

# **Influence of Customer Service Response Speed of Cross-border e-commerce on Customer Repurchase Intention: The Mediating Effect of Customer Satisfaction**

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## **Abstract**

**This study focuses on cross-border e-commerce, and deeply discusses the influence of customer service response speed on customer repurchase intention and the intermediary role of customer satisfaction. Through literature review, this paper makes clear the important influence of customer service response speed on customers' repurchase intention and satisfaction, and puts forward relevant assumptions. A questionnaire containing basic information and three key variable scales was designed, and 194 valid questionnaires were distributed and recovered by asking questions. The results of data analysis show that the customer service response speed of cross-border e-commerce has a significant positive impact on customer repurchase intention and satisfaction, and customer satisfaction also plays a significant intermediary role between customer service response speed and repurchase intention. This shows that improving customer service response speed can effectively enhance customer satisfaction, and then promote customers' willingness to repurchase, which provides an empirical basis for cross-border e-commerce enterprises to optimize customer service management.**

## **Keywords**

**Cross-border e-commerce, Customer service response speed, Customer service response speed, Customer satisfaction.**

## **1. Introduction**

With the vigorous development of cross-border e-commerce, enterprises are facing fierce market competition, and how to enhance customer loyalty and repurchase intention has become a key issue to be solved urgently. As an important factor affecting the customer experience, the response speed of customer service is worth further exploring [1]. Previous studies have shown that quick customer service response can significantly improve customers' shopping experience and satisfaction, and then affect their brand loyalty and repurchase intention [2]. However, under the special background of cross-border e-commerce, whether this relationship is still valid and what role customer satisfaction plays in it remains to be further verified. Therefore, this study aims to explore the influence of customer service response speed of cross-border e-commerce on customers' repurchase intention, and analyze the intermediary effect of customer satisfaction, with a view to providing useful management suggestions for cross-border e-commerce enterprises.

## 2. Literature Review and Research Hypothesis

### 2.1. Cross-border E-commerce Customer Service Response Speed and Customer Repurchase Intention

In the field of cross-border e-commerce, the relationship between customer service response speed and customer repurchase intention is an important factor affecting the long-term development of enterprises. Fang pointed out in his research that consumer behavior strategy is influenced by many factors in e-commerce environment, among which customer service response speed is a key variable [3]. Rapid customer service response can significantly improve consumers' shopping experience, and then enhance their trust and loyalty to the brand. This positive emotional experience will make consumers more inclined to buy the brand's goods again in the future. Zhao also mentioned in his research that good customer service, including quick response to consumer demand, is an important means to enhance consumer loyalty and promote repeated purchases. In cross-border e-commerce, rapid customer service response can help consumers better understand product information and solve problems in the purchase process, thus improving consumers' shopping experience and satisfaction, and further promoting customers' willingness to repurchase [4]. Liu and Li found that consumers often mentioned the influence of customer service response speed on their purchase decisions in their comments. Rapid customer service response can solve the problems consumers encounter in the purchase process in time, enhance consumers' trust and satisfaction with products, and thus improve consumers' willingness to buy again [5]. To sum up, customer service response speed has an important impact on customers' repurchase intention in cross-border e-commerce. Rapid customer service response can enhance consumers' shopping experience, enhance consumers' trust and loyalty to the brand, and thus promote consumers' willingness to buy again. Therefore, this study puts forward the following assumptions:

H1: The response speed of cross-border e-commerce customer service has a significant positive impact on customers' repurchase intention.

### 2.2. Cross-border E-commerce Customer Service Response Speed and Customer Satisfaction

In the cross-border e-commerce field, the relationship between customer service response speed and customer satisfaction is one of the key factors affecting the competitiveness of enterprises. Li pointed out in his research that quick customer service response is an important means to improve customer satisfaction. In the cross-border e-commerce environment, consumers are faced with language barriers, cultural differences and logistics problems, and the timely solution of these problems depends on efficient customer service response. Rapid customer service response can solve consumers' questions and problems in time, reduce consumers' anxiety and dissatisfaction, and thus improve customer satisfaction [6]. Zhang, taking Shein as an example, found that Shein improved the response speed of customer service by optimizing the customer service system, thus significantly improving customer satisfaction. The case of Shein shows that quick customer service response can not only solve the specific problems of consumers, but also enhance consumers' sense of participation and belonging through timely communication, which is very important for improving customer satisfaction [7]. Wu et al. pointed out that rapid customer service response can significantly improve customer satisfaction and loyalty. In cross-border e-commerce, rapid customer service response can solve consumers' problems in time, reduce consumers' dissatisfaction and complaints, and thus improve customer satisfaction [8]. To sum up, customer service response speed has an important impact on customer satisfaction in cross-border e-commerce. Rapid customer service response can solve consumers' problems in time, reduce consumers' anxiety

and dissatisfaction and enhance consumers' trust and loyalty to the brand. Therefore, this study puts forward the following assumptions:

H2: The response speed of cross-border e-commerce customer service has a significant positive impact on customer satisfaction.

### **2.3. Customer Satisfaction and Customer Repurchase Intention**

In today's competitive market environment, the relationship between customer satisfaction and repurchase intention has become the focus of many scholars' research. Cheng deeply discussed the relationship between customer satisfaction and repurchase intention. It is found that customer satisfaction is an important factor affecting the repurchase intention. When customers are satisfied with the purchased products or services, they are more willing to choose the same brand or merchant to buy again. This satisfaction not only comes from the product quality itself, but also includes after-sales service, shopping experience and many other aspects [9]. Du studied the influence mechanism of customer satisfaction on repurchase intention. This study points out that customer trust plays an intermediary role between customer satisfaction and repurchase intention. When customers are satisfied with the service of the e-commerce platform, they will have trust in the platform, and this trust will further enhance their willingness to buy again [10]. Guan et al. found through empirical research that good logistics service quality can significantly improve customer satisfaction, and high satisfaction will further promote customers' repurchase intention. In cross-border e-commerce, the timeliness, accuracy and transparency of logistics services are the key factors affecting customer satisfaction. When customers are satisfied with logistics services, they are more willing to choose the same cross-border e-commerce platform for shopping again [11]. These studies show that there is a close relationship between customer satisfaction and repurchase intention. Enterprises should improve customer satisfaction by improving product quality, optimizing service process and enhancing customer trust, so as to promote customers' repurchase intention. Therefore, this study puts forward the following assumptions:

H3: Customer satisfaction has a significant positive impact on customers' repurchase intention.

### **2.4. The Mediating Role of customer satisfaction between Customer Service Response Speed of Cross-border e-commerce and Customer Repurchase Intention**

In the field of cross-border e-commerce, scholars have conducted in-depth research on the relationship between customer service response speed and customer repurchase intention, and paid special attention to the intermediary role played by customer satisfaction. Yuan et al pointed out in their research that customer service response speed has a significant positive impact on customer satisfaction, and customer satisfaction further affects customers' continuous use intention [12]. The research of Shao et al also supports this view. They found that customer satisfaction plays an important intermediary role in the influence of luxury brand value perception on expanding product purchase intention [13]. This shows that customers' satisfaction with the brand and shopping experience is the key factor affecting their purchase decision. In cross-border e-commerce, quick customer service response can solve customers' problems and doubts in time, enhance customers' shopping experience, and thus improve customer satisfaction. This improvement of satisfaction will further enhance customers' trust and loyalty to the brand, and then promote customers' repurchase intention. Therefore, this study puts forward the following assumptions:

H4: Customer satisfaction plays a significant mediating role between customer service response speed of cross-border e-commerce and customer repurchase intention.

To sum up, this study puts forward a conceptual framework that customer service response speed of cross-border e-commerce affects customer repurchase intention with customer satisfaction as the intermediary, as shown in Figure 1.

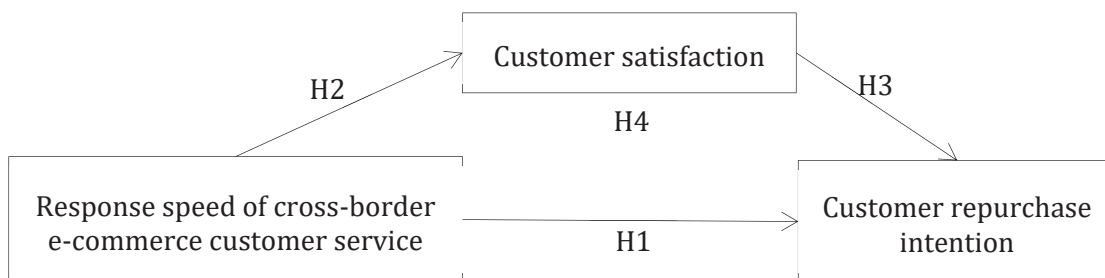


Figure 1. Conceptual Framework

### 3. Research Design and Methods

#### 3.1. Questionnaire design

Table 1. Questionnaire Scale

Variable	Item	References
Response speed of cross-border e-commerce customer service	I think the ideal customer service response time is within 24 hours.	Wan [14]
	In the past month, I think the response speed of cross-border e-commerce customer service is faster than I expected.	
	The response speed of customer service will affect my willingness to buy again.	
Customer satisfaction	Customer service response speed will affect my willingness to recommend others to buy.	Cha [15]
	I am satisfied with the shopping experience on the e-commerce platform.	
	It is wise to shop on the e-commerce platform.	
Customer repurchase intention	The shopping experience on the e-commerce platform made me feel happy.	Tandon [16]
	Generally speaking, the e-commerce platform can meet my needs.	
	I will consider buying the products and services of this e-commerce platform again.	
	It is very likely that I will buy this e-commerce platform product again.	
	I am willing to buy the products and services of this fresh e-commerce platform again.	
	I will continue to buy the products and services of this e-commerce platform in the future.	

When designing the questionnaire of this study, the overall structure of the questionnaire is clearly divided into two parts. The first part focuses on collecting the basic information of the respondents, such as age, gender, occupation, education level and the average monthly consumption amount on cross-border e-commerce platforms. The second part is the core three variable scale topics, which correspond to the three key variables of cross-border e-commerce customer service response speed, customer satisfaction and customer repurchase intention. The topics of these scales are based on the mature scales formed by previous scholars through rigorous research, and are appropriately adjusted according to the characteristics and actual

situation of cross-border e-commerce industry to ensure their applicability and accuracy in the current research situation. The questionnaire is in the form of Likert 5 scale, which has the advantages of simple operation and easy statistical analysis of data, and can let the respondents clearly express their subjective feelings and attitudes towards each item in five levels: "very different" to "very agree". See Table 1 for specific topics. Through these carefully designed topics, we can quantitatively measure the relationship between customer service response speed and customer repurchase intention, and the intermediary role played by customer satisfaction, which provides empirical basis for cross-border e-commerce enterprises to optimize customer service management and enhance customer loyalty.

### 3.2. Data Collection

In this study, data collection is mainly aimed at consumers who have shopped on cross-border e-commerce platforms. This group has direct consumption experience and can provide real and valuable information for the study. In order to ensure the universality and representativeness of the data, a total of 200 questionnaires were distributed with the help of Questionnaires, a convenient and efficient online platform. By making full use of its extensive user base and convenient communication channels, the questionnaires can reach the target audience quickly. In the process of questionnaire collection, consumers responded positively, and finally 194 valid questionnaires were successfully recovered, and the questionnaire recovery rate reached 97%, which provided a solid and reliable data foundation for subsequent data analysis and research conclusions, and could accurately reflect the relationship among customer service response speed, customer satisfaction and customer repurchase intention of cross-border e-commerce.

## 4. Data Analysis and Results

### 4.1. Reliability and Validity Analysis

#### (1). Reliability analysis

In order to ensure the reliability of the questionnaire, Cronbach's Alpha coefficient is calculated for three variables: customer service response speed, customer satisfaction and customer repurchase intention. According to the data in Table 2, Cronbach's Alpha coefficient of customer service response speed of cross-border e-commerce is 0.834, which indicates that the scale has high internal consistency, indicating that there is a high correlation between the topics measuring customer service response speed, which can reliably reflect the concept of customer service response speed. Cronbach's Alpha coefficient of customer satisfaction is 0.884, which is higher than 0.8, indicating that the customer satisfaction scale has very good reliability and the measurement results are stable and reliable. The Cronbach's Alpha coefficient of customers' repurchase intention is 0.795, which is slightly lower than the first two, but still within the acceptable range, indicating that the topic of measuring customers' repurchase intention is also consistent. On the whole, Cronbach's Alpha coefficients of these three variables are all above 0.7, indicating that the questionnaire as a whole has good reliability and reliable measurement results, which can provide a solid data basis for the subsequent analysis of mediation effects.

**Table 2.** Reliability Analysis of Questionnaire

Variable	Cronbach's Alpha
Response speed of cross-border e-commerce customer service	0.834
Customer satisfaction	0.884
Customer repurchase intention	0.795

#### (2). Validity analysis

Validity analysis is an important step to ensure that the research results accurately reflect the research structure. According to the data in Table 3, the KMO sampling fitness measure is 0.848, which is higher than 0.8, indicating that the data is very suitable for factor analysis, indicating that the questions in the questionnaire can better reflect the potential variable structure. At the same time, the approximate chi-square value of Bartlett's sphericity test is 1648.185, the degree of freedom is 436, and the significance level is 0.000, which is far less than 0.05, indicating that there is significant correlation between variables and it is suitable for factor analysis. These results show that the questions in the questionnaire can effectively measure the three variables of cross-border e-commerce customer service response speed, customer satisfaction and customer repurchase intention, and have high structural validity.

**Table 3.** Validity Analysis of Questionnaire

KMO sampling suitability quantity	0.848
Approximate chi-square	1648.185
Bartlett sphericity test	Freedom
	436
	Significance
	0.000

## 4.2. Descriptive Statistical Analysis

The gender distribution of the respondents in this study is 32% male and 68% female. The age distribution is roughly even, covering all ages from 18 to 60 and above. Specifically, young consumers aged 18-24 may account for 20%, those aged 25-34 may account for 30%, those aged 35-44 may account for 25%, those aged 45-54 may account for 15%, and those over 55 may account for 10%. Occupation distribution is diversified, including students accounting for 10%, educators accounting for 5%, enterprise employees accounting for 40%, freelancers accounting for 20%, and other occupations accounting for 25%. In terms of education level, 15% have high school education or below, 25% have junior college education, 45% have undergraduate education, and 15% have postgraduate education or above. The average monthly consumption amount distribution on cross-border e-commerce platforms presents a certain skewness, in which the consumption amount is below 10% in 100 yuan, 30% in 100-500 yuan, 35% in 500-1000 yuan, 15% in 1000-2000 yuan, and 10% in more than 2000 yuan. This distribution reflects the differences in consumption habits and economic ability of different consumers on cross-border e-commerce platforms. Through this distribution analysis, we can deeply understand the views of consumers with different backgrounds on the response speed and customer satisfaction of cross-border e-commerce, and how these factors affect their repurchase intention.

## 4.3. Correlation Analysis

In analyzing the influence of customer service response speed of cross-border e-commerce on customers' repurchase intention, customer satisfaction plays an important role as an intermediary variable. According to the results of correlation analysis in Table 4, there is a significant positive correlation between customer service response speed of cross-border e-commerce and customers' repurchase intention, and the correlation coefficient is 0.794, which is significant at the significance level of 0.01, which indicates that the faster the customer service response speed, the stronger the customers' repurchase intention. In addition, the correlation coefficient between customer satisfaction and customer repurchase intention is 0.725, which is also significant at the significance level of 0.01, which shows that the higher the customer satisfaction, the stronger the repurchase intention. These two correlation coefficients are both high, indicating that customer service response speed and customer satisfaction have a strong positive impact on customer repurchase intention. These results provide an important empirical basis for the subsequent analysis of intermediary effect, and help to deeply

understand the internal mechanism of customer behavior in cross-border e-commerce environment.

**Table 4.** Correlation Analysis of Variables

Variable	Response speed of cross-border e-commerce customer service	Customer satisfaction	Customer repurchase intention
Response speed of cross-border e-commerce customer service	1		
customer satisfaction	0.521**	1	
Customer repurchase intention	0.794**	0.725**	1

\*P<0.05, \*\*P<0.01

#### 4.4. Structural Equation Model Analysis

##### (1). Path analysis

Through the path analysis of structural equation model, this study deeply discusses the influence of customer service response speed of cross-border e-commerce on customer repurchase intention, and verifies the intermediary effect of customer satisfaction. The test results of the path coefficient of the structural equation model in Table 5 show that the H1 hypothesis, that is, the positive influence of customer service response speed of cross-border e-commerce on customers' repurchase intention, is supported, with the standardized coefficient of 0.248, the non-standardized coefficient of 0.147, the standard error of 0.013, the critical ratio CR of 2.746, and the p value of 0.000, and the significance level is far below 0.001, indicating that this path is statistically significant. H2 hypothesis, that is, the positive influence of customer service response speed of cross-border e-commerce on customer satisfaction, is also supported. The standardized coefficient is 0.364, the non-standardized coefficient is 0.168, the standard error is 0.038, the critical ratio CR is 2.694, the P value is 0.001, and the significance level is lower than 0.01, indicating that customer service response speed has a significant positive influence on customer satisfaction. H3 hypothesis, that is, the positive influence of customer satisfaction on customer repurchase intention, has also been verified. The standardized coefficient is 0.389, the non-standardized coefficient is 0.248, the standard error is 0.043, the critical ratio CR is 2.796, and the P value is 0.000, and the significance level is far below 0.001, indicating that customer satisfaction has a significant positive influence on repurchase intention.

**Table 5.** Path Coefficient Test of Structural Equation Model

Suppose	Path	Standardization Coefficient	Non-Standardized Coefficient	S.E.	C.R.	P	Conclusion
H1	Response speed of cross-border e-commerce customer service ---> Customer repurchase intention	0.248	0.147	0.013	2.746	0.000	support
H2	Response speed of cross-border e-commerce customer service ---> Customer satisfaction	0.364	0.168	0.038	2.694	0.001	support
H3	Customer satisfaction ---> Customer repurchase intention	0.389	0.248	0.043	2.796	0.000	support

\*\*\*p<0.001; S.e.: standard error; C.R.: critical ratio.

##### (2). Intermediary effect

When discussing the influence of customer service response speed of cross-border e-commerce on customer repurchase intention, this study pays special attention to the role of customer

satisfaction as an intermediary variable. In order to verify this mediating effect, this study conducted a detailed data analysis. The intermediary effect test results in Table 6 show that the direct effect of cross-border e-commerce customer service response speed on customers' repurchase intention is 0.136, the 95% confidence interval is [0.006, 0.364], and the P value is 0.007, indicating that the direct effect is significant. At the same time, the indirect effect, that is, the effect value through the intermediary variable of customer satisfaction is 0.197, the 95% confidence interval is [0.011, 0.145], and the p value is 0.004, which shows that the indirect effect is also significant. The total effect is 0.168, the 95% confidence interval is [0.041, 0.318], and the P value is 0.016, which also shows significance. Based on the analysis results of direct effect, indirect effect and total effect, it can be concluded that customer satisfaction plays a significant intermediary role between customer service response speed and customer repurchase intention of cross-border e-commerce, so it is assumed that H4 is established.

**Table 6.** Test Results of Intermediary Effect

Path	Effect type	Effect value	Bootstrapping		p
			1,000 times 95% CI		
			Lower	Uper	
Response speed of cross-border e-commerce	Direct effect 1	0.136	0.006	0.364	0.007
	Indirect effect 1	0.197	0.011	0.145	0.004
customer service-> customer satisfaction-> customer repurchase intention.	Total effect 1	0.168	0.041	0.318	0.016

## 5. Conclusion

This study deeply discusses the influence of customer service response speed of cross-border e-commerce on customer repurchase intention, and verifies the intermediary effect of customer satisfaction. Through questionnaire survey and data analysis, it is found that the customer service response speed of cross-border e-commerce has a significant positive impact on customers' repurchase intention, and fast customer service response can significantly enhance customers' shopping experience and trust in brands, thus enhancing their repurchase intention. At the same time, customer service response speed also has a significant positive effect on customer satisfaction. Rapid response can solve customers' problems in time, reduce anxiety and dissatisfaction, and improve customers' overall satisfaction. In addition, customer satisfaction also has a significant positive impact on repurchase intention, and customers with high satisfaction are more willing to choose the same platform for shopping again. More importantly, customer satisfaction plays a significant intermediary role between customer service response speed and repurchase intention, indicating that improving customer satisfaction is the key path to enhance repurchase intention. Therefore, cross-border e-commerce enterprises should pay attention to the optimization of customer service response speed, improve customer satisfaction by improving response efficiency, thus promoting customers' willingness to repurchase and realizing the long-term development of enterprises.

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