

# Review and Prospect on Return Problems of E-Commerce Platform

Huaman Han

School of Management, Jinan University, Guangzhou, China

Email: 15626195199@163.com

**How to cite this paper:** Han, H.M. (2019) Review and Prospect on Return Problems of E-Commerce Platform. *Open Journal of Business and Management*, 7, 837-847. <https://doi.org/10.4236/ojbm.2019.72057>

**Received:** March 19, 2019

**Accepted:** April 15, 2019

**Published:** April 18, 2019

Copyright © 2019 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

## Abstract

At present, the development of E-commerce has led to a large number of returns from consumers, which has become an important challenge for E-commerce enterprises. In order to better study the return problems of E-commerce platform, this paper reviews the research on the return problems from two aspects: the different nodes of the supply chain and the types of return strategies, and gives the research prospects.

## Keywords

E-Commerce Platform, Return Policy, Research Summary

---

## 1. Introduction

In recent years, the scale of online retail market transactions in China has been expanding. According to the “China Electronic Commerce Market Data Monitoring Report 2017”<sup>1</sup> issued by China Electronic Commerce Research Center, the domestic online retail market reached 7.17 trillion yuan in 2017, an increase of 39.17% compared with the same period last year. With the vigorous development of e-commerce, the problem of consumer returns has become an important challenge for online retailers. According to the data released by Tianmao Double11 Organizing Committee<sup>2</sup>, the return rate of Tianmao “Double11 Carnival” in 2018 is 6%, and the amount of refund is as high as 128.1 billion yuan. The high return rate causes huge sales and logistics losses, and even restricts the development of e-commerce industry. In order to adapt to the rapid develop-

<sup>1</sup>E-Commerce Research Center (2018) China E-Commerce Market Data Monitoring Report 2017.

[http://www.100ec.cn/zt/17market\\_data\\_report/](http://www.100ec.cn/zt/17market_data_report/)

<sup>2</sup>Behind Baijia. 213.5 billion, the return rate of Ali is only 0.06? “Double Eleventh” Refund Problem into Heavy Disaster Areas: China Business Intelligence Network. 2018.

<https://baijiahao.baidu.com/s?id=1617732827656141491&wfr=spider&for=pc>

ment of online shopping and the problem of return, it is necessary to conduct targeted research. Through the integration and summary of the relevant literatures at home and abroad, this paper explores how the current e-commerce enterprises deal with the problem of returns and what conclusions have been drawn by various scholars, which has a very important theoretical and practical significance for the current e-commerce enterprises to solve the problem of returns. The innovations of this paper are as follows: 1) Integrating the return problem of B2B and B2C from the perspective of supply chain; 2) Summarizing the types of return strategies from two dimensions: generosity of return and defect of goods.

The structure of this paper is as follows: Section 2 summarizes the relevant researches on the return problems from the perspective of different nodes in the supply chain, and subdivides them into the return problems of B2B and B2C. Section 3 summarizes the relevant researches on returns from the perspective of the types of returns strategies, and subdivides them into returns strategies according to the generosity of returns and the defect of goods. Section 4 is the conclusions and prospect of this paper.

## **2. Relevant Research on Return Problem among Different Nodes in Supply Chain**

According to the different objects of return, there are two kinds of return problems in supply chain: one is the return problems between suppliers and retailers (B2B); the other is the return problems between retailers and consumers (B2C). Next, this paper will start with the review of the return problems between suppliers and retailers.

### **2.1. Relevant Research on Return between Suppliers and Retailers**

The early literatures on the return between suppliers and retailers (B2B) only considered two return strategies: full return and non-return. Padmanabhan *et al.* [1] outlined the theoretical framework of the return strategy between manufacturers and retailers. The framework analyzed when and how to adopt the return strategy, and discussed the benefits and costs generated by the return strategy. In the context of uncertain product demand and retailers' use of return strategy to attract retailers to hold more inventory, Marvel *et al.* [2] studied the impact of uncertainties in customer arrival rate and consumer valuation on product price strategy and return strategy respectively. Subsequently, Padmanabhan *et al.* [3] considered the influence of demand uncertainty and retailer competition on manufacturer's return strategy decision. Sarvary *et al.* [4] aimed at the demand of new products, a multi-period duopoly model was constructed to study how manufacturers understood customer demand information through return strategy. Later, many scholars introduced other types of return strategies, which enriched the research on the problem of return between suppliers and retailers. Pasternack [5] studies the pricing and return strategies of perishable products based on the deterministic demand function by using the single-cycle inventory

model. The results showed that the return strategy of partial refund was the best one compared with full refund and no refund. Tran *et al.* [6] combined refund and return quantity (quota) to study the relative preference of manufacturers and distributors for three return strategies, which included full refund with limited quantity, partial refund with unlimited quantity restriction and combination of the two strategies. Some scholars studied the problem of returns between manufacturers and retailers from the perspective of supply chain contracts. They regarded the return strategy between manufacturers and retailers as a buy-back contract in supply chain, which was an effective means for manufacturers to encourage retailers to increase sales. Webster *et al.* [7] regarded the return strategy as a sales discount contract (Rebate), that was, to compensate retailers for unsold products after the end of the sales period. The scholar explored the optimal return strategy and risk preference under uncertain demand conditions.

With the development of the Internet, there were endless papers on the return of electronic commerce. Bayles [8] pointed out that the handling of returns in e-commerce is of great significance, but the main challenge it faces was how to formulate a return policy and how to deal with returned goods. Choi *et al.* [9] took the secondary market into account in the e-commerce environment, and explored the manufacturer's return processing strategy after reprocessing the retailer's return. With the in-depth study of returns service by foreign scholars, domestic scholars had begun to pay attention to the problem of returns between manufacturers and retailers. Yan Nina *et al.* [10] based on Choi (2004), considered the retailer's return processing strategy after simply reprocessing the return in the electronic market, instead of the retailer's return to the manufacturer first. Yao Zhong [11] mainly studied the return contract between the upstream and downstream enterprises in the supply chain. He believed that the return strategy under risk constraints was weaker than that under risk-free constraints.

In summary, early studies on the return problem between manufacturers and retailers only considered two kinds of return strategies: full return and non-return. Later, many scholars introduced other types of return strategies. They combined the return strategy with other factors, mostly to explore the optimal return strategy under uncertain product demand conditions. Some studies suggested that manufacturers can understand retailers' demand information through return strategies. Some scholars regarded the return strategy between manufacturer and retailer as the buy-back contract of supply chain.

## **2.2. Relevant Research on Return between Retailers and Consumers**

With the development of e-commerce industry, more and more scholars paid attention to the return behavior of consumers. At present, most of the literature on the return problems focused on the return problem between retailers and consumers (B2C). The following articles will review the literature from four aspects: the formulation of optimal return strategy, measures to reduce the rate of return, consumer behavior and return problems, and other return-related issues.

### 2.2.1. Relevant Research on the Formulation of Optimal Return Policy

Most scholars had studied how to formulate the optimal return strategy. Early scholars focused on two kinds of return strategies: unreasonable return and unacceptable return. Davis *et al.* [12] proposed the MBGs (Money Back Guarantees) model, which was the first mathematical model for retailers and consumers' unwarranted return strategy. By comparing unwarranted return and non-acceptance return strategies, it was found that retailers can make more profits through unwarranted return strategies when they can handle surplus goods better, or when the experiential value of goods was very low, or the matching degree between goods and customers' needs was very low. Since then, most of the studies on unwarranted return strategies had been expanded on the basis of this literature. Che [13] assumed that consumers were risk averse, and explored the impact of two return strategies on consumers: unreasonable return and unacceptable return. The results showed that when consumers were highly risk averse or the retail price of goods was high, the seller should adopt a return strategy. Implementing the unwarranted return strategy increased the opportunistic return behavior of consumers. In order to reduce the return rate, some scholars had introduced other types of return strategies into the study of the return problem between retailers and consumers. Yabalik *et al.* [14] constructed a commodity return system consisting of return strategy, logistics process and sub-market, and discussed the optimal return strategy of retailers in two sub-markets. It was found that when one or two sub-markets did not return commodities, the partial return strategy was the best. Shulman *et al.* [15] considered the impact of Restocking Fee on consumers' purchase and return decisions in a competitive environment. Research showed that retailers will set higher return fees when there is a big difference between products sold by two competitors or when consumers have little knowledge of the matching degree between goods and preferences, and consumers will retain the business products. The above literature derived the market demand function through the consumer utility function.

Mukhopadhyay *et al.* [16] proposed for the first time the problem of returns between retailers and consumers in e-business environment. Assuming that the demand for goods was a linear function, the optimal returns strategy and pricing of goods in supply chain were studied by setting the amount of refunds as an endogenous variable. Chen Zilin *et al.* [17] added the effect of commodity price on the quantity of returns on the basis of Mukhopadhyay's model, and obtained the optimal retail price and refund strategy of commodities. Li Yongjian *et al.* [18] constructed a newsboy model, dividing the returned goods into resale and non-resale parts, and discussed the single-cycle inventory control problem with autonomous restored returned goods flow, so as to obtain the optimal order quantity and refund strategy. The above literature used linear demand function to construct the model, but with the attention of scholars on consumer behavior, more and more studies derived market demand function through consumer utility function, and paid attention to the impact of competition among retailers on the choice of return strategy. Ge Huizhong [19] explored the effect of con-

sumer satisfaction on the choice of return strategy under monopoly and competition environment by comparing the strategies of no return and no return without reason. The results showed that providing no return strategy was not always optimal. Chen *et al.* [20] constructed a duopoly competition model, and compared the unwarranted return strategy with the unacceptable return strategy, explored the impact of the return strategy and leadership strategy on the retailer's commodity price, market share and profit. In addition, in order to reduce the return rate, some scholars introduced other types of return strategies into the study of return problem. Li Jianbin *et al.* [21] compared two kinds of return strategies, that was, unreasonable return strategy and increasing return compensation based on unreasonable return. The scholar believed that when consumers were not satisfied with the goods, they can accept the return compensation provided by the merchants and choose not to return the goods. If the return was made, consumers will bear the return cost.

Some scholars combined the problem of returns with freight. Sun Jun and others [22] discussed the problem of Freight Bearing of merchants in the stage of commodity sales under the condition of defect-free returns, and believed that the cost of returns should be borne by consumers. Different from the viewpoint of the scholar, this paper argued that the main body of the return cost can be consumers or businessmen. With the return freight insurance developed by Taobao and insurance companies gaining the favor of consumers, many scholars began to pay attention to the impact of return freight insurance on retailers and consumers. Ma Jianye *et al.* [23] used evolutionary game theory to analyze the effect of freight return insurance on the freight strategy of merchants in the stage of commodity sales and the decision-making of consumers to return goods. The results showed that merchants will eventually develop toward two strategies: not buying freight insurance or both buying freight insurance. Mi-Yuan Shan *et al.* [24] considered the impact of return freight insurance on online retailers' profits, and on the basis of unreasonable return strategy, three return strategies were constructed according to the buyer of return freight insurance. The results showed that online retailers can transfer or disperse the increased costs from return freight insurance by increasing pricing.

In summary, foreign scholars' research on how to formulate optimal return strategy focuses on comparing unwarranted return strategy and non-acceptance return strategy, while domestic scholars had added the evolution of domestic electronics companies to the research on this issue, that was, considering the impact of return premium insurance on the basis of unwarranted return strategy; most of the literatures were inferred by consumer utility function. The market demand function was derived, and linear demand function was used in some literatures.

### **2.2.2. Relevant Research on Reducing the Return Rate of Consumers**

Some scholars who study the problem of returns between retailers and consumers actively explored measures to reduce the rate of returns. Early scholars proposed to reduce the amount of returns of consumers by using the method that

the refund is lower than the selling price of goods. Hess *et al.* [25] constructed an unreasonable return strategy model of non-refundable Charges (including freight, reserve costs, etc.) for opportunistic returns of direct-selling goods, and believed that non-refundable charges should increase with the increase of commodity value. Chu *et al.* [26] introduced the concept of Partial Refund. The research showed that the irrational return strategy of partial refund rationally reduces the opportunistic return behavior of consumers. Some scholars suggested that restrictions can be imposed on the basis of unreasonable returns (*i.e.* increasing the troublesome cost of returns) to reduce the rate of returns. Davis *et al.* [27] considered the cost or hassle brought by returns to consumers, and proposed potential factors affecting retailers' unwarranted returns strategy. The results showed that retailers should provide unwarranted returns strategy with low troublesome costs when the experience value of goods was greater, there are opportunities for cross-selling and the residual value was larger.

With the supply chain collaboration becoming closer and closer, some scholars proposed to use manufacturers to provide rewards and punishments for retailers' efforts to encourage retailers to take measures to reduce consumer returns. Ferguson *et al.* [28] proposed that manufacturers could implement target rebate contracts to motivate retailers, that is, to pay less than the target amount to retailers for defective returns per unit. Huang *et al.* [29] introduced quantity discount contract to combine refund and quantity of returned goods. The refund decreased exponentially according to the quantity of returned goods, thus restraining retailers' potential incentivized to return goods. Jia Tao and others [30] used cost-sharing contracts to motivate retailers to make efforts to reduce defect-free returns. Research showed that cost-sharing contracts can coordinate supply chains. Yang Peng and others [31] studied the retailer's optimal ordering strategy and advisory strategy under the condition that advocacy activities affected both customer demand and return rate. To sum up, in order to reduce the return rate of consumers, most scholars believed that it can be achieved by partial refund return strategy or by rewarding and punishing retailers' efforts by manufacturers.

### **2.2.3. Relevant Research on the Combination of Consumer Behavior and Return Problem**

With the development of consumer behavior research, some scholars had introduced consumer behavior into the field of unreasonable returns. Su [32] started this research at the earliest time, assuming that consumers are heterogeneous, and analyzing the optimal return strategy selection problem of the merchants. Jiang Hong *et al.* [33] constructed the unconditional return strategy model based on the consideration of customer risk preference behavior. The research showed that unconditional return strategy was more suitable for the situation of customer preference risk, the fluctuation of commodity value in customer's heart or the fluctuation of commodity random demand. Since then, many scholars had studied the influence of different consumer groups on the choice of return

strategies. Jiang Hong *et al.* [34] divided customers into inert customers and rational customers. Considering the two factors of customer strategy behavior and current preference behavior, the optimal unwarranted return strategy was studied. In the context of forgetting customers, Lin Qian *et al.* [35] explored how manufacturers should formulate the optimal return strategy. Inderst *et al.* [36] studied the issue of commodity return policy under the circumstances of consumers' complete rationality and vulnerability to deception. In summary, many scholars divided consumers into different groups according to consumer behavior, and studied the impact of different group characteristics on commodity returns.

#### **2.2.4. Relevant Research on Other Return-Related Issues**

The literature on returns between retailers and consumers also included other returns-related issues. Zhai Chunjuan *et al.* [37] integrated the return problem between B2B and B2C on the basis of Choi (2004) and Yan Nina (2005) papers, and discussed three return processing strategies. The results showed that the profits of online retailers and the whole supply chain are different under different return strategies. Wang Tao *et al.* [38] constructed a model of competition and cooperation between franchisers and online retailers, considering the impact of demand transfer on participants' decision-making under decentralized and centralized decision-making.

### **3. Relevant Research on the Types of Return Policies**

Scholars studied the impact of different return strategies on supply chain and its participants in different contexts. Through collating relevant literature, they found that the types of return strategies were classified according to two criteria, including generosity of return and defect of goods. The following articles will begin with a review of the first taxonomy.

#### **3.1. Relevant Research on Return Strategies by Return Generosity Degree**

Documents that classify return strategies according to generosity of returns included relaxation of returns and amount of refunds. Documents dividing return strategies according to the degree of return looseness thought that the degree of return looseness refers to the limitation of return time. The longer the return time was acceptable, the looser the return strategy was, and vice versa, the tighter the return strategy was. Wood [39] proposed a relaxed return policy, which considered that the degree of relaxation in return represents the time limit within which goods can be returned after purchase. Liu Wenjie *et al.* [32] discussed the optimal allowable return time length based on the inventory control model with the penalty of return delay. The research showed that the reasonable allowable return time length can effectively increase the profit of the retailers. Xiao Xiu and others [40] considered the time limit for returns, and believed that the longer the time limit for returns provided by retailers, the higher the selling price of

goods that customers could accept.

According to the amount of refund, the literature divided the refund strategy into full refund, partial refund and non-refund. The unreasonable return model proposed by Davis *et al.* [12] who argued that retailers should provide full refunds. Yabalik *et al.* [14] defined the full refund for the first time, believing that the full refund refers to the sum of the price, freight and other handling fees of the goods purchased. Most studies had found that the return strategy of full refund increases the opportunistic return behavior of consumers, so full refund was not the best choice. Chu *et al.* [26] introduced the concept of Partial Refund, which mean that the refund does not include non-refundable freight and handling charges. In order to prevent opportunistic return behavior of consumers, retailers can only refund part of the cost of goods purchased by consumers. Su [41] built a newsboy model to study the effects of full refund and partial refund strategies on supply chain performance. Mukhopadhyay *et al.* [16] argued that retailers give consumers less refunds than commodity prices, and the more refunds, the more generous the retailers implement the return strategy. Xue Shun *et al.* [42] divided the return strategy into full refund, partial refund and non-refund, considering the impact of three return policies on consumer demand and return. Ma Yinju [43] combined time limit with full refund and partial refund into four refund strategies, and considered that the optimal refund strategy of retailers was no time limit and partial refund.

### **3.2. Relevant Research on Return Strategies by Defects of Commodities**

Because the goods were defective or subjective, consumers will choose to return the goods. False Failure Returns was the result of subjective reasons. Many scholars had studied the problem of return of defective goods. They believed that defective return means that even if there were no functional or appearance defects in the goods, the merchants allowed consumers to choose to return the goods. Ferguson *et al.* [28] first defined the concept of customer defect-free return, and used supply chain coordination method to reduce the occurrence of customer defect-free return. Jia Tao and others [30] also studied defect-free returns from the perspective of supply chain coordination. Sun Jun and others [22] discussed the problem of Freight Bearing of merchants in the stage of commodity sales under the condition of defect-free returns.

In summary, the literatures on the types of returns strategies were divided into two categories: generosity of returns and defect of goods. Most scholars used the generosity of returns to classify returns strategies, and study the effects of different returns strategies on inventory, supply chain performance and commodity pricing.

## **4. Research Conclusions and Prospects**

In recent years, some progress had been made in the research of returns on

e-commerce platforms. Effective researches had been made on the formulation of returns strategies, the reduction of returns and some new returns. However, with the rapid development of e-commerce and the emergence of new formats and models, the return problem of e-commerce platform still faces new challenges and opportunities, and needs new research:

1) At present, many scholars focus on the problem of returns between retailers and consumers, but with the concern of enterprises on supply chain, we have to consider the overall optimization of supply chain. In future research, we can combine the problem of returns between suppliers and retailers as well as between retailers and consumers.

2) B2C e-commerce also has the attributes of online market platform and retail, that is, e-commerce platform can rent its own e-commerce platform as an intermediary to collect transaction commissions, or as a wholesale and retail retailer. Different attributes represent different business models of the platform. At present, the mainstream e-commerce platform in China not only provides platform services, but also sells goods as retailers. In different modes, the main body of returns policy formulation is different. Obviously, the optimal returns strategy in different modes may also be different. In the future research, it is necessary to distinguish the business model of e-commerce platform and explore the return problem under different modes.

3) Whether the retailer bears the return cost or the consumer bears the return cost directly affects the purchase intention of the consumer. However, with the evolution of domestic e-commerce platforms, many Taobao and Jingdong merchants have taken measures to insure freight insurance for consumers and to compensate consumers only for returns. We have to face up to the impact of different subjects of cost-bearing on commodity pricing and demand.

## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

## References

- [1] Padmanabhan, V. and Png, I.P.L. (1995) Returns Policies: Make Money by Making Good. *Sloan Management Review*, **37**, 65-72.
- [2] Marvel, H.P. and Peck, J. (1995) Demand Uncertainty and Returns Policies. *International Economic Review*, **36**, 691-714.
- [3] Padmanabhan, V. and Png, I.P.L. (1997) Manufacturer's Return Policies and Retail Competition. *Marketing Science*, **16**, 81. <https://doi.org/10.1287/mksc.16.1.81>
- [4] Sarvary, M. and Padmanabhan, V. (2001) The Informational Role of Manufacturer Returns Policies: How They Can Help in Learning the Demand. *Marketing Letters*, **12**, 341-350. <https://doi.org/10.1023/A:1012224422616>
- [5] Pasternack, B.A. (2008) Optimal Pricing and Return Policies for Perishable Commodities. *Marketing Science*, **27**, 133-140. <https://doi.org/10.1287/mksc.1070.0336>
- [6] Tran, T., Gurnani, H. and Desiraju, R. (2018) Optimal Design of Return Policies. *Marketing Science*, **37**, 649-667. <https://doi.org/10.1287/mksc.2018.1094>

- [7] Webster, S. and Weng, Z.K. (2000) A Risk-Free Perishable Item Returns Policy. *Manufacturing & Service Operations Management*, **2**, 100-106. <https://doi.org/10.1287/msom.2.1.100.23270>
- [8] Bayles Deborah, L. (2002) E-Commerce Logistics and Implementation Machinery. Industry Press.
- [9] Choi, T., Li, D. and Yan, H. (2004) Optimal Returns Policy for Supply Chain with E-Marketplace. *International Journal of Production Economics*, **88**, 205-227. [https://doi.org/10.1016/S0925-5273\(03\)00188-9](https://doi.org/10.1016/S0925-5273(03)00188-9)
- [10] Yan, N. and Huang, X. (2005) Supply Chain Return Problem Model Based on Electronic Market. *Application of System Engineering Theory and Method*, No. 6, 492-496.
- [11] Yao, Z. (2008) Coordination Analysis of Return Contracts on Supply Chain under Risk Constraints. *Journal of Management Science*, No. 3, 96-105.
- [12] Davis, S., Gerstner, E. and Hagerty, M. (1995) Money Back Guarantees in Retail in Matching Products to Consumer Tastes. *Journal of Retailing*, **71**, 7-22. [https://doi.org/10.1016/0022-4359\(95\)90010-1](https://doi.org/10.1016/0022-4359(95)90010-1)
- [13] Che, Y. (1996) Customer Return Policies for Experience Goods. *The Journal of Industrial Economics*, **44**, 17-24. <https://doi.org/10.2307/2950557>
- [14] Yalabik, B., Petruzzi, N.C. and Chhajed, D. (2005) An Integrated Product Returns Model with Logistics and Marketing Coordination. *European Journal of Operational Research*, **161**, 162-182. <https://doi.org/10.1016/j.ejor.2003.07.006>
- [15] Shulman, J.D., Coughlan, A.T. and Savaskan, R.C. (2011) Managing Consumer Returns in a Competitive Environment. *Management Science*, **57**, 347-362. <https://doi.org/10.1287/mnsc.1100.1274>
- [16] Mukhopadhyay, S. and Setoputro, R. (2005) Optimal Return Policy and Modular Design for Build-to-Order Products. *Journal of Operations Management*, **23**, 496-506. <https://doi.org/10.1016/j.jom.2004.10.012>
- [17] Chen, Z., Zhang, Z. and Chen, J. (2006) Research on Commodity Pricing and Return Policy Based on Reverse Logistics. *Journal of Management*, No. 2, 179-181.
- [18] Li, Y., Wang, H. and Wei, C. (2008) Research on Single-Cycle Inventory with Autonomous Restoration of Returned Goods Flow. *Management Science*, No. 4, 8-17.
- [19] Ge, H. (2016) Retailer Decision-Making under Unjustified Return Mode. *Value Engineering*, No. 20, 53-56
- [20] Chen, J., Chen, B. and Li, W. (2018) Who Should Be Pricing Leader in the Presence of Customer Returns? *European Journal of Operational Research*, **265**, 735-747. <https://doi.org/10.1016/j.ejor.2017.07.069>
- [21] Li, J. and Li, Y. (2016) Online Pricing and Compensation Optimizing Strategy under Unjustified Return Policy. *System Engineering Theory and Practice*, No. 11, 2811-2819.
- [22] Sun, J. and Sun, L. (2014) Research on Freight Bearing Strategy of Online Retailers Based on Defect-Free Returns. *Soft Science*, No. 6, 41-45.
- [23] Ma, J. and Sun, J. (2014) An Analysis of the Purchasing Strategy of Electric Sellers' Freight Insurance Based on Evolutionary Game. *Journal of Beijing University of Chemical Technology (Natural Science Edition)*, No. 4, 117-120.
- [24] Shan, M., Jiang, H. and Liu, X. (2016) Research on Profitability and Return Strategy of Online Retailers. *East China Economic Management*, No. 11, 123-128.
- [25] Hess, J.D., Chu, W. and Gerstner, E. (1996) Controlling Product Returns in Direct Marketing. *Marketing Letters*, **7**, 307-317. <https://doi.org/10.1007/BF00435538>

- [26] Chu, W., Gerstner, E. and Hess, J.D. (1998) Managing Dissatisfaction: How to Decrease Customer Opportunism by Partial Refunds. *Journal of Service Research*, **1**, 140-155.
- [27] Davis, S. and Gerstner, M.H.A.E. (1998) Return Policies and the Optimal Level of Hassle. *Journal of Economics and Business*, **50**, 445-460.
- [28] Ferguson, M., Guide, V.D.R.J. and Souza, G.C. (2006) Supply Chain Coordination for False Failure Returns. *Manufacturing & Service Operations Management*, **8**, 376-393. <https://doi.org/10.1287/msom.1060.0112>
- [29] Huang, X., Choi, S., Ching, W., et al. (2011) On Supply Chain Coordination for False Failure Returns: A Quantity Discount Contract Approach. *International Journal of Production Economics*, **133**, 634-644. <https://doi.org/10.1016/j.ijpe.2011.04.031>
- [30] Jia, T. and Xu, Y. (2007) Supply Chain Cost Subsidy Strategy Based on Defect-Free Returns. *Operation and Management*, No. 1, 131-136.
- [31] Yang, P., Chen, Q. and Sun, J. (2007) Modeling and Supply Chain Collaboration for Defect-Free Returns. *Computer Integrated Manufacturing System*, No. 6, 1071-1075.
- [32] Su, X. (2009) Consumer Returns Policies and Supply Chain Performance. *Manufacturing & Service Operations Management*, **11**, 595-612. <https://doi.org/10.1287/msom.1080.0240>
- [33] Jiang, H., Qi, E., Yang, D., et al. (2011) Unconditional Return Strategy Based on Customer Risk Preference Behavior. *Statistics and Decision-Making*, No. 17, 60-63.
- [34] Jiang, H., Qi, E., Huo, Y., et al. (2012) Research on Unjustified Return Strategy Based on Customer Inertia Behavior. *Management Journal*, No. 10, 1531-1535.
- [35] Lin, Q., He, C. and Wang, Y. (2013) Research on Unjustified Return Strategy for B2C Considering Forgotten Customer Behavior. *Logistics Engineering and Management*, No. 10, 46-48.
- [36] Inderst, R. and Ottaviani, M. (2013) Sales Talk, Cancellation Terms and the Role of Consumer Protection. *Review of Economic Studies*, **80**, 1002-1026. <https://doi.org/10.1093/restud/rdt005>
- [37] Zhai, C. and Li, Y. (2011) Research on Return Strategy of Online Retailers under B2C Mode. *Journal of Management Engineering*, No. 1, 62-68.
- [38] Wang, T. and Yan, B. (2017) Online Channel Decision-Making and Coordination Considering Return Demand Transfer. *System Engineering Theory and Practice*, No. 7, 1727-1740.
- [39] Wood, S.L. (2001) Remote Purchase Environments: The Influence of Return Policy Leniency on Two-Stage Decision Processes. *Journal of Marketing Research*, **38**, 157-169. <https://doi.org/10.1509/jmkr.38.2.157.18847>
- [40] Liu, W., Guo, C. and Wang, N. (2006) Inventory Control Model Based on Penalty of Return Delay. *Mechanical Science and Technology*, No. 5, 521-524.
- [41] Xiao, X. and Cao, W. (2013) Study on Return Strategy of Online Retailers Considering Time Limits. *Logistics Technology*, No. 10, 110-112.
- [42] Xue, S., Xu, Y., Song, Y., et al. (2006) Research on the Integration and Optimization of Pricing and Return Strategies under e-Commerce Environment. *Operational Research and Management*, No. 5, 133-137.
- [43] Ma, Y. (2012) Decision-Making Model of Return Strategy for B2C e-Retailers. Master's Degree Thesis, University of Electronic Science and Technology.