

# **Influence of After-sales Service Quality Offered by E-commerce Enterprises on Customer Repurchase Intention**

**Junwen Huang**

*School of Management, Shanghai University, Shanghai 200444, China*

**ABSTRACT.** *With the rapid development of the Chinese Internet industry and the continuous improvement of people's living standards, the Chinese e-commerce industry has also developed at an alarming rate, reaching a level that attracts worldwide attention. Due to the popularity of online shopping, abundant companies have stepped into the e-commerce industry, leading to increasingly fierce competition in this industry, which requires e-commerce enterprises to find new marketing perspectives and form their own competitive edges. Among the different sales stages, we focused on the after-sales service stage, trying to study the impact of after-sales service quality on customer repurchase intention. Through investigation and research, it was concluded that after-sales service can be divided into reliability, tangibility, responsiveness and simplicity, and how after-sales service affects customer repurchase intention was explored from these four perspectives respectively. It was confirmed that reliability, tangibility, responsiveness and simplicity all have a positive impact on customer repurchase intention, with responsiveness having the largest influence while tangibility having the least. The completion quality and speed of the after-sales service positively affect customer repurchase intention, with the completion quality exerting a greater impact than the completion speed. The above research results can provide new marketing ideas for e-commerce enterprises.*

**Keywords:** *After-sales service; Service quality; Customer repurchase intention*

## **1. Introduction**

Based on the current status of after-sales services offered by e-commerce enterprises and previous theoretical researches on this theme, relevant summary was made and a research model suitable for exploring this theme was established in this study. Through an investigation carried out among customers who have had many experiences of online shopping, the empirical research method was used to analyze the relationship between the after-sales service quality offered by e-commerce enterprises and customer repurchase intention as well as how the quality of after-sales service influences customer repurchase intention. In the end, based on the research conclusions, corresponding suggestions were proposed to improve the

quality of after-sales service provided by e-commerce enterprises, so as to enhance customer repurchase intention and improve enterprises' business performance.

From the perspective of theoretical research, by summarizing previous research results and theoretical achievements, this study summed up the domestic and international research status concerning service quality, the quality of services offered by e-commerce enterprises, after-sales service and customer repurchase intention. Then, according to previous theoretical results, some scholars agree that customer satisfaction affects customer repurchase intention and that service quality is an antecedent variable of customer satisfaction. Therefore, some studies have been conducted on the relationship between service quality, customer satisfaction and customer repurchase intention. However, some scholars believe that service quality directly impacts customer repurchase intention. Focusing on the service quality of the after-sales link, this study specifically probed into the relationship between after-sales service quality and customer repurchase intention, in the hope providing a brand new perspective for studying the service quality of e-commerce enterprises.

In practical terms, though the Chinese e-commerce retail industry has achieved tremendous development, yet various problems, e.g. leakage of customer information, uneven quality of goods on e-commerce websites and the uneven level of logistics of e-commerce enterprises, have hindered the development of the e-commerce retail industry. In this increasingly competitive industry, in order to be competitive, e-commerce enterprises have to come up with creative ideas, for there are currently a series of after-sales service problems such as return and exchange of goods, refund and product maintenance caused by the fact that customers find it hard to buy satisfactory goods online. Enterprises can start from this aspect to discover new value of customers and improve their competitive advantage. By improving the quality of after-sales service, e-commerce enterprises not only establish a good image of their own, but also solve the worries of customers and strengthen customer repurchase intention.

## **2. Research Status**

Since service is intangible, the quality of service cannot be equated with the quality of ordinary tangible goods. Researches on service quality have been carried out since the 1970s when the service industry was developing rapidly.

In 1982, Gronroos proposed the concept of "perceived service quality" based on the theory of cognitive psychology, believing that service quality is a kind of perception gained by comparing the service quality expected by customers and the service quality perceived after actual experience. Later, Gronroos maintained that service quality consists of service functional quality and technical quality. Referring to the way in which enterprises provide services, functional quality, which involves the service attitude, methods, manners and procedures of the service personnel, are subjective to some extent. The technical quality refers to what is obtained after the service process ends. Involving the tangible content of certain technologies, technical quality can be objectively assessed[1].

Lehtinen also proposed in 1982 that service quality is the subjective feeling of customers. According to him, service quality consists of the quality of service process and the quality of service results. The process quality corresponds to the functional quality proposed by Gronroos, and the quality of service results corresponds to the technical quality proposed by Gronroos. The difference is that Lehtinen believes that process quality is subjective as well. Lehtinen also maintains that service quality is composed by the quality of the entity, the quality of the interaction and the quality of the company[2].

American scholars Parasuraman, Zeithaml, and Berry (PZB) put forward a service quality gap model based on the research conducted by Gronroos. According to them, service quality is the gap between the service expected by customers and the service they actually receive. Word-of-mouth spread, personal needs and customers' past experience affect the service expected by customers. The management and decision-making activities of enterprises influence the service actually perceived by customers [3].

In 1992, Taylor and Cronin created the SERVPERF scale under the service quality gap model established by PZB. Directly measuring the service performance, this scale can directly work out the service quality perceived by customers [4].

In 2005, Parasuraman, Zeitham and Malhotra came up with the E-S-QUAL model to measure the quality of services offered by e-commerce enterprises, including four factors, namely privacy, efficiency, system availability and fulfillment. The E-RecS-QUAL model was used to measure the quality of after-sales service, including three factors, namely responsiveness, contact and compensation[5].

Joel proposed in 2006 that the quality of services offered by e-commerce enterprises includes not only website responsiveness and process quality, but also the quality of the results and restoration. Moreover, it was empirically demonstrated that research process, results and restoration affect the measurement of service quality[6].

In 2015, Shahrouz Shahrouzifarda and Morteza Farajib suggested that the service quality, responsiveness, service speed and service cost of after-sales service positively affect customer satisfaction[7].

Customer repurchase intention refers to the customers' desire and inclination of maintaining the trading relationship with current suppliers. Cardozo proposed in 1965 that customer satisfaction is a factor that leads to customer repurchase intention. This viewpoint was later on proved by many researchers. Nonetheless, it was proved by practice that customer satisfaction is not the only factor that determines customer repurchase intention. According to PZB, customer repurchase intention is decided by service quality. In 1997, Woodruff proposed that customer perceived value is an antecedent variable of customer repurchase intention[8].

### **3. Establishment of the Model Indicating the Relationship between After-sales Service Quality and Customer Repurchase Intention**

**3.1 Model Established Based on Theory and the Practice**

Based on the development status of the above related theories worldwide, the quality of after-sales service offered by e-commerce enterprises defined in this study refers to the gap between the quality expected by customers and the quality they actually perceive concerning the after-sales service operations caused by customers' dissatisfaction about the purchased goods, the defects of the goods, the demand for home installation service or the maintenance high-value goods (e.g. home appliances, digital products and furniture) after receiving the goods.

Based on the SERVQUAL model put forward by PZB as well as previous research results and the after-sales service process of current e-commerce enterprises, it was suggested that the quality of after-sales service should include four dimensions, namely reliability, tangibility, responsiveness and simplicity.

According to the above-mentioned research status at home and abroad, most researchers believe that service quality is the factor determining customer repurchase intention. Based on the analysis of each item in the questionnaire that will be presented in the following study, the quality of after-sales service can be roughly divided into the completion quality of after-sales service and the completion speed of after-sales service. Hence, the theoretical model of the relationship between the quality of after-sales service offered by e-commerce enterprises and customer repurchase intention is specifically shown in Figure 3.1.

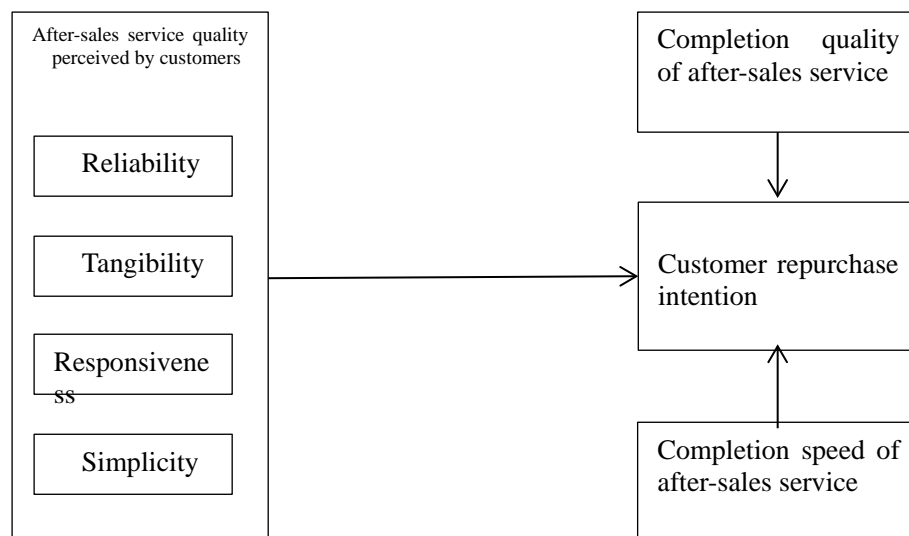


Figure 3.1 The model indicating the relationship between after-sales service quality of e-commerce enterprises and customer repurchase intention

**3.2 Meanings of Research Variables Proposed Based on Theory and the Practice**

3.2.1 Meanings of After-sales Service in Different Dimensions

Based on the above research status, the following definitions in different dimensions were made for after-sales service quality of e-commerce enterprises in this study:

*Table 3.1 Definitions of after-sales service quality of e-commerce enterprises in different dimensions*

Variable	Dimension	Meaning
After-sales service quality	Reliability	Reliable and accurate ability to fulfill service commitments
	Tangibility	Actual facilities and equipment, service personnel equipment
	Responsiveness	E-commerce enterprises timely respond to customer's after-sales service requirements
	Simplicity	Whether customers find the after-sales service process implemented by e-commerce companies very simple

### 3.2.2 Meaning of Customer Repurchase Intention

According to the above research status, the definition of customer repurchase intention was made as follows:

*Table 3.2 Meaning of customer repurchase intention*

Variable	Meaning
Customer repurchase intention	Whether customers want to realize the purchase behavior again after experiencing the after-sales service offered by e-commerce companies

### **3.3 Hypotheses about the Relationship between After-sales Service Quality and Customer Repurchase Intention**

Based on the above relationship model between the quality of after-sales service offered by e-commerce enterprises and customer repurchase intention, the following assumptions are made:

H1: The quality of e-commerce after-sales service has a positive impact on customer repurchase intention.

H2: The reliability of e-commerce after-sales service positively influences customer repurchase intention.

H3: The tangibility of e-commerce after-sales service exerts a positive impact on customer repurchase intention.

H4: The responsiveness of e-commerce after-sales service positively affects customer repurchase intention.

H5: The simplicity of e-commerce after-sales service has a positive effect on customer repurchase intention.

### **3.4 Questionnaire Made according to Theory and Practice**

The questionnaire used in this study is based on the Likert 5-point scale, where 1, 2, 3, 4 and 5 represent strongly disagree, disagree, neutral, agree and strongly agree. Based on relevant literature and current e-commerce after-sales service process, the quantity of after-sales service offered by e-commerce enterprises includes four dimensions, namely reliability, tangibility, responsiveness and simplicity, as well as related items corresponding to the variables concerning customer repurchase intention. The first five questions in the questionnaire are multiple-choice questions used to investigate into the basic information and online shopping status of the respondents. Moreover, since people without the experience of shopping online certainly have not experienced after-sales service, we set a limit on www.wjx.cn, the questionnaire platform. The respondents would be asked whether they had the online shopping experience. If the answer was no, there would be no follow-up questions and the questionnaire would be submitted directly; only those with the experience of shopping online would have to answer the follow-up questions.

After the questionnaire was designed, it was distributed to the respondents online. After a period of time, the questionnaire was collected for subsequent analysis.

## **4. Data Analysis**

### **4.1 Background to Obtain the Data**

A total of 170 questionnaires were distributed, 166 of which were collected as valid questionnaires. The valid questionnaires were processed to obtain the basic information about the samples. There are 86 females, accounting for 51.81%, and 80 males, taking up for 48.19%. The ratio of male to female is roughly 1:1, but the number of females is slightly more than that of males. Unlike men, women find shopping more attractive, so correspondingly, women are more likely to have the demands for after-sales service. The majority of female respondents are in the age groups of 18-25, 26-30 and 31-40. Women aged 18-40 are relatively economically independent and find it easier to accept new things, which is similar to the situation in real life. In a word, the questionnaires collected in this survey are relatively scientific. Table 4.1 shows the specific information of the survey data.

*Table 4.1 Basic information of the samples*

Item	Question	Number of samples	Percentage
Gender	Male	80	48.19%
	Female	86	51.81%
	Less than 18 years old	2	1.2%

Age	18-25 years old	56	33.73%
	26-30 years old	54	32.53%
	31-40 years old	50	30.13%
	Above 40 years old	4	2.41%

In order to obtain customers' feeling about after-sales service quality, the respondents must have enough experiences of receiving after-sales service, while the premise of after-sales service experience is many experiences of online shopping. Therefore, in this study, the respondents' years of online shopping and monthly frequency of online shopping were statistically counted. The results show that most respondents have 1-3 or 4-6 years of online shopping, which means that the majority of respondents have many after-sales service experiences, guaranteeing the accuracy of the study. The years of online shopping and monthly frequency of online shopping of the respondents are shown in Tables 4.2 and 4.3.

*Table 4.2 Statistical information about years of online shopping*

Years of online shopping	Frequency	Percentage
Less than 1 year	2	1.2%
1-3 years	70	42.17%
4-6 years	76	45.78%
6 years	18	10.84%

*Table 4.3 Statistical information about monthly frequency of online shopping*

Average monthly frequency	Frequency	Percentage
Less than 5 times	90	54.2%
5-10 times	72	43.4%
Above 10 times	4	2.4%

## **4.2 Reliability and Validity Analysis**

### **4.2.1 Related Concepts of Various Analyses**

The reliability coefficient is to measure whether the data is consistent, reliable and stable, that is, the extent to which the results are consistent if the same method is used to measure the same object. The higher the reliability coefficient, the more stable the measurement results; a low reliability coefficient does not indicate that the measurement result is stable. A high reliability coefficient is a prerequisite for follow-up validity analysis and other analyses, because only by gaining data about the reliable answers given by the respondents can future analysis be meaningful.

Referring to effectiveness, validity represents the accuracy of the methods and means in measuring the problem. The higher the validity, the more consistent the measurement results are with the content examined, and the more it reflects the content to be examined. On the contrary, it means that the measurement results do not match the content examined.

4.2.2 Reliability and Validity Test Results and Relevant Explanation

In this study, the quality of after-sales service includes four dimensions, namely reliability, tangibility, responsiveness and simplicity, as well as customer repurchase intention. Therefore, there are altogether five variables. With the scale method applied, the reliability and validity tests should be carried out. In this study, the Cronbach coefficient method was used to test the reliability. Overcoming the shortcomings of the partial halving method, this method is currently the most commonly used reliability test method in social studies. In general studies, a Cronbach's Alpha of 0.6 is considered to be relatively reliable. As shown in Table 4.4, the Cronbach's Alpha of all the 5 variables in this study exceeds 0.6, indicating a high level of reliability.

Table 4.4 Reliability measurement results of the variables

Variable	Number of questions	Cronbach's Alpha
Reliability	2	0.779
Tangibility	3	0.728
Responsiveness	4	0.902
Simplicity	3	0.800
Customer repurchase intention	3	0.925

In this study, factor analysis was conducted to analyze the validity. It is suitable to carry out the factor analysis when  $KMO > 0.6$ , the cumulative variance contribution rate  $> 50\%$ , the Sig value  $< 0.05$ , and the load factor of the variable  $> 0.5$ . Table 4.5 shows the specific data of the above standards in this study, which are all in line with the standard, making it possible to conduct the factor analysis. According to the measurement results, this questionnaire was scientifically designed with good validity.

Table 4.5 Validity test results

Question	Factor loading	KMO	Bartlett's test	Cumulative variance contribution rate	Sig
Reliability 1	0.847	0.908	965.920	82.392%	0
Reliability 2	0.656				
Tangibility 1	0.666				
Tangibility 2	0.742				
Tangibility 3	0.561				
Responsiveness 1	0.837				
Responsiveness 2	0.820				
Responsiveness 3	0.790				
Responsiveness 4	0.792				



Simplicity 1	0.862				
Simplicity 2	0.829				
Simplicity 3	0.679				
Customer repurchase intention 1	0.828				
Customer repurchase intention 2	0.868				
Customer repurchase intention 3	0.859				

**4.3 Variance Analysis**

The SPSS software was used to conduct the independent sample T test to verify whether the gender of the respondents had significantly difference influences on customer repurchase intention as well as the four dimensions of after-sales service quality, namely reliability, tangibility, responsiveness and simplicity. The test results are shown in Table 4.6. At a significance level of 0.05, the null hypothesis cannot be rejected. In other words, there is no significant difference between male and female respondents when it comes to customer repurchase intention and the reliability, tangibility, responsiveness and simplicity of after-sales service quality. The value of each variable cannot be roughly determined based on the gender. However, male respondents' average score is generally higher than that of female respondents. Besides, male respondents have the highest score in terms of simplicity, probably because it is generally believed that men do not care about the details. After the simplicity is satisfied, we tend to believe that other dimensions are satisfactory as well.

*Table 4.6 Independent sample T test results concerning the age*

Variable	Mean value		Sig
	Male	Female	
Reliability	3.34	3.15	0.39
Tangibility	3.22	3.16	0.732
Responsiveness	3.52	3.44	0.693
Simplicity	3.76	3.46	0.097
Customer repurchase intention	3.41	3.33	0.759

The SPSS software was used to conduct one-way variance analysis of whether there were significant differences between respondents of different ages in terms of customer repurchase intention as well as the reliability, tangibility, responsiveness and simplicity of after-sales service quality. The test results are shown in Table 4.7. At a significance level of 0.05, the null hypothesis cannot be rejected. That is to say, there is no significant difference between respondents of different ages when it

comes to different variables. In a manner of speaking, respondents of different ages share roughly the same criterion for judging variables.

*Table 4.7 Variance analysis concerning the age*

Variable	F value	Sig
Reliability	0.949	0.391
Tangibility	0.422	0.657
Responsiveness	0.793	0.456
Simplicity	0.056	0.945
Customer repurchase intention	0.151	0.860

#### 4.4 Correlation Analysis

Correlation analysis aims to find out whether there is a dependence relationship between the variables. As a relationship of uncertainty, correlation is ubiquitous in real life. There is a specific relationship between variables, but it is impossible to determine one variable with another variable. The degree of correlation between two variables can be described by the correlation coefficient  $r$ . If the two variables change in the same direction, they are positively correlated with each other; otherwise, they are negative correlated. When  $|r| > 0.95$ , there is a significant correlation between the two variables; when  $|r| > 0.8$ , the two variables are highly correlated; when  $0.5 < |r| < 0.8$ , the two variables are moderately correlated; when  $0.3 < |r| < 0.5$ , there is a low correlation between the two variables; when  $|r| < 0.3$ , the two variables are irrelevant; when  $r = 0$ , there is no linear correlation. The correlation analysis is the basis for the follow-up regression analysis. SPSS 18.0 was used in this study for correlation analysis. Since one variable involves multiple questions, the arithmetic mean of multiple questions under the same dimension was worked out, and then the correlation analysis was performed based on the simple arithmetic mean of each variable. In this study, the Pearson correlation coefficient was applied to conduct the two-sided significance test, and \*\* indicates significant correlation at the 0.01 level (two sides). The specific data, i.e. the  $r$  coefficient, is shown in Table 4.8.

*Table 4.8 Statistical results of correlation*

	Reliability	Tangibility	Responsiveness	Simplicity	Customer repurchase intention
Reliability	1				
Tangibility	0.521**	1			
Responsiveness	0.722**	0.502**	1		
Simplicity	0.586**	0.462**	0.796**	1	

Customer repurchase intention	0.738**	0.464**	0.816**	0.747**	1
-------------------------------	---------	---------	---------	---------	---

According to the above statistical table, at a significance level of 0.01, there is a strong correlation between responsiveness and customer repurchase intention, reliability and simplicity are moderately correlated with customer repurchase intention, while there is a low correlation between tangibility and customer repurchase intention.

#### 4.5 Regression Analysis

If the correlation analysis indicates a strong correlation between the two variables, we can explore the specific interactions between the two variables by constructing a linear regression equation. Regression analysis is based on the correlation analysis. The correlation between the two variables is the prerequisite of further constructing the regression equation. Due to the low correlation between tangibility and customer repurchase intention, the equation indicating the relationship between the reliability, responsiveness and simplicity of after-sales service quality and customer repurchase intention was established in this part.

With reliability set to be  $X_1$ , responsiveness set as  $X_2$ , simplicity as  $X_3$ , and customer repurchase intention as  $Y$ , the linear regression equation,  $Y=0.343*X_1+0.489*X_2+0.342*X_3-0.679$ , was constructed by the SPSS software. The specific statistics are shown in Table 4.9. It can be seen from the table that the R-square is 0.736, which is relatively large, indicating a good fitting of this equation. At a significance level of 0.05, the Sig value of each variable is less than 0.05, which means that the variables have a significant linear effect on the dependent variables. It can thus be concluded that with the increase of reliability, responsiveness and simplicity, the overall average value of customer repurchase intention increases substantially. Moreover, the impact of responsiveness on customer repurchase intention is greater than that of reliability and simplicity, the influences of reliability and simplicity on customer repurchase intention are roughly the same.

Table 4.9 Regression analysis results

Dependent variable	Independent variable	Unstandardized coefficient		Standardized coefficient	t	Sig	R-square	Adjusted R-square
		B	Standard error	B				
	(Constant)	-0.679	0.292		-2.327	0.023	0.736	0.726
Custom	Reliability	0.3	0.094	0.306	3.65	0.0		

er repurch ase intentio n		43			8	00		
	Responsive ness	0.4 89	0.140	0.391	3.50 3	0.0 01		
	Simplicity	0.3 42	0.127	0.256	2.68 8	0.0 09		

Observing all the questions in this questionnaire, we can find that the first question concerning reliability as well as the second and fourth questions about responsiveness all reflects the completion quality of after-sales service, while the first and fourth questions with regard to responsiveness both reveal the completion speed of after-sales service. With the completion quality set as  $\beta_1$ , the completion speed set as  $\beta_2$ , and customer repurchase intention as Y, the SPSS software was used to construct the regression equation,  $Y=0.685*\beta_1+0.347*\beta_2$ . Table 4.10 shows specific statistical data. As shown in the table, The R-square of the constructed equation is large, implying that the model fits well. The completion quality and speed of after-sales service play a positive role in customer repurchase intention, but the impact of completion quality is far greater than that of the completion speed, which indicates that customers are more concerned about the completion quality of after-sales service.

Table 4.10 Regression analysis results

Dependent variable	Independent variable	Unstandardized coefficient		Standardized coefficient	t	Sig	R-square	Adjusted R-square
		B	Standard error					
Customer repurchase intention	Completion quality	0.685	0.130	0.570	5.256	0.000	0.685	0.677
	Completion speed	0.347	0.128	0.294	2.707	0.008		

### 5. Suggestions

In this study, correlation analysis and regression analysis were conducted to verify the direction and degree of the influence of the four dimensions of after-sales service quality on customer repurchase intention.

By analyzing the verification results, it is concluded that the 4 sub-hypotheses under H1 that “the quality of after-sales service offered by e-commerce enterprises has a positive impact on customer repurchase intention”, that is, the reliability, tangibility, responsiveness and simplicity of e-commerce after-sales service, pass the verification when the Pearson correlation coefficient is applied and the significance level is 0.01. Then, it is assumed that H1, namely “the quality of after-sales service offered by e-commerce enterprises has a positive impact on customer repurchase

intention”, is also correct. It shows that if e-commerce enterprises can increase the reliability, tangibility, responsiveness and simplicity of their after-sales service, customers’ perception of the quality of e-commerce after-sales service can be enhanced, which strengthens customer repurchase intention and then transforms this intention into actual purchasing power, thereby bringing profits to the enterprises.

H2: The reliability of e-commerce after-sales service has a positive impact on customer repurchase intention. According to the correlation analysis, the correlation coefficient is 0.738 at the significance level of 0.01, indicating a moderate correlation. Regression analysis was used to construct the regression equation, and the regression coefficient corresponding to reliability is 0.343. Although the coefficient is not the highest, yet it also accounts for a large proportion. It shows that for each unit of reliability increased in the e-commerce after-sales service, the overall average value of customers repurchase intention will increase by about 0.343, reflecting that customers attach importance to reliability. If e-commerce enterprises can fulfill their after-sales service commitments (e.g. return in 7 days without reason, free shipping for return of goods, three-year warranty, home delivery and installation) according to the agreement, and if the enterprises are able to come up with relevant solutions and even periodically asks the customer about their use and experience of the products upon receiving the after-sales service request from the customers. In this way, customers can feel the reliability of e-commerce enterprises and their overall average value of repurchase intention will increase. E-commerce enterprises had better not propose the solutions if their current conditions cannot meet the required level of the promised after-sales service, for they may accomplish the very opposite.

H3: The tangibility of E-commerce after-sales service positively influence customers repurchase intention. Based on the correlation analysis, the correlation coefficient of tangibility to customer repurchase intention is 0.464, implying a low correlation. Therefore, in the follow-up regression analysis, tangibility was not regarded as an independent variable, and the influence of tangibility on customer repurchase intention failed to be quantitatively measured either. Nevertheless, it can also be found that the tangibility of after-sales service has a positive impact on customer repurchase intention. Hence, e-commerce enterprises can regulate the behavior and appearance of after-sales service personnel, regularly conduct etiquette training for after-sales service personnel, establish customer evaluation mechanism for after-sales service personnel and provide necessary supporting tools for after-sales service personnel to make sure that the problems occurring during home installation and fault repair. Besides, sufficient after-sales service sites can be established when possible and necessary, so that customers can conveniently get to the nearest sites to have their problems solved. It is conducive to improving after-sales service quality in terms of tangibility, which can make customers more satisfied with the after-sales service and thereby enhance their repurchase intention.

H4: The responsiveness of E-commerce after-sales service positive affects customer repurchase intention. The correlation analysis indicates a high degree of correlation. The regression equation constructed a regression coefficient of 0.489, which is the highest regression coefficient, reflecting the importance attached by

customers to responsiveness. This coefficient also echoes the fast pace of the current society. Hence, e-commerce companies should respond promptly to customers' requests for after-sales service. The premise of timely response is that the customer service personnel ought to be online as much as possible and take every request seriously. It also requires enterprises to choose logistics companies with fast delivery speed for customers to return and exchange goods, establish a sound supervision system to standardize relevant staff to respond timely, and implement the following practical solutions in accordance with the standard procedures to ensure customer satisfaction. Moreover, after receiving the after-sales service problem, the key is to ensure the speed of actually solving the problem rather than to give them the fake promise. If this happens, each unit corresponds to a reduction of 0.489 units in the overall average value of customer repurchase intention, which has a great impact on e-commerce enterprises.

H5: The simplicity of e-commerce after-sales service has a positive impact on customer repurchase intention. The correlation analysis indicates a moderate level of correlation. The regression equation constructed a regression coefficient of 0.342, which is at a similar level with the reliability. Though they are lower than that of responsiveness, yet their influences cannot be ignored either. There are some solutions to various after-sales problems. If e-commerce enterprises can ensure that customers think it easy to choose the solutions to after-sales problems in the pre-sales stage, if e-commerce enterprises guarantee that it is easy for customers to choose solutions in their favor when after-sales problems actually happen, and if the entire after-sales service process is simple and fast, then customers' experience of simplicity will be improved, the quality of after-sales service will be enhanced, and customer repurchase intention will be strengthened.

Based on the above four dimensions, it can be found that responsiveness, reliability, simplicity and tangibility all positively influence customer repurchase intention, among which responsiveness exerts the largest impact. The influences of reliability and simplicity are slightly smaller, and tangibility has the smallest impact. Restricted by objective conditions, e-commerce enterprises can first improve their after-sales service quality in terms of responsiveness, if conditions permit, after-sales service can be enhanced in terms of reliability and simplicity, and tangibility can be placed in the last place, so as to strength customer repurchase intention.

Besides, the independent sample T test and one-way variance analysis were carried out to study whether there are differences between customers of different genders and ages when it comes to their responses to different variables. The results show that there are no significant differences. That is to say, e-commerce enterprises should treat consumers of different genders and ages equally.

In the end, by observing the questions in the questionnaire, it is found that some of the questions can be classified into two aspects, namely the completion quality and speed of after-sales service. According to the constructed regression equation, both the completion quality and speed exert a positive impact on customer repurchase intention. The regression coefficient of the completion quality is 0.685, and that of the completion speed is 0.347, which means that the completion quality

has a greater impact on customer repurchase intention than the completion speed. In other words, customers pay more attention to the completion quality of after-sales service. The enlightenment to e-commerce enterprises is that when it is impossible to achieve both the completion quality and speed, (e.g. an after-sales problem has to be well solved in a long time, but the customer wants to have it solved as soon as possible), when it is difficult to make the choice, or when conditions are limited, e-commerce enterprises can refer to the regression equation and choose a better completion quality.

All in all, the quality of after-sales service offered by e-commerce enterprises has a positive impact on customer repurchase intention. The four dimensions of after-sales service quality, namely reliability, tangibility, responsiveness and simplicity, positively influence customer repurchase intention.

### References

- [1] Gronroos C(1982). *Strategic Management and Marketing in the Service Sector*, Helsingfors: Swedish School of Economics and Racine-Administration.
- [2] Lehtinen U, Lehtinen J R(1982). *A Study of Quality Dimensions*. Service Management Institute, vol.5, no.3, pp. 25-32.
- [3] Parasuraman, A., Zeithaml, V.A. and Berry, L.L.(1998). SERVQUAL: a multi-item scale for measuring consumer perceptions as service quality .*Journal of retailing*, vol. 64, no.1, pp. 36-39.
- [4] CRONIN J J(1992). *Measuring service quality: a reexamination and extension*. *Journal of Marketing*, no.6, pp.55–68
- [5] Parasuraman,A., Zeithaml,V., Malhotra, A(2005). *E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality*. *Journal of Service Research: J SR*. Thousand Oaks, vol. 7, no. 3, pp.213-219.
- [6] Joel E. Collier,Carol C. Bienstock: *Measuring Service Quality in E-Retailing*. *Journal of Service Research*, 2006, no.26, pp.261-262.
- [7] Shahrouz Shahrouzifard, Morteza Faraji(2016). *After-sales service quality as an antecedent of customer satisfaction*. *Accounting*, no.2, pp. 81–84
- [8] Woodruff, R.B(1997). *Customer, Value: the Nest Source for Competitive Advantage*. *Journal of the Academy of Marketing Science*, vol.25, no.2, pp. 139-141