It accounts for 59% of the total number of people surveyed, followed by 6-10 years, accounting for 28.7% of the total number. As shown in Table 4.1.

Table 4.1 Sample Data Statistics

Sample classification	Option	Frequency	Percentage
Gender	Man	112	40.0%
	Woman	168	60.0%
Age	18 years old and under	34	12.1%
	19-35 years old	140	50.0%

	35-50 years old	86	30.7%
	50 years old and above	20	7.20%
Occupation	student	139	49.6%
	Enterprise and institution staff	65	23.2%
	Individual merchant	43	15.4%
	retiree	22	7.9%
	other	11	3.9%
Monthly online shopping times	3 times or less	86	30.7%
	4-7 times	110	39.3%
	8 to 10 times	48	17.1%
	10 times or more	36	12.9%
Online shopping duration	2 years and below	29	10.3%
	3-5 years	157	56.1%
	6-10 years	86	30.7%
	10 years and above	8	2.9%

4.2.2 Correlation Analysis

In order to verify the impact of five independent variables (Enterprise impression, Delivery service price,Logistics delivery service quality, Quality expectation of delivery service,Communication situation of delivery service) on the dependent variable (JD Platform logistics delivery mode satisfaction), this study conducted a correlation analysis to verify the hypothesis of the above content according to the results. The concreteness analysis results are shown in Table 4.2:

Table 4.2 Results of Correlation Analysis

Dimension	JD Platform logistics delivery mode satisfaction	Enterprise impression	Delivery service price	Logistics delivery service quality	Communication situation of delivery service	Quality expectation of delivery service
JD Platform logistics delivery mode	1					

satisfaction						
Enterprise impression	0.753**	1				
Delivery service price	0.602**	0.652***	1			
Logistics delivery service quality	0.805**	0.656**	0.619**	1		
Quality expectation of delivery service	0.701**	0.615**	0.823**	0.624**	1	
Communication situation of delivery service	0.705**	0.615**	0.823**	0.624**	0.610**	1

According to the data in Table 4.2, the following analysis can be obtained:

The correlation coefficient between enterprise impression and satisfaction of JD Platform logistics delivery mode satisfaction is 0.753, showing a strong positive correlation. Therefore, hypothesis 1, "Enterprise impression has an impact on the satisfaction with JD Platform logistics delivery mode satisfaction", can be verified.

The correlation coefficient between the delivery service price and the satisfaction of JD Platform logistics delivery mode satisfaction is 0.602, showing a certain positive correlation. It can be considered that hypothesis 2: "Delivery service price has an impact on the satisfaction with JD Platform logistics delivery mode satisfaction." is partially true.

The correlation coefficient between logistics delivery service quality and satisfaction of JD Platform logistics delivery mode satisfaction is 0.805, showing a strong positive correlation. Therefore, hypothesis 3 can be verified: "Logistics delivery service quality has an impact on the satisfaction with JD Platform logistics delivery mode satisfaction." is established.

The correlation coefficient between the expectation of delivery service quality and the satisfaction of JD Platform logistics delivery mode satisfaction is 0.701, which also shows a strong positive correlation. Therefore, hypothesis 4 can be verified: "The expectation of delivery service quality has an impact on the satisfaction with JD platform logistics distribution mode." is established.

The correlation coefficient between delivery service communication and satisfaction of JD Platform logistics delivery mode satisfaction is 0.705, which also shows a strong positive correlation. Therefore, hypothesis 5 can be verified: "Delivery service communication has an impact on the satisfaction with JD platform logistics distribution mode." is established.

To sum up, factors such as delivery service price, logistics delivery service quality, communication situation of delivery service, and expectation of delivery service quality have a greater impact on the satisfaction with JD Platform logistics delivery mode satisfaction, while enterprise impression is relatively low.

4.3 Issues Existing in the Operation of the Logistics Delivery Mode of JD Platform

4.3.1 The Cost of Delivery is Increasing

JD Platform expects to directly control the whole logistics delivery link through self-operated logistics, so as to reduce the logistics cost, improve the logistics service quality and improve customer satisfaction, and at the same time, it can quickly occupy the market and expand the competitive advantage of enterprises through self-built logistics. However, the self-built logistics system needs huge capital and a lot of resources, which makes the high cost of the self-built logistics system erode a lot of profits, and there is a situation of continuous losses with the expansion of the company. In addition, although JD platform has opened the logistics platform to some third-party sellers, it still adopts the one-way delivery form of "delivery center-customer" as a whole, and the utilization rate of logistics resources is low, and a lot of resources are consumed in the process of logistics distribution. Compared with most express delivery companies that mainly provide two-way logistics services, the one-way logistics delivery form of JD platform is very common, which leads to a lot of waste of resources. The low logistics efficiency caused by this single logistics delivery mode and non-specialized logistics service system is also an important reason for the high logistics cost of JD platform. JD platform said that the profit pressure is great so far, and in the future development, JD platform will invest more money in the construction of logistics system. For the operating loss, the capital chain of JD platform is already in a very tight state, and the high logistics cost and low profit have caused great pressure on the future development of JD platform.

4.3.2 The Quality of Delivery is Reduced

The variety of delivery services of self-operated logistics in JD platform cannot meet the diversity of customer needs, so it is difficult to ensure the timeliness of logistics distribution. Products and services such as 211 limited time delivery and next-day delivery are the advantages for JD platform to attract customers. However, when the order volume increases greatly after some large-scale activities, these services cannot be fully utilized, such as untimely supply of goods, slow order processing, slower delivery speed than customers' expectations, wrong delivery or damaged goods, which have a negative impact on consumers' shopping experience and satisfaction. Because of the self-built logistics mode, the logistics cost in JD platform is relatively high, and it is faced with the dual pressure of reducing the logistics delivery cost and improving the satisfaction of logistics service and customer experience. In the past, there were frequent cases where customers were not at home or the customers were urgent and the logistics personnel could not pick up the items in time. In order to solve this problem, JD platform successively launched services such as dispatching containers in JD, picking up containers and taking delivery points in the subway. For the construction of self-service cabinets, it not only requires a lot of investment, high cost and low utilization rate, but also has the conditions for large-scale operation and needs continuous construction cycle. It is very difficult to continuously improve in a short time.

4.3.3 After-sales Service is Poor

Although online shopping has provided convenience for most consumers, the dissatisfaction with after-sales service has gradually increased. Long waiting time for returning goods, low efficiency in dealing with problems and complicated return procedures are common problems faced by consumers. In particular, JD platform also faces many problems in after-sales service, such as product quality, return and exchange, communication difficulties in refund, inefficiency and so on. For a simple problem, customers need to take the initiative to urge customer service to solve it many times, and new customer service needs to solve it repeatedly when encountering problems. The attitude of customer service to solve problems will affect the development of enterprises and reduce customer satisfaction. Although strong logistics service is the core of attracting customers, the user management of JD platform is not very good, and it may not be able to respond in time when problems arise, and there are no timely responses and suggestions. The after-sales service of JD platform is an important reason for JD platform's low satisfaction. While expanding the scale of its own enterprises, JD platform has not paid enough attention to the user experience and service quality, and neglected the importance of each link of after-sales service in customer relationship management, which has led to low customer satisfaction and even the loss of customers.

Chapter 5 Conclusion and Recommendation

5.1 Introduction

This chapter summarizes and analyzes the findings and problems in the fourth chapter, and draws a conclusion, and looks forward to the overall research content, so as to find out the research value and the need for improvement.

5.2 Conclusion

5.2.1 Analysis Result of Main Factors Affecting the Satisfaction of the Logistics Delivery Mode of JD Platform

This study investigated the logistics service system of JD platform, and establishes the evaluation index system of the logistics service satisfaction of JD platform, including 5 first-level indicators and 21 second-level indicators. According to the questionnaire survey results of online shopping users' satisfaction with the logistics delivery mode of JD platform: (1) most people think that business contact is very good, and the satisfaction score is 4.15, which is between satisfaction and very satisfaction, and it is also the highest among the four indicators; (2) For the delivery service price, the satisfaction score is 3.06, and the satisfaction level is average. According to the JD logistics platform, the logistics price of JD platform is relatively expensive, and it needs to be over 59 to avoid postage, so the satisfaction with the delivery service price is generally not high; (3) The overall average score of logistics delivery service quality is 3.10, and the level of satisfaction is average, indicating that most people believe that JD's logistics service is satisfactory. (4) The overall average score of delivery service communication is 3.58, and the satisfaction level is good, which shows that customers need to further strengthen their communication services in the logistics delivery process. (5) The overall average score of the expected delivery service quality is 3.38, and the satisfaction is average, which shows that there is still room for improvement in the personnel and service quality of JD platform in the logistics delivery process.

Therefore, JD platform needs to be further optimized to solve the general customer satisfaction problem of its own logistics delivery model:

JD platform needs to compress the intermediate logistics links and establish an effective customer information database to improve the efficiency of logistics and sales. By collecting the basic information of each customer, such as gender and name.

Telephone number, address, etc., can better understand customer information, and further understand customer needs through customer information, and provide targeted logistics services. In addition to recording the past transactions with customers, such as the types, quantities and prices of frequently purchased products, it is also necessary to record specific information, such as the person in charge of the logistics company or courier company, the customer's evaluation of the delivery service, the delivery time and place of the products, the means of transportation, transfer stations and transfer times of the products, etc. Through the high-quality delivery service database, JD can fully grasp and understand customers' logistics habits and preferences, and automatically choose the logistics transportation mode, delivery time and place that customers like, so that customers can experience more convenient and friendly logistics services.

Improve the flexibility of terminal distribution, plan the transportation route in advance, and the JD staff will systematically analyze and predict the road conditions, provide the best route and sequence of goods delivery for transportation, so that the goods can be delivered to customers in the shortest route and in the least time, saving labor and cost. On the one hand, set up the pick-up point in the position where the customer saves time as conveniently as possible, on the other hand, the delivery time should match the customer's time. The main methods of terminal delivery are self-delivery and door-to-door delivery, and the pricing should also be different. Differentiate services according to customers' preferences and regional characteristics, further explore customer logistics service satisfaction factors, build a more scientific assessment mechanism, objectively and quantitatively evaluate terminal delivery services, and improve the whole logistics service level. In addition, appropriately reduce logistics prices to better satisfy customers.

5.2.2 Analysis Result of Issues Existing in the Operation of the Logistics Delivery Mode of JD Platform

According to the analysis of the above problems, it can be seen that the logistics distribution mode of JD platform is relatively prominent, mainly manifested in the aspects of rising delivery cost, reduced delivery quality and poor after-sales service. As for the increase of delivery costs, JD platform wants to establish a self-operated logistics platform, but it needs to make large-scale personnel and capital investment, and the process of generating benefits takes a long time, which leads to the increase of distribution costs. As for the reduction of delivery quality, JD platform has developed special products and services such as 211 limited delivery and next day delivery, but the effect of the logistics mode is limited while reducing the quality. Regarding the poor

after-sales service, the immature after-sales service and problems such as long waiting time, low processing efficiency and complicated return procedures, resulting in inadequate after-sales service.

Therefore, JD platform is quite prominent in view of its own logistics and distribution problems, and it needs to make further changes:

(1) Rational allocation of funds and resources to improve enterprise flexibility. Nowadays, JD Platform has invested a lot of money and resources in logistics and established its own logistics operation system. In order to minimize the investment risk, JD Platform should not blindly expand the construction of logistics system at present, but should pay more attention to the optimization of existing logistics system processes and promote the development of logistics platform through scientific management. At present, JD Platform should maintain the scale of self-built logistics, rationally allocate the company's resources, closely integrate all departments, not blindly expand, and not continue to invest heavily in logistics expansion. It should consider investment and income in a balanced way, strictly control cash flow, and ensure the smooth operation of cash flow, so as to avoid excessive investment in cash and resources, resulting in imbalance, which makes JD's capital shortage more and more serious in its rapid development. Through rational allocation of funds and resources, JD will have enough in the face of emergencies and sudden environmental changes.

(2) Improve the quality of logistics distribution. The quality of platform logistics service in JD can't keep up with the growth of its own sales performance, and there are still many loopholes in the service. Both the platform delivery service and after-sales service in JD need to be improved. JD's platform logistics operation mode has insufficient experience in service, limited energy and funds invested in improving service quality, and imperfect management system. For JD platform logistics, service is a very important attribute, and the quality of service directly affects the company's future development. Nowadays, consumers pay more and more attention to the shopping experience in addition to the goods themselves. Therefore, only by providing customers with high-quality services and improving customer satisfaction can we attract more customers and greatly enhance their loyalty. First of all, JD Platform should firmly establish the service concept of customer first in its own logistics team, improve the overall quality of employees through training, assessment and other mechanisms, so that every employee can sincerely provide high-quality services to customers, accumulate reputation and expand brand influence; Improve the management mechanism of merchants, strictly prohibit false propaganda, after-sales perfunctory and other behaviors that affect the company's reputation, and at the same time constantly

improve and optimize the return mechanism and return logistics, so as to help consumers solve the product quality problems effectively and quickly in time; For the third-party logistics delivery mode, we should always put the interests of customers first, define the responsibilities of all parties through signing contracts, adjust and improve a series of problems in the delivery process through the implementation of management system, attach great importance to customer satisfaction and timeliness of distribution, and better safeguard the brand image of JD platform. Only high-quality service quality can bring better experience to customers and create high value. The improvement of logistics service quality of JD platform can greatly improve customer satisfaction, thus enhancing the brand value of JD platform and improving the market competitiveness of JD platform.

(3) Improve the ability of after-sales service. After-sales service is the key link to leave a good impression on customers and establish a good relationship with them. When dealing with customers' problems, JD platform should take the initiative to solve customers' problems in time. In addition, through the mobile and PC after-sales service systems, JD can manage the after-sales service more carefully and provide consumers with faster services. Improve the training of customer service personnel, so that they have more customer service awareness and can apply this awareness to their work. Customer service needs to solve their problems reasonably. Qualified customer service representatives can help reduce customer complaints and try their best to meet customers' reasonable needs. At the same time, customer service representatives must be able to quickly and accurately identify the fundamental needs of customers, so we should strictly manage the recruitment process, ensure the quality of the hired personnel, and consider the problem from the customer's point of view to maximize customer satisfaction. It is also necessary to appropriately improve the authority of customer service, so that they can establish the concept of serving and satisfying customers, encourage them to actively understand the needs of customers and the characteristics of products, actively expand the scope of customer groups, find potential customers and maintain relationships with them.

5.3 Recommendation

This Study mainly optimizes the logistics strategy from the level of e-commerce enterprises. In the future, we can consider subdividing customers from the perspective of online shopping consumers, and conduct an evaluation survey on the logistics model of online shopping consumers according to different gender, age, income, online shopping experience and different regions, and adjust the logistics strategy accordingly on the premise of paying attention to the needs of different customer groups. In addition,

due to the limitation of time and space, only a conceptual optimization scheme is put forward for the problems existing in self-operated logistics, and the above aspects will be further explored in future research.

The core competitive advantage of JD platform lies in its logistics service link, and logistics is also an indispensable part of its development strategy. However, with the development of JD and the rapid growth of business volume, the current operating mode of JD Logistics has gradually revealed some shortcomings. It is an unavoidable bottleneck for the development of e-commerce. In recent years, e-commerce logistics has developed rapidly, but there are very few breakthrough innovative technologies and innovative models. With the continuous improvement of information technology, it is very difficult for e-commerce logistics to make breakthrough progress at this level. In the future, the important direction of e-commerce logistics development will be the operation mode of logistics and the intelligence of logistics equipment. The most advanced intelligent logistics equipment is likely to be born in the warehouse of e-commerce enterprises. Intelligent logistics will be the development direction of logistics informatization in the intelligent era.

Intelligentization is a high-level application of logistics automation and informatization. Intelligent logistics can complete many decision-making and intelligent operation in the process of logistics operation, and it is a high-level application of logistics informatization and automation. Realizing the controllability and traceability of goods in the whole process of logistics and delivery is of great help to the improvement of logistics efficiency of enterprises. Therefore, intelligent logistics is an important direction for the future development of JD Logistics. It is also learned from the delivery and sorting manager that at present, JD platform has also done a lot of research work on logistics intelligence. In recent years, JD has specially laid out intelligent logistics. Including a series of cutting-edge intelligent logistics projects such as JD Intelligent Logistics Center, JD UAV, JD storage robot and JD self-driving vehicle delivery. Through intelligent projects, the strategic layout of JD Logistics will be improved, and the rapid growth of business will be driven. Only through continuous innovation of operation and management mode, the logistics will develop steadily, so as to expand its competitive advantage and make JD stand at the highest point in the industry.

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Appendix

Customer Satisfaction Questionnaire Of JD Logistics Service

Hello, Madam/Sir!

Thank you for your busy schedule to help me complete this questionnaire survey. The purpose of this questionnaire is to study "Customer Satisfaction of Logistics Delivery Service in JD platform". This questionnaire is only used for academic research. It is anonymous and does not involve your privacy. Please fill in this questionnaire according to your actual situation and feelings.

I.Basic Information

1. Gender: □Male □Female

2. Age: □18 years old and under □19-35 years old □35-50 years old □ 50 years old and above.

3. Occupation: □Students □Enterprises staff □ Individual merchants □Retirees □Others

4. Monthly online shopping times: □3 times or less □ 4-7 times □ 8-10 times □10 times or more.

5. Online shopping duration: □2 years or less □3-5 years □6-10 years □ 10 years or more.

II. Customer Satisfaction Questionnaire of JD Logistics Service

Please rate the following questions on a scale of 1 to 5, where 1 is very dissatisfied, 2 is dissatisfied, 3 is average, 4 is satisfied, and 5 is very satisfied.

Primary index	Secondary index	Opinion rating				
		Very dissatisfied	Dissatisfied	Average	Satisfied	Very Satisfied
Enterprise impression	JD popularity	1	2	3	4	5
	JD public image	1	2	3	4	5
Delivery service price	Price level of logistics charges	1	2	3	4	5
	Diversity and	1	2	3	4	5

	transparency of charging methods					
Logistics delivery service quality	Employee's business ability	1	2	3	4	5
	Employee's working attitude	1	2	3	4	5
	Employee work efficiency	1	2	3	4	5
	Access to logistics information	1	2	3	4	5
	In-transit information tracking ability	1	2	3	4	5
	Arrival rate on time	1	2	3	4	5
	Completeness of outer packaging	1	2	3	4	5
	Commodity integrity	1	2	3	4	5
	Accuracy of delivery quantity	1	2	3	4	5
	Commodity loss rate	1	2	3	4	5
Communication situation of delivery service	Door-to-door satisfaction	1	2	3	4	5
	Satisfaction degree of personalized packaging	1	2	3	4	5
	Number and	1	2	3	4	5

	coverage of business outlets					
	Rationality of communication time	1	2	3	4	5
	Communication hotline unblocked	1	2	3	4	5
Quality expectation of delivery service	Service quality expectation of delivery staff	1	2	3	4	5
	Process expectation of delivery service quality	1	2	3	4	5
JD Platform logistics delivery mode satisfaction	Overall service attitude	1	2	3	4	5
	Overall service quality	1	2	3	4	5
	Overall service efficiency	1	2	3	4	5