

A Study on Relationships among Customer Value, Relationship Quality and Customer Equity: Zhengzhou Bank of Communications as an Example

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Abstract Various studies on customer relationship management are carried out with the arrival of the new economy because intensified competitions among companies highlight the unprecedented importance of the customers. Based on the literature review of previous researches, the authors first put forward the model of customer relationship management, which is based on customer equity, then verify how the key dimensions in customer value influence customer equity and also discuss the role of relationship quality- mediating. The authors finally come to the conclusion that customer value has significant influence on customer satisfaction; and relationship quality also exerts significant influence on customer equity.

Key words Customer equity; Customer value; Relationship quality; Customer relationship management

1 Introduction

The market environment has been changed. The seller's instead of the buyers become the dominants. With the increasingly fierce competition, the control power has been gradually transferred from the suppliers to the customers. Customer-oriented times are coming along the way, and CRM (Customer Relationship Management) is becoming a core issue that both theorists and enterprises attach importance to.

2 Literature Review

Blattberg and Deighton (1996) initially advanced the concept of Customer Equity (CE), defining it as the total discount of customer lifetime value owned by enterprises^[1]. Rust, Zeithaml and Lemon

(2000) believed that CE is the summation of present discounted value created by customer lifetime value, which is possessed by enterprises^[2]. Wang Yonggui (2005) considered that CE is the summation of both tangible and intangible value of total customer assets owned by enterprises, i.e. the summation of customer lifetime value that is in the possession of enterprises^[3].

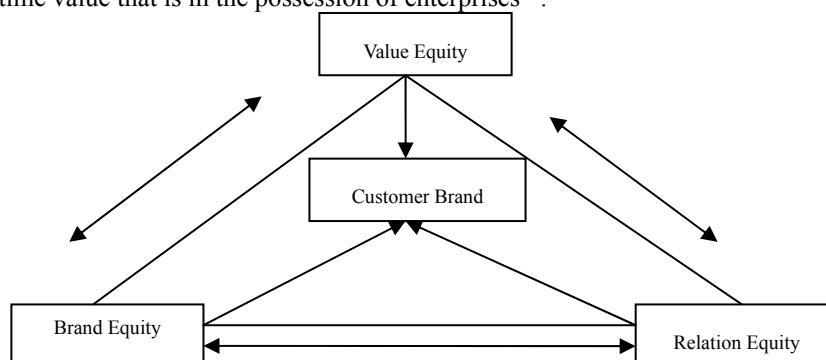


Figure 1 Model of CE

(Data Source: R Rust, V A Zeithaml, Katherine N Lemon 2000)

Roland T. Rust and Valarie A. Zeithaml (2000) analyzed the essence of CE and put forward the model of CE (Graph 1). Through analysis of the major components, there extracted eleven comparatively independent components to explain CE. Through combination and induction, it is thought that CE consists of three driving elements: ① Value Equity, i.e. the objective evaluation of products and services by customers; ② Brand Equity, i.e. the subjective evaluation of products and services by customers; ③ Relation Equity, i.e. strong or weak degrees of relationship between customers and

enterprises. Most current researches are based on the point of view that enterprises may adopt measures on the three major elements to improve value equity, brand equity and relation equity thus developing CE.

3 Model and Research Hypotheses

According to research results by Wang Yonggui and others (2001, 2005)^[4], in the process of CRM, the creation and delivery of CE is placed in a vital situation. It is a strategic weapon for construction, containment, update and full application for close relations with customers, and it is also an advantageous foundation for launching strong and sustainable competition. Customer value is a concept corresponding to CE which is put forward by Rust; as an effective evaluation of customer relations, quality relation includes relation equity and something about brand equity, which has a pivotal effect on the improvement of CE. In Graph 2, it is described that based on the framework of CRM, the key dimensions of customer value and their influence on CE.



Figure 2 Model of Value-CRM Based on CE
(Data Source: Wang Yonggui, Han Shunping, etc. 2004)

3.1 Customer equity

Despite the embryo stage of the CE theory, it can help CRM fix on a set of feasibly uniform aims, and it has offered a new strategic framework for setting up effective CRM system. By definition, it is not difficult to find that the final purpose of CRM can be achieved only if it is CE-oriented. While regardless of the improvement of value equity, relation equity or brand equity, the increase of CE needs to be realized through customer behaviors which include purchasing behavior and non-purchasing one (e.g. public praise). Therefore, only if various operating activities by enterprises can promote customer purchasing behavior or increase non-purchasing behavior, there will be an improvement of enterprise CRM effect. Among the factors, non-purchasing behavior is the crucial one to boost the increase of CE, promoting the upgrade of purchasing behavior.

3.2 Value of customers

In view of the above, this thesis takes Sheth and the others' analyzing framework as its kernel and on the background of the theory put forward by Wang Yonggui to explore dimensions of customer value, including social value, emotional value, functional value and perceptual value. Emotional value refers to utility produced by emotional factors of products or services; social value shows the utility produced by the strengthened ability of social self concept derived from products and services. Functional value reflects the utility created by the perceptual quality and accepted performance of the products. Perceptual value refers to all the monetary and non-monetary costs paid or transferred by customers when the transaction is completed or the contact with suppliers is remained. Customer value exerts influences on purchasing intention and dominates customer's decision. Combined with Chart 2, hypotheses can be concluded.

- H1: Functional value affects customer satisfaction positively and significantly.
- H2: Social value affects customer satisfaction positively and significantly.
- H3: Emotional value affects customer satisfaction positively and significantly.
- H4: Perceived cost affects customer satisfaction positively and significantly.

3.3 Relationship quality

In the light of resource investment, commitment of both parties is the chief sign of relational quality. According to the view of Henning Thureau and that of the others, relationship quality refers to the relationship between customers and companies to meet specific customer needs on the appropriate level. As an intermediate indicator to motivate customer behaviors; relationship quality is a multidimensional concept. On the study of sale-and-service, Crosby and others analyzed credence and degree of satisfaction, the two key dimensions in relationship quality. While Wang Yonggui and some other people examined relationship quality on the basis of customer satisfaction and brand fidelity. In the model of Chart 2, this thesis takes the latter view that is to evaluate relationship quality and to reflect the customers' satisfaction, commitment and credence on the relationship by way of the two key dimensions mentioned above. Combined with Chart2, the following hypotheses can be concluded.

H5: Customer satisfaction affects brand fidelity positively and significantly.

H6: Customer satisfaction affects the improvement of customer equity positively and significantly.

H7: Brand fidelity affects the improvement of customer equity positively and significantly.

4 Research Design

Present literature on research of customer equity are confined to exploration of theories and the case study is just undertaken in securities trade in some areas. Therefore, we conducted an investigation on debit card users face to face. To choose banking as the study target in that collection of data are available and CRM plays an important part in this trade. The survey was carried out on the basis of Likert's 7 Scale Analysis, 300 debit card users were covered. After removing a large number of questionnaire lacking in legitimacy, 220 effective questionnaire were recovered, with 73.6% response rate.

5 Research Results

5.1 Reliability testing

By SPSS17.0, the Cronbach α testing result about the variable obtained in this survey after revising the questionnaire is as follow.

Chart 1 Reliability Statistics

Cronbach's Alpha	N of Items
.875	7

We see that the comprehensive Cronbach- α of the variable is above 0.8, and the inner uniformity is fine, so the reliability is acceptable.

5.2 Validity Testing

The thesis holds the construct validity testing, and KMO and Bartlett's test are needed before measurement. The results are listed in Chart 2.

Chart2 KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.825
Bartlett's Test of Sphericity	Approx. Chi-Square	342.237
	df	21
	Sig.	.000

The observed values of Bartlett's test are 342.237, and the corresponding probability approximate 0. If observed level of significance α is 0.05, because the value of probability-p is lower than level of significance- α , the original hypotheses are received. The KMO value is 0.825. According to the standard of KMO provided by Kaiser, it is suitable to submit the original variables to factor analysis. It follows the principal component analysis that the validity of the variables is high.

5.3 One-factor analysis of variance

In the following table, the observed value of statistic derived by division is 8.054, and the corresponding probability approximate 0. If observed level of significance- α is 0.05, because the value of probability-p is lower than level of significance- α , the original hypotheses are received; hence we take the view that the degree of customer satisfaction is noticeably influenced by functional value.

Figure 3 The one-Factor ANOVA Result of Functional Value to Customer Satisfaction

Customer Satisfaction	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	124.259	8	15.532	8.054	.000
Within Groups	406.919	211	1.929		
Total	531.177	219			

According to the below chart, the observed value of the divided F statistic is 14.570, with its corresponding probability P-value approximating 0. If the significance level α is 0.05, then we can receive the null hypothesis for the probability P-value is less than the significance level α , and come to the conclusion that Social Value has exerted a remarkable influence on Customer Satisfaction.

Figure 4 The one-Factor ANOVA Result of Social Value to Customer Satisfaction

Customer Satisfaction	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	78.452	8	9.806	14.570	.000
Within Groups	452.726	211	2.146		
Total	531.177	219			

According to the below chart, the observed value of the divided F statistic is 12.917, with its corresponding probability P-value approximating 0. If the significance level α is 0.05, then we can receive the null hypothesis for the probability P-value is less than the significance level α , and come to the conclusion that Emotional Value has exerted a remarkable influence on Customer Satisfaction.

Figure 5 The Results of Single-factor Variance Analysis of Emotional Value to Customer Satisfaction

Customer Satisfaction	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	59.022	9	6.558	12.917	.000
Within Groups	472.155	210	2.248		
Total	531.177	219			

According to the below chart, the observed value of the divided F statistic is 9.185, with its corresponding probability P-value approximating 0. If the significance level α is 0.05, then we can receive the null hypothesis for the probability P-value is less than the significance level α , and come to the conclusion that Perceived Sacrifices has exerted a great influence on Customer Satisfaction.

Figure 6 The Results of Single-Factor Variance Analysis of Perceived Cost to Customer Satisfaction

Customer Satisfaction	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	101.852	7	14.550	9.185	.000
Within Groups	429.325	212	2.025		
Total	531.177	219			

The below chart shows the observed value of the divided F statistic is 13.412, with its corresponding probability P-value approximating 0. If the significance level α is 0.05, then we can receive the null hypothesis for the probability P-value is less than the significance level α , and come to the conclusion that value of emotions has exerted a great influence on Customer Satisfaction.

Figure 7 The Results of Single-Factor Variance Analysis of Customer Satisfaction to Brand Loyalty

Brand loyalty	Sum of Squares	df	Mean Square	F
Between Groups	60.453	7	8.636	13.412
Within Groups	536.542	212	2.531	
Total	596.995	219		

The below chart shows the observed value of the divided F statistic is 6.794, with its corresponding probability P-value approximating 0. If the significance level α is 0.05, then we can receive the null hypothesis for the probability P-value is less than the significance level α , and come to the conclusion that Customer Satisfaction has exerted a significant influence on Customer Equity.

Figure 8 The Results of Single-Factor Variance Analysis of Customer Satisfaction to Customer Equity

Customer Equity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	95.054	7	13.579	6.794	.000
Within Groups	423.724	212	1.999		
Total	518.777	219			

The below chart shows the observed value of the divided F statistic is 9.389, with its corresponding probability P-value approximating 0. If the significance level α is 0.05, then we can receive the null hypothesis for the probability P-value is less than the significance level α , and come to the conclusion that Brand Fidelity has exerted a significant influence on Customer Equity.

Figure 9 The Results of Single-Factor Variance Analysis of Brand Fidelity to Customer Equity

Customer Equity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	136.188	8	17.024	9.389	.000
Within Groups	382.589	211	1.813		
Total	518.777	219			

6 Conclusions

Through theoretical analysis and empirical test, we may see: the implementation of CRM, which is based on Customer Equity, can bring about benefits to the enterprises, and put Customer Value in line with Enterprise Value as well. According to the model, to better fulfill CRM, enterprises should give their priority to the creation of Customer Value, for it will cause a positive and significant effect on the Customer Satisfaction. Secondly, take care of the various dimensions of relationship between Customer Value and Relationship Quality, since the two dimensions of Relation Quality can directly contribute to the improvement of Customer Equity, among which the brand loyalty is the most important. Thirdly, the key role of Customer Satisfaction in developing Customer Loyalty should be aware of. To have strong and protracted Customer Loyalty, enterprises are obliged to improve Customer Satisfaction, in that it has a close tie with Customer Loyalty.

This article is based on the previous research achievements, which follows the logic from Customer Satisfaction to Brand Loyalty and then to improvement of Customer Equity. At the same time, the results of empirical tests in the article also have their limitations, for the samples from Zhengzhou Bank of Communications alone merely represents a relatively narrow range of regions and industries; however, there is a big difference in value concepts and cultural backgrounds of various regions and industries. So in the future study, the range of regions and industries of survey samples should be extended to verify the model, and the extended one will be a great help to the following practice.

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