

The study of consumer trust in C2C e-commerce based on reputation score, information disclosure, Online Consumer Review quality

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Abstract—Trust has been empirically established as one of the key attributes in C2C e-commerce. In this paper, we focus on the factors that influence trust in e sellers. By using an experimental method, we confirm that seller's reputation, information disclosure and online consumer reviews have positive impact on consumer trust. Meanwhile, we found that quality of online consumer reviews (OCR) and information disclosure moderate the relation of seller's reputation and consumer trust. The effect of seller's reputation on consumer trust is greater in information disclosure cases than in no disclosure cases. Compared with low-quality online review cases, the relationship between seller's reputation and consumer is more significant in high-quality online review cases.

Keywords- consumer trust; seller's reputation; information disclosure; OCR

I. INTRODUCTION

Trust has become an important topic from 50's of last century due to its vital influence on consumer activities. With the advent of the Internet and electronic commerce, e-trust (online trust) becomes a new and important area. Studies show that the main factors affecting online trust include: consumer behavior dimensions, website dimension, institution dimension, the dimension of product, transaction dimension and technical dimension. The main dimensions of consumer behavior includes the consumer experience, consumer familiarity with the network and so on; website dimension contains the accuracy, completeness, availability of information, etc.; institution dimension contains reputation mechanism design, design of feedback mechanisms etc.; product dimension contains brand, quality, etc.; transaction dimension contains discounts and rebates policy commitments; technical dimension includes site security, interface design, etc.^[1-2].

View from collected literature, Most of the studies on e-trust are based on transaction site, studies on e-trust specified to C2C seller is relatively few. However, with the rapid development of C2C ecommerce, consumer has formed a high degree of trust in C2C website due to the mature technology protection, but consumer may not familiar with the seller, especially a new seller. In this case, consumers usually spend

more effort on how to form trust in specific seller. Therefore, from the perspective of theory or reality, research on consumer trust in e seller is urgent and essential.

II. RESEARCH MODEL AND HYPOTHESES

2.1 Trust

Scholars usually put trust into two parts, which is trust belief and trust intention^[3]. Trust belief usually refers to the faith that seller can complete the commitment. Online consumers often believe that electronic sellers are willing and able to care about the interests of consumers in the transaction process, and are honest, able to send goods to consumers as promised. Trust intention is the willingness to rely on e-sellers, or intend to rely on e-sellers^[4]. Trust belief is the reason to form trust intention, in electronic trading, the first is the establishment of faith, and then generate purchase intention, and finally arise a variety of related consumer behavior, such as purchase behavior, sharing of personal information. Therefore, trust faith is the basis. McKnight (2002) consider trust belief as consumer's perception of capacity, benevolence, and integrity of e sellers. capacity is that consumer believe the seller is capable of fulfilling the expected transaction; benevolence is that consumer believe e seller is really care about consumer welfare; honest, is consumer's belief that e seller is a reliable trading partner, match words with deeds, and can comply with commitments.

In the C2C electronic trading environment, the consumer often don't have first-hand information for reference, in order to form trust in the seller, consumer uses second-hand data and information more often. By the use of this information, consumers form e-sellers to achieve belief of commitment. Consumer trust refers to trust belief in this paper.

2.2 Seller's Reputation

Reputation plays a key role in commerce, it is an important mechanism to build consumer trust, reduce transaction risk, and facilitate smooth transaction. In C2C electronic commerce market, a high-reputation seller does not tend to change C2C website. This also indirectly confirms that reputation is very important for e-seller, because the reputation-building process is a long, and restart cost is high.

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According to the Social proof theory, when consumers are not familiar with the environment, they will watch the actions of others for clues to determine^[5]. As more people use take the same action, or when information is released from the authority, consumer trust will be enhanced. For example, when people come to an unfamiliar city, they usually observe the number of customers in a restaurant to determine whether to choose it. Transactions are usually carried out for the first time in C2C e-commerce, it may be a one-time transaction, the seller's reputation is critical for consumer^[6]. Therefore, we propose:

Hypothesis 1: A consumer's perceived seller reputation positively affects a consumer's trust.

2.3 information disclosure

In electronic transactions, consumers want to communicate to form the expectations of products and the trust to sellers, and multimedia build up communication platform to achieve it. Sellers post buyer notes as purchasing policies to meet the expectations of consumers, therefore, to increase consumer trust^[7]. In addition, from the perspective of information asymmetry, information disclosure of sellers is an important way to reduce consumer's perceived risk. By viewing the privacy policy, money-back guarantee, consumer can get additional information to judge, therefore, significantly influence consumer's trust^[8].

In the study of small Internet business, Gregory (2003) summarized the previous studies, and proposed 16 consumer concerned information clues, such as: order fulfillment information, refund information, and ensure delivery within the time limits, transaction procedures and terms of service information. Therefore, we propose:

Hypothesis 2: A seller's information disclosure positively affects a consumer's trust.

2.4 Quality of online consumer reviews

In traditional transactions, word of mouth is a important form affecting consumer buying decision. In electronic transactions, due to the low-cost, convenience, and anonymity, word of mouth spread more remarkable, and manifested in various forms, such as chat rooms and third-party evaluation websites. And online consumer review is frequently used form. Numerous studies have confirmed that online consumer review has impact on consumer trust^[11-12]. Based on these studies, this paper analyses the effect of OCR quality on consumer trust.

The Information Systems (IS) literature defines the quality of information in terms of its credibility, objectivity, timeliness, understandability and sufficiency^[13]. Jumin Lee (2008) considers high-quality online consumer reviews as relevance, reliability, understandability and sufficiency. Relevance refers to the degree of congruence between the information that the consumer wants or requires to evaluate a product and the information contained in the online consumer reviews. Reliability refers to the dependability of the information. Understandability refers to the degree of ease to be understood. Sufficiency refers to the level of detail. We adopt Jumin Lee's definition about the OCR quality, and consider high-quality online consumer reviews are persuasive because the information is relevant to evaluate the product and contains

understandable, reliable, and sufficient reasoning. Low-quality online consumer reviews, on the other hand, are irrelevant, unreliable, and difficult to understand with insufficient reasoning. We propose:

Hypothesis 3: As higher quality positive online consumer reviews increase, consumer trust in the seller will become higher.

In C2C e-commerce, potential consumers will pay more attention to the evaluation of other consumers, if the useful information provided by other consumers is rarely, potential consumers can only make judgment based on the seller's reputation, with the increase of reputation, consumer trust will increase; if other consumers can provide more helpful information, level of consumer trust will be significantly improved. Therefore, we propose:

Hypothesis 4: Compared to low-quality online consumer review circumstances, the increase in the seller's reputation will affect the increase of consumer trust more significantly in high-quality online consumer review circumstances

III. EXPERIMENT DESIGN

An experimental method was used to test the effect of reputation, information disclosure and OCR quality on consumer trust. According to published data by Taobao website, apparel trading volume is in first place, and sports shoes was selected as the online product for this study. We eliminate brand and seller's name to improve the validity.

We use measures and items of Sulin Ba (2002)^[15] to measure the trust in seller. The items includes: 1. I think this seller is honest. 2. I believe this seller will deliver to me the product I purchase according to the posted delivery terms and conditions. 3. I believe this seller will deliver to me a product that matches the posted description

For the case of disclosure, this study selected delivery time commitments information, product information and price information as disclosure items according to actual disclosure information of Taobao. The following text is a seller disclosure case:

Buyer notes:

1. We committed to delivery within two days after the order is received.
- 2 We promise our goods sold are genuine; there may be some change in package.
3. Product price adjustment is fast; our shop will adjust timely at the lowest price, but can not provide price protection.

This paper randomly selected 20-line consumer reviews on Taobao, and then selected 22 undergraduate to rate. Before rating, the concept of low-quality reviews and high-quality reviews is illustrated to them. Likert 7 point scale was used, 1 score means the review quality is lowest while 7 score means the review quality is highest. In this way, we differentiate the quality of OCR. Table1 shows 4 highest scores online comments and 3 lowest online comments as the test comments.

TABLE I. RESULTS OF ONLINE CONSUMER REVIEW QUALITY

c	Mean	s. d.
It looks quiet delicate and is consistent with the picture; service of the seller is also quiet well.	5.22	1.47
Really quiet good looking; the quality is also excellent, good seller.	5.09	1.19
Bought for colleagues, she likes it very much	4.77	1.37
Better looking than the picture, the color is also nice, My colleagues like it. Thank you!	4.68	1.64
Favorable comment	3.5	1.37
Thank you!	3.04	1.36
Evaluation part fails to make timely assessment, default praise!	2.91	1.26

Finally, A 2(reputation: low and high) \times 2(information disclosure: no information disclosure) \times 2(the quality of positive online consumer reviews: low and high) full factorial design was used to test the hypotheses.

IV. RESULTS AND DISCUSSION

The research participants were 1000 online consumers; there were probably 125 participants in each circumstance. The questionnaires is delivered by email, and the process last almost a month. The effective rate is probably 40%. Most subjects had previously experienced online shopping (80%), and the mean of their online purchasing frequency was one or two times per month. In this paper, OLS multiple regression analysis was used to analyze the results as shown in Table 2. The regression results from Model 1 shows that the seller reputation ($B = 0.497$, $t = 5.437$), seller information disclosure ($B = 0.232$, $t = 2.537$), and online reviews quality ($B = 0.536$, $t = 5.859$) were significantly and positively related to consumer trust. Therefore, the proposed hypothesis 1, hypothesis 2 and hypothesis 4 can not be rejected.

TABLE II. THE RESULT OF REGRESSION

	Model 1		Model 2	
	B	t	B	t
Constant	4.4***	48.24	4.446***	37.233
Reputation	0.497***	5.437	0.495***	3.145
Information disclosure	0.232**	2.537	0.297*	1.897
OCR quality	0.536***	5.859	0.286*	1.827
Reputation \times Information disclosure			-0.318*	-1.752
Reputation \times OCR quality			0.319*	1.759
Information disclosure \times OCR quality			0.183	1.011
R ²		0.232		0.256
adjusted R ²		0.223		0.236
F		23.625***		13.215***

N=238 ***p<0.001, **p<0.05, *p<0.1

In order to test moderating effect, two factors interaction was added in Model 2. The results showed that adding the two factors interact, model fit was improved from the model 1 (adjusted R² = 0.223) to Model 2 (adjusted R² = 0.236). Meanwhile, the reputation \times information disclosure ($B = -0.318$, $t = -1.752$) and the reputation \times OCR quality ($B = 0.319$, $t = 1.759$) are significantly related to consumer trust. This shows that online reviews quality and information disclosure have moderating effect on the relationship between the reputation and consumer trust.

The moderating effect of information disclosure is shown in Figure 1, in the no information disclosure case, with the seller's reputation increased, consumer trust is improved greater than information disclosure case. Therefore, the proposed hypothesis 3 is verified. This is mainly because, in the absence of information disclosure, consumers can only rely on the seller's reputation to judge, if added disclosure of information, consumer can make judgment based on both factors. Especially in the low-reputation case, the disclosure of information will significantly improve the level of consumer trust.

Moderating effect of online consumer review is shown in Figure 2. In the case of high-quality online consumer review, with the seller's reputation increased, consumer trust is greater. Therefore, the proposed hypothesis 5 is verified. This show, with the increase of reputation, consumer trust level will be better improved.

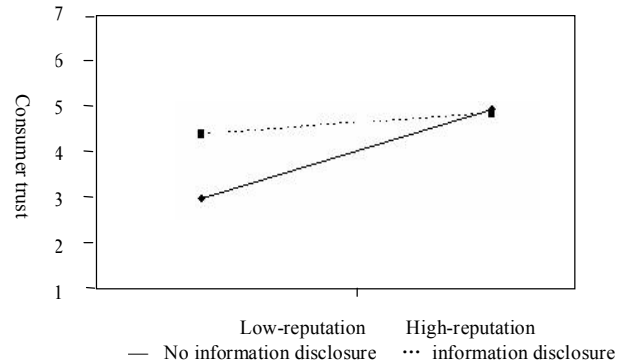


Figure 1. Moderating effect of information disclosure

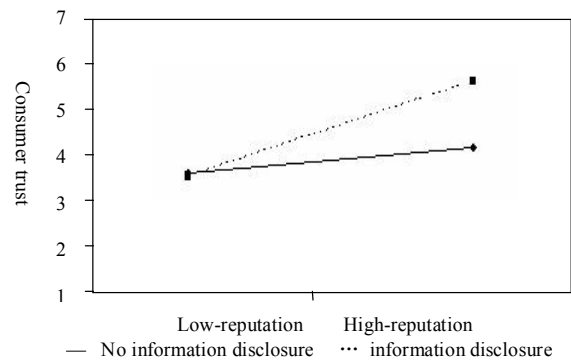


Figure 2. Moderating effect of online consumer review

V. CONCLUSION

This study confirmed that seller's reputation, information disclosure and online consumer reviews had positive impact on consumer trust. Moreover, we found the moderating effect of seller's reputation and OCR quality on relation of reputation and consumer trust. From the practical perspective, the seller's reputation is very important to the seller, but if the seller can provide better service to get high-quality consumer evaluation, the seller's situation can be significantly improved. From the theoretical perspective, seller's reputation and consumer trust will be subject to the influence of other factors. This paper empirically confirmed the moderating effect of quality of information disclosure and online consumer reviews, expanded research in the field.

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