

# **An Empirical Study on the Influencing Factors of Online Shopping Customer Loyalty**

**Luo Hongmei**

Macau University of Science and Technology, 999078, China

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**Abstract:** It is very important for enterprises to improve marketing performance and customer loyalty. With the rapid development of online shopping applications in electronic commerce, loyal customers can bring profits and competitive advantages to enterprises. This paper measures customer satisfaction through product satisfaction and service satisfaction of online shopping, and uses structural equation model to study the impact of the three on customer loyalty of College students. The study found that the emotional connection between customers and online brands, the service response and trust of merchants have a significant impact on customer loyalty. Finally, some suggestions for improving the loyalty of online shopping customers are put forward.

## **1. Introduction**

With the popularity of the Internet, online shopping has gradually become a new shopping channel. The rapid development of online shopping has attracted a large number of businesses to set up online stores [1]. With the penetration of the Internet into all areas of society, the marketing mode of enterprises has gradually changed. How to possess customer loyalty is one of the most important issues in enterprise relationship marketing. Although virtual trading activities in e-commerce environment are difficult to predict, the unique transparency, convenience, personalization and highly interactive nature of the Internet allow consumers and enterprises, consumers and consumers to have more opportunities to exchange views and share information [2]. The loyalty of customers in online shopping refers to the degree of customer's approval to an e-commerce enterprise and the repeated purchase or approval behavior caused by it. Loyal customers are the source of value and profit of the enterprise, the cornerstone of the company's profit and sustainable competitive advantage, and have very important economic and practical value for the survival and development of the enterprise [3]. The level of customer satisfaction index largely determines the depth of online consumer spending and the competitiveness of e-commerce companies in developing online markets [4]. In order to stand out from the competition, online merchants must understand the factors that affect the loyalty of online shopping customers, and try to improve customer loyalty in order to improve economic returns.

## **2. Theoretical Review and Hypothesis**

### **2.1. The connotation and driving factors of customer satisfaction in online shopping**

Customer satisfaction is generally defined from the perspective of expectation as a state of feeling of pleasure or disappointment formed by a person by comparing the perceived effects (or results) of a product or service with his expectations. This expectation stems from customers' original purchase of advice from friends or colleagues or information and commitment from marketers and competitors. The study finds that there are some potential problems in defining loyalty only from the behavioral dimension, because there is no distinction between true loyalty and false loyalty, that is, customers' repeated purchasing behavior [5]. Customer satisfaction in online shopping is the development of the concept of customer satisfaction in the environment of online shopping, and is the overall feeling of customers about their online shopping experience. Without sufficient trust, transactions between consumers and e-commerce companies will remain at the

demand stage forever, and online retailers will never be able to accumulate the customer resources necessary for growth and development [6]. Studies have shown that the expectation theory is not suitable for explaining the problem of online shopping customer satisfaction. Customers often don't know what they expect before they trade online. There is no standard in mind. The relationship between customer loyalty and customer satisfaction is very close. Customer loyalty is only generated when the customer is completely satisfied.

## **2.2. The connotation and driving factors of customer loyalty in online shopping**

Online shopping customer loyalty is defined as the behavior of customers who are more appreciative of an e-commerce company, resulting in repeated purchases by customers. Therefore, the online store's guarantee of the quality of the products sold will increase the consumer's loyalty to the network and thus the quality of the products sold online. The evaluation of customer behavior suggests that high-frequency purchases are loyal. Some studies believe that loyalty is the process of consumers purchasing goods, there will be no more information gathering, but the direct purchase of the same brand [7]. Customer satisfaction theory holds that customer satisfaction directly leads to customer loyalty. The higher customer satisfaction, the more quantity of purchase, and the longer loyalty to the company and its brand. Customers' satisfaction with their trust in enterprises is determined by the value they enjoy in their products or services, such as providing customers with "happy service experience" and "pleasant service quality" [8]. Therefore, how to clarify the mechanism and influencing factors of customer loyalty in the online shopping environment, so as to implement customer loyalty plan more pertinently in the era of e-commerce, has become a problem that network retailers need to focus on.

## **3. Research Method**

### **3.1. Questionnaire design**

In the online shopping environment, the consumer's transaction object is the online retailer, but the interactive object is the retailer's website. Whether it is information search or online shopping, people must interact with the website. In order to ensure the validity of the questionnaire, a small sample forecast was conducted before the formal large-scale issuance, eliminating the ambiguity and ambiguity of the questionnaire, and eliminating the inappropriate questions. Finally, a questionnaire consisting of multiple questions was formed. In order to facilitate the comparative analysis with the existing research conclusions and maintain the inertia and continuity of the research, it is necessary to form the preliminary measurement questions of each survey variable by sorting out the relevant important literatures of online shopping at home and abroad, and combining the characteristics of the cultural environment of the research objects.

### **3.2. Data collection**

Before the formal large-scale issuance of questionnaires, this study conducts a pre-test analysis, aiming at consumers with online shopping experience. According to the results of the questionnaire, the unsuitable questions were deleted. According to the statistics report on the development of the relevant Internet, 77.5% of the netizens with high school education or above accounted for the highest proportion of online shopping consumers, accounting for 68.36%. Therefore, this survey selects college students as the object of investigation and has certain representativeness. A total of 200 questionnaires were distributed and 194 were collected.

## **4. Hypothesis Test**

### **4.1. Reliability and validity test**

After obtaining the results of the pre-test, this study conducted a formal questionnaire and results analysis. After the questionnaire was collected, the basic descriptive analysis, reliability analysis, validity analysis, correlation analysis and regression analysis were carried out. In order to ensure the

scientificity of model hypothesis validation, the reliability and validity of the questionnaire must be tested. The consistency and stability of the reliability questionnaire. To ensure the reliability of the questionnaire, its comprehensive reliability coefficient must be greater than 0.3. The measurement items of various aspects of network customer loyalty were deleted. The customer-aware value facet removes the two items “No disappointment and disappointment in the consumption of the website” and “Your shopping experience on the website is enjoyable”. Validity refers to the degree to which the thing to be measured is measured, generally including aggregation validity and discriminant validity. If the average variance (AVE) extracted by the latent variable is 0 or more. Deciding whether a measurement tool has content validity is usually determined by the researcher. The scales of this paper are all based on foreign mature scales, and are slightly modified according to the research situation, and the content validity is high.

The reliability test was performed using SPSS 16.0 reliability analysis, and the validity test was performed using Liser 8.7 for confirmatory factor analysis. The results are shown in Table 1. Online customer loyalty refers to customer loyalty in a virtual network environment. The so-called online customer loyalty is to apply traditional customer loyalty in the network world. The original iron law about loyalty in the physical world is still applicable in the network world. In general, social behavioral science research considers that a factor load greater than 0.5 is considered effective. Therefore, the questionnaire meets the requirements of validity test. As can be seen from Table 1, the comprehensive reliability coefficients of all variables are greater than 0.3, which shows that the questionnaire has certain reliability. The classification of each item accords with the theoretical expectation. Meanwhile, the cross-load of each item is relatively low, and the factor load of each observation variable of the scale is greater than 0.6, which is the lowest acceptable level, indicating that the scale has good convergence validity as a whole.

Table 1 Verification factor analysis results

Measuring variable	Alpha coefficient	Explanation variance	AVE	Goodness of fit index
$\xi_1$	0.73	60.13	0.55	NNFI=0.01
$\eta_1$	0.68	66.27	0.42	CFI=0.79

## 4.2. Structural model fitting

Structural equation model is used to test the relationship between variables assumed by the theoretical model. Liser 8.7 was used to calculate the path coefficients, T-values and goodness-of-fit indices of the model as shown in Table 2. From the descriptive statistical results of this study, the structure of this sample in all aspects is basically consistent with the survey results. In the online shopping group, males are more than females. In addition to the network technology ability and website service quality measurement indicators, the degree of variable interpretation is more than 40%, but it is consistent with the standard of the social variables in the social behavioral science research to explain the degree of interpretation of the research variables reached more than 35%. From the goodness of fit of the structural model, the GFI value is 0.81 and the NNFI value is 0.92, both of which exceed the ideal fit of 0.73. It can be seen that the structural equation model has a good fit.

Table 2 Model hypothesis test result

Path coefficient	T value	Goodness of fit index
0.36	5.81	GFI=0.81
0.51	3.94	NNFI=0.92

## 5. Research Conclusions and Suggestions

### 5.1. Research conclusion

Commodity satisfaction and service satisfaction have significant positive effects on customer

satisfaction. The path coefficient and T value show that the impact of commodity satisfaction on customer satisfaction is significantly higher than service satisfaction. Satisfied customers are not always willing to maintain relationships with network providers, nor will they necessarily continue to patronize the site or consume its products in the future. Among the lost customers, a considerable part of them expressed their satisfaction or satisfaction with the previous online retailers. In the in-depth interviews with some consumers with rich online shopping experience, it is not difficult to find that the higher the conversion cost, the greater the uncertainty brought to consumers, and the less willing customers to replace new suppliers. Service satisfaction has a significant positive impact on customer loyalty, which is consistent with previous research. However, the impact of product satisfaction and customer satisfaction on customer loyalty is not significant, and there are some differences with traditional shopping research conclusions.

## 5.2. Research recommendations

The impact of commodity satisfaction on customer satisfaction is very significant. The purpose of customer online shopping is to obtain goods, and to provide customers with "needed and satisfied goods" is the key to improve customer satisfaction. Because of this, retail enterprises or individuals develop e-commerce to set up shopping websites, but the first few factors that domestic consumers attach most importance to online shopping are still security, speed, convenience, good after-sales service, reasonable price and good product quality. If a website wants to gain consumer cyber loyalty, it must create value for it. Consumer satisfaction is very good, but valuable to gain consumer loyalty. The types of products provided by online merchants are similar, the quality is similar, the functions are similar, the prices are almost the same, and they have strong substitutions, which weakens the promotion effect of product satisfaction on maintaining customer loyalty. For the major e-commerce websites, it is necessary to increase the number of customer service and strengthen customer service training to improve customer satisfaction with product inquiries and after-sales.

The research shows that improving the satisfaction of online shopping service has an obvious promoting effect on improving customer satisfaction and loyalty. Online shopping customers not only pay attention to the goods themselves, but also pay attention to the service of the shopping process. The satisfaction and trust of consumers to online businesses have a direct impact on the loyalty of consumers to online stores. Only satisfied and trusted customers can become loyal customers. When a customer selects a desired service or product, he compares the benefits and sacrifices gained from it, such as money, consumption risk, ability and time spent on data search. This good performance stems from providing customers with a "happy service experience" and "pleasant quality of service". In short, the company's good reputation system can strengthen customers' purchase intentions and repetitive behaviors, and deepen customer loyalty. The higher the customer's trust in the network enterprise, the deeper the emotion and the higher the loyalty.

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