

Social Networking: The New Way for Enhancing Trust in e-Business

Atefe Abouata Amlashi¹ and Amir Albadvi²

Department of Industrial Engineering, Tarbiat Modares University, Tehran, Iran email:

[1abouata@gmail.com](mailto:abouata@gmail.com), [2albadvi@modares.ac.ir](mailto:albadvi@modares.ac.ir)

Abstract

This study explores the relationship between trust and using Social networking factors in an e-business to provide an answer to an intuitive question concerning whether the elements and factors of social networking affect the customer trust? And if so, how?

. In order to do so, at first we captured the factors that specify the social networking and then try to categorize them qualitatively on the basis of their nature and type. We also, for the sake of better understanding the effects of Social networking factors on trust process, classified trust in 4 following levels: Trust beliefs, Attitudes toward trust, Trust intention (willingness to buy), and Trust behaviour (actual buy). This classification previously has been used in trust literature.

Key words: Trust, Social networking, Social network, Virtual community, e-business, e-commerce

Introduction- Emerging trends

We observe many changes based on technology development in various aspects of human life. One of the most remarkable changes has happened in the way people communicate. Also developments in information and communication infrastructures and increasing influence of internet are the reasons for emergence of the new concepts like virtualization and internet cloud. And concepts such as relationship, friendship and community have been influenced by these new means of communications.

Nowadays we can almost put the word "electronic" or "virtual" before all names and concepts that we knew, like electronic friendship, virtual community, electronic community, electronic social network and etc. not only the individuals relationships has been effected, but also the social and economic activities of people have been evolved into a new dimension and we are facing the concepts such as e-business, e-market, electronic auction, e-shopping, e-banking, virtual library and etc.

On the other hand with the development of virtualization and the change in people communication protocols and the basic changes in the way businesses operate on the World Wide Web, insuring the safety, security and trust worthiness of this unknown cyber environment is becoming more important every day.

According to the nature of e-business the lack of trust is an important obstacle. trust is an essential ingredient of customer relationships in the online world. Trust can help to mitigate the customers' worries about the risks and uncertainties of conducting complicated businesses online and encourage them to participate in online activities.

Trust is an overview of the components and steps that reaching each of them requires time and great deal of effort from the trustee. Getting this in an e-business that users are in an

unknown and probabilistic environment, is more important. In order for an e-business to survive it needs to attract the maximum trust among potential customers. And as the other studies have showed, initial trust or trusting beliefs toward an e-business doesn't mean that the customer would actually show the trusting behaviour or buy from an e-business website.

Research Problem, Objectives and Plan

By development of virtual communities and common use of membership in these communities which is called "Social Networking", users are gradually getting more involved in collaborating together and thus, use each other's opinions and interactions as one of the builders and developers elements of trust on the web. This change in people's virtual life and behavioural style makes us wonder if and how we can use those elements and subsequently their relative behaviours in order to creating trust in e-business?

In this study we are trying to answer the following question:
Do the elements and factors of social networking affect the customer trust? And if so, how?

Literature review

The concept of online trust- Trust and virtual environment

Under the trust subject, we studied trust models like Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB) and Trust construct model and model of basic trust construction. What was similar and practically shared in all of these models, was that there is a correlation between **Beliefs, Attitudes, Intention** and **Behaviour** as components and building blocks of trust.

Trust beliefs is believing that trustee considers truster benefit when he/she decides according to the truster information and performs things that has guaranteed he/she would do and has the ability To obtain the expected results and truster can predict the future behavior based on his/her previous behaviors. Attitudes known as the Positive or negative evaluation of trusting behaviour and is a combination of truster silent opinions about the expected result of trusting act. Trust intention: in the context of e-business, trust intention is known as the intention to purchase from e-business site. And trust behaviour is the actual buying from site.

Social Networking - Concept and Factors

Social networking sites could be defined as the web services that have the following characteristics:

1. They allow users to make a profile in system- a list of identification information that might contain data about the author and has been provided by the author.
2. They make it possible for users to create a list of their friends.
3. They make it possible for users to navigate through the system based on their personal page or their friend's pages.

To involve members of social networks in community activities, the following conditions must be met:

1. The members must be aware of what happens in community
2. The members must be connected with other community members.

Making Trust - Maximizing Trust in an e-Business

One way to make a secure environment for e-commerce is developing a system based on individuals' relations and perceptions instead of only using the power of technology to create security and trust. Making a community where businessmen have personal relationship or share the shared values is becoming an important part in reducing customer's fears.

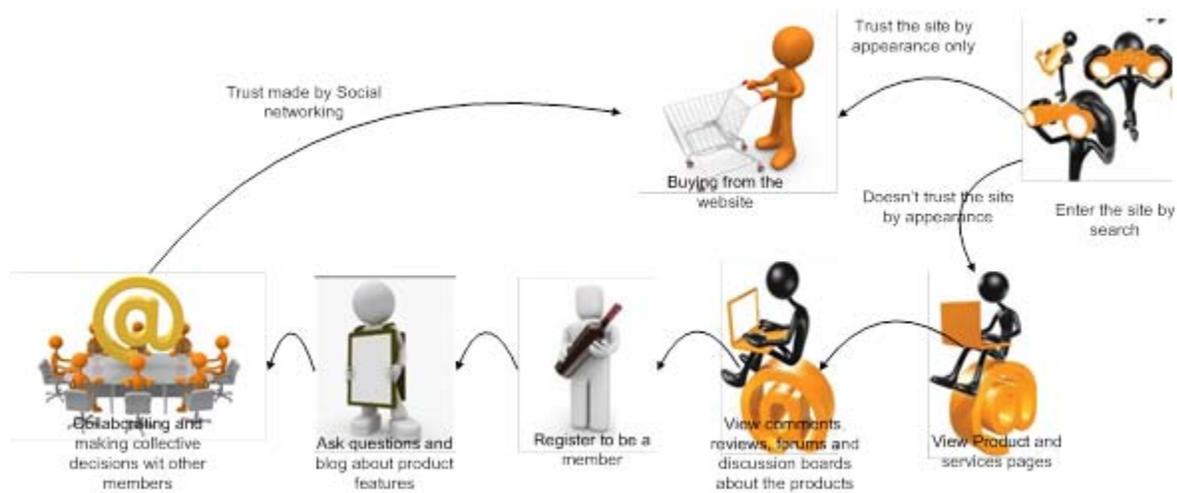
The important factor is that making trust by the design and technology is a familiar protocol that almost all of e-business owners believe it and consider it in the start-up phases of the e-business. What should be also important to the owners in the competitive market is designing a more trustable environment to attract maximum trust among the customers. Developing virtual community around products in today's e-business is using the same method of making trust by creating communities and interaction between potential and actual customers as it has been going on in businesses in the past centuries. The main theory that is studied in this paper is the role of the network and having a community with shared language and relationships in making trust. Let us express the subject more clearly:

In the first step when a person enters an e-business site, that she/he found it by searching and has no previous experience or knowledge about that site, specially like an e-store that provides deferent types of products. When faced the desired item, based on the trusting beliefs than she/he get from site, he /she would do the shopping or leave. These trusting beliefs has been created by the external look of the site like the graphic, transparency of information policy, website's ease of use, having guidelines and popular brands advertisement and etc... Please consider a situation that these characteristics aren't enough to make the customer fully trusts or there are customers who need more trust to actually buy something from that e-shop.

As a customer who needs more than trusting beliefs that is made by site appearance, it is possible we could not decide about buying from the site in the first time. But some of the characteristics in the site might help us in decision making and increase our trusting beliefs.

Consider there is a place in the website that introduces products and services, in this part there is also a subpart that people comment about each product and service and express their opinions, they talk about the product/service Advantages and disadvantages and compare it with similar products/services of other companies or its substitute products or services (for example in forums or discussion boards). Or people who have used the product/service comment or rate it (feedback and rating). Or there is the functionality that allows people to register and be a member of the site and this way they could post their personal opinions about the product/service and share them with other members and get their opinions in return (blogging). These posts could be about product/service or other related titles. Simultaneously she/he shares information and her/his interests (profile). It can also capture her/his history of activities and based on her/his interests suggests her/him related advertises and pages. Making these capabilities while the person can get more information enters her/him in the site's users community. Gradually by the expanse of the person presence and interactions in the site and the virtual community of users, it will develop a trust between the person and the site (ideally) or in another level between her/him and other community members. By this way she/he can identify active people in the site and trust them (people's rate). On the other hand people's trusting beliefs develop by the trusting behaviour of others whom they trust. When a person is faced with the completely strange community this type of trust could be created by the social networking tools.

Figure 1-Trusting Process of a New User of an e-Business



Hence to study the issue of this research, we should first identify social networking factors in e-business.

Social Networking factors

To capture the factors that specify the social networking in an e-business, we studied a lot of e-business and social network sites and identified the following factors:

- The capability of membership
- Statement of membership
- User profile
- The capability of creation usage groups
- The capability of membership in the set of subjective groups
- Forums and discussion boards
- Notification about the changes
- Commenting about users
- History of user transactions
- The list of friends
- Popular links
- Chat
- feedback
- Content generation by the user
- Managing generated content by user
- Commenting about content
- Contribution in content generation and modification
- News bulletins
- Rating

And then we tried to categorize the identified factors qualitatively on the basis of their nature and type. We put them on 3 categories - functional factors, communicational factors and operational factors.

The functional factors are those primary and basic factors that a social network site must have, and they contain the public capabilities of a social network site.

The communicational factors are those factors which connect people to each other and facilitate member's communications, while the operational factors are those that are made as the result of combination of using functional factors and utilizing communicational factors as well. You can find this categorization in the following table:

Table 1- SN factors categorization

functional factors	communicational factors	operational factors
<ol style="list-style-type: none"> 1. The capability of membership 2. Statement of membership 3. User profile 4. The capability of creation user groups 5. Notification about the changes 6. Commenting about users 7. The list of friends 8. Popular links 9. News bulletins 	<ol style="list-style-type: none"> 1. The capability of membership in the set of subjective groups 2. Forums and discussion boards 3. Content generation by the user 4. Commenting about content 5. Chat 	<ol style="list-style-type: none"> 1. History of user transactions 2. Content sharing 3. Managing generated content by user 4. Contribution in content generation and modification 5. Rating 6. feedback

Results- Effect of Social Networking Factors on Trust Construction Elements

In a field research with internet survey, the required data has been gathered from members of a social network, to better understand the amount of influence of social networking factors on trust.

Result showed that with exceptions of few, most factors of social networking had positive impact on trust. Based on the categorization suggested by this author, we can determine how we can use certain features and factors on each category of social networking, to gain customer's trust to an e-business and increase potential customers' willingness to actually buy from it.

Based on the result of the survey, it is observed that the first element of trust which is "trusting beliefs" is affected the most by the functional factors of SN. These trusting beliefs are also influenced by general features of a web-site which, appearance, graphic and being user-friendly and ease of use, are part of these features and their effect has been studied in the literature before. But this survey showed that we could improve trusting beliefs by adding functional factors of SN to our websites as well.

Since trust beliefs are corner stone of trust structure, it is of most importance for e-business managers to pay attention and make enough efforts on this matter.

Second part of trust, attitude toward Trust, gains the most effects from operational factors of SN.

That is, because these categories of factors enables attitude toward trusts to emerge. Operational factors also have considerable effects on attitude toward trust and trust intention, or in other words willingness to buy. These factors, by their definition, actually help build the trust makers attributes and trust building activities among the users, and consequently increase the trust toward seller or e-business party as well. so these factors can be constituted the mediary factors .

So trust intention or willingness to buy is affected mostly by the operational and functional factors of social networking. The results also showed that actual buying behaviour is affected mostly by the communicational factors using the infrastructure and capabilities provided by operational factors. This communicational factors category, is related to interaction of people together and is in fact the most important property of community and network, it is the biggest element of creating trust behaviour among people involved.

From all of these findings we can conclude that the traditional view about society impact on trust making in buying and shopping in the physical shopping centres can be easily extended in the virtual market and e-business too.

e-business managers who choose carefully all the features for maximum usability and graphics of their websites to gain their potential customers trust, can use operational and communicational social networking factor to improve and enhance it even more, and benefit from other customers interaction through contents they create.

Based on the result of the survey we managed to determine the effect of using each categories of social networking factors on every parts of trust construction, so that e-business managers can understand better how they can improve their customers trust level and get actual result based on their trusting behaviour with the correct use and creation of social networks and communities of actual and potential customers online.

Conclusion

The findings of this research suggests that emerging of social networks which altered the face of the web through the last several years, if used in a correct fashion, can improve the customers experience and enhance the trustworthiness of related e-business through interaction with other customers.

Social networking increase information availability and transparency, in the virtual market. And although the social networking capabilities such as forums and etc. are developed by business managers, the content is provided by real customers and reflects their opinions. So of course the product and service of e-business should have positive reputation among the previous customers, if we want social networking to improve trust among other users.

According to the result of the research, it seems that gradually with domination of virtualization and subsequently changes in people beliefs and social attitudes on the web, it is possible to apply the traditional ways of trust building processes among customers on the virtual market as well, with correct use of social networking phenomenon.

References

- Artz, D. and Y. Gil (2007). "A survey of trust in computer science and the Semantic Web." *Web Semantics: Science, Services and Agents on the World Wide Web* 5(2): 58-71.
- Ba, S., A. B. Whinston, et al. (2003). "Building trust in online auction markets through an economic incentive mechanism." *Decision Support Systems* 35(3): 273-286.

- Barnes, Y.-H. C. S. (2007). "Initial trust and online buyer behaviour." *Industrial Management & Data Systems* 107: 21-36.
- Bih-Ru Lea, W.-B. Y. a. N. M. (2006). "Enhancing business networks using social network based virtual communities." *Industrial Management & Data Systems* 106: 121-138.
- Boyd, D. M. and N. B. Ellison (2008). "Social Network Sites: Definition, History, and Scholarship." *Journal of Computer-Mediated Communication* 13(1): 210-230.
- Brown, J., A. J. Broderick, et al. (2007). "Word of mouth communication within online communities: Conceptualizing the online social network." *Journal of Interactive Marketing* 21(3): 2-20.
- Chau, P. Y. K., P. J.-H. Hu, et al. (2007). "Examining customers' trust in online vendors and their dropout decisions: An empirical study." *Electronic Commerce Research and Applications* 6(2): 171-182.
- Corritore, C. L., B. Kracher, et al. (2003). "On-line trust: concepts, evolving themes, a model." *International Journal of Human-Computer Studies* 58(6): 737-758.
- David C. Evans, S. D. G., Anthony Carroll "What Elements of an Online Social Networking Profile Predict Target-Rater Agreement in Personality Impressions?"
- de Matos, C. and C. Rossi (2008). "Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators." *Journal of the Academy of Marketing Science* 36(4): 578-596.
- Dina Ribbink, A. C. R. v. R. V. L. a. S. S. (2004). "Comfort your online customer: quality, trust and loyalty on the internet." *Managing Service Quality* 14: 446-456.
- Duan, W., B. Gu, et al. (2008). "The dynamics of online word-of-mouth and product sales--An empirical investigation of the movie industry." *Journal of Retailing* 84(2): 233-242.
- Faramarz Damanpour, J. A. D. (2001). "E-business e-commerce evolution: perspective and strategy." *Managerial Finance* 27(7): 8.
- Franks, D., R. James, et al. (2009). "A foundation for developing a methodology for social network sampling." *Behavioral Ecology and Sociobiology* 63(7): 1079-1088.
- Franks, D., R. James, et al. (2009). "A foundation for developing a methodology for social network sampling." *Behavioral Ecology and Sociobiology* 63(7): 1079-1088.
- Gottardi, E. B. a. G. (2005). "Online technology markets and suitable marketing strategies." *International Journal of Technology Marketing* 1(1): 37 - 61.
- Horst, M., M. Kuttschreuter, et al. (2007). "Perceived usefulness, personal experiences, risk perception and trust as determinants of adoption of e-government services in The Netherlands." *Computers in Human Behavior* 23(4): 1838-1852.
- Hu, N., P. A. Pavlou, et al. (2006). Can online reviews reveal a product's true quality?: empirical findings and analytical modeling of Online word-of-mouth communication. Proceedings of the 7th ACM conference on Electronic commerce. Ann Arbor, Michigan, USA, ACM: 324-330.
- Hwang, Y. and D. J. Kim (2007). "Customer self-service systems: The effects of perceived Web quality with service contents on enjoyment, anxiety, and e-trust." *Decision Support Systems* 43(3): 746-760.

- Kim, E. and S. Tadisina (2005). Factors Impacting Customers' Initial Trust in E-Businesses: An Empirical Study. Proceedings of the Proceedings of the 38th Annual Hawaii International Conference on System Sciences - Volume 07, IEEE Computer Society: 170-172.
- Kim, J., B. Jin, et al. (2009). "The role of etail quality, e-satisfaction and e-trust in online loyalty development process." *Journal of Retailing and Consumer Services* 16(4): 239-247.
- Kossinets, G. and D. J. Watts (2006). "Empirical Analysis of an Evolving Social Network." *Science* 311(5757): 88-90.
- Koufaris, M. and W. Hampton-Sosa (2004). "The development of initial trust in an online company by new customers." *Information & Management* 41(3): 377-397.
- Lee, J., D.-H. Park, et al. (2008). "The effect of negative online consumer reviews on product attitude: An information processing view." *Electronic Commerce Research and Applications* 7(3): 341-352.
- Li, L. I. (2006). Reputation, Trust, & Rebates: How Online Markets Can Improve Their Feedback Mechanisms.
- Lu, Y., L. Zhao, et al. "From virtual community members to C2C e-commerce buyers: Trust in virtual communities and its effect on consumers' purchase intention." *Electronic Commerce Research and Applications* 9(4): 346-360.
- Pappas, J. M. and K. E. Flaherty (2008). "The effect of trust on customer contact personnel strategic behavior and sales performance in a service environment." *Journal of Business Research* 61(9): 894-902.
- Pavlou, P. A. (2002). "Institution-based trust in interorganizational exchange relationships: the role of online B2B marketplaces on trust formation." *The Journal of Strategic Information Systems* 11(3-4): 215-243.
- Pavlou, S. B. a. P. A. (2002). "Evidence of the Effect of Trust Building Technology in Electronic Markets: Price Premiums and Buyer Behavior." *MIS Quarterly* 26(3): 243-268
- Prabhu, C. R. J. (2003). "The influence of satisfaction, trust and switching barriers on customer retention in a continuous purchasing setting." *International Journal of Service Industry Management* 14: 374-395.
- Ridings, C. M. and D. Gefen (2004). "Virtual Community Attraction: Why People Hang Out Online." *Journal of Computer-Mediated Communication* 10(1): 00-00.
- Ridings, C. M., D. Gefen, et al. (2002). "Some antecedents and effects of trust in virtual communities." *The Journal of Strategic Information Systems* 11(3-4): 271-295.
- Wang, Y. D. and H. H. Emurian (2005). "An overview of online trust: Concepts, elements, and implications." *Computers in Human Behavior* 21(1): 105-125.
- Zhang, X. and Q. Zhang (2005). Online trust forming mechanism: approaches and an integrated model. Proceedings of the 7th international conference on Electronic commerce. Xi'an, China, ACM: 201-209.