Analysis of Online Retail After-sales Service Based on Cost-value Theory

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Abstract. E-commerce enters the second half of the market in China, and it’s time for online retailers to go from price competition to service experience competition. And after-sales service is an important factor influencing consumers’ purchase decision-making. This paper studies five online after-sales service modes, analyze the cost-value of consumer and enterprise brought by each after-sale mode, and finally put forward the application suggestions of different after-sales service modes.

Introduction

In recent years, E-commerce has developed rapidly in China. So far, many online shopping channels have been developed, such as C2C websites, B2C websites, social ecommerce, and various other online shopping platforms. Then which of these shopping channels would you choose? Well, there are many factors that influence decisions.

It is said that the development of e-commerce has now reached the stage that live by competing for repurchase and service. Suppose there are different online stores with the same quality goods and the similar price, which one would you prefer? For most people, the more perfect the after-sales service is, the more likely it is to be selected. The purpose of this article is mainly to analyze different after-sales service through customer and online retailers cost-value. The results of the study can be used to provide after-sales service suggestions for online retailers.

Notations

P indicates the price of goods paid by consumers, V represents the value of goods perceived by consumers, \( L_1 \) shows the logistic fee paid by the consumer when the goods are returned. \( CP \) indicates the sum of consumer spending. \( CV \) means the value that the transaction brings to the customer.

C means the merchandise procurement cost of online merchants. \( L_2 \) represents the postage charges paid by merchants when mailing products to consumers. I means the freight insurance purchased by online retailers. R shows online retailers’ running cost when dealing with the returned goods. RC indicates the total cost of after-sales service to online retailers. \( RV=C+L_2+R+I \). \( RV=f+ f \times n \times (1-t)=f(1+n-n \times t) \). \( f \) is the profit of selling goods, \( n \) is frequency of repeated purchases, \( t \) is the return rate.

Hypothesis

The premise of this research paper is the following assumptions:
1. Consumers are completely rational.
2. No professional malicious return.
3. There are only two reasons for returns: quality problems and dislike. The premise of returning goods can not affect the second sale.
4. Customer costs are measured only by the amount of cash spent, that is commodity price and freight. CP= P+ L1.
5. If (V-P)≥0, Consumers would repurchase, otherwise, there will be no repeat purchase. If there are duplicate purchases, RV>>RC.
6. After-sales service only considers returns and freight charges, other services are not taken into account.
7. All the first purchases are exemption from postage.

Types of After-sales Service

Freight Insurance. Freight insurance means that the merchant buys the freight insurance for the returns. If the customer returns the goods, the insurance company covers the logistics cost, so the consumer does not have to pay the logistics fee for the returned merchandise.

Refund, Non-Refund Freight. The prerequisite is that the goods can be refunded for any reason without affecting the second sale, but the return freight is not refunded.

Refund, Non- return of goods. Some online retailers, for various reasons, may be for the sake of favorable comment, or the value of the goods is not high. Their after-sales service of goods is to refund the money to you, and the goods need not be returned.

Replacements but no refund. That means, online merchants only offer exchange or repair services, but do not accept refunds. Then who pays for the logistics expenses? There are two situations, One is the online stores subsidy the freight, the other is paid by consumers.

No after-sales service. Online retailers do not provide any after-sales service, neither returns nor refunds, not to mention logistics subsidies.

Analysis of After-sales Service Types

Based on Consumer Cost-value

Freight Insurance. It means that when consumers return the goods, they will get a freight subsidy in addition to getting a refund. Assuming that there are only two cases of consumer returns. CP=P+ L1, L1=0,P=0,CP=0,CV=0. This deal did not cost consumers a dime, still they get nothing.

Quality issue. If the consumer feels that there is a quality problem in the product, so consumers have to return the purchase. That means V-P<0, and because of the unsatisfactory quality, consumers will not buy again.

Dislike. There is no problem with the commodity quality, but it is just not suitable for customers. V-P≥0. Because consumers are satisfied with the quality of the product, there will still be repurchases.

Refund, Non-Refund Freight. It means consumers can refund the commodity, but not the transportation expenses. CP=P+ L1, P=0, CP= L1,CV=0,CV-CP=-L1. Such after-sales service transactions do not bring any benefits to consumers, on the contrary, this deal cause consumers loss of freight.

Quality issue. If it is a return caused by quality problems. V-P<0, As mentioned earlier, because of the unsatisfactory quality, consumers will not buy again.

Dislike. V-P≥0, Whether consumers will buy depends on the value-price ratio of the goods. If the value of the goods far exceeds the price, the consumers will buy again, otherwise they will give up repeat purchase.

Refund, Non-return of goods. The consumers get their refunds back without returning goods. CP=P+L1, L1=0,P=0,CP=0,CV=V,CV-CP=V. This after-sales service allows consumers to get a product without spending a penny.

Quality issue. V-P<0, Although consumers get a product for free, they still don't pay attention to the online store.

Dislike. V-P≥0. The deal makes consumers get a free product, and if the quality of the product is acceptable, consumers will continue to buy from the store.
Replacements but no refund. Online merchants only offer exchange or repair services, but do not accept refunds. Under these circumstances, whatever the reason, whether it’s quality issues or consumer dislike, online retailers shall replace the commodity until consumers are satisfied. This paper states that \( V = P \).

*Online shops subsidies the freight.* \( CP = P + L_1, \ L_1 = 0, \ CP = P, CV = V, CV - CP = V - P = 0. \) Then, consumers will still have a repurchase.

*Consumers pay the freight.* \( CP = P + L_1, \ CV = V, CV - CP = V - L_1. \) In this situation, this transaction cause consumers loss of freight. So consumers will not repeat purchases.

No after-sales service. Online retailers do not provide any after-sales service, neither returns nor refunds. So \( CP = P + L_1, \ L_1 = 0, \ CP = P, CV = V. \)

*Quality issue.* \( V - P < 0, CV - CP < 0. \) Consumers spend more than the value of the obtained goods. There shall no repurchase.

*Dislike.* Consumers do not like the product subjectively, but the quality meet the standard. That is \( V - P \geq 0, CV - CP \geq 0. \) There are still repurchases.

Generally speaking, for consumers, the preference ranking of after-sales service is “refund, non-return of goods.”, “freight insurance”, “replacements but no refund”, “refund, non-return of goods”, ”no after-sales service”. Suppose these after-sales services bring about a shopping frequency ratio of: \( (5:4:3:2:1) \).

**Based on Cost-value of Online Merchants**

Freight Insurance. Online retailers purchase the freight insurance. So when the consumer return the product, \( RC_1 = L_2 + I. \)

*Quality issue.* Consumers would not repurchase, so \( RV = 0. \) \( RV < RC_1. \)

*Dislike.* There are still repurchases. \( RV = 0 + f*4n (1-t) = f*4n (1-t). \)

Refund, Non-Refund Freight. The goods can be refunded, but not the freight. So \( RC_2 = L_2. \)

*Quality issue.* Consumers would not repurchase, so \( RV = 0. \) \( RV < RC_2. \)

*Dislike.* There are still repurchases. \( RV = 0 + f*2n (1-t) = f*2n (1-t). \)

Refund, Non-return of goods. Consumers can get their refund back without returning the product. So \( RC_3 = C + L_2. \)

*Quality issue.* Consumers would not repurchase, also \( RV = RC_3 < 0. \)

*Dislike.* There are still repurchases. \( RV = RC_3 + f*5n (1-t) \)

Replacements but no refund. Online merchants only offer exchange or repair services, but do not accept refunds. However, online retailers would replace the commodity until consumers are satisfied. Whether consumers will repurchase depend on who pays the logistic fee. Also, it can bring profits to the online shop, that is \( RV > 0. \)

*Online shops subsidies the freight.* Consumers will still have a repurchase. \( RC_4 = R + 3*L_2, RV = f + f*3n (1-t) \)

*Consumers pay the freight.* \( RC_4 = R + 2*L_2, \) there is no repeat purchase. \( RV = f. \)

No after-sales service. Online retailers do not provide any after-sales service, neither returns nor refunds. \( RC_5 = 0. \) It can bring profits to the online shop, that is \( RV = f + f*5n. \)

**Conclusion**

1. For consumers, the preference ranking of after-sales service is “refund, non-return of goods.”, “freight insurance”, “replacements but no refund”, “refund, non-return of goods”, ”no after-sales service”.
2. If online merchants know that the consumer is no longer buying, or that they no longer sell products, then no after-sales service is the best choice.
3. Refund, non-return of goods is only applicable for low value products, and if it is frequently used, it will make consumers produce malicious returns. So this service is not commonly used.
4. “Replacements but no refund” is a better after-sales service than “refund, non-refund freight”, especially when the profit of goods is high. The premise is that the online retailers should pay the return freight.
5. When the rate of return is not high, freight insurance is the best choice of after-sales service for online merchants.
6. Most important of all, online merchants should improve the quality of commodities, offer higher cost performance products, enhance the supply chain, to win the opportunities for sustainable development.

References


