

## **A Study on the Constituent Factors and Customer Characteristics of Chinese Internet Shopping Malls (Centering Around Purchase Satisfaction, Customer Loyalty and Repurchase Intention of Chinese Female College Students)**

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**Abstract:** The purpose of this study is to investigate the interrelationship between the constituent factors of Chinese internet shopping mall, purchase satisfaction, customer loyalty and repurchase intention. The subjects of the study were Chinese female college students for which a questionnaire survey was conducted. The results obtained through the survey are as follows. The results of the analysis of the website evaluation factors in the internet shopping malls revealed five evaluation factors comprising general service factor, information providing factor, system factor and visual factor of design. First, among the information providing factors, convenience, information providing ability, ease of product search and service quality were significant. Among them, the ease of retrieving products was found to be the most influential factor in purchase satisfaction of internet shopping mall. However, the hypothesis related to safety were rejected. Second, in the questionnaire about the visual factor of design, it was found that the type, the graphic, the color, the multimedia, the layout and the product assortment influenced the purchase satisfaction. Finally, purchase satisfaction has a strong relationship with customer loyalty and repurchase intention. Also, customer loyalty is proved to be strongly related to repurchase intention. These results show that consumer's purchase satisfaction is an important factor for long-term development of company and purchase satisfaction has a strong influence on brand loyalty and repurchase intention.

**Key words:** Internet fashion shopping mall, purchase satisfaction, customer loyalty, repurchase intention, chinese college student, comprising general service factor

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### **INTRODUCTION**

The internet is already recognized as a technology that has the deepest impact on the world economy and social development. The rapid development and diffusion of the internet and telecommunication has made radical changes in the social lives and lifestyles of the people of the world and has also made a great difference in the management patterns of enterprises.

In addition, the appearance of shopping malls that make purchases in internet-based virtual environments has changed the purchasing habits and attitudes of consumers and thus, enterprises have been struggling to create more consumers for sustainable management (Jong-Ho and Yong-Seob, 2004).

Although, the introduction of internet shopping malls has changed a lot of customer's purchasing behavior, it has also become a business model that can reduce costs and enhance business efficiency by enhancing competitiveness of companies.

Due to the advantages of these internet shopping malls, many companies in each country have made a lot of efforts to revitalize the internet shopping malls market and these efforts are expected to be further strengthened in the future.

According to the data released by the National Bureau of Statistics of People's Republic of China on April, 17, 2017, China's Gross Domestic Product (GDP) in the first quarter was 1,8008.3 billion yuan.

When converted to non-variable prices, the figure increased by 6.9% from the same period of the previous year. Recently, the Chinese internet shopping mall market has grown at an alarming rate and the size of transactions is increasing every year.

According to the report of China Internet Shopping Market Data released by the National Bureau of Statistics in June, 2016, the volume of transactions in the internet shopping market in China was 3.8773 trillion yuan, showing the 33% growth annually. This amounts to 10.8% of the total retail value.

In the future as the economy grows and information and communications technology develop, the size of transactions in the internet shopping market is expected to continue to increase sharply.

Internet shopping mall competition is more fierce than offline competition. As new forms of internet shopping continue to emerge, other problems that are different from those with of fine shopping methods are emerging.

For example, the problem of safety of internet shopping and the lack of experience of consumer experience is the most serious problem. These new problems hinder the development of internet shopping. It also affects the purchasing behavior of consumers.

The most important issue is how the sellers can advertise the benefits of their products and increase the profits by selling more products. In traditional business models, companies must maintain more loyal customers if they want to maintain their profitability and therefore customer loyalty is the result of continued research interest in business and academia.

Customer loyalty to internet shopping has also become an important issue due to fundamental changes in the traditional commercial environment. In order to prevail the market dominance, it is necessary for the sellers of internet shopping to grasp factors affecting customer loyalty to internet shopping.

From this background, the purpose of this study is to analyze the determinants of repurchase intention in these internet shopping malls for female students who have the strongest purchasing power in China's internet shopping and to grasp the relationship between the evaluation factors of the website of the internet shopping mall, the purchase satisfaction level and the relationship between royalties and repurchases. It is hoped that the results of our research analysis will serve as a useful reference resource for planning the marketing strategy of the internet shopping mall operators.

**Theoretical background:** Purchase satisfaction is a very multidimensional concept which is how much preference is experienced by consumers in the process of comparing, selecting, purchasing and evaluating products or services. Purchase satisfaction therefore includes all attitudes that a customer has in general perceptual processes after purchasing a product or service, namely, consumption, processing, sales and all aspects of a socio-economic system (Hui-Hong, 2013).

Previous studies have shown that the degree of satisfaction that consumers have with internet shopping malls has a tendency to reduce the labor and investment

time for commodity prices, convenience of product characteristic comparison, convenience of delivery. It was found that the most important thing was efficiency. It is also shown that the benefits of the internet shopping mall which is generally well known, act. as an important factor for consumer's feeling of satisfaction (Min-Ji *et al.*, 2012).

Customer loyalty refers to the tendency of customers to repeat purchases with a preference for a specific target (product, service, brand, store, etc.) regardless of the cases of change (Lee, 2014). The variables that measure customer loyalty are the intention of repeated purchase, the degree of commitment and invitation to others. In addition, customer loyalty is always used as a result of purchase satisfaction and customer trust. Customer loyalty is an important factor in reducing marketing costs and expanding profits as it can sustain current consumers, secure future profits and absorb potential customers through friendly word of mouth activities (Young-Guk, 2005).

Customer loyalty in an internet shopping mall means intention to use it continuously or to recommend it to other consumers with attachment to a specific internet shopping mall (Dimofte *et al.*, 2008). Customer loyalty can be viewed as a consumer's attitude to continue to use the company or store or product over and over and has been seen as a significant influence on the company's sales. And loyal consumers define consumers to repeatedly purchase certain brands or products in the future without switching to other products or services despite the various environments such as the marketing efforts of competitors or the influence of others (Kuenzel and Halliday, 2010).

Consumer's repurchase intentions are affected by dissatisfaction and complaints about products or services after purchase. When demanding exchange or refund due to consumer inequality, the company shows a lot of interest in the consumer's complaint situation and has intention to repurchase when the complaint is well taken care by Jin-Mie (2013).

In an era of infinite competition between internet shopping malls, it is important for each shopping mall not to attract a large number of customers but to make them visit again (Kim *et al.*, 2014).

**Research hypotheses and research models**  
**Hypotheses on information service factors and purchase satisfaction of internet shopping mall:**

- H<sub>1</sub>: the information service factor of internet shopping mall will have a positive effect on purchase satisfaction

- H<sub>1.1</sub>: convenience will have a positive (+) effect on purchase satisfaction
- H<sub>1.2</sub>: information provision will have a positive (+) effect on purchase satisfaction
- H<sub>1.3</sub>: ease of retrieval will have a positive (+) effect on purchase satisfaction
- H<sub>1.4</sub>: service quality will have a positive (+) effect on purchase satisfaction
- H<sub>1.5</sub>: safety will have a positive (+) effect on purchase satisfaction

**Hypotheses on design visual factors and purchase satisfaction of internet shopping mall:**

- H<sub>2</sub>: the design visual factors of internet shopping mall will have a positive effect on purchase satisfaction
- H<sub>2.1</sub>: graphics will have a positive (+) effect on purchase satisfaction
- H<sub>2.2</sub>: color will have a positive (+) effect on purchase satisfaction
- H<sub>2.3</sub>: multimedia will have a positive effect on purchase satisfaction
- H<sub>2.4</sub>: layout will have a positive (+) effect on purchase satisfaction
- H<sub>2.5</sub>: the typeface will have a positive effect on purchase satisfaction
- H<sub>2.6</sub>: the product assortment will have a positive (+) effect on purchase satisfaction

**Hypotheses on purchase satisfaction, customer loyalty, repurchase intention:**

- H<sub>3</sub>: purchase satisfaction will have a positive (+) effect on customer loyalty
- H<sub>4</sub>: purchase satisfaction will have a positive effect (+) on repurchase intention
- H<sub>5</sub>: customer loyalty will have a positive effect (+) on repurchase intention

The purpose of this study is to investigate the effect of information service factors on convenience, information providing, ease of search, service quality and safety factors of internet shopping mall, design visual element, graphic, color, multimedia, layout and font. The effect of buyer satisfaction on purchase satisfaction, customer loyalty and repurchase intention and the causal relationship between major variables were established as shown in Fig. 1.

This study is an empirical study on the constituent factors of the internet shopping mall in China and the characteristics of customers, focusing on research on purchase satisfaction, customer loyalty and repurchase intention. The questionnaire survey was conducted for Chinese female college students.

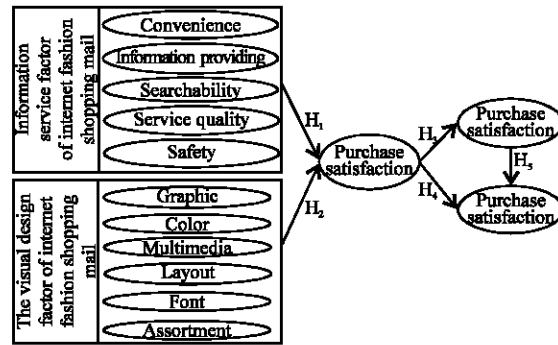


Fig. 1: Research model

**MATERIALS AND METHODS**

The survey period was from September 1, 2016 to September 15 and 350 questionnaires were distributed. Of these, 300 were used for the maximum analysis except for the questionnaire of untruthful answers.

In this study, we construct a research model on the relationship between evaluation factors (service quality, information quality, system quality and design quality), purchase satisfaction and loyalty.

After setting up the hypothesis, the empirical analysis was conducted. We used the variables and the factors that accompanied them to assess the website evaluation factors in the internet shopping mall, the purchase satisfaction of Chinese female students and the effect of customer loyalty on consumer's repurchase intention. The results obtained through the questionnaire were analyzed using frequency analysis, factor analysis, validity analysis and reliability analysis, one-way ANOVA correlation analysis, simple and multiple regression analysis after data coding process using Statistical Package SPSS 23.0.

The survey tool is a total of 73 questions with 25 questions about the factors of the information service in the internet shopping malls and 22 questions about the visual appearance factors of the internet shopping malls.

The questionnaire consists of 16 questions about customer loyalty and repetition. The questionnaire consists of nine demographic questions and one question on shopping mall preference. All items were measured on a 5 point Likert scale.

**RESULTS AND DISCUSSION**

In order to verify the validity of the six measurement variables used in this study, the factor analysis was performed using the varimax rotation method for each questionnaire item. All items were extracted from the principle component analysis and only those factors with

eigenvalues >1 were extracted. In addition, reliability was verified by using the value of Chronbach's alpha for each item grouped by each factor. Table 1 shows the validity and reliability analysis results of the measurement tools.

**Research hypothesis verification:** Table 2 shows the results of examining the correlation between the factors of the internet and the franchise, the purchase satisfaction, the loyalty of the customer and the repurchase intention. This study analyzed the Pearson correlation which is most used to analyze the relationship between variables as shown in Table 2 before regression analysis for hypothesis test.

In order to test the hypothesis, multiple regression analysis was conducted using 10 factors of internet shopping mall information service factor and design factor as independent variables. The results of the analysis are shown in Table 3-5, the information explaining factors of the internet fashion shopping mall were relatively high at 57% and the significance of the regression equation was very significant as 0.000.

As a result of the hypothesis test, the standardized path coefficient value of convenience was 0.164 and the t-value was 3.411. The standardized path coefficient value

of information providing was 0.190 and the t-value was 4.023 which was statistically significant. The ease of search was found to be statistically significant with a standardized path coefficient of 0.329 and a t-value of 6.334. The standardized path coefficient values for service quality and safety were 0.099 and 0.057, respectively and t-values were 1.991 and 1.300, respectively.

The results showed that the ease of search was the most influential factor in purchase satisfaction of internet shopping mall.

Research hypotheses 1-1 to 1-4 were also adopted. Hypothesis 1-5 were rejected. Table 6, among the factors of design factors, multimedia factors were the biggest influences on purchase satisfaction of internet shopping mall.

Research hypothesis 2-1 to 2-5 were also adopted. Hypothesis 2-4 was rejected. The results of regression analysis are as shows in Table 7 to test Hypothesis 3, "purchase satisfaction will have a positive (+) effect on customer loyalty".

Table 7, the variance explanatory power of the customer loyalty variable was 45.4% and the regression model was statistically significant (p<0.001).

Table 1: Factor analysis and reliability of purchase satisfaction, customer loyalty, repurchase intention

Factor name/Measurement variable	Factor load	Eigenvalue	Dispersion (%)	Chronbach's alpha
<b>Purchase satisfaction</b>				
Purchase satisfaction 1	0.832	2.627	26.269	0.875
Purchase satisfaction 3	0.803			
Purchase satisfaction 4	0.754			
Purchase satisfaction 5	0.850			
<b>Repurchase intention</b>				
Repurchase intention 1	0.780	2.580	25.796	0.829
Repurchase intention 2	0.777			
Repurchase intention 3	0.678			
Repurchase intention 5	0.832			
<b>Customer loyalty</b>				
Customer loyalty 1	0.791	2.255	22.552	0.791
Customer loyalty 2	0.785			
Customer loyalty 3	0.627			

Table 2: Correlation analysis between measurement variables

Factors/ Importance	Factor											Purchase satisfaction	Customer Loyalty	Repurchase intention		
	Convenience	Information providing	Ease of search	Service quality	Safety	Graphic	Color	Multimedia	Layout	Font	Assortment					
Convenience	1															
Information providing	0.355	1														
Ease of search	0.429	0.401	1													
Service quality	0.414	0.494	0.548	1												
Safety	0.360	0.489	0.532	0.693	1											
Graphic	0.287	0.436	0.537	0.643	0.722	1										
Color	0.439	0.385	0.454	0.425	0.496	0.528	1									
Multimedia	0.396	0.284	0.465	0.323	0.413	0.454	0.548	1								
Layout	0.295	0.302	0.382	0.395	0.465	0.545	0.589	0.602	1							
Font	0.294	0.382	0.285	0.395	0.345	0.454	0.378	0.496	0.501	1						
Assortment	0.471	0.289	0.404	0.326	0.413	0.454	0.467	0.487	0.493	0.529	1					
Purchase satisfaction	0.471	0.364	0.385	0.386	0.501	0.544	0.567	0.521	0.522	0.507	0.634	1				
Customer loyalty	0.423	0.335	0.404	0.517**	0.418	0.364	0.466	0.418	0.456	0.454	0.489	0.673	1			
Repurchase intention	0.386	0.335	0.556	0.428**	0.462	0.448	0.495	0.689	0.565	0.548	0.628	0.709	0.721	1		
Average	0.520	0.452	0.489	0.483	0.441	0.429	0.4120	0.423	0.435	0.420	0.4240	0.4970	0.4870	0.494		
Standard deviation	0.98	1.15	0.98	0.95	0.91	1.07	0.9100	1.05	0.9200	1.040	0.9800	1.030	0.9200	1.06		

\*p<0.05, \*\*p<0.01

**Table 3: Influence of internet fashion shopping mall information service factors and purchase satisfaction**

Dependent variable	Independent variables	Non-standardization		Standardization		Significance level	Collinearity statistics		Research hypothesis
		factor (B)	SE	factor (β)	t-values		Research hypothesis	VIF	
Purchase satisfaction	Constant	1.057	0.248		4.128	0.000			
	Convenience	0.164	0.048	0.164	3.411	0.001	0.720	1.376	Adoption
	Information providing	0.197	0.049	0.190	4.023	0.000	0.566	1.764	Adoption
	Searchability	0.315	0.050	0.329	6.334	0.000	0.585	1.709	Adoption
	Service quality	0.099	0.050	0.099	1.991	0.047	0.569	1.757	Adoption
	Safety	0.049	0.038	0.057	1.300	0.195	0.527	1.685	Disposal

R<sup>2</sup> = 0.570 Modified R<sup>2</sup> = 0.561 F-value = 60.248 p = 0.000

**Table 4: The impact of internet fashion shopping mall design visual factors and purchase satisfaction**

Dependent variable	Independent variables	Non-standardization		Standardization		Significance level	Collinearity statistics		Research hypothesis
		factor (B)	SE	factor (β)	t-values		Research hypothesis	VIF	
Purchase satisfaction	A constant	0.259	0.243		4.128	0.000			
	Graphic	0.159	2.480	0.190	2.746	0.001	0.720	1.376	Adoption
	Color	0.154	0.058	0.141	1.979	0.007	0.566	1.764	Adoption
	Multimedia	0.466	0.078	0.500	7.113	0.048	0.595	1.709	Adoption
	Font	0.063	0.046	0.068	1.367	0.173	0.569	1.725	Disposal
	Assortment	0.341	0.066	0.037	1.519	0.000	0.578	1.757	Adoption

R<sup>2</sup> = 0.555 Modified R<sup>2</sup> = 0.551 F-value = 151.637 p = 0.000

**Table 5: Impact of customer loyalty on purchase satisfaction**

Dependent variable	Independent variables	Non-standardization		Standardization		Significance level	Collinearity statistics		Research hypothesis
		factor (B)	SE	factor (β)	t-values		Research hypothesis	VIF	
Purchase satisfaction	A constant	0.259	0.243		4.128	0.000			
	Graphic	0.159	2.480	0.190	2.746	0.001	0.720	1.376	Adoption
	Color	0.154	0.058	0.141	1.979	0.007	0.566	1.764	Adoption
	Multimedia	0.466	0.078	0.500	7.113	0.048	0.595	1.709	Adoption
	Font	0.063	0.046	0.068	1.367	0.173	0.569	1.725	Disposal
	Assortment	0.341	0.066	0.037	1.519	0.000	0.578	1.757	Adoption

R<sup>2</sup> = 0.555 Modified R<sup>2</sup> = 0.551 F-value = 151.637 p = 0.000

**Table 6: The effect of repurchase intention on purchase satisfaction**

Dependent variable	Independent variables	Non-standardization		Standardization		Significance level	Collinearity statistics		Research hypothesis
		factor (B)	SE	factor (β)	t-values		Research hypothesis	VIF	
Repurchase intention satisfaction	A constant	1.541	0.192		8.035	0.000			
	Purchase satisfaction	0.635	0.088	0.709	18.081	0.000	1.000	1.000	Adoption

R<sup>2</sup> = 0.502 Modified R<sup>2</sup> = 0.501, F-value = 326.928 \*p = 0.000

**Table 7: Effect of repurchase intention on customer loyalty**

Dependent variable	Independent variables	Non-standardization		Standardization		Significance level	Collinearity statistics		Research hypothesis
		factor (B)	SE	factor (β)	t-values		Research hypothesis	VIF	
Repurchase intention loyalty	A constant	1.722	0.176		9.785	0.000			
	Customer loyalty	0.661	0.035	0.721	18.704	0.000	1.000	1.000	Adoption

R<sup>2</sup> = 0.519 Modified R<sup>2</sup> = 0.518, F-value = 349.356 \*p = 0.000

Regression analysis showed that purchase satisfaction had a positive (+) effect on customer loyalty (= 0.673, p < 0.001). The results of this study suggest that the higher the purchase satisfaction, the higher the customer loyalty and thus, Hypothesis 3 by which purchase satisfaction is expected to have a positive effect on customer loyalty was adopted. Table 6 and 7 as a result of the regression analysis, the purchase

satisfaction has a significant positive (+) effect on repurchase intention (+0.709, p < 0.001). The customer loyalty has a significant positive (+) effect on repurchase intention (= 0.721, p < 0.001).

As a result, it can be seen that the higher the customer's loyalty is the better the repurchase intention will be and the better the purchase satisfaction is the better the repurchase intention will be.

As expected, Hypothesis 4 was adopted. In addition, Hypothesis 5 which predicted that customer loyalty would have a positive impact on repurchase intention, was also adopted.

### CONCLUSION

The purpose of this study is to analyze the satisfaction of internet fashion shopping mall in terms of information service factor and design visual factor in order to examine satisfaction, loyalty and repurchase intention in detail. In this study, we tried to provide a policy implication for continuous profit rather than one-time use by presenting detailed manuals to the operation of internet fashion shopping mall and by analyzing the policy value of internet fashion shopping mall to Chinese university students in detail.

The following is a summary of some of the main findings presented in this study and some conclusions based on this.

First, the hypothesis test result shows that the ease of search, shortening of purchasing, information providing information to help purchase and ease of menu product search. The service quality of using internet shopping mall was significant.

Among them, the ease of search was the most influential factor in purchase satisfaction of internet shopping mall. However, safety concerns were dismissed.

As a result, the purchasers using the internet fashion shopping mall proved that the ease of search, the convenience of information providing and the service are more important factors than the safety factor.

Secondly, in the survey on design visual factors, graphic, color, multimedia, layout, product assortment other than the font type factors were found to affect purchase satisfaction.

Finally, it has been proved that purchase satisfaction has a strong relationship with customer loyalty and repurchase intention and customer loyalty has strong relationship with repurchase intention.

In this way, purchase satisfaction is an important point for long-term development which can be indicated by stronger loyalty and repurchase intention.

### RECOMMENDATIONS

In parallel with the study of this research, we have further explored the factors influencing the purchasing situation of the components in the internet factors such

as deeper layer surveys and expert group surveys through a variety of research methods. It is also proposed that comparative research be conducted consistently in subsequent studies by examining the purchasing patterns of other countries with different cultures.

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