

# The Relationship between Service Remediation, Perceived Fairness, Customer Satisfaction, and Repurchase Intention: A Case Study of Online Stores in the Yangtze River Delta Region of China

He Zhi Qiang

## Abstract

Based on the fairness theory, this paper takes perceived fairness as an intermediary variable to study the impact of online service recovery on customer satisfaction and repurchase intention. In the research process, the service recovery is divided into three dimensions of material recovery, spiritual recovery and positive responsiveness, and the perceived fairness is divided into three dimensions of distributive fairness, procedure fairness and interaction fairness. The corresponding scales are designed for questionnaire survey and data analysis, it can explore the impact of perceived fairness as a mediating variable on service recovery and customer satisfaction; the impact of perceived fairness as a mediating variable on service recovery and repurchase intention; and the impact of customer satisfaction on repurchase intention. Finally, the following findings and conclusions are drawn: material recovery and spiritual recovery positively affect distributive, procedural and interactive fairness, while positive responsiveness has no significant impact on distributive fairness, and only positively affects procedural fairness and interactive fairness; distributive, procedural and interactive fairness are equally positively affects customer satisfaction, but has no significant effect on repurchase intention ; customer satisfaction positively affects repurchase intention. Based on the above conclusions, enterprises can increase their emphasis on service recovery, and at the same time pay attention to the fairness of service recovery, treat all consumers fairly, formulate a recovery plan that satisfies consumers for them to choose, increase customer satisfaction, and increase repurchases ratio, thereby improving corporate performance.

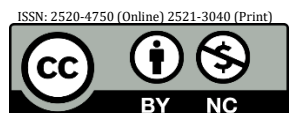


IJSB

Accepted 15 June 2023

Published 17 June 2023

DOI: 10.58970/IJSB.2161



Papers published by IJSAB International are licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

**Keywords:** *Service Remediation, Perceived Fairness, Customer Satisfaction, and Repurchase Intention.*

About Author (s)

He Zhi Qiang, Asia Metropolitan University, Malaysia.

## **Introduction**

Today, businesses strive to provide high-quality customer service in order to gain a foothold in the highly competitive business environment, but even businesses known for the best customer service cannot be completely immune to service failures such as flight delays, the reserved hotel room was not ready. Service failure is inevitable. Once it happens, it may deteriorate the relationship with consumers (Zhang 2016; Xiao & Li 2017). If it is not handled properly, it may cause consumer dissatisfaction, resulting in negative word of mouth, and even seriously affect the development of the enterprise. Therefore, it is critical for businesses to successfully handle service failures and rebuild and maintain positive relationships with consumers. Compared with brick-and-mortar retailers, online retailers usually provide more convenient and efficient services, allowing consumers to save time and cost, but online retailers and brick-and-mortar retailers adopt different shopping procedures, for example, compared with brick-and-mortar retail, there is no face-to-face market exchange in online retailing. In addition, consumers do not have any physical contact with the products they desire, so they feel insecure shopping on the Internet, increasing the risk of service failure. Therefore, service failures are more likely to occur and cause consumer dissatisfaction in the context of online retail than in a brick-and-mortar retail environment. Given that service failures affect consumers repurchase behavior, service failure and recovery management in online retail operations has become an important topic for scholars and practitioners. Previous research on internet-related service recovery mainly focused on the impact of service quality provided by enterprises on customers' post-purchase behavior intentions, but there are not many studies on online retail customers' attitudes and behaviors from the perspective of consumers' perception of fairness; , Some studies have investigated the issues of service failure and service recovery in the traditional service environment, in the context of online retailing, based on the perspective of fairness theory, there is little research on the impact of service recovery on consumer attitudes and behaviors. Therefore, research is necessary to explore the impact of service recovery on customer satisfaction and behavioral intentions in an online retail environment from the perspective of fairness theory. It can be seen that the development momentum of online stores in the Yangtze River Delta region is strong, but they are also facing problems of service failure and service adjustment. Harrison (2012) believes that service failures seriously affect customers' perception of service experience, which will cause customers to have various dissatisfaction and emotions. Therefore, how to reduce the generation of customer dissatisfaction will have an impact on the effect of service recovery customer satisfaction and service failure are directly related. Prabha Dhandayudam et al. (2014) believe that the so-called service failure essentially means that the service provided does not meet the customer evaluation standards. Zhang et al. (2016) found in the research of public services that different service recovery measures and methods have different impacts on customers' emotions and repurchase intentions. (Roggeveen et al. 2012)

## **Problem Statement**

With the popularity of the Internet and the rapid development of e-commerce, online shopping has gradually become the preferred shopping method for more and more people. However, the failure of online store services has also increased. According to the big data of China's e-commerce complaints and rights protection public service platform, in the first half of 2017, online shopping complaints accounted for 47.13%, a year-on-year increase of 17.19%, becoming the "hardest hit area" of consumer complaints. Compared with shopping in physical stores, the virtual nature of online shopping determines that online stores are more prone to service failure scenarios, such as information asymmetry due to lack of standards in product and service performance, difficulty in controlling the quality of logistics and distribution services, online shopping reviews and online word-of-mouth Influencing the purchasing

decisions of other customers, selling counterfeit and shoddy products in online stores, breach of contract by stores, communication barriers and misunderstandings, etc. (Roggeveen et al., 2012; Jian & Ke, 2017; Xiao & Li, 2017). It can be said that when the service provided by the online store does not meet the expectations of online shoppers, service failure will occur. Service failure will trigger negative reactions from online shopping users, such as complaints, anger, complaints, etc. Therefore, a series of service recovery measures after service failure is the key link to eliminate negative reactions from users and improve customer satisfaction, especially for online stores. Service recovery can be regarded as a process, starting from the confirmation of service failure to the generation of customer's negative reaction, to the adoption of service recovery measures, and finally to the results of service recovery measures. In this process, a series of subtle changes will occur in the customer's psychology. Is it "indifferent", "adding fuel to the fire", or "overjoyed"? In this regard, the fairness theory provides a relatively comprehensive analysis framework, because every detail in the service recovery process will generate the customer's fairness perception, and the customer's subjective fairness perception will trigger a series of follow-up behaviors, such as customer satisfaction, re-evaluation, etc. purchase intention, word-of-mouth communication, etc. As a result, fairness theory has been widely used by many scholars in the study of customer behavior outside the enterprise. Huang and Chang (2020) found through research that service recovery is an important way for merchants to restore consumers. Consumer forgiveness is an important indicator of a merchant's ability to achieve customer retention. Based on the background of service mistakes in online shopping, this paper explores service recovery from the perspective of consumer psychology, the relationship between consumer forgiveness and continued trust, and the application of attribution theory to study the moderating role of attribution of failure in service recovery and continued trust. But customer satisfaction is reflected through perceived fairness in many cases, so the role of perceived fairness in service recovery and customer satisfaction is very important. At the same time, perceived fairness also affects repurchase intention. Perceived fairness also plays a mediating role in service recovery and repurchase intentions. Customer satisfaction also affects repurchase intentions. Based on the above questions, this paper tries to demonstrate the relationship between service recovery and repurchase intention, the intermediary relationship between perceived fairness in service recovery and customer satisfaction, the mediation relationship between perceived fairness in service recovery and repurchase intention, and the mediation relationship between customer satisfaction and perceived fairness and the mediating relationship between customer satisfaction and perceived fairness and repurchase intention

### **Research objectives**

From the research background, it can be concluded that online stores are facing the risk of service failure, and service recovery is needed to promote the generation of customer perceived fairness, thereby increasing customer satisfaction and repurchase intention. The research on service recovery is very valuable both in theory and in practice, especially in the current period of rapid development of online shopping in China. Based on this, this study proposes research objectives for online stores. (1) To evaluate the relationship between service recovery and perceived fairness (2) To explore the relationship between perceived fairness and customer satisfaction. (3) To explore the relationship between perceived fairness and repurchase intention. (4) To explore the relationship between customer satisfaction and repurchase intention. (5) To explore if perceived fairness mediates the relationship between service recovery and customer satisfaction. (6) To explore if perceived fairness mediates between service recovery and repurchase intention. (7) To explore if there is a mediating relationship between customer satisfaction and perceived fairness and repurchase intention.

## **Research question**

This paper constructs a model based on the relationship between service recovery and repurchase intention in the context of online shopping, and integrates theories of cognitive service recovery, perceived fairness, customer satisfaction, and repurchase intention. Based on the relationship model between service recovery and repurchase intention, literature research methods, questionnaire survey implementation, and data statistics are used to study the constructed model, so as to provide guidance for online stores from a theoretical and practical perspective. Based on this, this study proposes research questions. 1. What is the relationship between service recovery and perceived fairness? 2. What is the relationship between perceived fairness and customer satisfaction? 3. What is the relationship between perceived fairness and repurchase intention? 4. What is the relationship between customer satisfaction and repurchase intention? 5. Does perceived fairness mediate the relationship between service recovery and customer satisfaction? 6. Does perceived fairness mediate between service recovery and repurchase intention? 7. Is there a mediating relationship between customer satisfaction and perceived fairness and repurchase intention?

## **Scope of study**

The research topic of this paper is the relationship between service recovery and repurchase intention. Based on this, in order to ensure the rigor and standardization of academic research, first of all, the sampling range of this article is limited to the Yangtze River Delta region, and the main body of the sample is the internet consumer group. Secondly, the relationship between the variables explored in this paper only explores the research objectives proposed in this paper, without considering the influence of other variables. In summary, the scope of this study is defined.

## **Literature review**

### **Service Recovery**

As early as the 1980s, British Airways summed up the four most important factors in air service, and recovery is one of the key factors. This means that if a passenger encounters a service error on the way and the interests are damaged, the airline should make appropriate remedies in time to compensate for the loss of the customer. Service failures bring a certain degree of loss of certain resources to customers, while service recovery is to take corresponding measures to maintain customer satisfaction. ways and specific resources to make up for this loss of customers. Taking into account the different sources of service errors, the service recovery measures should also be different according to the types and results of errors (Wang & Fu, 2012). With the development of the online shopping market, there have been much research on applying service recovery to the field of online retailing in China, but there are still relatively few researches on service recovery for logistics or express service errors involved. For example, Xu (2010) proposed two internal and external service recovery strategies for the service failures of third-party logistics companies. Internal recovery is the management of employees within the logistics company to help employees deal with negative emotions after service failures, while external recovery is logistics. The service recovery that the enterprise faces to the customer and solves the problem for the customer. However, the current research on logistics or express service recovery is mostly qualitative research on logistics service recovery strategies or logistics service recovery systems, and the occurrence of mistakes and the adoption of recovery are basically the same subject, that is, logistics or express delivery providers. However, considering the particularity of online retailing and the lack of complaint channels for third-party express delivery services, the occurrence of service failures and the adoption of service remedies are sometimes not the same subject.

### **Repurchase Intention**

The concept of repurchase intention is basically extended from the perspective of social psychology and marketing. Social exchange theory and commitment investment model will intent to purchase is interpreted as the intention to continue or maintain a relationship. Companies are relying more on defensive strategies as it is becoming more expensive to attract potential customers, so companies are focusing on existing customers and persuading them to repurchase instead of opting for offensive marketing strategies to turn to new customers and increase market share. Customers repurchase intention is considered to be the key to determine the success of a company's defensive marketing strategy.

### **Customer Satisfaction**

If customer satisfaction is defined by nature, based on the viewpoint of cognitive evaluation, ratio of input to result is unfair, there will be dissatisfied emotions and "expectation inconsistency" theory is also very representative, which believes that customer satisfaction is satisfied when the actual performance of the product or service exceeds the customer's expectations, and dissatisfied when it is lower than the expectations. Similarly, that customer satisfaction is a state of pleasure or disappointment formed after customers have a real perception of a product or service, compared with their original expectations. The t satisfaction refers to the overall emotional response of consumers in the online store consumption process and product use.

### **Perceived Fairness**

The psychological balance of customers after receiving related services from the enterprise, and the psychological balance of providing remedies to customers after the failure of enterprise services is called perceived fairness. The balance in the customer's heart after accepting the relevant services of the enterprise and the recovery methods provided by the enterprise after service failure is called perceived fairness, and in the process of service recovery, customers can also judge the service quality of the enterprise according to their own feelings. Perceived fairness is one of the important factors affecting customer satisfaction. Therefore, for a service enterprise, service fairness is particularly important, so service fairness should be highly valued by enterprises. Foreign scholar. The higher the fairness customers feel, the higher their satisfaction with the service and recovery measures. This performance is likely to directly affect the behavior intention of customers to purchase services again. Therefore, for different types of customers, service providers different remedies should be taken. Based on the conclusions of previous studies, this paper concludes that when the service fails, the enterprise platform provides customers with corresponding recovery measures, and obtains subjective awareness through customer perception. When the recovery measures provided by the enterprise cannot meet customer expectations, customers will feel not being treated fairly yourself will have a negative impact on the platform.

### **Methodology**

#### **Research Design**

First, from the perspective of the research concept of this article, this article belongs to the positivism research concept, and the positivism concept is more inclined to obtain conclusions from a scientific point of view, that is, it believes that existing and new scientific systems are based on experiments and observations. The positivist research concept provides a systematic logical framework for this paper and is more conducive to the conduct of the experiment. Secondly, from the perspective of research type, according to the general classification, this research belongs to quantitative research, that is, to draw research conclusions by means of data collection; from the perspective of research nature, this research belongs to analytical research. The research focus of this paper is to explore the relationship between service

recovery and repurchase intention based on the background of online shopping, that is, to explore the relationship between the independent variable and the dependent variable, and to introduce intermediary variables to make up for the academic gap in this field. From this point of view, this paper belongs to analytical research; from the perspective of research purpose, the research purpose of this paper is to fill the academic gap, that is, the research field is not perfect under the existing theoretical background. From a practical point of view, this paper is based on the background of online shopping, to better improve customer satisfaction and reconstruct intention through service recovery, so as to bring higher economic benefits to enterprises.

### **Data collection**

According to the formal questionnaire verified by the pre-test, this chapter uses "Questionnaire Star" to conduct a network questionnaire survey to collect data and analyzes the questionnaire data through SPSS22.0 and AMOS21.0 software. The official questionnaire will be issued from January 2023 to March 2023. According to statistics, the consumer groups in the Yangtze River Delta region who have experienced network service recovery are concentrated in college students, white-collar workers, and enterprise employees in the Yangtze River Delta region. Therefore, the method of distributing this questionnaire is mainly through QQ, WeChat and Weibo clients. Because the subjects of this survey are mainly young people, the method of distributing questionnaires online is more popular and conforms to their living habits. A total of 350 questionnaires were collected this time, and the questionnaires with the same score for 20 consecutive options were regarded as invalid questionnaires and were eliminated. The actual valid questionnaires were 296, and the effective questionnaire rate was 84.57%.

### **Target population**

The term "target population" refers to a certain group of people that the researchers would like to focus their attention on while carrying out the study. There are many distinct target groups that may be found in various types of research; therefore, we need to choose which target population will provide us with the best opportunities to collect data and information for our study. The online shopping consumers in the Yangtze River Delta region of China are the population that will serve as the focal point of this investigation. This study collected 350 questionnaires.

### **Sampling frame and sampling location**

The online shopping consumers in Yangtze River Delta region of China were the focus of this research. The sampling frame consisted of all online shopping consumers in the Yangtze River Delta region of China that participated in this study. The Yangtze River Delta region of China were chosen as the locations for the sample collection for this study.

### **Sampling size**

The size of the sample that is collected from the whole population is known as the sampling size. The size of the sample should be large enough to eliminate the possibility of sampling errors and biases. Full population research will be impractical and prohibitively expensive to carry out; instead, establishing a sampling size will be the most effective way to cut down on the time and money required to carry out a study. For the purpose of our study, the population that we focused on online shopping consumers in the Yangtze River Delta region of China. This study collected 350 sampling.

### **Questionnaire design and instrumentation**

Questionnaire is one of the effective research methods for studying marketing-like subjects, and questionnaire is widely used because of its low cost, high rate of return, efficiency, and

response rate. This study designed several online retailer scenarios related to service recovery, such as network service providers providing refunds, returns, exchanges and other processing methods for service recovery. These problems are the most common types of failures in online retailing. It represents customers' common dissatisfaction with the failure of online shopping services, and measures customers' fairness perception through three dimensions of fairness: distributive fairness, procedural fairness, and interactive fairness. Respondents responded to questionnaire items designed to assess service recovery behaviors, attitudes and efficiency, and how these influence customers' behavioral intentions.

**Measurement scale of service recovery**

Online Service Recovery	measurement standard
material recovery	1. The network service provider provides cash discounts or gifts as compensation; 2. The network service provider provides processing methods such as refund, return, and exchange; 3. The network service provider has compensated the freight;
spiritual recovery	1. The network service provider shall notify in advance of possible product or service problems; 2. When the customer complains, the network service provider will explain the reason for the service failure and apologize immediately;
Positive responsiveness	1. Internet service providers respond quickly to complaints from customers; 2. The network service provider quickly provides solutions to the problems raised by customers; 3. Internet service providers are more efficient in solving problems.

Source: Adapted from Forbes (2005), Hsing (2012), Chang Yaping (2009)

**Customer Satisfaction Measurement Scale**

construct	measurement standard
Customer Satisfaction	1. The recovery is satisfactory to me; 2. I am satisfied with the recovery process; 3. I am satisfied with the recovery results

Source: Adapted from Hsing (2012)

**scale of repurchase intention**

construct	measurement standard
Repurchase intention	1. When I need to purchase goods or services again, I will give priority to this network service provider; 2. I will make more consumption with this network service provider in the future; 3. I am willing to recommend this network service provider to relatives and friends;

Source: Adapted from Swinder et al. (2002), Lee & Lin (2005)

**Measuring Scale for Perceived Fairness**

perceived fairness	measurement standard
procedural fairness	1. The network service provider responds quickly to customer complaints; 2. Complaints can be easily made through online channels; 3. Solving customer problems takes longer than necessary.
Distributional fairness	1. The network service provider provides corresponding recovery measures for service failure; 2. Compensation is sufficient; 3. What I got from my complaint was fair.

interactive fairness	1. The network service provider is considerate and courteous; 2. The network service provider apologizes for the service failure; 3. The network service provider is quite happy to provide service recovery.
----------------------	---

Source: Adapted from Tiffany (2011)

## Findings

### Demographic Profile

Table 4-1 is the descriptive statistics of the sample variables. This descriptive statistic is mainly analyzed through gender, age, occupation, monthly income, monthly online shopping times and dissatisfied online shopping amount. For details, see Table 4 -1.

**Table4- 1 Descriptive statistical analysis of sample characteristics**

Sample characteristics	Eigenvalues	Number of samples	percentage
gender	male	153	51.69
	female	143	48.31
age	under 18	7	2.36
	19 to 30 years old	255	86.15
	31 to 50 years old	28	9.46
	51 and over	6	2.03
Profession	government agency personnel	12	4.05
	corporate employees	68	22.97
	Self-employed persons	11	3.72
	student	165	55.56
	other	40	13.52
monthly income	Below RMB 3000	198	66.89
	3000-5000 yuan	47	15.88
	5000-8000 yuan	40	13.51
	More than 8000 yuan	11	3.72
Number of online purchases per month	less than 1 time	16	5.41
	1-2 times	113	38.18
	3-5 times	147	49.66
	6 times and above	20	6.75
Dissatisfied with the online shopping amount	1-100 yuan	twenty one	7.10
	101-200 yuan	93	31.42
	201-500 yuan	135	45.61
	501-1000 yuan	32	10.81
	More than 1000 yuan	15	5.06

## Reliability and Validity

### Reliability

Reliability test of the service recovery scale

In the formal empirical research, the Cronbach's Alpha value of the five-level Likert scale used above, and the corrected item total correlation (CITC) are still used for reliability analysis. It can be seen from Table 3-14 that the overall Cronbach's Alpha value is 0.856 greater than 0.8, and the Cronbach's Alpha values of the items that have been deleted are all lower than the total alpha coefficient of the item 0.856, and the corrected items of the service recovery scale total The correlations are all greater than 0.35, which means that the internal stability reliability of the service recovery scale is very ideal.

**Table3- 1 Analysis of Service Recovery Scale**

item	scale with removed	mean term	Scale with removed	variance term	Corrected project total dependencies	item deleted Cronbach's Alpha value	Cronbach's Alpha value
SR1	22.42		26.333		.683	.828	0.856
SR2	22.01		29.508		.550	.844	



SR3	22.36	27.743	.677	.830
SR4	22.50	28.481	.473	.855
SR5	22.44	29.149	.476	.853
SR6	22.30	28.741	.526	.847
SR7	22.24	26.576	.773	.818
SR8	22.36	27.622	.663	.831

(2) Reliability test of customer satisfaction scale

from Table 3-15 that the overall Cronbach's Alpha value is 0.844 greater than 0.8, and the Cronbach's Alpha values of the deleted items are all lower than the total alpha coefficient of the item 0.844, and the corrected items of the customer satisfaction scale are total the correlations are all greater than 0.35, which indicates that the internal stability reliability of the customer satisfaction scale is very ideal.

**Table3- 2 Reliability Analysis of Customer Satisfaction Scale**

item	scale with removed	mean term	Scale with removed	variance term	Corrected project total dependencies	item deleted Cronbach's Alpha value	Cronbach's Alpha value
CS1	6.36		3.615		.708	.786	0.844
CS2	6.32		3.725		.712	.782	
CS3	6.27		3.718		.711	.782	

(3) Reliability test of the repurchase intention scale

from Table 3-16 that the overall Cronbach's Alpha value is 0.829 greater than 0.8, and the Cronbach's Alpha values of the deleted items are all lower than the total alpha coefficient of the item 0.829, and the corrected items of each item in the repurchase intention scale the total correlations are all greater than 0.35, which indicates that the internal stability reliability of the repurchase intention scale is ideal.

**Table3- 3 analysis of the repurchase intention scale**

item	scale with removed	mean term	Scale with removed	variance term	Corrected project total dependencies	item deleted Cronbach's Alpha value	Cronbach's Alpha value
RI1	6.30		3.689		.707	.745	0.829
RI2	6.29		3.439		.716	.734	
RI3	6.23		3.859		.641	.809	

(4) Reliability test of the perceived fairness scale

According to Table 3-16 , it can be seen that the overall Cronbach's Alpha value is 0.888 greater than 0.8, only the deleted Cronbach's Alpha value of Q25 is 0.893 higher than the total  $\alpha$  coefficient of 0.888, and the deleted Cronbach's Alpha values of the other items are all It is lower than the total  $\alpha$  coefficient of the project 0.888, and in the case of deleting Q25, the total Cronbach's Alpha value of the project becomes 0.893, which is only 0.005 higher than before, and the Cronbach's Alpha value of Q26 and Q27 has been deleted are greater than the total Cronbach's Alpha value of this item, 0.888, see Table 3-17 , and there is no sufficient theory to delete this item in theory, so this item should be retained, and the corrected items of each item of the Perceived Fairness Scale The total correlations are all greater than 0.35, so we can conclude that the internal stability reliability at the level of perceived fairness is ideal.

**Table3- 4 Analysis of Perceived Fairness Scale**

item	scale with removed	mean term	Scale with removed	variance term	Corrected project total dependencies	item deleted Cronbach's Alpha value	Cronbach's Alpha value
PJ1	25.419		38.102		.791	.862	0.888
PJ2	25.399		39.305		.745	.866	
PJ3	25.422		39.187		.732	.867	

PJ4	25.466	44.331	.402	.893
PJ5	25.426	43.757	.481	.887
PJ6	25.399	43.535	.481	.887
PJ7	25.466	40.256	.654	.874
PJ8	25.466	39.653	.717	.869
PJ9	25.456	39.517	.743	.867

**Table3- 5 Analysis of Perceived Fairness Scale with Item PJ4 Deleted**

item	scale with removed	mean term	Scale with removed	variance term	Corrected project total dependencies	item deleted Cronbach's Alpha value	Cronbach's Alpha value
PJ1	22.270		32.103		.813	.865	0.893
PJ2	22.250		33.029		.783	.869	
PJ3	22.274		33.047		.758	.871	
PJ5	22.277		38.384		.409	.902	
PJ6	22.250		38.147		.413	.902	
PJ7	22.318		34.014		.680	.879	
PJ8	22.318		33.512		.741	.873	
PJ9	22.307		33.427		.764	.871	

**Validity test**

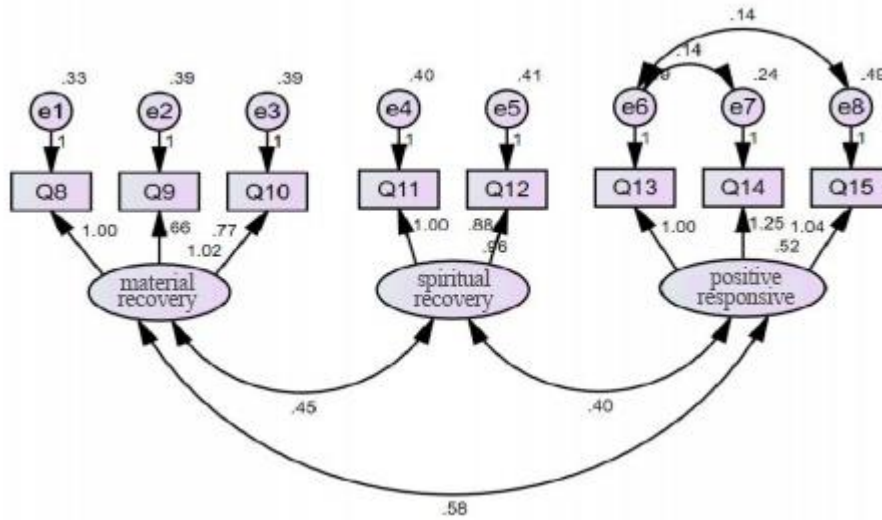
This paper uses AMOS22.0 software to conduct confirmatory factor analysis on large data samples. When using structural equation modeling for data processing, we usually use some fitness indicators to verify the fit of the model. this paper mainly uses a series of adaptation indicators, including CMIN/DF, RMSEA, RMR, GFI, AGFI, TLI, NFI, CFI to judge the suitability of the corresponding data and the model, the specific model fitness evaluation index and its evaluation criteria See Table 3-19.

**Table3- 6 Indicators and evaluation criteria of SEM model fitness**

Statistical test volume	Fitting criteria or thresholds
CMIN/DF value	1<CMIN/DF<3, indicating that the model has a good fit; CMIN/DF>5, indicating that the model needs to be corrected
RMSEA value	<0.05 indicates that the model fits well; <0.08 indicates that the model fits reasonably
RMR value	<0.05
GFI value	>0.9
AGFI value	>0.9
TLI value	>0.9
NFI value	>0.9
CFI value	>0.9

**(1) Service recovery confirmatory factor analysis**

Import the collected service recovery data into the structural equation model. For the standard load coefficient, the standardization coefficient of individual latent variables must be equal to or greater than 0.71, and the error items of each item are all positive numbers, and there are no negative numbers. On the service recovery scale, this paper uses three dimensions of material recovery, spiritual recovery, and positive responsiveness to analyze service recovery. Therefore, the standard load coefficients of items requiring material recovery, spiritual recovery and positive responsiveness are all greater than 0.71, and material recovery, spiritual recovery and positive responsiveness are all required to be greater than 0.71. See Figure 3-1 and Table 3-20 and Table 3-21 for the analysis model of spiritual recovery and positive responsiveness and specific fitting indicators.



**Figure3- 1 analysis of material recovery, spiritual recovery, and positive responsiveness**

**Table3- 7 Standardized load factors for items in each dimension of service recovery**

item		Estimate	
SR1	< ---	material recovery	0.870
SR2	< ---	material recovery	0.729
SR3	< ---	material recovery	0.781
SR4	< ---	spiritual recovery	0.841
SR5	< ---	spiritual recovery	0.805
SR6	< ---	responsiveness	0.716
SR7	< ---	responsiveness	0.876
SR8	< ---	responsiveness	0.729

**Table3- 8 Suitability indicators for confirmatory analysis of service recovery**

CMIN/DF	RMSEA	RMR	GFI	AGFI	TLI	NFI	CFI
2.148	0.062	0.037	0.940	0.975	0.974	0.975	0.986

From Figure 3-1 and Table 3-20 and Table 3-21, it can be seen that the values of the fitness indicators CMIN/DF, RMSEA, RMR, GFI, AGFI, TLI, NFI, and CFI selected in this paper are more important than the service recovery volume. In the table, all the evaluation indicators and evaluation standard requirements of SEM overall model fitness are met, and the standard load coefficients of material recovery, spiritual recovery and positive responsiveness items are all greater than 0.71, and the error items of each item are all positive numbers, indicating that the model has a good degree of fit, so the construct validity of the service recovery scale is valid.

**(2) Confirmatory factor analysis of customer satisfaction**

Import the collected customer satisfaction data into the structural equation model. Since there are only three observation items of customer satisfaction, it belongs to the saturated model in the structural equation model, that is, the model can be identified, but in the process of confirmatory factor analysis, it does not display each item. In this case, we can usually check by observing the standardized loading coefficient of each item. The analysis model and specific fitting indicators of customer satisfaction are shown in Figure 3-2 and Table 3-22.

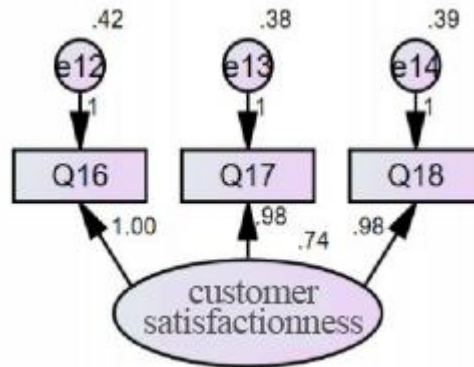


Figure3- 2 analysis of customer satisfaction

Table3- 9 Standardized load factors for each item of customer satisfaction

item		Estimate	
CS1	< ---	Customer Satisfaction	0.799
CS2	< ---	Customer Satisfaction	0.805
CS3	< ---	Customer Satisfaction	0.804

As shown in Figure 3-2 and Table 3-21, in the model analysis of the customer satisfaction scale, the standardized loading coefficients of each item are greater than the standard 0.71, and the error items of each item are all positive numbers, so the scale The confirmatory factor analysis passed, indicating that the construction validity of the customer satisfaction scale is relatively high.

(3) Confirmatory factor analysis of repurchase intention

Import the collected repurchase intention data into the structural equation model. Since there are only three observation items of repurchase intention, it belongs to the saturated model in the structural equation model. During the process of confirmatory factor analysis, the adaptation of each Index, so we check the model fitness by observing the standardized loading coefficient of each item. The analysis model and specific fitting indicators of the repurchase intention are shown in Figure 3-3 and Table 3-22.

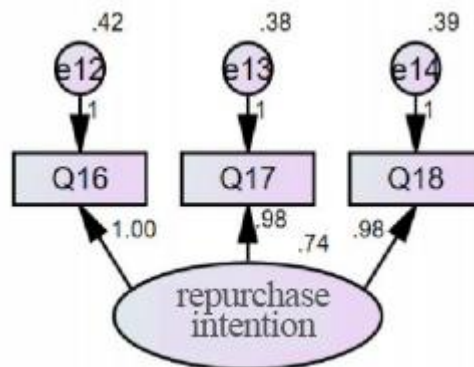


Figure3- 3 analysis of repurchase intention

Table3- 10 Standardized load factors for each item of repurchase intention

item		Estimate	
RI1	< ---	Repurchase intention	0.815
RI2	< ---	Repurchase intention	0.834
RI3	< ---	Repurchase intention	0.712

As shown in Figure 3-3 and Table 3-23, in the model analysis of the repurchase intention scale, the standardized loading coefficients of each item are greater than the standard 0.71, and the

error items of each item are positive numbers, so the scale The confirmatory factor analysis passed, indicating that the construction validity of the repurchase intention scale is relatively high.

(4) Perceived Fairness Confirmatory Factor Analysis

Import the collected perceived fairness data into structural equation modeling. On the perceived fairness scale, this paper uses three dimensions of procedural fairness, distributive fairness and interactive fairness for analysis. Therefore, the standard load coefficients of the three items are required to be greater than 0.71. The procedural fairness, distributive fairness and interactive fairness analysis models and specific Fitting index see Figure 3-4 and Table 3-24, Table 3-25.

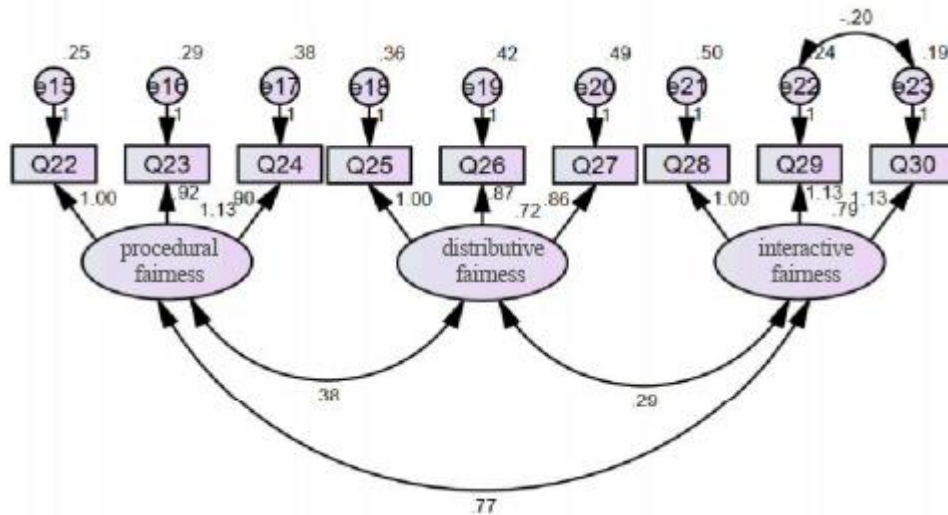


Figure3- 4 analysis of procedural fairness, distributive fairness, and interactive fairness

Table3- 11 Standardized loading coefficients of items in each dimension of perceptual fairness

item		Estimate	
PJ1	< ---	procedural fairness	0.907
PJ2	< ---	procedural fairness	0.877
PJ3	< ---	procedural fairness	0.844
PJ4	< ---	fair distribution	0.818
PJ5	< ---	fair distribution	0.749
PJ6	< ---	fair distribution	0.720
PJ7	< ---	interactive fairness	0.781
PJ8	< ---	interactive fairness	0.900
PJ9	< ---	interactive fairness	0.918

Table3- 12 The fitness index of the confirmatory analysis of perceived fairness

CMIN/DF	RMSEA	RMR	GFI	AGFI	TLI	NFI	CFI
1.688	0.048	0.046	0.973	0.946	0.985	0.977	0.990

From Figure 3-4 and Table 3-24 and Table 3-25 , it can be seen that the fitness index CMIN/DF, RMSEA, RMR, GFI, AGFI, TLI, NFI, and CFI selected in this paper In the table, all the evaluation indicators and evaluation standard requirements of SEM overall model fitness are met, and the standard load coefficients of the items of procedural fairness, distributional fairness and interactive fairness are all greater than 0.71, and the error items of each item are all positive numbers, indicating that the model It has a good degree of fit, so the construct validity of the perceived fairness scale is effective.

## Conclusion

(1) This paper does not directly discuss the relationship between service recovery and repurchase intention, because it can be seen from a large number of literature studies that service recovery does not directly affect repurchase intention, that is, it is not the implementation of online stores that service recovery can promote the occurrence of repurchase intentions. Among those who questioned the effectiveness of recovery efforts, these customers would not continue to purchase products and services despite the recovery efforts provided by the firm, possibly due to substandard recovery efforts, a possibility that emphasizes the customer satisfaction is used to examine the importance of explaining the mediating effect on consumers repurchase intentions. From service recovery to the occurrence of repurchase intentions, many unpredictable factors are involved, which is also the intermediate mechanism that this paper wants to explore through research. The starting point of this study is that service recovery can affect repurchase intention through perceived fairness and customer satisfaction. If service recovery fails to produce customer perceived fairness and customer satisfaction, repurchase intention is unlikely to occur. The research in this paper confirms that service recovery can affect customer satisfaction through perceived fairness, and then affect repurchase intention. Perceived fairness cannot directly affect repurchase intention but must be affected by customer satisfaction.

( 2) Regarding the relationship between service recovery and perceived fairness, it can be seen from the empirical analysis in Chapter 4 that the two dimensions of service recovery: material recovery and spiritual recovery both positively affect the three dimensions of perceived fairness: procedural fairness , distributive fairness and interactive fairness, while positive responsiveness only positively affects procedural fairness and interactive fairness, and has no significant impact on distributive fairness, and material recovery have a greater impact on distributive fairness, while spiritual recovery have a greater impact on procedural fairness and interactive fairness , so timely provision of material recovery, spiritual recovery and positive responsiveness can effectively improve customers' perception of fairness.

(3) Regarding the relationship between perceived fairness and customer satisfaction, the three dimensions of perceived fairness: procedural fairness, distributional fairness, and interactive fairness all have a positive impact on customer satisfaction, and among the three, procedural fairness has the greatest impact on customer satisfaction, so in the process of service recovery, making customers perceive fairness can effectively improve customer satisfaction.

( 4) Regarding the relationship between perceived fairness and repurchase intention, the assumption that the three dimensions of perceived fairness: procedural fairness, distributional fairness and interactive fairness positively affect repurchase intentions has not passed the test, indicating that procedural fairness, distributive fairness and Interaction fairness has no direct and significant effect on improving customers' repurchase intention , so the mediating role of perceived fairness between service recovery and repurchase intention is not significant.

( 5) Regarding the relationship between customer satisfaction and repurchase intention, from the empirical results, customer satisfaction has a positive impact on repurchase intention, and the effect is very significant, indicating that the conversion rate of customer satisfaction to repurchase intention is very high . If the service recovery provided by an e-commerce provider leads to high customer satisfaction, the customer is very willing to continue to consume at the e-commerce provider, thereby cultivating loyal customers of the e-commerce provider.

( 6) When verifying the mediating effect, we found that procedural fairness and interactive fairness mediate between material recovery, spiritual recovery, positive responsiveness and

customer satisfaction, and distributive fairness mediates between material recovery, spiritual recovery and customer satisfaction role; customer satisfaction plays a mediating role between distributive fairness, interaction fairness and repurchase intention.

## References

- Harrison-Walker, L. J. (2012). Service recovery through customer complaint management: an exploratory study. *Journal of Services Marketing*, 26(2), 115-124.
- Huang, Z., & Chang, Z. P. (2020). Research on the relationship between service recovery, consumer forgiveness and sustained trust in online shopping. *Modern Management Science*, (03), 59-62.
- Jian, Z. Q., & Ke, Y. (2017). Research on the influence of online shopping service failure and recovery satisfaction on customer repurchase intention. *Technoeconomics & Management Research*, (02), 47-51.
- Prabha, D., Raj, P. D. (2014). Service failure and recovery in online shopping: an indian consumer perspective. *SCMS Journal of Indian Management*, 11(2), 47.
- Roggeveen, A. L., Goodstein, R. C., & Grewal, D. (2012). Improving the effect of guarantees: The role of retailer reputation. *Journal of Retailing*, 88(3), 402-412.
- Xiao, H. L., & Li, S. P. (2017). Research on the relationship between service recovery satisfaction, relationship quality and customer loyalty in mobile commerce. *Modern Business*, (21), 161-162.
- Zhang, L. L. (2016). Website Merchant Collaborative Management on Group Purchase Consumer Trust Influence (Doctoral paper, Zhejiang Sci-Tech University).

## Cite this article:

**He Zhi Qiang** (2023). The Relationship between Service Remediation, Perceived Fairness, Customer Satisfaction, and Repurchase Intention: A Case Study of Online Stores in the Yangtze River Delta Region of China. *International Journal of Science and Business*, 27(1), 1-15. doi: <https://doi.org/10.58970/IJSB.2161>

Retrieved from <http://ijsab.com/wp-content/uploads/2161.pdf>

## Published by

