Research on the Impact of Service Failure Attribution and Recovery on Customer Satisfaction

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ABSTRACT
Online shopping has become an indispensable part of our lives. It brings a lot of convenience to our lives, but the characteristics of online shopping services make its more and more frequent mistakes. Service failure will have a great negative impact on customer satisfaction and loyalty. Therefore, from the perspective of attribution, this article discusses the impact of service failure attribution and different service recovery methods on the effect of service recovery, and the matching relationship between different error attribution and service recovery methods. This article takes consumer groups who have experienced service failure in JD as the research object, and obtains data through questionnaires for empirical analysis. The results show that the attribution stability and controllable attribution of service failure have a significant impact on satisfaction after recovery. Different attribution makes the importance of different service recovery methods in consumers' minds significantly different. The recovery initiative has the greatest impact on customer satisfaction after recovery, and the tangible compensation alone has the least impact.

Keywords: Service recovery, Service failure Attributions, customer satisfaction

1. INTRODUCTION
As of 2018, the number of online shoppers in China has exceeded 600 million, of which the number of mobile online shoppers has reached 592 million. Although the scale of online shopping is gradually expanding, due to the virtual nature of online shopping and the lack of management experience in the online shopping industry in China, the frequency of failure in online shopping services is increasing. The US TARP survey shows that after a service failure occurs, only 40% or less will complain, but the vast majority of people will tell their own experience of service failure to other people, resulting in negative word-of-mouth communication[1]. The impact on the enterprise is much greater than the negative impact of customer complaints on the enterprise. From a consumer perspective, Online shopping consumers can only judge the quality of goods through pictures and videos or other consumer reviews. When consumers have high expectations for products, but the quality of products they get can not meet their expectations, there will be perception bias, which is also called service failure. Consumers sometimes have complaints or negative word-of-mouth communication due to failure in this service. Therefore, it becomes very important for enterprises to provide timely and effective remedies to reduce customer complaints. Scholars at home and abroad have some research on service failure and service recovery. Most of the domestic scholars’ research is to explore the research of service recovery on customer satisfaction and customer behavior intention from the perspective of perceived fairness and inconsistent customer expectations. Scholars conduct research from the perspective of customers' attribution of service failure. Therefore, this article chooses to discuss the impact of customer service failure attribution judgment on satisfaction after service recovery from the perspective of service failure attribution and whether different remedial methods will produce different remedial effects.

2. PREVIOUS RESEARCH
The American psychologist Hyde pointed out that attribution is a process by which humans analyze the behaviors of themselves and others to summarize the causes of such behaviors. The application of attribution theory in the field of consumer behavior is still in its initial stage. Foreign scholar Richins believes that consumers’ complaints and negative word of mouth are not caused by consumers’ dissatisfaction with the product or service itself, but because consumers are dissatisfied with the procedures of the company[2]. Folks first applied attribution theory to the research field of customer service failure, and the results of attribution were summarized as: attribution, stability and controllability[3]. Wang Xiaoyan and others believe that service failures are not only caused by customers or service providers themselves, but also by third parties other than the two. For example, in online shopping, many suppliers cannot control the logistics process, and the service failure caused by the logistics process often have a great impact on their service quality. Kelly believes that service recovery is the process of handling customer complaints[4]. Smith divided service
remedies into active remedies and passive remedies from the perspective of timing[5]. And from the content perspective, the service recovery is divided into: physical recovery; apology; recovery initiative. The initiative of recovery refers to timely and proactive service recovery before customer complaints or negative word-of-mouth, or to inform customers in advance of possible service failure and take early remedial measures.

Customers' expectation values for many different forms of service remedies are different. Only by selecting service remedies that meet customers' psychological expectations can consumers' dissatisfaction due to service failure be alleviated. Jian Zhaoquan divided service failures in online shopping into physical recovery and psychological recovery, and discussed the impact of different service recovery on customer satisfaction and loyalty under four specific service failure scenarios[10]. The results show that physical recovery have a significant positive effect on customer satisfaction and loyalty, while psychological recovery have no effect on both.

Philip Kotler defined customer satisfaction as a psychological state of joy or disappointment after a consumer’s perception of a product or service is compared with his expectations for the product or service. At present, it mainly explains how service recovery can improve customer satisfaction from the perspectives of customer expectation theory, perceived fairness theory and attribution theory. The research results of Lv Qinghua scholars show that perceived fairness plays an intermediary role between service recovery and customer satisfaction[12]. Yin Chengyue and Xu Xiaohong studied the impact of error attribution of other members of the supply chain on customer satisfaction from an attribution perspective[15]. Their research found that the higher the attribution and controllable attribution of core service providers’ error liability, customers The lower the satisfaction; the higher the attribution of error stability, the higher the customer satisfaction.

3. RESEARCH MODEL AND HYPOTHESIS

3.1. Research model

The research in this paper contains four variables, attribution of service failures, service recovery, customer satisfaction and customer loyalty. Based on Folkes' attribution theory, this article divides the attribution of online shopping errors into three dimensions: attribution, including online stores, customers and third-party logistics companies; stability and controllability[3]. This article divides the service recovery under online shopping service failures into the following three dimensions: physical recovery; apology; recovery Initiative. From the perspective of customer attribution of service failures, this paper explores whether different error attribution has an effect on the remedial effect and what kind of influence it has. In addition, this article refers to the dimensions of foreign scholars for online shopping service recovery, and wants to explore the impact of these three dimensions on the effect of service recovery and their different combinations, and the impact of the interaction on the effect of service recovery.

![Figure 1 Theoretical model diagram](image)

3.2. Hypothesis

3.2.1. Service Failure Attributions and customer satisfaction

Attribution theory has been applied in many fields. Yang Jiajia, a domestic scholar, took the retail industry as an example and found that customers' attribution of service failures would have a great negative impact on customers' post-purchase behavior and emotions[13]. Based on the above theoretical explanation, we propose the following hypothesis:

H1a: Attribution attribution has a significant negative impact on satisfaction after recovery.

H1b: Stability attribution has a significant negative impact on satisfaction after recovery.

H1c: Controllable attribution has a significant negative effect on satisfaction after recovery.

3.2.2. Service recovery methods and customer satisfaction

Smith and Bolton's research shows that timely service recovery (the initiative to remediate) when service failures occur can reduce the losses caused by service failures to customers[5]. Boshoff research shows that sincere apology can make up for the psychological losses caused by service
failures[6]; Smith and Bolton proposed that tangible physical compensation can make up for both the economic losses of customers and the psychological losses. Therefore, the following assumptions are made:
H2: There are significant differences in the impact of different service recovery methods on post-recovery satisfaction.

3.2.3. Service Failure Attributions and service recovery methods

When a service failure occurs, the customer will have a subjective judgment on the cause of the error. Different attribution causes different expectations for service recovery. Therefore, the following assumptions are made:
H3: The attribution of service failures is different, and the effect of different service recovery methods on recovery satisfaction is significantly different.

4. EMPIRICAL ANALYSIS

4.1. Study design and data collection

The research object of this article is customers who have experienced service experience in JD.com and experienced service failures during the shopping process. In order to ensure the validity of the questionnaire, this study used the English mature scale in the existing studies to measure the variables, and modified it for specific research scenarios to conform to this research scenario. The scales used in this article are all five-level Likert scales. A total of 273 valid questionnaires were distributed through questionnaires.

4.2. Data analysis

4.2.1. Reliability and validity test of measurement model

The reliability of Cronbach's α test was used. The results showed that the α of all measurement models was greater than 0.6, indicating that the measurement model of this study had good validity. Secondly, confirmatory factor analysis is used to test the validity of the measurement model. The results show that the factor load value of the same variable index is greater than 0.7, and the AVE value is greater than 0.6, so the measurement model validity is good.

4.2.2. Hypothetical test

The structural equation model diagram of attribution and satisfaction after recovery shows that attribution has no significant effect on satisfaction after recovery (p value = 0.115), and stability and controllability have a significant effect on satisfaction after recovery (P Value = 0.000). The path coefficient between stability and customer satisfaction is -0.36, which indicates that when the frequency of service failures is high, customer satisfaction after service recovery decreases.

Table 1: Significance regression analysis of service recovery methods

| service recovery methods | R^2  | Standardized coefficient | F      | significance |
|--------------------------|------|--------------------------|--------|--------------|
| apology                  | 0.468| 0.42                     | 71.732 | 0.000        |
| physical recovery        | 0.401| 0.357                    | 54.649 | 0.000        |
| recovery Initiative      | 0.571| 0.489                    | 108.673| 0.000        |

Observe the degree of impact of service recovery methods on customer satisfaction after recovery through regression analysis. The results of regression analysis are shown in the Table, and the R^2 value is different, indicating that there are significant differences in the degree of influence of different remedies.

The structural equation model was used to test the h3. The standardized path coefficients of customer attribution and tangible compensation, apology and remedial initiative are: 0.784, 0.839, 0.903, and have passed the significance test (P <0.05). The standardized path coefficient of service provider attribution and tangible compensation, apology and remedial initiative is 0.608. The significance of the first two remedial methods is passed, but the remedial initiative is not. The controllability is attributed to tangible compensation. The standardized path coefficients of apology and remedial initiative are 0.229, 0.246, 0.225, and the significance tests are all passed (P>
0.05). Stability is attributed to tangible compensation, the standardized path coefficients of apology and remedial initiative are 0.048, 0.161, 0.195, but none of the three significances pass, which indicates that when customers attribute service failures to online shopping to stability Sexuality, these three remedies have no significant difference in the minds of customers.

5. CONCLUSION

The controllability and stability dimensions of service failure attribution have a certain impact on satisfaction after recovery. When customers think that service failures occur frequently, their satisfaction after recovery will decrease, when the customer thinks that service failure is the service that the supplier can control in advance, the customer's satisfaction after receiving the service recovery will increase. Among the different remedies, the recovery initiative has the greatest impact on the satisfaction after the recovery, followed by the apology, and the tangible compensation. The different attribution of service failures affects the customer's expectation of service recovery methods.

REFERENCES

[1] Keaveney S. M. Customer Switching Behavior in Service Industries: An Exploratory Study [J]. Journal of Marketing, 1995, 59 (2): 71-82

[2] An investigation of consumers’s attitudes toward complaining. Richins, Marsha L. Advances in Consciousness Research. 1982

[3] Customer reactions to product failure: an attributional approach. Folkes Valerie S. Journal of Consumer Research. 1984

[4] Forbes L. P, Kelley S. W, Hoffman K. D. Typologies of E-Commerce Retail Failures and Recovery Strategies [J]. The Journal of Services Marketing, 2005, 19 (5): 280-292

[5] A model of customer satisfaction with service encounters involving failure and recovery. Smith AK, Bolton RN, Wagner J. Journal of Marketing. 1999

[6] Boshoff C. and Jason L. Empowerment, attribution and apologising as dimensions of service recovery an experimental study [J]. Journal of Service Industry Management. 1998, 9 (1): 24-27

[7] Spreng R.S. A., Harrell G. D., Mackoy R. D. Service Recovery: Impact on Satisfaction and Intentions [J]. Journal of Services Marketing, 1995, 9 (1): 15-23

[8] Hikari, Kouhei. Customer counseling service relief: Basic MOA model study [J]. Management Science, 2014, 27 (3): 105-113

[9] Forbes L. P., Kelley S. W., Hoffman K. D. Typologies of E-Commerce Retail Failures and Recovery Strategies [J]. The Journal of Services Marketing, 2005, 19 (5): 280-292

[10] Jian Zhaoquan, Ke Yun. Research on the relationship between online shopping service failures, service remedies and customer second satisfaction and loyalty [J]. Management Review, 2017 (1).

[11] Liu Ying. Research on the impact of service failure attribution and severity on perceived fairness and customer second satisfaction [D]. Renmin University of China, 2008.

[12] Hu Yaoying, Li Yuhua, Hu Xingbin. Research on the influence of different attributions on customers’ subsequent behavior intentions after the failure of online shopping service [J]. Soft Science, 2016, 30 (7): 113-117.

[13] Yang Jiajia. An empirical study on the effect of service recovery on customer loyalty under different error attribution [D]. Qingdao University, 2010.

[14] Jian Zhaoquan, Ke Yun. Research on the relationship between online shopping service failures, service remedies and customer second satisfaction and loyalty [J]. Management Review, 2017 (1).

[15] Yin Chengyue, Xu Xiaohong. Research on customer response to service failures of other members of the supply chain based on attribution theory [J]. Journal of Management, 2011, 8 (8): 1213.