Identifying Customers’ Preference of Trust Factors in Adoption of B2C E-Commerce in India

Baljeet Kaur, Sushila Madan
1,2Dept. of Computer Science, Banasthali Vidyapith, India

Abstract
Internet penetration has changed the traditional ways of doing business. Globally, there is a steep rise in the people buying over Internet or doing Ecommerce, as we say it. Ecommerce has great potential in India, especially in the era of busy lifestyles, scarcity of time, bad traffic jams and availability of attractive offers online. Deeper Internet and 3G penetration, soaring living standards, superfluous income, better deals online and cash on delivery option; Indians have all the reasons to practice online shopping. But, there is other side to the story as well. Despite adequate reasons to go for online shopping, many Indians still do not trust e-vendors. They are apprehensive about the security and privacy of their information, product quality, credit card fraud, product delivery, availability of returns or exchanges and authenticity of the products. So, the significance of consumers’ trust in ecommerce cannot be overlooked.

This paper provides an overview of customers’ preference of trust factors existing in Indian Ecommerce market space. The study attempts to help e-vendors to understand the expectations of the customers better and enhance their commercial websites in order to boost their sales. On the other hand, it provides finer insight to the customers with a view to indulge in online shopping more advantageously. This research is based on the inquisition of experts in Indian Ecommerce market. AHP Technique was used to prioritise the trust factors gathered from these experts through questionnaires.

Keywords
Ecommerce Trust, Trust, Trust Factors, Indian Customer’s Trust, Indian Consumer’s Trust, Online Trust, Ranking of Trust Factors, AHP

I. Introduction
The Internet revolution has fuelled the growth of Ecommerce market in India. Ecommerce in India has shown astonishing advancement especially among the travel and retail sites. Majority of the E-commerce industry share is occupied by Travel (51%), followed by E-Retailing (40%) and by the clothiers (9%). A recent report by Forrester suggests online sales in India will be five times (8.8 billion$) as of now (1.6 billion $). According to a report by ASSOCHAM, India is among the fastest growing online market and has exhibited a growth of 41% in the last twelve months. But this growth story gets tainted by simultaneous growth of online frauds. The graph shows steep rise in online credit card frauds. Studies on Indian customers indicate that nearly 23% of the customers quit the website even before registering themselves. It is primarily because they do not want to disclose their personal information to a website they do not trust. Mayer et. Al (1995) defines trust as “The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.” A study by Neilsen Global Online Survey indicated that Indian customers resist online shopping because they fear payment frauds, poor customer service, misuse of credit card/bank details and quality or delivery issues with the products. Many other studies clearly suggest that Indian customer is still not decisive about which website to trust and which not to trust.

II. Literature Review
According to a study by Man Kit Chang and Waiman Cheung (2005) [8], there are three trust building mechanisms i.e. third party certification, reputation and return policy and all the three trust building mechanisms together increase trust in the online vendor. In another study by Pawel Kossecki and Urszula Swierczynska- Kaczor (2006) [12], key factors which have an effect on building customers’ trust are identified and categorized in two groups - Transactional (factors which are strictly connected with the process of making transactions like communication before purchase, security of payment, delivery costs, means of dealing with claims and returns); Non-Transactional (factors which are not related directly with the process of making transactions like law regulations, protection of consumer rights and privacy, technical infrastructure and transfer of external trust). They also suggest the elements of communication which build customers’ trust are trust signs on the web site, certificates of website, information about company, information on connection with physical world, accuracy of products and service data, recommendations, information on privacy policy and ease of navigation.

Jui-Chin Jiang, Chun-An Chen and Chih-Chien Wang (2008) [6], focussed on the role of knowledge and trust in online shopping behaviour of the consumers in their study. The study also revealed that trust in online shopping is positively associated with online shopping activities. Spitz and York Tuchelmann (2009) [14] studied the aspects of time on the ecommerce trust. Their study focussed mainly on aging (the impact of good and bad experiences from both the present and the past on a trust decision) and inactivity which describes the influence on the trustworthiness of a member which is currently not actively participating in the trust group. In his study Waghmare G.T. (2011) [17] predicts that in next 3 to 5 years, India will have 30 to 70 million Internet users, significant enough to have meaningful impact on growth of ecommerce. Another study by Rajesh Math, et al (2012) [13] indicated the main reason for Indian people to shop online is to save time, whereas, on the other hand the Indians who do not shop online cite lack of trust as the prime argument for their behaviour.

III. Trust Factors in Indian Ecommerce
Trust is a vital factor for Ecommerce. Lack of consumer trust often results in an unrecoverable loss of reputation and revenues. Lack of trust leads to financial losses to an e-business organization as the organization will not be able to generate the expected revenues with lesser number of customers in hand. They’ll lose upon their chance to strike a deal with prospective customers due to the customer’s fear of shopping online. In case of existing customer also, if the customer loses trust in the online set-up of exchange due to any reason, he will not go for online shopping on any website. Ever more cautious consumers will restrict their behaviour online. This will hamper the business continuity of a genuine e-marketer also. So, it is very important for the e-marketers to address the
trust issues of their prospective and existing customers in order to make profits and keep their customers happy. Trust in an online business is based on various factors. These factors can be broadly classified into three major categories [1-2]: Organizational Factors, Website Factors and Customer Factors. Table I lists all the factors which fall under each of these categories.

IV. Analytic Hierarchy Process

The Analytic Hierarchy Process, often called AHP, is a mathematical technique designed to solve complex problems involving multiple criteria. The technique was developed by Thomas L. Saaty [16] for multi-criteria decision making. This technique can be applied to real world complex decision problems along with qualitative as well as quantitative information. Instead of giving one correct decision, it provides ratio scales of relative magnitudes which represent the judgements of the participants involved in the form of paired comparisons.

AHP's application can be seen in fields such as government, TQM implementation, selection of alternative transportation options, global climate change assessment, quantifying overall quality of software systems, selection problems, decision based on location of offshore manufacturing plants, managing U.S. watersheds and for its own evaluation.

Table 1: Trust Factor Categories

<table>
<thead>
<tr>
<th>Organizational Factors</th>
<th>Brand Recognition</th>
<th>Money Back Guarantee/ Return &amp; Exchange Policy</th>
<th>Order Fulfilment (Order Tracking, Logistics)</th>
<th>Offline Presence</th>
<th>Competence (Good Discounts, Free Shipping)</th>
<th>Perceived Size of Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Factors</td>
<td>Past Site Experience</td>
<td>Knowledge &amp; Experience in Internet Usage</td>
<td>SocioDemographics</td>
<td>Social Awareness Level</td>
<td>Propensity To Trust</td>
<td>Perceived Ease Of Use</td>
</tr>
</tbody>
</table>

Decision problems in AHP can be solved using the following steps:-

1. Information is decomposed into a hierarchy of alternatives and criteria.

2. Perform pairwise comparisons of the decision elements using decision matrix.

<table>
<thead>
<tr>
<th>Element1</th>
<th>Element2</th>
<th>Element3</th>
<th>Element4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Element2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Element3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Element4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 2: Decision Matrix

Following scale can be used to record AHP preferences:

<table>
<thead>
<tr>
<th>Verbal Judgements of Preferences</th>
<th>Numerical Rating of Preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme Importance</td>
<td>9</td>
</tr>
<tr>
<td>Very Very Strong Importance</td>
<td>8</td>
</tr>
<tr>
<td>Very Strong Importance</td>
<td>7</td>
</tr>
<tr>
<td>Strong Plus Importance</td>
<td>6</td>
</tr>
<tr>
<td>Strong Importance</td>
<td>5</td>
</tr>
<tr>
<td>Moderate Plus Importance</td>
<td>4</td>
</tr>
<tr>
<td>Moderate Importance</td>
<td>3</td>
</tr>
<tr>
<td>Weak or Slight Importance</td>
<td>2</td>
</tr>
<tr>
<td>Equal Importance</td>
<td>1</td>
</tr>
</tbody>
</table>

3. Information is then synthesized to determine overall priorities for the hierarchy.

4. Check the consistency of the judgements. If the consistency ratio is greater than 0.1, this indicates that more than 10% of the judgements are inconsistent and it is an unacceptable input. In that case, go back to step 2 to redo the decision matrix exercise again. Else go to step 5.

5. Finalise the overall priorities to obtain the rankings of the decision alternatives.
V. Research Methodology

The proposed model suggests that trust in a B2C website is based on three main factors [2]:
1. Organizational Factors (OF)
2. Website Factors (WF)
3. Customer Factors (CF)

These categories can be further divided into their sub-factors, as specified in Table I. So, the proposed model of Trust is as shown in fig. 3.

VI. Data Collection and Analysis

The survey used in the study is web-based and was conducted on 74 experts from Indian E-commerce market. The experts investigated were asked to perform pairwise comparisons on various trust factors which exist in Indian E-commerce market space. The data collected from the above mentioned survey was analysed using AHP technique (as discussed earlier). Expert choice software was used to synthesize the results. Overall weights for each sub-factor were computed. After that, the weights of OF, WF and CF categories were obtained to decide the overall level of trust. Hence, the final look of the trust model is as shown in fig. 4.

VII. Conclusion

The study proposed a model of trust based on the organizational, website and customer factors. The results revealed the website factors are the most significant contributors’ to trust in a B2C website, followed by the organisational factors and then by the customer factors.

The results of the study can be used by the e-vendors to incorporate all the important factors which generate or fortify the customers’ trust in their website, thereby increasing their customer base. The study also tends to benefit the Indian online customers to make more aware and better purchases.
References


Baljeet Kaur is pursuing her Ph.D. at Banasthali Vidyapith, India in the area of Trust in Indian Ecommerce market space. She has written papers on the trust factors which exist in Indian Ecommerce market and has also given its categorical classification. She has proposed a framework to compute trust index for the websites. She is also working as an Assistant Professor with University of Delhi, India and has 6+ years of teaching experience.

Dr Sushila Madan is currently Associate Professor in Computer Science at Lady Shri Ram College, Delhi University. She is MSc in Applied Maths from IIT Delhi and M.Tech from BITS Pilani. She has taught in Indian and foreign universities. To her credit, there are many research papers and has authored various books on Information System Auditing and Controls, Information Technology, E-Commerce, Multimedia and Web-Technology. She has also published articles in various sessions in IT domain. She is actively guiding research scholars. Moreover, she is a corporate trainer and consultant to industry for information security.