An Empirical Study in the Effect of the Experience on Consumers’ Trust in the Familiar Online Retailers

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Abstract. The virtualization of the situation of online retailing makes it more easy and profitable for retailers to sell adulterated goods, make false propaganda, and make promises not to be fulfilled, and therefore the risks increase higher for online shopping than that of offline. Since the accordingly risks increase, the customers would hesitate to make an online order unless he/she realizes the risks are limited. In the situation that the trustworthy 3rd-part payment and delivery service are used, the risk depends on the honesty, integrity, benevolence and other characters of the retailers, therefore the customer’s trust on the retailers will help him/her to make the purchasing decision. While many researches have been done in online trust for unfamiliar website, for example, McKnight 2002 used the theories of structural assurance and situational normality to understand the building up of online trust, in this study, our focus is the effect of a customer’s former online shopping experience on his/her trust in the website which is familiar to him/her. We collected more than 3000 data from Chinese online customers, and verified the effect of the different experience on consumers’ trust in the online retailing website, and also the effect of the trust on purchase intent in two dimensions: repeat buy and the average amount of once purchase.

Introduction

Online Trust

Trust implies a party’s willingness to accept vulnerability but with an expectation or confidence that it can rely on the other party (Lewicki, McAllister, and Bies 2008). Prior studies suggest that trust affects behavioral intent (e.g., Shankar, Urban, and Sultan 2002; Yoon 2002) and the consumer’s attitude and risk perception, which in turn influences the willingness to buy (Jarvenpaa, Tractinsky, and Vitale 2000).

Customer trust is particularly important in the online context because of the virtualization and increasing risks. But online trust, or trust in Web site differs from offline trust in many ways. Online trust includes consumer perceptions of how the site would deliver on expectations, how believable the site’s information is, and how much confidence the site commands. Pan, Shankar, and Ratchford (2002) find that online trust has a positive impact on website traffic and visits to Web site categories. To formulate a successful e-business or Internet marketing strategy, companies need a deeper understanding of how trust is developed and how it affects consumer behavioral intent in the online context (Yakov Bart 2005).

Trust and familiarity

Familiarity and trust are two different but connected terms. Luhmann claims that familiarity is a precondition for trust, and familiarity is an understanding, often based on previous interactions, experiences, and learning of what, why, where and when others do. Familiarity deals with an understanding of the current actions of other people or of objects, while trust deals with beliefs about the future actions of other people. Familiarity reduces uncertainty by establishing a structure, while trust reduces uncertainty by letting people hold “relatively reliable expectations” about other people’s favorable future actions (N. Luhmann 2000).
What a customer knows about the website can affect his/her trust of what will happen with it in the future. For example, a customer has received goods with quality flaws from a website for times, and then he/she will think the possibility to receive another piece of goods with flaws is high if he/she buys it from the same website.

Lots of researches have been done on the determinants of the online trust, such as navigation, brand, privacy policy, security, personalization, community and so on. Most of them do with how an unfamiliar website to obtain customers’ trust. In China, Alibaba and JD.com have gained about 85% online retailing market shares. Maybe because of the very high development speed of the e-business, customers often face problems of product quality, false description of goods, unsatisfying purchase return service and so on. Since a usual consumer would choose among very few websites when purchasing online, how the different kinds of experience have an effect on the online trust in a familiar website? And how does the trust influences the customer’s behavior intent to choose one from a few familiar websites? In this study, we verified the effects on different experiences on trust, and that of trust on a customer’s online purchase behavior.

Data Collecting and Analysis

In this study, we have collected more than 3000 data about customers’ experience by questionnaire survey, and tested the effect of different kinds of experience, for example product quality, online descriptions about the product and price and service, delivery service and after service (goods return, money return and compensation) on online trust, and verified the influence of the trust on customer’s behavior intent.

The questionnaire is posted on web and responses are invited in three ways. Firstly we sent an inviting message with the questionnaire link to randomly selected customers’ cell phones, and a little ratio of them came to our website and completed the questionnaire. Secondly we shared the link by the “friend’s circle” in Wechat, a mobile app very popular in China, which can be continued shared by others in their circles. In this way questionnaires are completed quickly. Lastly, we randomly selected a contact list of customers and called them to ask the questions, and through this way the data are compared with those collected by the former two ways, and there were no significant gap between them.

The MySQL5.1 database is used to store the response data. This data are exported as an Excel file and analyzed with the Regression Data Analysis function built in Excel.

The Experimental Evidence of the Effect of Experience on Online Trust

3023 questionnaires were collected, and the data were analyzed through Regression function in Microsoft Excel with the websites’ Honesty accepted by customers (trust) as dependent variable Y and the other as independent variables Xs, such as the quality of the received product(s), the after services, the online descriptions of the product, and uniformity of the descriptions and the product. After deleting few data with abnormal big residual errors, the regression result is: the multiple relationship is 0.768, the adjusted R2 0.589, the standard error 0.583, and variance analysis result is: F value is 716, significance of F is 0. The coefficients is referred to table 1:

<table>
<thead>
<tr>
<th>Table 1. Intercept coefficients (1).</th>
</tr>
</thead>
<tbody>
<tr>
<td>coefficients</td>
</tr>
<tr>
<td>Intercept</td>
</tr>
<tr>
<td>X1(product quality)</td>
</tr>
<tr>
<td>X2(price attraction)</td>
</tr>
<tr>
<td>X3(need purchase return)</td>
</tr>
<tr>
<td>X4(purchase return)</td>
</tr>
<tr>
<td>X5(online description)</td>
</tr>
<tr>
<td>X6(uniformity)</td>
</tr>
</tbody>
</table>

Then the equation about the effects of different variables on trust is obtained:
\[
Y = 0.922 + 0.183X_1 + 0.101X_2 - 0.190X_3 + 0.048X_4 + 0.211X_5 + 0.299X_6
\]

In the above equation the coefficient of “need purchase return” is minus, because the purchase return being needed means a possible unsatisfied experience.

In the equation, the online “description” of the product and the “uniformity” between of the description and the product have the highest effects on trust, being higher than the “quality” and the “after sale” service, which means that the trust of a consumer is built more though “honesty” than satisfying product or service.

**The Experimental Evidence of the Effect of Trust Online on Behavior Intent**

Many agree with the effect of a consumer’s trust on his/her purchase behavior, such as repeat buy and tolerance of rise in price. In this study, it is verified that the possibility of repeat buy and the average amount of once purchase are both improved by online consumer’s trust.

Firstly, the data were analyzed by regression with the “repeat buy” as dependent variable and the “trust” as independent variable. The result is: the multiple relationship is 0.431, the R\(^2\) 0.186, the standard error 0.589, and variance analysis result is: F value is 684, significance of F is 3.9E-136. The coefficients is referred to table 2:

<table>
<thead>
<tr>
<th></th>
<th>coefficients</th>
<th>Standard errors</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.820</td>
<td>0.050</td>
<td>55.875</td>
<td>0.000</td>
</tr>
<tr>
<td>X1(trust)</td>
<td>0.310</td>
<td>0.012</td>
<td>26.171</td>
<td>3.9E-136</td>
</tr>
</tbody>
</table>

From the regression result, the effect of online consumer’s trust on his/her repeat buy in the same website is verified. The “trust” variable explains 18.6% variance of customer’s repeat buy possibility.

Then we used the “amount of once purchase” as the dependent variable and the “trust” as independent variable again, and the regression result is insignificant. Since different website has different customer preferences and sells different product and service, the insignificant result may come from that. Then we calculated the “average amount of once purchase” for every website, and plotted the scatter diagram with the average amount (Chinese Yuan) as the vertical axis and the trust as the horizontal one:

![Figure 1. Average amounts of once purchase and trust scores.](image)

In the Fig.1, the highest point with 800 is Sunning.com, which was a traditional famous offline household electrical appliances retailer, and now becoming an online retailer. Customers mainly buy famous offline household electrical appliances from Sunning.com because of its offline reputation, and though its “trust” is beside the median its “average amount of once purchase” is unusually high since the price of household electrical appliance is very high. There are two other outlier points with high “trust” score but low average amount: Dangdang.com sells books and CDs online for many years, it has the highest “trust” score but relative low average amount of 155. It’s considerable because the books and CDs are very cheap, and the average 155 Yuan of average once purchase is very high (a normal book is sold with 20-30 Yuan is usual in China). Another website Meituan.com mainly sells
catering coupons and ticket which is cheap too. Using the remain 8 websites’ data, the regression result is: R square is 0.57, F value is 8.1, and significance of F is 0.029. The coefficients table is following:

<table>
<thead>
<tr>
<th>coefficients</th>
<th>Standard errors</th>
<th>t Stat</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1283.47</td>
<td>552.0976</td>
<td>-2.32472</td>
</tr>
<tr>
<td>X1(trust)</td>
<td>377.2989</td>
<td>132.6029</td>
<td>2.84533</td>
</tr>
</tbody>
</table>

From the data analysis, the effect of online consumer’s trust on the average amount of once purchase is significant in part of websites. The “trust” variable explains 57% variance of the average amount of once purchase for different websites. And to one’s surprise, one percent rise in “trust” score (5-point system) will create 377 Yuan increases in the average amount of once purchase for part of websites.

**Conclusion**

Online trust has become a focus in recent years for the ecommerce boosts in a worldwide area. Many researches have been done to give the insight of the role of trust in online retailing and how to build a customer’s trust. Most of these researches have to do with trust in an unfamiliar website. In McKnight’s (2002) web trust model, the institutional-based trust means the structures like guarantees, regulations, promises are in place to promote success, and if one finds the environment is in proper order and the situation is normal or favorable, he may make an online order even it’s an unfamiliar website for him. That is when a consumer go to an unfamiliar website, when he/she find guarantees, regulations, promises on the website and the appearance design is proper or normal, his/her trust will increase. But in China, the circumstance has a little difference, where customers almost go to a limit list of websites which are familiar to most of them, such as taobao.com, tmall.com, jd.com and so on. What a customer see is not more important than what he has experienced for building trust. In this study, we collected online purchase experience data from customers, and verified the significant effect of the different experiences on the online trust for familiar websites. Different from research results for unfamiliar website, for familiar websites, what promises, terms or regulations they post are not important to promote customers’ trust, but what they describe the products and what products and service they deliver have significant effects. And then we verified that the trust has significant effect on consumer’s behavior even for familiar website.

**Reference**


