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Factors influencing customer satisfaction and e-loyalty of online shopping

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by

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ABSTRACT

This study designs to the factors that influence consumers' satisfaction, and how satisfaction affect consumers' loyalty when they are in an online shopping environment. A sample of 71 responses collected throughout Wenjuanxing, and it took about two months to complete the whole progress to collect and analyze data. What is more, the online questionnaire survey method was used to collect data from participants. All the data gathered were analyzed by Statistical Package for the Social Science (SPSS). The reliability of the data proved by reliability analysis. Besides, the regression analysis used to prove the relationship among variables. Findings show that delivery service and coupon offers have an impact on customer satisfaction. It can also find that customer satisfaction can have a positive impact on e-loyalty. However, the study shows that product quality, security perception were not significant towards customer's satisfaction. Overall, this research can help online marketers to design effective marketing strategies.

Keywords: online shopping, customer satisfaction, product quality, security perception, delivery service, coupon offers, e-loyalty

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The Problem Identification

1.1 Introduction

In China, it has been fashionable to use E-commerce. The number of online consumers has been increasing every day since they feel more comfortable and more convenient than going to a brick-and-mortar store (Lin, 2007). Online shopping is a way to purchase products or services directly via the Internet. When consumers shop online, they cannot feel the items. They can only depend on the information and pictures that the sellers post on the websites. The factors that influence consumers' satisfaction will also affect loyalty (Lin and Sun, 2009). With the rapid development of the Internet, the younger generation relies heavily on it to buy what they want (Jahwari and Kalbani, 2018). On the other hand, Taobao mixes everything together in China. Therefore, online marketers from different sectors need to increase consumers' satisfaction and retain their relationship. The way to understand the customers' decisions while shopping online.

Previous studies have shown that people who are satisfied with a product or service, they will be willing to purchase repeatedly and tell their good experience to other people (Shanker *et al.*, 2003). Thus it is necessary for companies to consider consumers' satisfaction because this will maintain their e-loyalty and attract more consumers (Lee, 2005). As these factors are recognized, satisfaction among consumers will boost, and it is also beneficial for the business.

This research was built on the understanding of factors influencing customer satisfaction of online shopping, especially the young generation ranging from 18 to 22. Moreover, the study will also examine the relationship between consumers'satisfaction and e-loyalty when they do online shopping. The result will give online marketers to design a better marketing strategy for their plans. Their goals may aim to use the resources to increase consumers'satisfaction and also their loyalty in an online shopping environment. The most important thing is that online marketers can avoid some unnecessary features and choose some factors which can influence customer satisfaction and loyalty directly. It will be beneficial to online retailers to increase their sales online by generating loyalty consumers.

1.2 Problem Statement

The paper aims to find out the influence on online consumers' satisfaction and e-loyalty by selecting product quality, security perception, delivery service, and coupon offer via E-Commerce.

1.3 Research Objectives

To get more insight and find the answers to the problem statement, the following questions have to be addressed:

- (1) Is the quality of products posted on the websites reliable?
- (2) Are the safety systems and the transactions well enough for consumers?
- (3) How can they keep personal information safe from hacking?
- (4) How to guarantee the order of the package still intact?
- (5) Are coupon offers necessary to customers to do online shopping?

LITERATURE REVIEW

2.1 Customer Satisfaction as Antecedent Process of E-loyalty

Loyalty can be identified as the purchase behavior that happens repeatedly over in a period because of a favorable attitude toward the product (Keller, 1993), not only from attitude but also from behavior. An authentic loyal customer will not be attracted easily by other alternatives, because he or she has some attachment to specific companies. What's more, customer loyalty indicates an intent to purchase repeatedly, a willingness to pay more money, and a willingness to recommend to others (Shanker et al., 2003). Voss et al. (2010) claimed that there is a variety of variables that have a positive impact on the relationship between satisfaction and consumer loyalty.

2.2 The Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (Ajzen, 1991) has been one of the most frequently significant models to predict human social behavior. In the TPB, the affective aspect can be considered as a part of the context to measure. The relationship between intention and behavior will be disrupted if people experience one and another affective state (Ajzen, 2011). The advantage of TPB is its good parsimony can be pointed out with a variety of variables included in the model. Therefore, it is a quite simple model, but it has great power (Armitage and Conner, 2001). In addition, the analytical variables in the model have a diverse focus, including attitudes of behavior, a social impact, its consequence, and recognized control over the development of the behavior (Mathieson, 1991).

2.3 Antecedents of The Theory of Planned Behavior

Based on previous research, the result indicated that there are many variables that might have an impact on consumers' satisfaction and intention of online shopping. I separate them into product quality, security perception, delivery service, and coupon offers. This was supported by several previous studies (Bagdonienė and Zemblyte, 2009; Eid, 2011; Jahwari, and Kalbani, 2018; Akbar and James, 2014; Jusoh and Ling, 2012; Lim et al., 2016; Wu and Tseng, 2014; Jun et al. 2011; Keisidou et al., 2011) found that these four factors are important to use.

2.4 Product Quality

Product quality has been identified to have an important influence on the success of the market and help the business to gain more profits; many companies use different departments to improve product quality because it will directly influence customers' behavior (Sethi, 2000). Park and Kim (2003) pointed out that the quality of information and the product are strongly related to customers' purchasing intention and satisfaction. Perceived quality has a direct effect on consumers' purchase behavior as a determinant (Tsiotsou, 2006). Li (2002) proved that some features such as product quality and uncertainty, brand name, availability, various types of goods, and customization would impact online consumers' satisfaction. Guo (2012) emphasized that most

online customers regard high-quality products as their first consideration to choose products. Teo (2002) showed that customers' consciousness of products' quality and benefits would directly affect their attitudes online. According to Akbar (2014), he claimed that the product quality and the guaranteed service are determinants to affect consumers' satisfaction and comfort. This is also the way people get reliable information from it. Thus, we have the following hypothesis:

H1: Product quality has a positive influence on customer satisfaction via online shopping.

2.5 Security Perception

Security perception includes information privacy and risks. These two factors are the main obstacles in the development in the market of electronic commerce; it can also be defined as an issue for new and experienced online uses (Miyazaki and Fernandez, 2005). Khan et al. (2017) indicated that electronic commerce is the easiest way to influence customers. Akbar and James (2014) pointed out that customers got comfort and satisfaction by the application safety and the guaranteed service. Sarkar (2011) claimed that successful online marketers should follow two things: increase the value of the entertainment on the websites and also increase the cybersecurity that customers received. Roca et al. (2009) stated that trust is an essential element for customers' intentions. According to Teo (2002), he showed that the main factors to hinder consumers from shopping online are their inclination to examine products and safety concerns. Miyazaki (2001) proved that the security of the Internet affects consumers' buying behavior. Thus, we have the following hypothesis:

H2: Security perception has a positive influence on customer satisfaction via online shopping.

2.6 Delivery Service

According to Liao and Keng (2013), they claimed that online marketers should put more attention on saving the commuting time on delivery instead of lowering the delivery fees. Liu (2008) emphasized that delayed and wrong packages will make consumers unsatisfied; on the contrary, safe and fast delivery will have a good impact on their satisfaction. When people do online shopping, it is common for them to face the problem like delivery. A study by Alam and Yasin (2010) proved that product diversity and delivery have a strong relationship with customers' satisfaction. Cherrett et al. (2017) showed that student customers focus more on the damage and loss of the packages during delivery, and they also desire for free shipping. Thus, we have the following hypothesis:

H3: Delivery Service has a positive influence on customer satisfaction via online shopping.

2.7 Coupon Offers

An electronic coupon distribution can give potential consumers an opportunity to search and choose coupons by their preferences and interests (Engel, 1999). Oliver and Shor (2003) pointed out that "promotion code" is more popular than "coupon", and online buyers are more satisfied with these codes. Peng et al. (2016) conducted a study that Taobao, an application for online shopping, provides online consumers with a hedonic program (e.g., free gifts) that increases their satisfaction while shopping. Akbar and James (2014) emphasized that the low price is an essential factor in online shopping. Thus, we have the following hypothesis:

H4: Coupon Offers has a positive influence on customer satisfaction via online shopping.

2.8 Customer Satisfaction

Oliver (1980) stated that customer satisfaction means the assessment from consumers about an object respecting their demand and expectations. In addition, customer satisfaction online is "the contentment of consumers regarded to a person's previous experience from online retailers" (Anderson and Srinivasan, 2003). There are some studies that found the relationship between customer satisfaction and retention of consumer loyalty in the virtual environment (Bolton, 1998). Oliver (1997) claimed that the way to satisfy consumer needs and wants is the key point to heighten customer loyalty. According to Lee (2005), online shopping does enforce different shopping values, both in functional and experiential value undoubtedly affect consumer satisfaction, leading to reinforce loyalty.

2.9 E-loyalty

E-loyalty can be identified as a consumer's positive attitude toward the online retailer that keeps continuing to purchase objects (Srinivasan et al., 2002). Specific to online retail, many researchers pointed out the basis of online purchase intentions is an online trust (McKnight et al., 2004). Reichheld and Schefter (2000) pointed out that for gaining consumers' loyalty, they must win their trust. As consumers can only rely on images and information online, price is not that important, but trust is. Lin (2013) claimed that when online vendors fulfill customers' needs, it will increase their satisfaction and buy repeatedly or stay loyal to the online vendor. In addition, according to Srinivasan et al. (2002), they showed that contract interactivity, cultivation, community, character, care have an essential impact on e-loyalty, and it can also affect on word-of-mouth and willingness to buy more positively. Thus, we have the following hypothesis:

H5: Customer satisfaction has a positive influence on e-loyalty.

Based on the review of previous studies that mentioned before, the proposed conceptual framework is as shown in Figure 1.

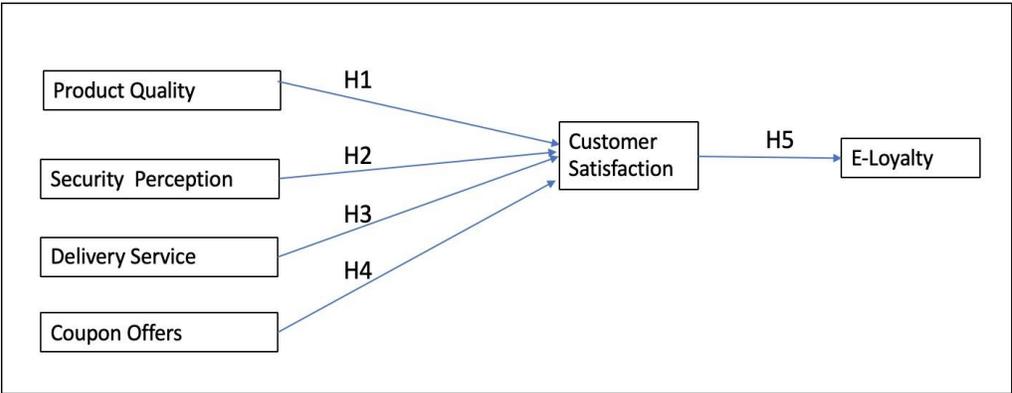


Figure.1 Conceptual Framework for the Study

Methodology

3.1 Data Collection and Sample Characteristics

Table 1 shows the detailed demographic information based on percentage. The respondents are composed of 71 people, including 21 males and 50 females. Most of them are junior and senior. As the monthly allowance, the majority of respondents have 1501 to 3000 RMB per month. In addition, for the frequency of online shopping, the table shows that participants who buy products one to three times a month and once every week are in the majority.

Table 1. Demographic information of the respondents (%)

Items	Characteristics in %
Gender	Male: 29.58% Female: 70.42%
Age	Freshman: 12.68% Sophomore: 12.68% Junior: 45.07% Senior: 29.58%
Monthly Allowance in RMB:	0-1500: 5.63% 1501-3000: 59.15% 3001-4500: 29.58% 6001 and above: 5.63%
Frequency of online shopping	At least once a week: 30.99% 1-3 times a month: 52.11% Once every 2-3 months: 12.68% Once every 4-6 months: 4.23% Twice a year or less: 0%

3.2 Reliability Test

The research uses the Theory of Planned Behavior by Ajzen (1991) to interpret the interactive relationship. There are six variables, which are product quality, security perception, delivery service, coupon offers, customer satisfaction, and e-loyalty. These variables were used to analyze the hypothesized relationships in this study, and strengthen the validity in the survey. What is more, the measurements from the previous were regarded as trustworthy, as Cronbach's Alpha values for these scales are above the recommend score at 0.7 (Taber, 2017).

The data are from an online questionnaire designed to ask the respondents' attitudes towards product quality, security perception, delivery service, coupon offers, customer satisfaction, and e-

loyalty rating from 1 to 7. The statistical software SPSS is used to analyze and summarize the statistical significance of the proposed causal relationships among the six variables observed.

All the data were collected from an online questionnaire website, and the questionnaire was issued for nearly one week. Cronbach's alpha is used to assess the adequate levels of reliability or internal consistency by range from 0 to 1 (Nunnally and Bernstein, 1994). Based on what many methodologists recommend, if the test result of alpha has a minimum coefficient of 0.65 or higher (in most of the cases is 0.8), then the results are acceptable (Goforth, 2015).

The reliability was analyzed using SPSS by Cronbach's Alpha (CA). From this table, the reliability result, as predicted, indicates a good sign that all the questions asked towards product quality, security perception, delivery service, coupon offers, customer satisfaction, and e-loyalty are highly related, ranging from 0.809 to 0.834. In detail, each measurement is listed in table 2.

Table 2. Reliability and validity of constructive measurements

Variables	Cronbach's Alpha
Product Quality	0.813
Security Perception	0.819
Delivery Service	0.834
Coupon Offers	0.821
Customer Satisfaction	0.809
E-loyalty	0.830

3.3 Correlation Test

Further, Pearson's correlation is used to measure in this study. A correlation matrix table is exhibited as table 4, and it shows the maximum likelihood of the relationships among each variable. The p-value of most items is high in relevance that less than the value of 0.01. Therefore, it is a positive relationship between the delivery service, coupon offers, customer satisfaction, and e-loyalty. Evans (1996) indicated that the absolute value of r: first, .00-.19 is "very weak", second, .20-.39 is "weak", third, .40-.59 is "moderate", fourth, .60-.79 is "strong", and the last, .80-1.0 is "very strong." From product quality, security perception, delivery service, coupon offers, delivery service, and coupon offers have a closer connection with customer satisfaction comparing to product quality and security perception.

Regarding the measurement of security, perception is only 0.338, which is in a weak relationship. In addition, product quality and delivery service are in a moderate relationship. However, the relationship between coupon offers and customer are strong, which is above 0.60. For customer satisfaction, e-loyalty is positively related to it, with an r value is close to 0.60.

Referring to The path coefficients aim to interpret the relationship between product quality, security perception, delivery service, coupon offers, and customer satisfaction as a whole. All the p-value under the direct effect category shows the significance level except product quality and security perception towards customer satisfaction with a value of 0.473 and 0.339, which are greater than 0.05. Thus, H1 and H2 are rejected. Delivery service and coupon offers are below 0.05. Thus, H3 and H4 are accepted. About the other direct path coefficient, the significance level of 0.000, less than 0.05, indicated customer satisfaction and e-loyalty have a strong significance level. Thus, H5 is accepted.

Table 3. Path coefficients for variables

	β	T Statistics	P Values
<i>Path coefficients of direct effect</i>			
PQ-> CS	0.079	0.722	0.473
SP-> CS	0.075	0.964	0.339
DS-> CS	0.275	3.117	0.003
CO->CS	0.528	7.252	0.000
↵			
CS-> EL	0.590	5.931	0.000
↵			
Notes: PQ=Product Quality; SP= Security Perception; DS= Delivery Service;↵			
CO= Coupon Offers; CS= Customer Satisfaction; EL= E-loyalty.↵			

Table 4. Correlation Matrix

CORRELATION MATRIX								
Construct Variables	Mean	Standard Deviation	(1)	(2)	(3)	(4)	(5)	(6)
Product Quality	4.631	0.951	1.00					
Security Perception	4.211	0.939	0.668	1.00				
Delivery Service	5.187	1.017	0.544	0.528	1.00			
Coupon Offers	5.425	1.129	0.458	0.368	0.418	1.00		
Customer Satisfaction	5.598	0.951	0.459	0.338	0.546	0.748	1.00	
E-loyalty	5.413	1.295	0.432	0.381	0.423	0.457	0.581	1.00

3.4 Statistical Method

A sample of 71 responses was collected throughout an online questionnaire website, and it took about two months to complete the whole progress to collect and analyze data. What is more, the online questionnaire survey method was used to collect data from participants. All the data gathered were analyzed by Statistical Package for the Social Science (SPSS). The reliability of the data was proved by reliability analysis. In addition, the regression analysis was used to prove the relationship among variables.

RESULTS AND DISCUSSION

4.1 Hypotheses testing

Based on all the analysis among the variables and indicators of accessible values, the results of five hypotheses are shown in table 5. Three hypotheses are proved with evidence, while product quality and service perception have the opposite function towards customer satisfaction. H1 and H2 are rejected. H3, H4, and H5 are supported.

Table 5. Hypotheses testing

No.	Hypothesis	Results
1	Product quality has a positive influence on customer satisfaction via online shopping.	R
2	Security perception has a positive influence on customer satisfaction via online shopping.	R
3	Delivery Service has a positive influence on customer satisfaction via online shopping.	S
4	Coupon Offers has a positive influence on customer satisfaction via online shopping.	S
5	Customer satisfaction has a positive influence on e-loyalty.	S
Notes: S = Supported; R = Refuted		

CONCLUSION AND IMPLICATIONS

5.1 Discussions

The research shows the relationship between the factors that influence customers' satisfaction via online shopping among college students. What is more, it also examines the relationship between customers' satisfaction and e-loyalty. Deprived of the results, if people have online coupon offers, they are more likely to do online shopping. Price is always a motivation for the customer to try and buy products, so it can have a positive impact on customer satisfaction. Among four hypotheses indicated that delivery service and coupon offers are positively related to customer satisfaction, while product quality and security perception have a negative impact on customer satisfaction. Product quality to a consumer is subjective. Thus the perceived difference between two products may be based on more than quality. Security perception can be related to trust, but it is difficult to be used as an indication of customer satisfaction in an online environment. It is essential to influence customer buying behavior, but other factors can impact customer satisfaction. On the other hand, customers' loyalty is highly significant for companies to make a profit. Based on the respondents' attitudes, customer satisfaction can play an important role in customers' loyalty and make effectiveness.

5.2 Managerial Implication

This research demonstrates the relationship between product quality, security perception, delivery service, coupon offers, and customer satisfaction, and how customer satisfaction affects e-loyalty. As delivery service and coupon offers are positively related to customer satisfaction. Good logistics can provide consumers with convenience and flexibility to do online shopping. It is a good way to increase their satisfaction. Therefore, based on this study, online marketers should focus more on e-service like delivery service. By improving this, it could help to influence their satisfaction positively. The relationship between coupon offers, and customer satisfaction is also supported, thus, price is important in an online environment. People prefer to buy products at a low price online, and the coupon offers outweighed the offers in physical stores. Therefore, online marketers can focus on discounts or coupon offers on their shopping websites. By improving this, it can influence customer satisfaction.

5.3 Limitation and Future Research

In this study, there are several limitations. First, the sample size in this study is small. Therefore, the results might be less valid. Second, the study might be in a specific context. Most of the respondents were from Zhejiang Province. Therefore, it is necessary to increase the sample and collect more data in different provinces in China. Third, in collecting the data, the respondents are students, so they do not earn money by themselves. They are more likely to be influenced by social media or other people's words. If others buy something online, which is in bad quality or have trouble payment process, students will be affected and refuse to trust some online retailers. Fourth, we only provide a questionnaire in English. Respondents whose first language is not English will be confused about the questions, so resulting in a less reliable data set. Therefore,

future research is suggested to be an indifferent version in the questionnaire survey, like the Chinese version.

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APPENDIX

Questionnaire

Part 1.

Base on your perception, rate for each item.

A. Marketing Mix	Rating from 1 (lowest) to 7 (highest)						
<i>Product Quality</i>							
1. I found the quality of products on the websites is ensured.	1	2	3	4	5	6	7
2. I found the quality of products on the websites is credible.	1	2	3	4	5	6	7
3. I found the quality of products on the websites is reliable.	1	2	3	4	5	6	7
4. I found the quality of products on the websites is believable.	1	2	3	4	5	6	7
5. I found the quality of products on the websites is authentic.	1	2	3	4	5	6	7
6. I found the quality of products on the websites is undoubted.	1	2	3	4	5	6	7
<i>Security perception</i>							
1. I feel safe to provide personal information during online shopping.	1	2	3	4	5	6	7
2. I feel comfortable to provide personal information during online shopping.	1	2	3	4	5	6	7
3. I found it is reliable to trade online through applications.	1	2	3	4	5	6	7
4. I found it is trustworthy to trade online through applications.	1	2	3	4	5	6	7
5. I found it is credible to trade online through applications.	1	2	3	4	5	6	7
6. I found the security features (such as payment systems) online are adequate.	1	2	3	4	5	6	7
<i>Delivery Service</i>							
1. I found online shopping delivery is responsible.	1	2	3	4	5	6	7
2. I found online shopping delivery is liable.	1	2	3	4	5	6	7

3. I found online shopping delivery is trustworthy.	1	2	3	4	5	6	7
4. I found online shopping delivery is credible.	1	2	3	4	5	6	7
5. I found I get the package in time as the service assured.	1	2	3	4	5	6	7
6. I found I get the package in time as the service guaranteed.	1	2	3	4	5	6	7
<i>Coupon Offers</i>							
1. I will buy more online if I have discount coupons.	1	2	3	4	5	6	7
2. I found discount coupons will prompt me to buy more online.	1	2	3	4	5	6	7
3. I found discount coupons will encourage me to buy more online.	1	2	3	4	5	6	7
4. I found discount coupons will trigger me to buy more online.	1	2	3	4	5	6	7
5. I found discount coupons will drive me to buy more online.	1	2	3	4	5	6	7
6. I found the online offers (such as coupons) outweigh the offline offers.	1	2	3	4	5	6	7
<i>Customer Satisfaction</i>							
1. I feel comfortable ordering products online.	1	2	3	4	5	6	7
2. I feel satisfying in ordering products online.	1	2	3	4	5	6	7
3. I feel pleased about ordering products online.	1	2	3	4	5	6	7
4. I feel happy in ordering products online.	1	2	3	4	5	6	7
5. I feel enjoyable in ordering products online.	1	2	3	4	5	6	7
6. I feel convenient about ordering products online.	1	2	3	4	5	6	7
<i>E-loyalty</i>							
1. I seldom consider switching to another application.	1	2	3	4	5	6	7
2. As long as the present service continues, I would not switch applications.	1	2	3	4	5	6	7

3. I try to use the application whenever I need to make a purchase.	1	2	3	4	5	6	7
4. When I need to make a purchase, this application is my first choice.	1	2	3	4	5	6	7
5. I like using the application to do online shopping.	1	2	3	4	5	6	7
6. To me, the application is the best retail one to do business with.	1	2	3	4	5	6	7

Part 2: Profile

1. Gender

- Male
- Female

2. Age

- Freshman
- Sophomore
- Junior
- Senior

3. Your monthly income?

- 0-1500 RMB
- 1501-3000 RMB
- 3001-4500 RMB
- 6001 RMB and above

4. Frequency of online shopping

- At least once a week
- 1-3 times a month
- Once every 2-3 months
- Once every 4-6 months
- Twice a year or less