

Effects of Customer Perceived Values and Customer Loyalty on Online Group-Buying

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Abstract—With the rapid development of modern service industry, the online group-buying sweep around the world is a kind of new consumption mode. However, a lot of online group-buying complaints appear and the good and bad are intermingled with a large number of online group-buying trap emerging. The paper starts from online group-buying and service quality, subdivides two service quality according to different stages (purchase and consumption), namely the service quality of online group-buying site (purchase stage) and the service quality of enterprises (consumption stage), then it studies how these two service quality impact on enterprises' customer-loyalty through perceived value. The findings are as follow, on one hand, the perceived value plays a partial intermediary role between the service quality of enterprise and customer loyalty, and the service quality of enterprise can have a positive impact on customer loyalty through perceived value. On the other hand, the perceived value plays a complete intermediary role between the service quality of online group-buying -website and customer loyalty, and the service quality of online group-buying -website play a positive impact on customer loyalty completely through perceived value.

Keywords—Enterprise Service Quality, customer perceived value, customer loyalty, online group-buying.

I. INTRODUCTION

WITH the rapid development of modern service industry, the competition between enterprises is growing and the traditional passive business model of waiting for the guests cannot support the sustaining, healthy and rapid development of enterprises. To improve their popularity and expand market share, the enterprises have conducted many measures, and the online group-buying which sweep around the world is one of them. For the customers, online group-buying as a kind of new consumption mode, becomes more and more popular among consumers. The online group-buying takes the CPS (Cost per Sale) mode combining with the concept of “no sales, no cost”. It mainly focuses on local catering businesses, which belongs to excellent experiential marketing. Enterprises hope to improve their popularity and sales with low price and the popularity of the online group-buying site, balance the sales of offseason and busy season, thus eventually achieving the target of attracting target customer and expanding market share. Make use of the customer experience of online group-buying , make the customers smoothly go through the process of experiencing, win the hearts and public praise of users, establish customer awareness and a good brand image [1].

However, the operation of an actual online group-buying operation is not so well. With the expanding of the number of sites, a lot of online group-buying complaints appear and the good and bad are intermingled with a large number of online group-buying trap emerging because of small investment, low barriers to entry of online group-buying.

The low investment threshold of online group-buying results in the good and bad being intermingled and the services provided to the customers also differ in thousands ways, even some of the online group-buying sites make off with money; Under the model of discount marketing, the service quality in the process of online group-buying shrinks due to various reasons, such as the training being unable to reach the designated position, failing to cope with the sudden large number of customers, the landlady effect and so on. These two factors make the customers of online group-buying unable to become repeat customers as well as unable to deliver public praise, which greatly denies the original intention of enterprises' choosing the network online group-buying as a marketing tool. As a typical service industry, the high quality service has always been an important means of enterprises to establish and develop long-term relationships with customers, and the established relationship is reflected as customer loyalty [2]. While the importance of customer loyalty has been recognized in marketing literature for at least three decades, the development and empirical validation of a customer loyalty model in a mobile commerce (m-commerce) context had not been addressed. In [3], the purpose was to develop and validate such a customer loyalty model. Based on IS and marketing literature, a comprehensive set of constructs and hypotheses were compiled with a methodology for testing them. The results indicated that customer loyalty was affected by perceived value, trust, habit, and customer satisfaction, with customer satisfaction playing a crucial intervening role in the relationship of perceived value and trust to loyalty. Companies that offer loyalty reward programs believe that their programs have a long-run positive effect on customer evaluations and behaviour. However, if loyalty rewards programs increase relationship durations and usage levels, customers will be increasingly exposed to the complete spectrum of service experiences, including experiences that may cause customers to switch to another service provider. In [4], using cross-sectional, time-series data from a worldwide financial services company that offers a loyalty reward program, this article investigates the conditions under which a loyalty rewards program will have a positive effect on customer evaluations, behaviour, and repeat purchase intentions. In [5], the study makes the uses of the hotel's database to draw samples for both focus groups and a mail survey. Based on 564 completed surveys from hotel guests,

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the authors found the relationship between customer satisfaction and customer loyalty was non-linear. The authors use the data to develop internal benchmarks for the hotel based on scores that were representative of loyal customers. Customer satisfaction (CS) has become an important issue for commercial and public service organisation. Companies win or lose based on what percentage of their customers they can keep. Success is largely about retention of customers, which again depends on CS level. It would be a great help to be able to comprehensively measure the quality of product and service, by relating the measures of quality to real customer behaviour. Some companies get feedback about CS through the percentage of complaints, some through non-systematic surveys, again some do not measure CS at all, because "the system would not add anything useful and is very time-consuming". Give three managers in the same company the same objective: to improve CS, however it may be measured, and they will come up with three distinctly different and incompatible plans. CS requires a number of ingredients, all of which need to be considered. In [6], it aims to develop and simplify measurement systems by using a general formula that makes quantitative measurement of CS possible. Considers four important aspects that have a negative or positive influence on profitability related to CS. In [7], this paper is to investigate the extent to which two components of customer commitment (affective commitment and continuance commitment) both enhance and undermine customer loyalty. Commitment serves as a partial mediator of the service quality-loyalty relationship. It was also found that affective commitment made a negative impact on switching intentions and a positive impact on advocacy intentions in all three service settings. Continuance commitment had mixed effects on switching intentions and made a negative impact on advocacy intentions. At the same time there was an interactive effect between the two components of commitment such that continuance commitment depressed the positive effects of affective commitment on both dependent variables. In [8], the objectives of this article are to develop a multiple-item scale for measuring e-service quality and to study the influence of perceived quality on consumer satisfaction levels and the level of web site loyalty. The validation process of scales suggested that perceived quality is a multidimensional construct: web design, customer service, assurance and order management; that perceived quality influences on satisfaction; and that satisfaction influences on consumer loyalty. Moreover, no differences in these conclusions were observed if the total sample is divided between buyers and information searchers.

The paper starts from online group-buying and service quality, subdivides two service quality according to different stages (purchase and consumption), namely the service quality of online group-buying site (purchase stage) and the service quality of enterprises (consumption stage), then it studies how these two service quality impact on enterprises' customer-loyalty through perceived value.

II. METHODS

To improve the effectiveness and rationality of the questionnaire and ensure the reliability and validity of the scale, this article uses a mature scale which has been developed and has passed the authentication, then modify the scale according

to the research object of this article and the specific objective, and finally uses the statistical tool, SPSS16.0, to test the initial questionnaire. In the process of data collection process, considering the limitation of research conditions, this research mainly adopts the method of convenient sampling and takes the consumers having participated in online group-buying as the research objects. The questionnaires are issued through E-mail to and the distributed objects are mainly the young users who frequently surf the Internet. A total of 345 questionnaires are returned, and 309 questionnaires are valid after getting rid of those invalid questionnaires, with an effective rate of 89%.

The enterprise-quality-of-service scale. Due to the comprehensiveness and the authority of the measured service quality, this article will use SERVPERF scale to measure the Enterprise's service quality. The paper takes the catering industry in XX city as the research object, and makes corresponding adjustment on some problems on the basis of the five dimensions of the SERVPERF scale (tangibility, reliability, responsiveness, assurance and empathy). As to the measures used in the survey, the paper adopts the five-point scale method as the discriminability of the seven-point scale method is not enough (1 strongly disagree, 2 disagree, 3 ordinary, 4 agree, 5 strongly agree).

Group-purchase-website-service quality. According to [9], the group purchase website fits the features of the TailQ scale. The study will refer to the four dimensions of website quality presented in [9]: website design, customer service, reliability/performance and safety/security. Measure the service quality of the group -purchase website (14 items). All of the items are measured by Likert's five points method, ranging from "strongly disagree" to "strongly agree".

Customer-perceived-value scale. The perceived value of customers is the overall evaluation of the customers on the food and drink consumption of online group-buying. It is achieved by considering the factors of customers such as costs, money and energy and is considered as the gap between the satisfaction obtained after catering in online group-buying and the cost. Considering the complexity of being the intervening variable, the construct items of customer-perceived-value in this study will have four items (the comparison between the satisfaction that the dishes of A restaurant can bring and the what I can get; the time, money and effort spent on the dishes is worth; the value of the dishes of the A restaurant in the online group-buying is more than I have expected; in general, I think the online group-buying activities of the A restaurant provides valuable dishes and services.). Each item is measured by Likert's five points method, ranging from "strongly disagree" to "strongly agree".

The customer-loyalty scale. Combining with the characteristics of the network group- purchase, the customer-loyalty index will be measured through four items "customer's repurchase intention, cross-buying intention (buy other products in the same company), the intention to transfer to the competitors (price tolerance) and the intention to recommend the brand/company to other customers." These items also reflects the dual characteristics of customer's repurchase behaviour and customer attitude which are possessed by customer-loyalty.

The three hypotheses are as follow

H1: The online group-buying -website-service quality has a

positive influence on customer-perceived-value

H2: Enterprise-Quality-of-Service has a direct positive influence on enterprise's customer-loyalty.

H3: online group-buying -website-service quality has a direct positive influence on enterprise's customer-loyalty totally through perceived value.

III. DATA ANALYSIS

A. Statistics of sample characteristics

The demographic variables are not the core variables in this study, therefore, there are not many demographic variables involved in the questionnaire design. Table 1 reflects the general situation of the sample questionnaire survey. Among all interviewees, men accounts for 36.6% and women accounts for 63.4% (Table1). There are more women interviewees because they are always sensitive to price and scramble for cheap goods and discount. And with regard to the appetite for food, a new study shows that it is more difficult for women to inhibit their appetite for their favourite food. Therefore when the food combines with online group-buying, namely discount, the young female consumers' desire to consume naturally becomes stronger. As a result, seen from the gender, age, educational background and professional, they are in accordance with the characteristics of the customers of restaurant.

TABLE I
DEMOGRAPHIC CHARACTERISTIC

Demographics		Sample	Rate
Gender	Male	113	36.6%
	Female	196	63.4%
Age	Below 20	18	5.8%
	21-26	178	57.6%
	27-36	108	34.9%
	37-49	5	1.6%
	Above 50	0	0
Educational Background	Senior School	0	0
	Diploma	49	15.8%
	Bachelor	88	28.5%
	Master	161	52.2%
	Doctor	11	3.5%

B. Analysis of scale reliability

Reliability refers to that the use of different items is able to measure the degree of the same underlying construct. The most commonly used method is to estimate the Cronbach's coefficient of the scale and use this coefficient to measure the Internal Consistency between the items of the scale. The higher the reliability, the higher the coefficient is. The standard of this study to judge the reliability is that: if the coefficient < 0.35, the reliability is low, if the coefficient between 0.35 and 0.7, the reliability is acceptable, if the coefficient > 0.70, the reliability is high. It can be seen from the Table 2 that the Cronbach's coefficient of the reliability in each dimension is greater than 0.7, which shows that the questionnaire has good reliability.

TABLE II
THE CRONBACH'S COEFFICIENT OF THE ITEMS

	Dimensions	No. of Item	Cronbach's coefficient	Structure Reliability
Enterprise Quality Of Service	Tangibility	4	0.906	0.954
	Reliability	4	0.897	
	Responsibility	3	0.914	
	Assurance	3	0.907	
	Empathy	5	0.922	
Group Purchase Website Service	Website Design	3	0.906	0.910
	Customer Service	3	0.896	
	Reliability	2	0.745	
	Security	3	0.875	
Customer Perceived Value		4	0.873	0.873
Customer Loyalty		4	0.890	0.890

C. The analysis of scale validity

Validity refers to the extent that the study objects can be measured by the results of the measurement can measure. The scale design of this study is based on many mature consumer perceived value scale combining with the guidance of the teachers to enable the content of the questionnaire to effectively explore related research topic, thus ensuring the content validity. The study conduct validity analysis through the analysis of exploratory factors and before extracting factors, KMO sample measure and Bartlett sphere test are used to test whether the model is suitable for factor analysis According to Kaiser (1974), if KMO statistic value of the model is less than 0.5, it is not suitable for factor analysis. 0.6-0.7, not very suitable; 0.7-0.8, suitable; 0.8-0.9, very suitable; 0.9 above, very suitable for; the more close to 1 the value of KMO is, the better the factor analysis is.

(1) The exploratory factor analysis of the enterprise-quality-of-service scale

As can be seen from the tabel3, the value of the KMO coefficient of the Enterprise - Quality-of-Service scale is 0.913, which means the scale is suitable for factor analysis; Moreover, the value of the Bartlett sphere inspection result is 3972, Sig = .000 (less than 0.001), rejecting the original spherical assumption (correlation coefficient matrix is the unit matrix). The nineteen items are not independent but associated with each other.

TABLE III
THE KMO VALUE AND BARTLETT'S SPHERE INSPECTION OF ENTERPRISE-QUALITY-OF-SERVICE SCALE

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.913	
Bartlett's Test of Sphericity	Approx. Chi-Square	3.972e3
	Df	171
	Sig.	0.00

(2) The exploratory factor analysis of the online group-buying -website-service quality scale

As can be seen from Table 4, the value of the KMO coefficient of the online group-buying -website-service quality scale is 0.8617, which means the scale is suitable for factor analysis; Moreover, the value of the Bartlett sphere inspection result is 1709, Sig = . 000 (less than 0.001), rejecting the original spherical assumption (correlation coefficient matrix is the unit matrix). The eleven items are not independent but associated with each other.

TABLE IV
THE KMO VALUE AND BARTLETT'S SPHERE INSPECTION OF ONLINE GROUP-BUYING -WEBSITE-SERVICE QUALITY SCALE

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.867
Bartlett's Test of Sphericity	Approx. Chi-Square	1.709e3
	Df	55
	Sig.	0.00

(3) The exploratory factor analysis of the customer-perceived-value scale

As can be seen from the tabel5, the value of the KMO coefficient of the customer-perceived-value scale is 0.818, which means the scale is suitable for factor analysis; Moreover, the value of the Bartlett sphere inspection result is 342.5, Sig = . 000 (less than 0.001), rejecting the original spherical assumption (correlation coefficient matrix is the unit matrix).

(4) The exploratory factor analysis of the customer-loyalty scale

As can be seen from the Table 6, the value of the KMO coefficient of the customer-loyalty scale is 0.812, which means the scale is suitable for factor analysis; Moreover, the value of the Bartlett sphere inspection result is 455.489, Sig = . 000 (less than 0.001), rejecting the original spherical assumption (correlation coefficient matrix is the unit matrix).

TABLE V
THE KMO VALUE AND BARTLETT'S SPHERE INSPECTION OF THE CUSTOMER-PERCEIVED-VALUE SCALE

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.818
Bartlett's Test of Sphericity	Approx. Chi-Square	342.507
	Df	6
	Sig.	0.00

TABLE VI
THE KMO VALUE AND BARTLETT'S SPHERE INSPECTION OF THE KMO VALUE AND BARTLETT'S SPHERE INSPECTION

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.812
Bartlett's Test of Sphericity	Approx. Chi-Square	455.489
	Df	6
	Sig.	0.00

D. The analysis of regression of the online group-buying -website-service quality to the customer-perceived-value

This section firstly examines the prediction effect of the

overall service quality of the online group-buying site to the customer - perceived - value, then further observes the prediction effect of the four dimensions of group-purchase website service quality to the customer perceived value. Among them, the customer-perceived-value is the dependent variable of the online group-buying -website-service quality is the independent variable. The data of Table7 shows that when the statistical significance is 0.01 and the rejection of regression coefficient is equal to zero, it can be proved that the group purchase-website-service quality and the customer-perceived-value have significant positive correlation. Thus the hypothesis H1 is established.

Further observation on the prediction effect of four dimensions of the online group-buying -website-service quality on perceived value. The result of the regression analysis is shown in Table 8.

Table 8 shows that the four dimensions of the service quality of the group purchase website all enter the regression equation of perceived value with a F value reaching significant level and an overall decision coefficient (Adj.) 0.566. The result shows that the service quality of the group purchase website explains 56.6% of the perceived value, with a VIF value less than 10, which means that the multicollinearity is not significant and at an acceptable range. But there are only two dimensions playing their roles: the reliability and security. And the effect of the website design and customer service are not significant, showing that the direct impact of the website design and customer service on perceived value has not been verified. The effect of website design is not significant. It may be because that customers think it is necessary for the group purchase website to do website design well and regard it as a guarantee factor. And customer value is also not significant. It probably because that the customer has never experienced problems related to online group-buying while they are participating in group purchase, and even if they encounter some problems they will want to complain or consult. They just answer the questionnaires according to their hypothetical experience, which results in the low significance of the item.

E. The relationship between the service quality of enterprise and customer loyalty

For the relationship between the service quality of enterprise and customer loyalty, the customer loyalty is the dependent variable and the service quality of enterprise is the independent variable. Table 9 shows that the assumption that when significance is 0.01, the rejection of regression coefficient is equal to zero, can prove that service quality of enterprise and the customer perceived value have significant positive correlation. Thus the hypothesis H4 is established.

Table10 shows that the five dimensions of the service quality of the enterprise all enter the regression equation of perceived value with a F value reaching significant level and an overall decision coefficient (Adj.) 0.68. The result shows that the service quality of the enterprise explains68% of the perceived value. Among them, the reliability and empathy play the most important role and make the greatest contribution to customer loyalty. The standard coefficient value is close to 0.30, indicating that in the process of improving service quality, the construction in terms of reliability and empathy plays an important role in the improvement of customer loyalty. But

among the five dimensions, the direct impact of responsiveness and assurance on the customer loyalty has not been verified. The assurance is not significant, which probably because that customers think it is necessary for the hotel and regard it as a guarantee factor instead of an incentive. And the responsiveness is also not significant, which may be due to insufficient collected data, or the customers query the responsiveness of the hotel. All of these shortcomings need for further research.

F. The regression analysis of the intermediation role of perceived value

According to the literature review, this paper considers that perceived value can be introduced as the intermediary variable of service quality and customer loyalty. And according to the theory of Baron and Kenny, determining whether a variable plays the intermediary role and becomes intermediary variable, the following steps need to be followed: Firstly, use the intermediary variable to conduct regression analysis on independent variables, observe whether the regression coefficient reaches to significant level; Secondly, use the dependent variable to conduct regression analysis on independent variables, observe whether the regression coefficient reaches to significant level; Thirdly, put the dependent and independent variables, intervening variable into the regression equation, and test whether the regression coefficient of intermediary variable to the dependent variable reaches to significant level and the regression coefficient of independent variables decreases at the same time; If the independent variables of the independent variables reduce to a non-significant level, the mediation plays a role of complete mediation variables, otherwise plays a partial intermediary role.

According to these standards, the rest of this article will verify the intermediary role of the customer perceived value through regression analysis. The analysis need a two-step test, first whether the regression coefficient of group purchase website service quality to customer loyalty reaches to a significant level, then whether regression coefficient of the perceived value reach to a significant level if the dependent variable customer loyalty conduct regression analysis both on the independent variable online group-buying - website - service quality and the intermediary variable perceived value, and whether the regression coefficient of the online

group-buying -website-service quality reduces, and the degree of decrease.

The regression analysis results in Table11 shows that in the process of testing the intermediary role of the perceived value in the online group-buying -website-service quality and customer-loyalty, the equation 1 proves that regression effect of the group purchase - website - service quality to the perceived value is significantly (Adj. =. 508, Sig. < 0.001).And the equation 2 shows that the regression effect of the group - the purchase - website - service quality to the customer- loyalty is also significantly (Adj. =. 292, Sig. < 0.001).The equation 3 show that when both the group purchase website service quality and perceived value conduct regression on the customer loyalty, the perceived value all enter into the regression equation, but the online group-buying - website - service quality has not entered into and its impact on customer loyalty becomes not significant (standard β reduce from. 543 to. 069, Sig. Increases to 0.320).Perceived value plays a complete intermediary role in the relationship between online group-buying -website-service quality and customer loyalty, therefore the assumption H6 is established.

IV. DISCUSSION

The paper takes the online group-buying as the research object, and the conducted empirical analysis and hypothesis test show that the hypothesis of the research is established. The overall service quality of online group-buying website and perceived value have positive correlation. The hypothesis test in this paper shows that in the framework of the online group-buying catering service quality and customer perceived-value have significant positive correlation($\beta = 0.665$, Sig. = 0.665), and the service quality of enterprises and the customer perceived value also have significant positive correlation - ($\beta = 0.714$, Sig. = 0.714).This shows that in the online group-buying industry, the higher the service quality of the enterprise is, the more value the customers can feel; at the same time, the higher the service quality of group purchase website is, the higher the value of customers can feel. That is the same with our usual sense. The service quality of enterprise has positive impact on customer loyalty. There are a large number of empirical studies showing that service quality will ultimately decide the customer's purchase behaviour.

TABLE VII
THE ANALYSIS OF REGRESSION OF THE OVERALL SERVICE QUALITY OF THE ONLINE GROUP-BUYING -WEBSITE TO THE CUSTOMER-PERCEIVED-VALUE

Model	Non-Standardized Coefficient		Standardized Coefficient	T	Sig.	Adj.R3	F Value	Sig.	VIF
	B	Std. Error	Beta						
Constant	1.413	0.18		7.839	0.00	0.44	164.282	0.00	1.00
Enterprise Service quality	0.656	0.051	0.665	12.817	0.00				
Regression Equation: Customer-Perceived-Value=0.665 Enterprise Service quality									

TABLE VIII
THE FOUR DIMENSIONS OF ONLINE GROUP-BUYING -WEBSITE-SERVICE QUALITY AND THE REGRESSION ANALYSIS OF PERCEIVED VALUE

Model	Non-Standardized Coefficient		Standardized Coefficient	T	Sig.	Adj.R3	F Value	Sig.	VIF
	B	Std. Error	Beta						
Constant	0.936	0.212		4.426	0.00	0.566	68.804	0	2.311
Website Design	0.002	0.071	0.019	0.276	0.783				
Customer Service	-0.036	0.061	-0.037	-0.591	0.555				
Reliability	0.404	0.054	0.509	7.43	0				

Security	0.319	0.056	0.37	5.724	0				2.008
Regression Equation: Customer-Perceived-Value=0.509 reliability+0.37 security									

TABLE IX
THE REGRESSION ANALYSIS OF THE OVERALL SERVICE QUALITY OF ENTERPRISE TO CUSTOMER LOYALTY

Model	Non-Standardized Coefficient		Standardized Coefficient	T	Sig.	Adj.R3	F Value	Sig.	VIF
	B	Std. Error	Beta						
Constant	0.358	0.148		2.417	0.017	0.684	451.391	0.00	1.00
Enterprise Service quality	893	0.042	0.828	21.246	0.00				
Regression Equation: Customer-Perceived-Value=0.828 customer-loyalty									

TABLE X
THE FIVE DIMENSIONS OF ENTERPRISE-QUALITY-OF-SERVICE AND THE REGRESSION ANALYSIS OF CUSTOMER-LOYALTY

Model	Non-Standardized Coefficient		Standardized Coefficient	T	Sig.	Adj.R ³	F Value	Sig.	VIF
	B	Std. Error	Beta						
Constant	0.334	0.159		2.093	0.038	0.680	89.389	0	2.292
Tangibility	0.163	0.059	0.164	2.770	0.006				
Reliability	0.245	0.070	0.256	3.493	0.001				
Responsibility	0.094	0.056	0.115	1.686	0.093				
Assurance	0.133	0.065	0.153	2.040	0.043				
Empathy	0.269	0.055	0.276	4.864	0				
Regression Equation: customer-loyalty=0.164 Tangibility+0.256 Reliability+0.276 empathy									

TABLE XI
THE REGRESSION ANALYSIS OF THE INTERMEDIARY ROLE OF PERCEIVED VALUE BETWEEN ONLINE GROUP-BUYING -WEBSITE-SERVICE QUALITY AND CUSTOMER LOYALTY

Independent Variable	Intervening Variable(Customer-Perceived-Value)				Dependent Variable(Customer-Loyalty)			
	Beta	T	Adj.R3	Sig	Beta	T	Adj.R3	Sig.
1group-Purchase-Website-Service Quality	0.665	12.817	0.440	0				
2group-Purchase-Website-Service Quality					0.828	21.246	0.684	0
3group-Purchase-Website-Service Quality					0.685	13.155	0.730	0
Customer-Perceived-Value					0.318	6.026	0.730	0
Regression Equation: Customer-Perceived-Value=0.665 Online Group-Buying -Website-Service Quality								
Customer-Loyalty=0.828 Online Group-Buying -Website-Service Quality								
Customer-Loyalty=0.665 Online Group-Buying -Website-Service Quality+0.318 Customer-Perceived-Value								

The high quality service can lead to positive behavioural intention of customer. (PZB, 1985:198, 8199, 4) Thus the service quality plays an important role in the production-oriented enterprises and service-oriented enterprises. The hypothesis test result shows that the service quality of enterprise has a significantly positive impact on enterprise's on customer loyalty - ($\beta = 0.828$, Sig. = 0.828). This shows that to gain the customer, the enterprises must attach importance to the improvement of their service quality. The paper based-on the empirical test examine the validity of the research framework of "service quality-perceived value customer loyalty, and the hypothesis testing results show that.

(1) Perceived value plays an intermediary role between the service quality of enterprise and customer loyalty .Compared to the regression of the service quality of enterprise to the customer loyalty , the influences of the service quality of enterprise on the customer loyalty decrease when both the service quality of enterprise and perceived value conduct

regression on the customer loyalty at the same time,(standard β decreases from 0.828 to 0.685, Sig. = 0.000).Therefore, the perceived value plays a partial intermediary role between the service quality of enterprise and customer loyalty, and the service quality of enterprise can have a positive impact on customer loyalty through perceived value. (2) Perceived value plays an intermediary role between the service quality of enterprise and customer loyalty .Compared to the regression of the service quality of online group-buying -website to the customer loyalty , the influences of the service quality of online group-buying -website decrease when both the service quality of online group-buying -website and perceived value conduct regression on the customer loyalty at the same time,(standard β decreases from 0.543 to 0.069, Sig. Increases from 0.000 to 0.320). Therefore, the perceived value plays a complete intermediary role between the service quality of online group-buying -website and customer loyalty, and the service quality of online group-buying -website play a positive impact on customer loyalty completely through perceived value.

V. CONCLUSION

The service quality and customer loyalty have always been the important issue in the field of marketing research, and are an important goal of the service-oriented enterprises in the operation and management. As a typical service industry, the high quality service is an important means for the enterprise to establish and develop long-term relationships with customers. This paper, on the basis of sufficient theoretical research, chooses the online group-buying market in Nanjing as the research background. It firstly analyses the related literature at home and abroad of the three variables, namely service quality, perceived value and customer loyalty. On this basis, it then introduces perceived value as an intervening variable, building the model that is suitable for online group-buying restaurant. According to the characteristics of online group-buying, this article conducts a dialectical view on service quality. The service quality contains both the service quality of enterprise and service quality of online group-buying -website, and these two kinds of service quality will directly or indirectly affect customer loyalty through customer perceived value.

REFERENCES

- [1] Meng-Hsiang Hsu, Chun-Ming Chang, Kuo-Kuang Chu, Yi-Jung Lee (2014) Determinants of repurchase intention in online group-buying: The perspectives of DeLone & McLean IS success model and trust. *Computers in Human Behavior*, Volume 36, Pages 234-245. <http://dx.doi.org/10.1016/j.chb.2014.03.065>
- [2] Xiaoying Liang, Lijun Ma, Lei Xie, Houmin Yan (2014) The informational aspect of the group-buying mechanism. *European Journal of Operational Research*, Volume 234, Issue 1, Pages 331-340. <http://dx.doi.org/10.1016/j.ejor.2013.10.031>
- [3] Hsin-Hui Lin, Yi-Shun Wang (2006) An examination of the determinants of customer loyalty in mobile commerce contexts *Information & Management* Volume 43, Issue 3, Pages 271-282 <http://dx.doi.org/10.1016/j.im.2005.08.001>
- [4] Ruth N. Bolton, P. K. Kannan, Matthew D. Bramlett.(2000) Implications of loyalty program membership and service experiences for customer retention and value. *Journal of the Academy of Marketing Science*. Volume 28, Issue 1, pp 95-108. <http://dx.doi.org/10.1177/0092070300281009>
- [5] Bowen, John T; Chen, Shiang-Lih. (2001) The relationship between customer loyalty and customer satisfaction. *International Journal of Contemporary Hospitality Management*, Volume 13, Number 5, pp. 213-217(5).
- [6] Ingrid Feciková, (2004) "An index method for measurement of customer satisfaction", *The TQM Magazine*, Vol. 16 Iss: 1, pp.57 – 66. <http://dx.doi.org/10.1108/09544780410511498>
- [7] Fullerton, Gordon. (2005) How commitment both enables and undermines marketing relationships. *European Journal of Marketing*, Volume 39, pp. 1372-1388(17).
- [8] Cristobal, Eduard., Carlos Flavian., and Miguel Guinaliu (2007), "Perceived e-Service Quality (PeSQ) measurement validation and effects on customer satisfaction and web site loyalty", *Managing Service Quality*, Vol.17, No. 3 p. 317-340. <http://dx.doi.org/10.1108/09604520710744326>
- [9] Mary Wolfenbarger, Mary C. Gilly.(2003) eTailQ: dimensionalizing, measuring and predicting etail quality. *Journal of Retailing*, Vol. 79, No. 3, pp. 183-198 [http://dx.doi.org/10.1016/S0022-4359\(03\)00034-4](http://dx.doi.org/10.1016/S0022-4359(03)00034-4)