Framework for Consumer Related Trust Issues in E-Commerce

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Abstract

This is a preliminary paper for introducing the framework of consumer related trust issues in e-commerce. Framework describes the different elements that are present in consumers' everyday lives when they are forming trust relation to various e-commerce sites and e-vendors. Elements that are present are society, community, consumer, technology, e-vendor, e-service/e-product and third parties. These elements and their presence are discussed in detail and some remarks are made to e-vendors and e-commerce designers to take into consideration when designing e-commerce.

Keywords

trust, e-commerce, framework, consumer

Acknowledgements

Introduction

This trust framework (see Figure 1) is developed because of the demand to capture different aspects of consumer's understandings of e-commerce (Electronic Commerce) and trust issues related to e-commerce. Trust is said to play the key role in consumer's enthusiasm to buy from various e-commerce sites. Although a lot of research is done in e-commerce and trust (McKnight et al. 2002; Gefen et al. 2003; Calcanis et al. 2003); many models have been made but trust issues are not clear for e-vendors. E-vendors need information and guidelines for what to take into account when designing e-commerce sites that the consumer trusts. This framework introduces some aspects found in an undergoing study of consumer's trust formation.

Trust is a fuzzy concept which is hard to conceptualize exhaustively (Kohtamäki 2003, Blomqvist 1997). Conceptualization has been done, for example, by sociology (Luhmann 1988; Lewicki&Bunker, 1995), business (Mayer et al. 1995; Swan et al. 1985), philosophy (Hobbes 1750; Herzberg 1988) and information system (eg. Gefen et al. 2003) but one unique concept has not yet been agreed upon. Some aspects that are studied in recent years in the field of trust are competence, benevolence and integrity (Garbarino&Lee, 2003; Bhattacherjee, 2002; Gefen, 1997; Mayer et al., 1995). One basic definition that trust is often said to be is that is a belief that the other person (trustee) won't betray the trustor (eg. Baier 1986; Cummings & Bromiley 1996). From this definition it could be understood that there is

someone that trusts and something that the trust is aimed at. This framework of trust issues consists of a trustor (consumer) and trustee (e-vendor).

Consumers live in the society and consumers belong to various communities around them. These communities have affect to consumers understanding and use of e-commerce. Relatives, colleagues and friends give advice and hints of links to e-commerce sites. Communities can affect more or less to consumers trust on e-commerce. When speaking of these small-scale communities we think that individuals affect on their community and vice versa, as shown in Giddens structuration theory (Giddens 1984) and Orlikowski's study of ICT use (Orlikowski 1992).

Consumer gets information from e-vendor also from newspapers and other media in surrounding society. This information consumer uses to formulate trust towards e-vendor. Information gathering and evaluation is one aspect of consumer's trust formulation process. Consumer in this framework is thought to be in an interaction process with e-vendor. This interaction happens both face-to-face and/or through a technology channel. In face-to-face contacts with e-vendor consumer can physically visit a traditional store and formulate trust through that interaction. Consumer can also interact with e-vendor through a web site where technology is the mediating channel. In this framework consumer uses both these ways when developing trust on e-vendor and its services or products. In Figure 1 consumer's trust is drawn to look like a lens through which consumer sees e-vendor and/or e-services / e-products. This is only to illustrate the way consumer understands and evaluates trust issues concerning e-commerce.

Research question in this paper is: What consumer related trust issues in e-commerce there are? We have interviewed consumers to find this out and we developed framework based on the results of these interviews.

This paper is structured in a following way: first we tell about methods we used for material collecting, secondly how we analyzed the material and thirdly we go into detail about framework of trust issues in e-commerce that we made. Finally we draw this model back to theory and discuss framework and its usability in future work.

Method, material and analysis

We had two multidisciplinary projects from which we gathered material. We conducted more than 80 interviews altogether during summer 2003 and 2004. In these projects we had multidisciplinary participants from information systems, consumer studies, anthropology, health technology and rural enterprise studies. Main method we used in interviews was semi-structured and open ended questions. Some interviewers also made field notes and kept field diaries during they stay in the field.

In the first project 2003 we used the snowball method to get interviewees. We had one meeting in each village and invited villagers to these meetings through village associations. We got contacts to these associations through local eKylve project (http://www.ekylve.fi) and its' project manager, Matti Tyynelä. In these meetings we told villagers in site what we are going to do in these villages (interviews and observation) and asked if they would want to be

interviewed. Some of the villagers wanted to be interviewed and after each interview we asked if interviewee knew anybody who would like to be interviewed (names and contact information).

In the other project 2004 we found interviewees by advertising on local newspaper's website, we told about our project in seminar, send emails to possible interviewees and called to some company's customers. Any one who wanted to be part of the study should first fill out a value questionnaire that was in our website. From these answers we decided to pick up those two groups that we most likely thought would differ from each other the most: fun loving life enjoyers and security seeking people.

We made qualitative research with different methods partly due to interviewers' backgrounds and partly due to project objectives. In the first project most of the interviews were conducted with open ended questions and inspired by ethnography. So some interviewers made field notes and kept diaries. In both projects 2003 and 2004 we had regular meetings and discussions over our interviews and material we gathered. From these discussions we made some changes to our interview questions. We used discussions between project members also to get a better understanding of our material and found some general themes from our interviews. These themes we have presented in research articles.

In ethnography the aim is to study a community and employ a wide range of observational techniques (face-to-face contact, participation in community activities) (Van Maanen, 1979, in Järvinen, 2001). From these observations researcher writes field notes and field diaries as some of us did in our project during summer 2003.

Our interviews in both projects started from general discussion about interviewees' backgrounds and continued to discussion about e-commerce. We had many open-ended questions in order to give interviewees space to tell with their own words about their views on e-commerce. Our analysis consisted of looking for general concepts that interviewees used and categorizing concepts to main themes. (Kvale, 1996) We want to take into consideration that our interviewees represent only part of consumers of e-commerce.

In the next chapter we present our findings of consumer related trust issues in e-commerce in more detail.

Framework

Main elements in this framework are consumer, e-vendor and trust. We wanted to see trust from consumer's viewpoint and consumer's trust on e-vendor. From consumer's viewpoint there are many elements affecting or helping trust formation towards e-vendor. These elements are society, community, technology, third party and e-service/e-product which are in Figure 1. These elements are next discussed in detail. Arrows in Figure 1 indicates interaction between two elements, circles are main elements, pipes are mediating channels and trust is seen as practical lens (Orlikowski, 2000) that consumer sees e-vendor.
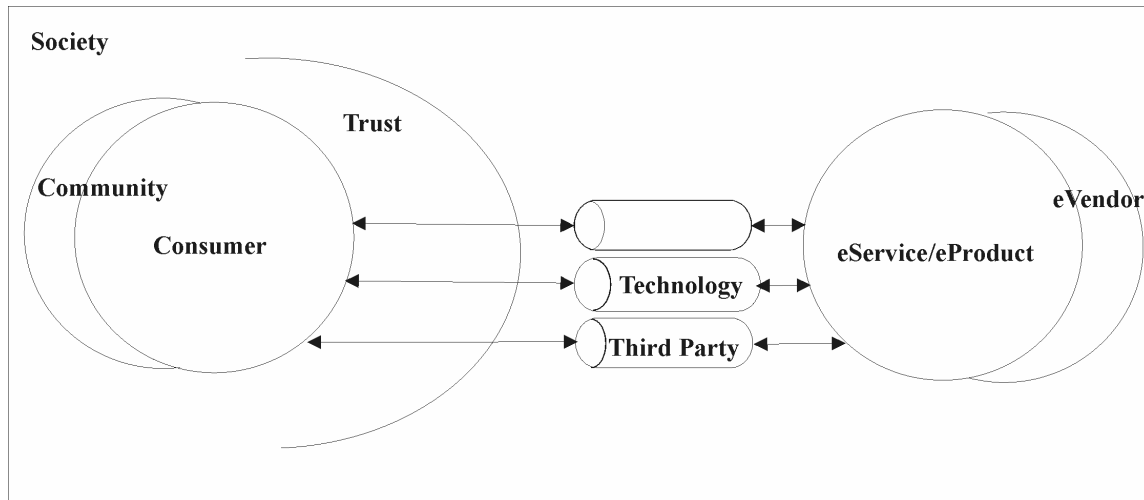
Figure 1. Framework for consumer related trust issues in e-commerce.

Consumer

The viewpoint in this framework in consumer's. Consumer is an individual who wants to use e-services or e-product for her/his own purposes (Schiffman&Kanuk, 2000). Consumer differs from customer because consumer is not a person who pays from a specific company's services (Loudon&Della Bitta, 1988). A consumer can be in many roles when consuming e-services or e-products, for example, as a citizen or as an online shopper.

Consumer may have earlier experience in using e-commerce but not necessarily. McKnight et al. (2002) concentrate in their model for the initial trust developing e.g. that the consumer sees the website for the first time. Gefen et el. (2003) see in their model that consumer needs to have a long interaction relationship with e-vendor before she/he trusts in it. Both of these models seem to think that consumer is either way. We on the contrary like to think consumer as a whole. All the past experiences, values, norms and understanding gathered so far, consumer uses all of these in developing trust towards e-vendor.

E-vendor

E-vendor is in this framework an organisation who makes e-service or e-product available for online consuming. E-vendor can have also traditional commerce like a grocery store. Consumer can interact with the e-vendor either straight without technology or then through technology. Straight contacts can be phone calls help service or visiting personally traditional store. Consumer can get information about e-vendor also from media or community members. This information then affects consumer's understanding of e-vendor's competence, benevolence and integrity. E-vendor's competence is for example delivering orders in time or keeping e-service functional at all times. (McKnight et al., 2002.)

Community

Communities have an impact on consumer. There can be many communities in consumer's everyday life, for example, relatives or work colleagues. Giddens (1984) points out in his structuration theory that social structures shape through individuals actions and vice versa.

Orlikowski (1992) studied technologies in organizations and found out that communities shape technologies according to their own needs despite the original purpose of technology. There are in the Internet various virtual communities also that consumer can participate and get influenced by. The impact of a community on developing trust in e-commerce can be either positive or negative. Consumer can get help and advice in using some e-service or not to use an e-service.

Technology

E-commerce differs from traditional commerce because of the technology in use (Gefen et al., 2003). Technology is often taught to be Internet and web pages (not only email). Technology could also be mobile services or digital television. Grint and Woolgar (1997) describe technology as physical objects (cables, central units, monitors), as artifacts related to physical objects (software) or individual's ways of using technology. In this framework only the physical objects are technology, other elements such as e-service is thought to be software or the way technology is used.

Technology has the role of a mediator in this framework. Consumer interacts through technology with e-vendor. This interaction is two way interaction so e-vendor gives for example feedback to consumer and vice versa. This interaction aspect is different from models like McKnight, Choudhyry and Kacmar (2002) and also from Gefen , Karahanne and Straub (2003). In their models there is no interaction between trustor and trustee but only action from consumer to e-vendor.

E-service/e-product

E-service is in this framework something that consumer uses through technology for example e-news service and e-product is a news item that consumer gets from e-news service. E-service or e-product can be either non-physical (news) or physical (CD). Consumer evaluates the function of an e-service or the quality of an e-product. From these evaluations consumer develops trust in e-service or in e-product.

Third party

Third parties can affect consumer's trust developing in many ways. Third party can be an organization that gives certificates or gives credit for individuals (VISA). Phone companies and banks keep reference lists in their e-services that tell these organization have our trust and that these referenced organizations work with us. These reference lists consumer may take as positive marks when developing trust in e-vendor. (McKnight et al., 2002.)

Society

Surrounding society has the laws and infrastructure that consumer needs in everyday life. Consumer needs to know that e-vendor has some legal obligations and possible sanctions when necessary. The overall stability in a society is also important for consumer. (McKnight et al., 2002.)

Conclusions

The users' – or individual human beings' – interpretation is connected to their social context. For example, Orlikowski (2000) found that users in different organizations use the same IS in different ways – we can say that their interpretation of the same IS are different. Mol and Law (1994) recognized similar difference in regional context. Social context when computers and users are concerned has also been studied by Vehviläinen (1999) and Star (1995) and these studies have shown that social context is important. The latter has proved that the social aspect is related to the interpretations of phenomena and the ways of acting (also the ways of using IS).

McKnight et al.'s (2003) and Gefen et al.'s (2003) models lack the interaction in social environment and how that environment might influence e-commerce use. The living environment and social contexts are important as well as the technology used. Consumer's individual aspects will affect her/his actions in an e-commerce situation. E-vendor's social contexts, reputation and appearance of a web site are only a few of those things that affect a consumer when making trusting decisions. Consumer's trust in e-commerce is an individual, local and social matter. We think that community is an important element in consumer's life and affect in many ways to consumer. It is important to think about different communities and their affect when designing e-commerce.

E-vendors need to have competence, benevolence and integrity. Consumer needs the information of e-vendor, e-service and e-product. This information helps consumer to developed trust. Also the functioning of e-service is important that the e-service is available in all hours of the day. E-vendors need also to ensure consumer that e-products are of good quality and delivered on time.

Surrounding society and third parties have also an impact on consumer. Media is sometimes in key role affecting consumer's understanding of the security of e-commerce such as credit card numbers.

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