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DETERMINANTS OF CUSTOMER LOYALTY IN CHINA C2C E-COMMERCE: FROM A SOCIAL NETWORK PERSPECTIVE

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Abstract

China's C2C electronic market has been growing very rapidly. The largest Chinese online auction company, Eachnet, was purchased by eBay but faced tough competition from another Chinese company, Taobao. Taobao's market share is now twice as large as eBay's. Why has eBay quickly lost its market share to newly-launched Taobao? This paper developed and tested a theoretical model that explains the effects of social relation and customer value on online customer loyalty and shopping behavior. This model was tested using empirical data (N=224) and PLS-Graph software. Results show that customers' trust networks and customer value significantly influenced their loyalty to vendors, while customers' affect networks and loyalty significantly influenced their shopping behaviors. The results suggest that the current C2C electronic market in China is a social environment where customers' loyalty to a vendor can be built more easily by the vendor's social relation management services than by transaction services. These findings advance theory by understanding online consumer loyalty from a social network perspective. The present study contributes by explaining the determinants of consumer's shopping behavior and loyalty in China C2C Electronic Commerce.

Keywords: Electronic Commerce, Social Relation, Shopping Behavior, Customer Loyalty

1 INTRODUCTION

In recent years, China's C2C electronic market has grown dramatically. From 2001 to 2005, the number of online consumers in China rose from 2.5 million to 22.5 million, while total transaction volume increased from 0.4 billion RMB to 13.7 billion RMB (iResearch 2006a). China's C2C online auction market was created by Eachnet in September of 1999. In 2003, eBay launched its C2C business in China by merging with Eachnet. Taobao.com was a Chinese C2C vendor founded by Alibaba.com Corporation in 2003. In 2005, several other newcomers began their C2C businesses, such as DangDang.com (the leading online retailing vendor in China) and QQ.com (the largest Internet community service vendor in China). As a result of intense competition, C2C companies concentrate more on acquiring new customers and maintaining loyal customers than ever before.

In 2005, over 95% of market transactions in China are dominated by two companies, Taobao.com and eBay (China) Inc: Taobao's transaction volume reached 58.6% of the total C2C market transaction volume, compared to 36.4% for eBay. However, in 2003, Taobao's market share was only 7.8%, while the market share of eBay was 72.4% (iResearch 2006a). Since the ratio of Taobao's market share to eBay's rose from approximately 1:10 to 2:1 in only 2 years, the most worthwhile question is: "What are the determinants of customer loyalty and shopping behavior in China's C2C electronic market?" If the question is answered, resource configuration in China's C2C market can be optimized in more effective and efficient ways.

It is a common argument that free-service strategy helps Taobao to win customers. However, DangDang.com and QQ.com both follow Taobao's free-service strategy, and eBay has also decided to provide some free services since 2005. Their efforts do not slacken the growth of Taobao's market share. Therefore, free service is not the key to retain customers. Neither vendor reputation nor investment is an open sesame to win customers in China. When Taobao first launched in 2003, its affiliation to Alibaba was kept confidential until Taobao achieved great success in acquiring customers (Yang 2005b). Its competitors, like eBay, Dangdang, and QQ, all have well-known reputations. Furthermore, eBay's 2.2-billion-RMB investment did not prevent customers from choosing Taobao, which invested only 0.45-billion-RMB in the market until 2005.

A survey report revealed that "immediate communication tools" ranked as the most satisfying service provided by Taobao but did not on eBay. "Community" ranked as the third most unsatisfying service on eBay but did not rank as an unsatisfying service on Taobao (CNNIC 2006). Communication tools and community are both vehicles for social interactions. In the social literature, the Chinese heavily weight social interactions and tend to adopt various standards of behavior for interacting with different persons around them (Hwang 2000). Immediate communication tools provided by C2C vendors may establish relationships between two online strangers. Relationships may help build trust between buyers and sellers, and culminates in transactions.

Therefore, it is possible that in the social market, customer loyalty to a vendor can be built more easily by the vendor's social relation management services than by transaction services. However, previous studies focusing on online shopping have not addressed such social relations. Most previous studies have tended to study online shopping from a technological or cognitive perspective (Gefen & Karahanna & Straub 2003, Jarvenpaa & Tractinsky & Vitale 2000). The purpose of this paper is to incorporate sociology in analyzing online consumer purchase behavior from a new perspective.

2 LITERATURE REVIEW AND HYPOTHESES

In this paper, we study online customers' loyalty and behavior from social network and marketing perspectives. In the marketing literature, a customer's prospect value of a product or service in a store could encourage him/her to shop (Babin & Darden & Griffin 1994) at that store. In the social network

literature, a customer is not isolated from his/her social relations and his/her shopping choice could also be affected by social experiences (Cherrier & Murray 2004, Wang 1999).

2.1 Customer Loyalty and Shopping Behavior

It is generally recognized that customer loyalty increases a company's profits and growth. Therefore, online customer loyalty is an essential asset for online vendors (Gefen 2002). In this paper, we follow Gefen's definition that customer loyalty is a customer's intention to do more business with the vendor and to recommend the vendor to other customers (Gefen 2002). While loyalty measures a customer's intentions, another construct, shopping behavior, is set to directly characterize the purchase behavior.

According to Gefen's definition, customer loyalty precedes and results in shopping behavior. However, it is argued that consistent purchasing as an indicator of loyalty could be invalid because of happenstance buying or a preference for convenience (Jacoby & Kyner 1973). Thus, we hypothesize:

H1: Customer loyalty is positively related to customer shopping behavior.

2.2 Utilitarian value and Hedonic value

In the marketing literature, customer value has been considered a key predictor of customers' choice (Zeithaml 1988), and includes two distinct values: utilitarian and hedonic values (Babin & Darden & Griffin 1994). Utilitarian value refers to the rational worth of a customer and depends on whether the particular need is accomplished, while hedonic value refers to the emotional worth and depends on whether the customer feels fun during the shopping trip. It is proven that these values are correlated with the monetary amount a customer spends (Babin & Darden & Griffin 1994). Thus, we hypothesize:

H2a,b: Utilitarian value is positively related to (a) shopping behavior and (b) customer loyalty.

Moreover, utilitarian and hedonic value are both highly correlated with a customer's overall satisfaction (Babin & Darden & Griffin 1994). Customers are loyal because they are satisfied and thus want to continue the relationship (Fornell & Johnson & Anderson & Cha & Bryant 1996). Thus, we hypothesize:

H3a,b : Hedonic value is positively related to (a) shopping behavior and (b) customer loyalty.

2.3 Social Networks

In the social network literatures, the Chinese experience themselves as situated at the center of concentric network circles (Fei 1948). The extent of intimacy with one another is reflected by the relative position of another within the concentric circles of one's psychological field (Hwang 2000), as Figure 1 shows.
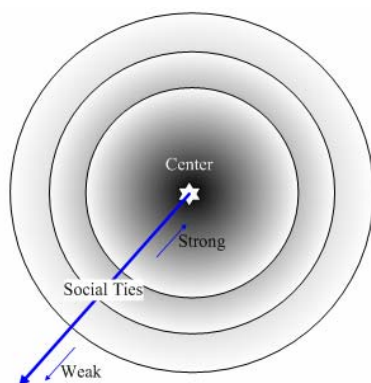

Figure 1.   Chinese Hierarchical Circle

According to intensity of relationship, social network can be divided into information network, affect network, and trust network (Krackhardt 1992, Luo 2005). The information network is a network in which people exchange information or knowledge. The affect network is a network in which people share personal feelings. The trust network is a network in which people show trust among each other.

The three networks have inherent relations. Research indicates that kinship and interactions among people will influence people's positions in the social concentric circles (Yang 2005a) and the Chinese tend to adopt multiple standards of behavior for interacting with different persons around them (Hwang 1987). By chatting in a virtual community, online users are no longer strangers. The more information interactions that occur between two persons, the more intimate the two persons will be. Thus, a solid information network could develop into an affect network. Meanwhile, after benefiting from information exchanges, some users would foster trust to each other. Therefore, an information network will encourage a trust network. In addition, in China, strong ties help to develop more trust than weak ties (Bian 1997, Yang 2005a). Such strong ties mainly exist in intimate relations, e.g. family member and close friends. Therefore, the affect network will facilitate a trust network.

H4a,b: An information network is positively related to (a) an affect network and (b) a trust network.

H4c: An Affect network is positively related to a trust network.

A member with a broad information network can get more information from other members through social interactions. Information passed through social networks may be richer, more trustworthy, and more useful than information gained through other means, especially in an environment characterized by uncertainty, distorted information, and a relatively weak legal framework (Borgatti & Cross 2003, Luo 2003). Considering China's relatively new and immature C2C market, the institutional environment is different from that of the international context of the global market. Enforcement of contracts is less developed, and markets for information are imperfect, especially in mainland China (Millington & Eberhardt & Wilkinson 2006). In such an environment, an online social network that is supported by online messagers and virtual communities can substitute for legal institutions and formal information sources in purchasing products, structuring relationships, and enforcing norms of behavior (Millington & Eberhardt & Wilkinson 2006, Peng & Luo 2000). Therefore, we hypothesize:

H5: An information network is positively related to customer shopping behavior.

In the affect network arising from an online community, members feel affective support from and show emotional satisfaction with each other. Affective communications often call to a user's mind a sense of belonging to the community. Users will then consider the community as their own homes and will voluntarily contribute more to the C2C vendor, such as buying more on the website or recommending the vendor to friends and relatives. Thus, an affect network will reinforce both customer shopping behavior and loyalty.

H6a,b: An affect network is positively related to (a) shopping behavior and (b) customer loyalty.

Regarding a trust network arising from an online community, members cultivate trust and social relationships among each other. Such trust, called reference trust, can be transferred to vendors (Sumeet & Kim & Zheng 2006). Moreover, customer trust has been substantiated to positively affect customer loyalty (Gefen 2002). Therefore, we hypothesize:

H7: A trust network is positively related to customer loyalty.

3   METHODOLOGY

3.1   Data and Method

A questionnaire survey method was adopted. During a two-month period in 2006, survey invitations were promoted on 45 large community websites in China. All respondents were randomly chosen

from those who had prior online purchase experience on China's C2C websites. All respondents were aware of the 10% chance to win a luck drawing before fulfilling questionnaires. Among 288 returned questionnaires, 224 were valid. A summary of demographic characteristics is shown in Table 1. The majority were less than 35 years old. Most were male, and most had a monthly income below 2000 RMB. These characteristics are consistent with those of Chinese online users (iResearch 2006b).

Demographic Variable	Sample Composition						
Age（years old）	< 25	*40.7%*	25-35	*58%*	> 35	*0.9%*	Blank	*0.4%*
Gender	Men	*67.9%*	Women	*31.7%*	Blank		*0.4%*
Monthly Income（RMB）	< =2000	*65.2%*	2001-5000	*21.9%*	> 5000	*12.5%*	Blank	*0.4%*

Table 1.   Demographic Characteristics of the Sample (N=224)

We used a partial least squares (PLS) approach (Haenlein & Kaplan 2004) to examine the model. PLS can assess the relationships between constructs and those between constructs and items (Ranganathan & Dhaliwal & Teo 2004), and can work on nominal, ordinal, and interval scaled data without distributional assumptions (Haenlein & Kaplan 2004). The sample size in this study is far greater than the minimum needed (Chin & Newsted 1999). The software used was PLS-Graph (Chin 2001).

3.2   Measures and Validity

Most items were measured on a ratio scale using Likert 5-point measurement, except shopping behavior which was measured on an ordinal scale. We adapted scales of utilitarian and hedonic values from Babin et al.'s (Babin & Darden & Griffin 1994), and adapted scales of three networks from Luo's (Luo 2005). Scales of shopping behavior were adapted from Teo et al.'s (Teo & Lim & Lai 1999), and those of customer loyalty were adapted from Gefen's and Cai's (Cai 2006, Gefen 2002). Considering language differences, two researchers translated scales from English to Chinese independently. After careful comparison and discussion on translation differences, they finalized the survey. The content validity of the measures was examined by pre-tests with 18 students.

To validate the instruments, we examined internal consistent reliability, convergent validity, and discriminant validity. Internal consistent reliability was examined using composite reliability. In PLS, composite reliability relies on actual loadings to compute the factor scores and is a better indicator of internal consistent reliability than Cronbach's alpha (Ranganathan & Dhaliwal & Teo 2004). As shown in Table 2, the composite reliability values for the constructs in the model were all above the suggested threshold of 0.7 (Chin 1998, Straub 1989) and thus support the reliability of the measures.

Construct and Items (in Chinese)	Loading	Item Source
Utilitarian Value (Composite Reliability = 0.851, AVE = 0.592)		
U1. I accomplished just what I wanted to on this shopping trip.	0.8650	Adapted from Babin & Darden & Griffin（1994）
U2. I couldn't buy what I really needed.	0.7332	
U3. While shopping, I found just the item(s) I was looking for.	0.8447	
U4. I was disappointed because I had to go to another store(s) to complete my shopping.	0.6061	
Hedonic Value (Composite Reliability = 0.826, AVE = 0.618)		
H1. I enjoyed this shopping trip for its own sake, not just for the items I may have purchased.	0.6231	Adapted from Babin & Darden & Griffin（1994）
H2. During the trip, I felt the excitement of the hunt.	0.8192	
H3. During the trip, I felt pleased.	0.8917	
Information Network (Composite Reliability = 0.915, AVE = 0.642)		
I1. On this website, if I have questions, I will turn to members of the website.	0.7532	Adapted from Luo (2005)
I2. On this website, if members have questions, they will turn to me.	0.8162	
I3. On this website, I will discuss how to use this website with members.	0.7733	

I4. On this website, if I hear of some goods on sale, I will firstly tell members of the website.	0.8479	
I5. On this website, if I hear of some goods interesting, I will tell members of the website first.	0.8681	
I6. I always hear of anecdotes from members of the website.	0.7403	
Affect Network (Composite Reliability = 0.909, AVE = 0.770)		
A1. If I have worries, I will tell members of the website.	0.8892	Adapted from Luo (2005)
A2. With members of the website, I'd like to listen to their worries and to share their happiness.	0.8750	
A3. When I chat with members of the website, we would talk about personal affairs.	0.8674	
Trust Network (Composite Reliability = 0.925 , AVE = 0.804)		
T1. Together with members of the website, we can communicate direct thoughts with each other.	0.8745	Adapted from Luo (2005)
T2. Together with members of the website, we feel free to change for information and suggestions.	0.9100	
T3. Together with members of the website, I believe that we are honest to each other.	0.9058	
Shopping Behavior (Composite Reliability = 0.852 , AVE = 0.659)		
B1. Frequency of browsing websites. (ordinal)	0.7880	Adapted from Teo & Lim & Lai (1999)
B2. Total times of purchasing. (ordinal)	0.7448	
B3. Frequency of purchasing. (ordinal)	0.8950	
Customer Loyalty (Composite Reliability = 0.890, AVE = 0.668)		
L1. I will do most of my future shopping arrangement with this website.	0.8069	Adapted from Cai (2006) and Gefen (2002)
L2. I will recommend this website to friends, neighbours, and relatives.	0.8285	
L3. I will use this website the very next time I need to shop.	0.8269	
L4. I will arrange more than 50% of such shopping with this website.	0.8070	

Table 2.   Reliability, AVE of Construct, its measures' loading and item source (p<0.01)

Two tests were used for convergent validity. The first examined item reliability by their factor loading on the construct. As Table 2 shows, all items had a loading above the suggested 0.55 (Falk & Miller 1992). The second test examined average variance extracted (AVE) of constructs. The AVE values for all the constructs were above the limit of 0.50 (Fornell & Larcker 1981). Furthermore, all estimated standard loadings were significant at the 0.01 level (p<0.01), suggesting good convergent validity.

Correlations (Spearman's rho)							
Item	Utilitarian Value	Hedonic Value	Information Network	Affect Network	Trust Network	Shopping Behavior	Customer Loyalty
U1	**0.8456**	0.3541	-0.0098	-0.1333	0.1629	0.1308	0.4223
U2	**0.6755**	0.2361	-0.0845	-0.1159	0.0499	0.1032	0.2821
U3	**0.8264**	0.1811	-0.0859	-0.1446	0.0939	0.0446	0.4082
U4	**0.6205**	0.0540	-0.0659	-0.1054	0.0687	0.1106	0.2605
H1	-0.0364	**0.5803**	0.1864	0.1079	0.0470	0.1539	0.1282
H2	0.2005	**0.8212**	0.0643	0.0104	0.1154	0.1357	0.3329
H3	0.3188	**0.8829**	0.1012	-0.0538	0.1771	0.2419	0.4794
I1	0.0772	0.1898	**0.7108**	0.4038	0.5254	0.1153	0.1842
I2	-0.0745	0.1013	**0.8239**	0.5126	0.4492	0.1506	0.1230
I3	-0.0978	0.0574	**0.7617**	0.5164	0.4605	0.0654	0.0527
I4	-0.0461	0.0567	**0.8618**	0.5756	0.4757	0.1545	0.1367
I5	-0.0834	0.0814	**0.8631**	0.5741	0.4859	0.1563	0.1358
I6	-0.2043	0.0593	**0.7533**	0.5544	0.3296	0.2088	0.0079
A1	-0.1868	0.0362	0.5783	**0.8774**	0.3741	0.1141	-0.0887

A2	-0.0938	-0.0394	0.6191	**0.9073**	0.4498	0.1696	0.0272
A3	-0.1852	-0.0040	0.5063	**0.8547**	0.3749	0.1799	-0.0349
T1	0.0669	0.0734	0.4551	0.4606	**0.8710**	0.1769	0.1670
T2	0.0637	0.0890	0.5014	0.4066	**0.8897**	0.1800	0.2513
T3	0.1398	0.1975	0.5512	0.4109	**0.8931**	0.2188	0.3799
B1	0.0294	0.1401	0.2166	0.1601	0.1558	**0.7984**	0.1289
B2	0.1959	0.2224	0.0970	0.0526	0.1718	**0.7118**	0.2601
B3	0.0674	0.2154	0.1555	0.1909	0.2008	**0.9041**	0.2632
L1	0.3903	0.3310	0.0817	-0.0491	0.2592	0.1953	**0.8058**
L2	0.3089	0.4134	0.1819	-0.0084	0.2599	0.2900	**0.8194**
L3	0.3955	0.4273	0.1618	-0.0060	0.2771	0.1797	**0.8382**
L4	0.3795	0.3519	0.1146	0.0402	0.3339	0.2057	**0.7657**

Table 3.   Confirmatory Factor Analysis

The discriminant validity was examined at both item and construct level. At item level, a Confirmatory Factor Analysis was conducted, as shown in Table 3. In every case of testing, the covariance between the item and its outer construct should be greater than 0.7 and statistically significant (Gefen & Straub & Boudreau 2000). Loadings of these items were above 0.7, except H1, U3, and U4. Nonetheless, these three items' loadings accord with the validity rule that no item should load higher on another construct than it does on the one it is intended to measure (Barclay & Higgins & Thompson 1995). Thus, these measurement items were still valid. At the construct level, the square root of the AVEs for each construct is larger than any correlation between this construct and any other construct (Fornell & Larcker 1981), as Table 4 presents. Thus, the discriminant validity was supported.

	UV	HV	IN	AN	TN	SB	CL
Utilitarian Value (UV)	**0.769**						
Hedonic Value (HV)	0.288	**0.786**					
Information Network (IN)	-0.085	0.117	**0.801**				
Affect Network (AN)	-0.184	-0.010	0.634	**0.877**			
Trust Network (TN)	0.070	0.130	0.610	0.487	**0.897**		
Shopping Behavior (SB)	0.118	0.194	0.161	0.195	0.210	**0.812**	
Customer Loyalty (CL)	0.428	0.444	0.187	-0.007	0.313	0.239	**0.817**

Table 4.   Constructs' Inter-correlations

Note: Values in the diagonal cells are square roots of AVEs.

4   DATA ANALYSIS

Most hypothesized paths were found to be significant ($p<0.01$ or $p<0.05$), as shown in Figure 2. The path coefficient from customer loyalty to shopping behavior is 0.196 ($p<0.05$), supporting H1. This result shows a clear influence of customer loyalty on shopping behavior. Besides, the path coefficient from utilitarian value to customer loyalty is 0.367, and that from hedonic value to customer loyalty is 0.299, supporting H2b and H3b. These results suggest clear influences of customer value on loyalty.

As for the impact of social relation, the path coefficient from information network to affect network is 0.634, that from information network to trust network is 0.504, and that from affect network to trust network is 0.168, supporting H4a,b,c. These results together show a clear map of how the three networks interact. Furthermore, the path coefficient from trust network to customer loyalty is 0.283, and that from affect network to shopping behavior is 0.209, supporting H6a and H7. These positive and significant results show a clear influence of social relation on customer loyalty and behavior.
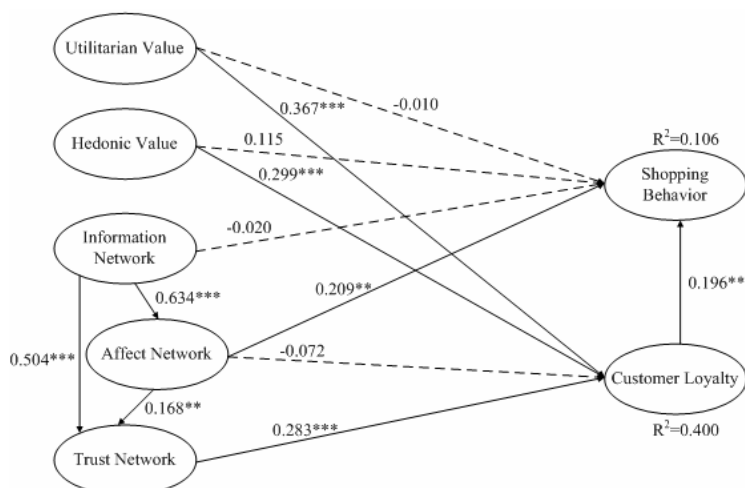
Figure 2.   Structural Model Ⅰ (**p<0.05, *** p<0.01)

However, neither the path coefficient between utilitarian value and shopping behavior nor that between hedonic value and shopping behavior is significant. H2a and H3a are unsupported. Due to intense competition in China for several years, products and services provided by C2C vendors are now almost homogeneous, making utilitarian and hedonic values no longer determinants of shopping behavior. Or, customer value may recall a customer's evaluation of a particular shopping experience, while the shopping behavior measures exactly the whole pattern of the customer's purchase behavior. In this case, the particular customer value may not lead to frequent purchase pattern.

The results also show that the path coefficient between information network and shopping behavior is not significant. Therefore H5 is not supported. Although the market is relatively new and immature, after 7 years of development, information sources in this market may have already been substantial for users while they were becoming familiar with online information search. This trend in e-Commerce in China may explain why information network is not a determinant of shopping behavior.

In addition, the path between affect network and customer loyalty is not significant. Therefore, H6b is not supported. This discrepancy may be attributed to the mediation effect of trust network. It is likely that affect network cannot influence customers' loyalty directly.

The results provide consistent support for the model. The two important dependent constructs, i.e. customer loyalty and shopping behavior, have R^2 of 0.400 and 0.106 respectively, suggesting a reasonable explanation of data variation in our framework.

5   MODEL MODIFICATION AND DATA ANALYSIS

Based on the proven model above, several findings were made on the importance of social relation in China's C2C electronic market. Since customers perceived that social relation management is better performed at Taobao than at eBay (CNNIC 2006), we conducted group comparison analysis to test the social impact. In a modified model, we imported a nominal variable, using 0 to indicate eBay and 1 to indicate Taobao, to verify whether different social relation management affect customer's loyalty or behavior. Since other factors, like capital investment, reputation, and free-service strategy, have been excluded, the results would strongly support the argument on the social relation impact on shopping behavior and loyalty if vendor difference showed significance in the model. Taobao's market share and transaction volume are greatly larger than eBay, so it is expected that the new variable will be positively related to customer's shopping behavior and loyalty. Therefore, we hypothesize:

H8a: A vendor that manages social relations better motivates customers to shop more.

H8b: A vendor that manages social relations better increases customer loyalty.

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Six respondents who were not users of either eBay or Taobao's were excluded. Then, 218 respondents were included in the sample. After examining the internal consistent reliability, convergent validity, and discriminant validity of the model with the new sample set, we ran a PLS analysis.

As shown in Figure 3, the tested path coefficients in the former model are still significant. Path coefficients from vendor to customer shopping behavior and loyalty are, respectively, 0.147 and 0.154, supporting H8a,b. The results suggest a salient vendor impact on customer loyalty and behavior. Customers on Taobao shop for more times and have more loyalty than those on eBay. The results support the argument on social relation value in China's C2C electronic market.
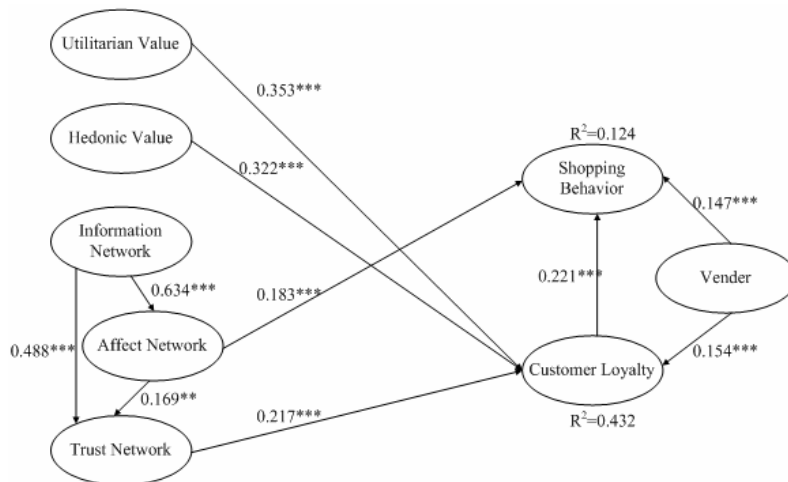

Figure 3.   Structural Model Ⅱ (**p<0.05, *** p<0.01)

In this revised model, customer loyalty and shopping behavior have R^2 of 0.432 and 0.124 respectively, suggesting a more reasonable explanation of data variation than in the former.

6   DISCUSSION

The present research sets out to integrate marketing theory and sociology theory into a unified theoretical model that captures the determinants of customer behavior and loyalty in China's C2C market. We developed a research model and examined the model using empirical data. The current research represents an important contribution to theory by importing social network theory to explain Chinese online customer behavior. The study reveals several major findings.

First of all, this study indicates that, in China, social relation has a significant influence on customer behavior and loyalty. The Chinese are accustomed to living in a relation network formed as concentric circles. They situate themselves at the center (Fei 1948) and situate other persons in different circles. The relative position of another person in these circles reflects the extent of social relations with that other person (Hwang 2000), and is determined by the intensity of social interactions. Moreover, the existence or extent of social relation with another will impact one's views and decisions. For example, for two online strangers, there is originally no social relation between them. They won't show unconditional trust to one other. Some social interactions can make the two no longer strangers. The more interactions occur, the more one will be inside the other's concentric circles. When interactions are enough to build a strong social relation, the two persons will be intimates and show trust to each other. Here, their views and shopping decisions are susceptible to the intimate's words and behavior.

Under the circumstances of this irrational preference, management of social relations is more important in China's C2C market than in other countries. The more interactions occurring between an online buyer and an online seller, the more likely the buyer will be to purchase the seller's merchandise, and vice versa. Few interactions and little social relation could impede transactions

between the two. C2C vendors now provide transaction services, such as a loss payable clause, online payment-security systems, and information search engines. However, these services cannot substitute for the social relations and interactions among people. Therefore, managing the social relation is, indeed, the most important customer service. C2C vendors in the Chinese market should pay sufficient attention to utilizing the social property of the market and recognize its importance in motivating customer loyalty and purchasing behavior. The social marketing design should be tailored to the Chinese culture and social interaction behavior. The emerging electronic market in China can be viewed as an extended form of real society, where social factors are still in play.

Secondly, online social interactions are fairly helpful in fostering online trust. This is because China C2C market is still an immature environment. The enforcement of contracts is less sophisticated, and markets for information are imperfect, especially in mainland China. In such an environment, online social interactions can substitute for legal institutions and formal information sources in purchasing products, structuring relationships, and enforcing norms of behavior (Millington & Eberhardt & Wilkinson 2006, Peng & Luo 2000). What is more, online social interactions could bring in a trust network, which reinforces customer trust and loyalty to the vendor. Therefore, in contrast with online information, online social relations are more efficient to build customer trust networks and customer loyalty. C2C vendors in the Chinese market should endeavor to help customers develop an online social network. This may also help illuminate the distinct outcomes of eBay's and Taobao's strategies.

When Eachnet initially started its C2C business in 1999, the company organized many social activities to boost the market successfully (Yuan & Shen 2000). However, after merging with eBay, the global best-practices of eBay became less competitive in comparison with Taobao's efficient social relationship management service. Taobao has used more social relationship management services than eBay, such as social community building, top management involvement, emotional-oriented activities, customized transaction negotiation system, and so on. These localized social relation management strategies helped Taobao to cultivate customer trust networks and loyalty in Taobao community. More and more customers were attracted by Taobao's social relation marketing strategy, while eBay overlooked it. Facilitated by solid online social networks, Taobao reinforced the customer trust network and loyalty, and quickly jumped ahead of eBay in market share of this social market.

Thirdly, convenient communication tools and online word-of-mouth are more applicable marketing strategies in China's market. Prior to new transactions, both online and offline communication tools can serve as a new channel for buyers and sellers to get to know each other, rather than serving as only product-information searching tools. The extent of communication could impact the transaction amount. For example, in China, when people shop, they compared several stores and search for information about product price, function, and quality. Despite the clear information represented by stores, the buyers turn to sellers to ask questions. The answers to these questions are actually presented explicitly. However, the buyers still want to judge the seller's honesty or the product value through communication. After talking with the seller, if the buyer is satisfied with this communication, he/she may develop some kind of social relation with the seller. Although this relation is weak, it is better than none. After more communication, the buyer may feel some intimacy with the seller and believes that the words of a familiar seller are more trustworthy than the dead-pan presented data. This kind of appreciation will facilitate transactions. Moreover, these appreciations of the seller are easily transferred to the buyer's friends and relatives. The Chinese tend to believe the words of relatives and intimates over the presented data, so these appreciations will be reinforced by worth-of-mouth, which also contributes by encouraging transactions. Therefore, C2C vendors in the Chinese market should do their best to provide convenient communication tools for users and emphasize taking advantage of word-of-mouth. By doing so, vendors can build a more trustworthy image and gain more transaction volume.

Finally, C2C vendors should not relax efforts to provide customer utilitarian value and hedonic value. These values are still important to customer loyalty, although these values provided by different vendors look homogeneous in China, because of similar products or services. C2C vendors could present customers with distinctive utilitarian value through efficient function design and business

process improvement, and provide customers with distinctive hedonic value through vibrant webpage style design, considerate service, and funny entertainment programs.

Future research on C2C market should firstly address the role of other determinants of customer loyalty and shopping behavior, for example, service quality or TAM related determinants, in the social psychology context. We can add more factors into the current model and compare the influences of all factors. If the relationships between social relations and customer loyalty are stronger than other relationships, it is more conceiving that current C2C electronic market in China is a social market where social relation plays more salient role than other factors.

Another important avenue for future research concerns the comparison between Chinese online users and other countries' online users. The present research found that social relation is very important to the Chinese online market. Future research might test how this model performs in different nations, in order to explore different ideas of online customers in the East and West. We can conduct similar research in other countries, especially in the U.S. and Europe, where global company eBay has succeeded for a long time.

Thirdly, Determinants of customer behavior and loyalty have been explained in this paper. However, this "customer" refers mainly to online buyers. There is another kind of customer in the C2C market: online sellers. Buyers and sellers play the same important role in C2C e-Commerce, so the market share is not solely dependent on buyer behavior and loyalty. However, seller behavior and loyalty to the vendor remains untested. Few studies have addressed this problem, and this paper did not design the determinants of seller behavior and loyalty. Additional research is needed to develop an appropriate model for both buyers and sellers based on the present model, in order to study seller behavior and loyalty and integrate determinants of both buyer and seller behavior and loyalty.

Finally, since the current sample (224) was very small compared with the number of the online customers in China, a larger scale survey would be conducted to contribute more to the validity of data analysis and help us see the truth more clearly.

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