

# *Research on the Impact of Customer Service Level on Logistics Cost Management*

**Mengfei Ouyang**

*Haojing College, Shaanxi University of Science and Technology, Xi'an, Shaanxi, 712046, China  
503116332@qq.com*

**Keywords:** E-commerce, Customer Service, Logistics Cost Management

**Abstract:** With the rapid development of the e-commerce industry, corporate customer service levels have become one of the core competition factors for e-commerce companies. The e-commerce industry based on Internet technology has developed rapidly in the past few years. At the same time, logistics has become an indispensable part of the e-commerce industry. Customer service is an important part of e-commerce companies, but its impact on logistics costs cannot be ignored. The study found that the impact of e-commerce company customer service on logistics costs is mainly reflected in: return and exchange services; after-sales service: customer service; express delivery timeliness requirements. These services require the investment of a large amount of human and material resources, thus increasing logistics costs. To reduce this impact, e-commerce companies can take some measures: reduce return and exchange rates; optimize after-sales service; reduce customer service costs through automation technology and online consultation; optimize logistics processes, improve logistics efficiency, and reduce distribution costs. The research results of this article have certain reference value for e-commerce companies when formulating customer service strategies.

## **1. Introduction**

With the continuous development of e-commerce and supply chains, competition in the logistics industry has become more intense and complex. Table 1 shows the absolute value and growth rate of national online retail sales in the past five years. At the same time, consumers have increasingly higher requirements for customer service level, quality and customer experience. Therefore, logistics companies need to face the challenge of how to improve customer service levels and reduce logistics costs on this basis. E-commerce plays a prominent role in business models, and improving customer service levels has become particularly important for corporate competitiveness [1]. Research shows that improving customer service can bring multiple benefits. First, high-quality customer service can increase customer satisfaction and loyalty, promote repeat purchases and word-of-mouth, thereby increasing a company's sales and market share. Secondly, through technological innovation and service upgrades, logistics companies can improve logistics efficiency and accuracy, reduce transportation time and logistics costs, thereby improving corporate profitability and market competitiveness [2]. Therefore, exploring how customer service levels affect logistics cost management can provide specific guidance and suggestions for logistics

companies. For example, on the premise of ensuring service quality, optimizing the logistics network, adopting intelligent logistics technology, and establishing a complete feedback mechanism are all effective ways to reduce logistics costs. At the same time, studying customer service experience and needs and providing differentiated services based on the different logistics products and solutions selected by customers can also bring value-added services to enterprises and improve customer satisfaction. The impact of customer service level on logistics cost management is a commonly studied topic in the field of logistics. Therefore, logistics costs are one of the most important costs for enterprises in e-commerce [3]. How enterprises improve customer service levels to reduce logistics costs has become an issue that enterprises need to pay attention to in the increasingly fierce market competition. As upstream and downstream customers have increasingly higher requirements for logistics, efficient and high-quality customer service logistics cost control is particularly important [4]. Customer Service Level Logistics cost management is systematic, customer service level is quantified, trackable and statistically analyzed, which improves customer service level and customer satisfaction. Customer service level plays an important role in all walks of life. For a long time, due to the subordinate position of logistics in production and circulation, customer service level has not received due attention. With the advent of the segmented marketing period, customer service level has become an important part of logistics enterprises' marketing differentiation strategy [5]. More companies are adopting three main methods to set customer service level standards: customer-oriented, cost/benefit-oriented and competition-oriented. And the decision results are sorted according to the relevant results to obtain a comprehensive ranking, and then make better service level decisions [6].

Table 1: National Online Retail Sales and Growth Rate in the Past Five Years

Time	Absolute Value (100 Million Yuan)	Year-on-year (%)
The first three quarters of 2023	108198	11.6
2022 full year	137853	4
2021 full year	130884	14.1
2020 full year	117601	10.9
2019 full year	106324	16.5

Data source: National E-commerce Public Service Network

## 2. Current Status and Problem Analysis of Customer Service Levels

### 2.1 Customer Service Level is a Hidden Cost

Customer service level costs generally refer to the costs incurred by suppliers or sellers in providing after-sales service transportation, warehousing, packaging and other services to meet customer needs [7]. For example, manual product selection, negotiation, inquiry, purchase and other expenses incurred during the procurement process are not directly reflected in the product price, but are included in the total cost of the supply chain. Therefore, customer service level cost is also called for hidden costs. Mainly reflected in the following aspects:

Time logistics costs, including waiting time for delivery, out-of-stock delays, etc., will bring certain waiting time costs to consumers and affect their shopping experience. Due to the rapid development of the e-commerce logistics industry, many e-commerce logistics companies have not yet fully covered all regions in the country. Establishing a logistics operation network requires a large amount of capital and time costs, which will lead to an increase in logistics costs [8].

Uncertainty costs include uncertainty in logistics information tracking, delays, etc., which may

affect consumers' trust and repeat purchase intention.

The cost of return damage and loss requires the company to perform after-sales processing, which increases the company's costs. The after-sales processing process of some companies is cumbersome, especially after some large-scale promotions. During the after-sales service process, after-sales problems are more obvious, and problems such as slow processing speed and improper handling will occur [9]. These problems will have a negative impact on customer satisfaction and loyalty. Certain influence. Safety costs include the reliability, safety, confidentiality, etc. of product production. Since there may be information leaks, traffic accidents, property losses, etc. in the logistics link, these will bring safety costs, and consumers will also have high expectations for customer service levels. Make higher demands.

## 2.2 The Generation of Customer Service Level Costs is Uncertain

Changes in the market environment, seasons, and festivals have a greater impact on e-commerce companies. For example, during major promotional activities every year, such as New Year Festival, Double 11, Double 12, 618, etc., e-commerce companies have more obvious effects than other traditional companies. The hockey phenomenon and a series of problems caused by returns. Figure 1 shows the statistical proportion of Double Eleven problems in 2023. These problems will affect the customer experience.

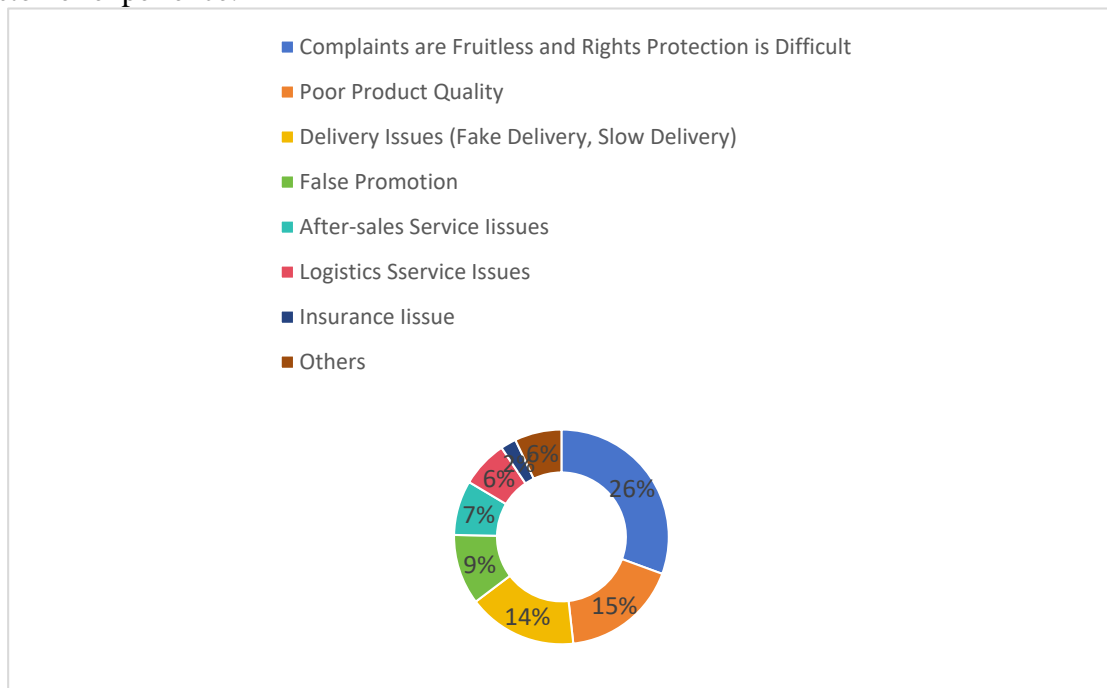


Figure 1: The Statistical Proportion of Double Eleven Problems in 2023

## 2.3 Customer Service Level Personnel Management Issues

Customer service level personnel management has an important impact on logistics costs. Customer service level: Insufficient cohesion of personnel to provide help and support during customer interactions has a significant impact on customer satisfaction. Customer problems cannot be solved quickly and accurately in a timely manner, thereby losing the cooperation and participation of old customers and new customers, reducing sales and profits; there is no good system for employee recruitment and training, and most customer service personnel are inexperienced and incompetent. The lack of employees cannot provide employees with continuous

training and development opportunities, and cannot ensure that they can always provide customers with excellent service experience, thus increasing the cost of the enterprise; the employee turnover rate has a direct impact on the enterprise's customer service level cost. Higher employee turnover rates lead to increased recruitment and training costs for enterprises. At the same time, customers' experience and satisfaction with customer service levels may also decline without stable customer service level personnel support; customer service level personnel cannot be fast and accurate. Process customer requests efficiently and improve process efficiency, thereby reducing logistics efficiency and increasing logistics costs [10].

## **2.4 Recruitment of Employees**

External recruitment is based on the different needs of the positions. The recruitment of purchasing personnel, customer service personnel, operations personnel, and order processing personnel will be adjusted according to the company's seasonal adjustments. The adaptation to different positions is quite different from the original intention of recruitment. Due to the company's development scale system, the recruitment standards do not clearly define the skills and abilities required for specific positions, resulting in a mismatch between the abilities of the employees and the positions. The screening of resumes is not limited to various professional experience, such as logistics and e-commerce majors, English majors, mechanical majors, etc. People working in the same position will learn different operational processes [11].

## **3. Customer Service Level Cost Control Strategy**

### **3.1 Reduce Customer Service Level costs**

E-commerce companies establish more cooperative relationships with excellent suppliers, optimize logistics network procurement channels, and reduce warehousing and transportation costs. The company should optimize warehouse management, improve warehouse space utilization, operation efficiency and accuracy, and reduce storage and labor costs by optimizing warehouse layout, shelf setting, storage management and other measures. The company utilizes advanced logistics technologies such as the Internet of Things, big data analysis and other advanced logistics technologies to optimize logistics processes, improve efficiency and accuracy, and reduce labor costs. The company should combine its own efforts to improve the efficiency of logistics and transportation, adopt reasonable modes of transportation, improve the efficiency of cargo transportation, and reduce transportation costs. By optimizing the logistics management process, the company reduces inventory, shortens inventory turnaround time, and reduces inventory costs and risks.

E-commerce companies rationally select corporate partners, establish cooperative relationships with multiple logistics companies, improve customer service coverage and delivery speed, and reduce logistics costs. Based on the 1688 wholesale distribution platform, we can conduct price inquiries and price negotiations for the same products on e-commerce platforms such as Douyin, Xiaohongshu, Pinduoduo, and Te, and create a store group model for distribution to integrate local supply and reduce express delivery. Cost, supply cost. At the same time, you can communicate with suppliers and deal with slow-moving products.

Optimize the return and exchange service process and establish a complete return and exchange service process to improve the transparency and response speed of the process. For example, an after-sales service center can be established to collect and count the reasons for customer returns, find the root cause of the problem, and improve the problem. In addition, you can try to adopt a more flexible return and exchange service policy, such as a 7-day no-reason return policy, to

improve customer satisfaction and loyalty. In response to customer complaints and other issues, e-commerce companies should strengthen service quality management, including continuously optimizing the after-sales process, improving customer service experience, and regularly following up and continuously optimizing the after-sales service process to improve customer satisfaction, thereby ensuring the job stability of logistics personnel. The return and exchange service process is shown in Table 2:

Table 2: Return and exchange service process

step	describe
1	Customer contact customer service department
2	The customer service department confirms the order number and problem, and provides the customer with a refund Exchange request form.
3	The customer fills out the return and exchange application form and sends it to the customer service department
4	The customer service department reviews the return and exchange application form
5	Provide return address and shipping label
6	The customer packages the goods and mails them to the specified address.
7	The customer service department receives the returned goods and inspects them
8	If the returned goods meet the return conditions, the customer service department will Refunds issued to customers
9	If it is an exchange, the customer service department will re-ship the goods to the customer.
10	Customer receives refund or new merchandise

By applying advanced delivery technology, e-commerce companies can provide better customer service, such as improving the professional skills of customer service personnel and signing employee confidentiality agreements. Customer service robots and other technical means can be used to quickly respond to customer inquiries and complaints and improve customer service response speed and accuracy. Establish sound customer information security measures. You can use secure network protocols and encryption technologies, such as SSL, TLS, etc., to ensure confidentiality and integrity during data transmission; establish complex passwords or dynamic password verification, implement access control, and set different permission levels and restrictions. Users have access to sensitive information , conduct regular network security vulnerability scans and security assessments, promptly discover and patch system vulnerabilities , comply with data privacy regulations, such as the "Personal Information Protection Law", legally collect, process, store and use customer information , and strengthen internal Educate employees on security awareness to prevent internal personnel from leaking customer information , promptly respond to customer security incidents and complaints, and take effective measures to solve problems. In short, protecting the security of online customer information requires comprehensive consideration of multiple factors such as technology, regulations, and management, and continuous updating and improvement of measures to ensure customer information security.

### 3.2 Uncontrollable Factors that Reduce Customer Service Level Costs

To reduce the uncertainty of customer service level costs and solve the problems of e-commerce companies' logistics costs and express delivery services, when choosing express delivery companies, e-commerce companies should comprehensively consider factors such as price, delivery speed, service quality, and service scope. Choose a courier company partner that suits you. At the same time, the service quality of the express delivery company should be followed up in a timely manner,

communication and negotiation should be carried out on the unreasonable parts, and appropriate incentives can be given. Establish a complete after-sales service mechanism. E-commerce companies should establish a complete after-sales service mechanism, including after-sales service consultation, return and exchange services, problem solving and other services. This can improve user satisfaction and loyalty, and reduce transportation costs caused by product returns and exchanges. Logistics big data analysis can be used to improve logistics planning efficiency, realize intelligent logistics, intelligent sorting and other logistics automation, improve logistics efficiency and reduce costs.

### **3.3 Effective Customer Service Level Personnel Management**

To reduce customer service level personnel management costs and solve the problems of e-commerce companies' logistics cost personnel's inexperience and high employee turnover rate, we can start from the following aspects: establishing a complete training system, setting up incentive mechanisms, introducing new technology applications, and strengthening services Quality management and the adoption of new management concepts. In summary, to solve the problems of e-commerce companies' logistics cost personnel's lack of experience and high employee turnover rate, it is necessary to establish a complete training system, set up incentive mechanisms to introduce new technology applications, and strengthen service quality management. Adopt new management concepts and other aspects to optimize the working conditions and service processes of logistics personnel, improve work efficiency and quality, and promote the transformation and brand upgrade of enterprises.

When recruiting employees, e-commerce logistics companies should first determine the number and type of labor required in the future, as well as factors such as job grade and salary level, so as to formulate an effective recruitment plan. For example, what kind of work content will customer service and after-sales personnel, order processing personnel, and operation personnel be exposed to in their positions? If the company adjusts positions according to development, how long will it take to make adjustments? Secondly, whether the adjustment is significantly different from the original positions, through Various social media, recruitment software, campus recruitment, etc. can be used for early penetration and training of school-enterprise cooperation to attract suitable talents.

## **4. Conclusion**

This study shows that customer service level has a significant impact on logistics cost management. First, e-commerce companies with high customer service levels can improve customer satisfaction, reduce return and complaint rates, and thereby reduce logistics costs. Secondly, a high level of customer service means quick response and efficient problem solving, which can reduce unnecessary delays and losses in the logistics process. Also, for large-scale logistics companies, reliable commercial cloud warehouses and suppliers can be responsible for warehouse management and logistics planning, effectively optimizing logistics costs. Through the Internet, it ensures that customers obtain basic customer information, financial information, delivery plans, logistics and distribution, contract tracking, resource information, price information, etc., and through the interactive function with customers, it greatly improves the effectiveness and accuracy of the company's customer service, and further Optimize customer service and improve sales customer service management level. Finally, by improving customer service levels, e-commerce companies can also improve brand reputation and user loyalty, further promoting corporate development and expanding market share.

## Acknowledgement

Research on Curriculum Reform Integrating Information Technology Innovation - Taking the Course of Logistics Information Technology and Management as an Example

No: 2023JG07

Host: Xiaohua Cai

Participants: Xiaoqing Liu, Xiping Xu, Yanyan Li, Mengfei Ouyang

## References

- [1] Xu X Y, Jia Q D, Tayyab S M. Exploring the stimulating role of augmented reality features in E-commerce: A three-staged hybrid approach. *Journal of Retailing and Consumer Services*, 2024, 77: 103682.
- [2] Le T T, Tran P Q, Lam N P, et al. Logistic service quality on young consumers' repurchase intention: an empirical study in emerging economy. *Operations Management Research*, 2023, 16(4): 2174-2191.
- [3] Hussin N, Shah M F M, Campus U T, et al. Customer relationship management performance and technology impact among logistic operators in SME's. *IBIMA Business Review*, 2021.
- [4] Nan R, Qun S. Research on Crowdsourcing Logistics Platform Pricing Considering Service Level. *Proceedings of the 2020 4th International Seminar on Education, Management and Social Sciences (ISEMSS 2020)*. Dali, China: Atlantis Press, 2020.
- [5] Yifang Y. Promotional Strategy Considering Consumer Platform Preferences. *2021 6th International Conference on Social Sciences and Economic Development (ICSSED 2021)*. Atlantis Press, 2021: 612-616.
- [6] Lu W. Application cost of intelligent intrusion detection in medical logistics management under public cloud environment. *Computers and Electrical Engineering*, 2023, 112: 109014
- [7] Zhao G. An enterprise logistics cost management method under the trend of Industry 4.0. *International Journal of Manufacturing Technology and Management*, 2023, 37(2): 199-210.
- [8] Huang M, Geng S, Yang W, et al. Going beyond the role: How employees' perception of corporate social responsibility fuels proactive customer service performance. *Journal of Retailing and Consumer Services*, 2024, 76: 103565.
- [9] Ahmed R R, Zhang X. Multi-stage network-based two-type cost minimization for the reverse logistics management of inert construction waste. *Waste Management*, 2021, 120: 805-819.
- [10] Dan H. Research on the Problems of Enterprise Logistics Transportation Cost Management and Optimization Countermeasures. *SHS Web of Conferences*. EDP Sciences, 2022, 148: 02006.
- [11] Yanyu Chen, Wenzhe Zheng, Wenbo Li, Yimiao Huang. The Robustness and Sustainability of Port Logistics Systems for Emergency Supplies from Overseas. *Journal of Advanced Transportation*, 2020, 8868533