

The Influence of Social Network Websites on Level of user Satisfaction

Pedram Behyar, Maryam Heidari, and Zahra Bayat

Abstract—the purpose of this research is to identify and clarify factors which have positive effect among user satisfaction and their social networking through websites. The examined factors in this research are; innovation, ease of use, trustworthy and customer support which are defined as satisfaction factors. To obtain reliable research approaches and to have better result in this research four hypotheses used to test. This hypothesis testing has been done by correlation, regression and test of normality by using “SPSS16” also the data which was analyzed by this software. this data was gathered from prepaid questionnaire.

Keywords— Customer Satisfaction, Social Network Website

I. INTRODUCTION

SOCIAL networks are created to connect individuals and businesses to each other. Also businesses try to increase their connection by customers to have better financial profit achievement. All those similarities cause businesses and individuals to increase their engagement by social networks to reach their goals. In conclusion, social networks are so important for businesses to work on it.

Social network by many different ways of its connections enables all business parts from salespeople to customer service agents, developing meaningful relationships with customers in an effective manner. Anyway, social network can be used as a main tool in business hand to resolve its customers' connection problem. The main business concern to engagement with social networks is how to use it for better business profit achievement [13].

On the other hand, customer satisfaction is one of the most important indicators for all business activities, through this study, this concept and also its relations by social network are being considered. Satisfaction concept has been studied through many different researches by various frameworks and models. The significance of satisfaction through all businesses and industries activities from production and manufacturing to services industries is clear and effective [29]. In other research studies, customer satisfaction is represented as a quality indicator for businesses product and services related to their customers [31], as well as in various service qualities for so many different business locations [17].

The level of customer satisfaction is measured by some

Pedram Behyar is with the Universiti Teknologi Malaysia (UTM) Kuala Lumpur Malaysia. He is doing PHD (phone: 0060147230784; e-mail: pedram_behyar@yahoo.com).

Maryam Heidari was with Multimedia University, Cyberjaya, Malaysia. She is now graduated with the Master of Business Administration. (E-mail: Maryam_h1361@yahoo.com).

Zahra Bayat was with Multimedia University, Cyberjaya, Malaysia. She is now graduated with the Master of Business Administration. (E-mail: bayat_1983@yahoo.com).

different indexes from different organizational hierarchies, those satisfaction measurement come from inside of the organizations [22], [23], [24]. The company performance is so important to measure the customer satisfaction, for an instance the direct relation of customer support department and customer satisfaction. In summary, the company performance in each department is directly related to company and customer connection. Also this connection could be an index to customer satisfaction measurement [7].

The other satisfaction aspect could be defined as customer experience from companies' products or services which are offered to customer. This customer experience from purchased products or services causes customer judgment. Customer judgment has been created by customer feeling or attitude from the product/service which has been purchased [37]. Related research in this area was defined customer judgment according to his/her exact decision about that purchases related to customer behavior [40].

II. NETWORK STRUCTURE

Networks give an opportunity to its members to express their feeling and even attitudes about their common criteria. This kind of network can be presented virtual on the internet from explained social network websites. The network structure in the internet includes channels by which website's users enable to do networking which means sharing their interests and wants by each other. Some other studies which were conducted to examine an anonymous dataset consisting of a large number of social network website's users for finding Friends and do the networking used messaging activities [15]. Also about researches which have been done on relationship investigation between profile instructions and number of Facebook friends shows the positive relation between them [26]. Other related literatures found that profile structure that reduce the number of mistakes which comes from inactive accounts, are harder to falsify and most likely to be associated with larger number of friendship links [19], [6].

III. SOCIAL NETWORK WEBSITES

The website which offers web based connection to each user for networking in online environment is defined as social network website. To make this kind of connection between users, those kind of websites should offer each user independent profile which represent user's information also enable other users to access others profile by their permission. Basic user connection works by this way after that each social network website can offer its differentiated services to attract more users for its own [38]. The other term which is somewhat similar to "social network site" is "social networking sites".

Although the two terms are often used similarly, some differences are noticeable between those terms. The scope of "Networking" emphasizes relationships beginning, also between people whom they do not recognize. Each above term represent different kind of website activities which should be chosen by them in defined manner [5], [10], [26].

The network opportunity which is provided by social network website is, not only enables individual to share their common information but also makes new friends and develops individual networking to group networking in online environment.

IV. SOCIAL MEDIA

Social media is known as an effective way of social communication for all kinds of networking channel that is supported by media especially which use high technology. It can be said that social media technically can be used for all web based activities also this technology which is called web 2.0 assist social media to connect better with the monologue broad band to be changed as dialogue social one.

About the usage of this concept which is social media, it can help to distribute that explicit information through media and helps people to change from content consumers to content producers.

The other social media definition is mostly related to its online based activities. This definition tries to make relation between Web 2.0 and their technological foundations that create its user enable to generate components. This definition is also related to power which is given to users for explicit information changing [39].

V. VIRTUAL COMMUNITIES

The people who are getting to gather in online environment are called virtual community members. Also the members should share a common needs and interest in this kind of community. But the information which shares by them should be digital one that is why it's called virtual community [14].

It can be said that virtual communities and social networks apply both to both social and economic sides. It can be observed that the studies which are conducted through analyse these kind of environment are limited [27], [21], [14].

The virtual communities as many others online activities is profitable for user and producer. These kinds of benefits come from different aspects from the time which is saved by users or even the availability of them within those communities, to the other connections which are available easily by virtual communities [12].

VI. INNOVATION

New innovation can be reached or applied for social network websites to attract large number of users [18], [31]. Diffusion is known as process of an innovation which is communicated through specific defined channels over time through members of a specific social system which are linked via networks [11].

In conclusion, about the structure of social network's stakeholders in case, innovation diffusion includes the capacity to distribute product and services through usage of an innovation [34]. Innovation should be used properly and effectively by social media websites to fulfil their users' needs and wants.

The significance of this concept is the ability of innovation to create more expansion for all kind of social network websites based on innovative communication channels [25]. To create more innovative communication channel using web technologies is inevitable. The new web technology by so many multimedia features feed those channels to represent more innovative. This kind of tools needs to get more customized by users. The user can set how to communicate and get involve with multi-channel functions especially the innovative channel which is more interesting for each user.

Innovation is mostly related to new idea and new way of connection especially for social network websites. Networking in online environment needs some different communication channel especially for social network website user follow the way of messaging and communication by which are more innovative and easy to use [34].

Those communication channel which are innovative, should contain these characterises; first they should be observable by users, second those channels should be compatible for each user and third one is trial ability of that channel. However, all of those three factors should be found in each channel to call it innovative one.

The innovation factor especially for website users using the social network website is significant. As Rogers said innovation concerned about creating new ideas. That is why one of the main factors that have an important effect on user satisfaction level in the social environment is innovation.

VII. EASE OF USE

The web page ease of use is the most important satisfaction factor for each user to do its online environment activities [34], [35]. This ease of use is defined by some researches as user's feeling about the web page connectivity with the user [34].

From the literature many studies conducted on internet banking ease of use and even e-commerce. This is mostly related to connectivity for social networking activity in online environment. Also, the ease of use for internet banking and other related e-commerce activity is related to the time and effort of user to do its activity online and those efforts show the website ease of use. In case the significance relation is between ease of use and information technology adaption in all kind of online activities [33]. The ease of use definition is that how much each person believes that web page which is used by him is free of hard working .this degree show the level of ease of use.The other similar noted definition is related to customer support definition which is the judgments of how the website can represent itself well in case of action required dealing with prospective situations for its user.

To realize the degree of perceived ease of use the important point is how the defined website is free of effort to its user and how it has implications for the design of training intervention to manipulate the perception of ease of use among users of online website whom are doing transaction activities [33], [34]. In conclusion, the literature proposes that ease of use can be considered in terms of ease website's navigation and also ease of learning, ease of management.

VIII. TRUST

Trust is defined as a motivating factor to gain more confidence among internet users by providing prompt and information rich services. Previous research have empirically found a positive relationship between users' agreeableness to use the e-communication channel and trust as an important and effective factor on the use of all internet activities such as e-banking [10].

Based on [1] research, trust is one of the critical and important factors in the online activities environment. Despite increased Internet users over the past decades, only a small portion of those users have made financial transactions over the Internet. Trust is also an influencing factor for online networking customers.

Neither trust nor the ways in which it may be gained is well understood. Trust has been observed by many researchers in various dimensions. From a personality psychologist's perspective, trust depends on individual characteristics while from a social psychologist's point of view; trust depends on the standpoint of behavioural expectations of others involved in the transactions. As noted by [10], trust is "the baseline of a strategic partnership" for an effective relational exchange between user and provider.

Also based on [35], merging the different views of the trust dimension is necessary and important to consider both for individual and institutional integration. Trust is also defined "as an individual's confidence on another party under registered conditions of reliance and risk" [35], [41], [10].

The other identified trust definition is "when one party has reliance on other partner's reliability and integrity" [10]. Also others argued that trust is the willingness to rely on an exchange partner in whom one has confidence.

IX. CUSTOMER SUPPORT

Earlier considered research on service quality in conventional distribution channels, carried out a study on internet service quality by developing the e-SQ scale [44]. This scale measures how the website facilities affect the number of website users for the particular website. Wolfinbarger (2002) suggests that service quality in customer support can be divided into three main parts namely responsiveness, reliability and assurance; and empathy especially in the customer support area. The .comQ scale by [43] is made up of 14 items divided into four factors: web site design, reliability, privacy/security, and customer service. The other studies are representing which traditional dimensions of

service quality (e.g. competence, courtesy, clarity, convenience and friendliness) are not relevant to online sales [44]. The other factors are found to be very important in the online environment especially to attract more users.

Bernhardt and Donthu (2000) have developed the SITEQUAL scale to indicate how important this quality is for web users. This area covers nine items divided into four dimensions: ease of use, aesthetic design, processing speed and security. WebQual4.0. Scale was developed by [3], which is made up of 22 items divided into five dimensions: usability, design, information, trust, and empathy. Bernhardt and Donthu (2000) emphasized the presence of four factors: information and system use, service quality, playfulness, and system design quality. Lastly, the Web QualTM scale which is created by , Loiacono (2002), includes 36 items and 12 dimensions: informational fit to task, interactivity, trust, response time, design appeal, intuitiveness, visual appeal, innovativeness, flow (emotional appeal), integrated communication, business process, and substitutability.

Many of the studies are focused on technical aspects such as fonts, colours, number of clicks, etc., so it is quite reasonable to study additional aspects in depth, such as those that allow us to explain the relationships between online service quality and satisfaction of the users or the intention to purchase again.

In the e-commerce arena, success can only be achieved by reducing cost of services and being service oriented on the internet to achieve earning above average. Customer service has been proven to be a key success to increase customer satisfaction by improving its internal organization division in achieving good results in an online activities and thus paving the way for social networking based activities [44].

X. PORTALS

Online social network definition is observed better by the portals which provide to increase user connectivity. It is obvious that social network and portals work to gather and their merge features helps to have better clarification for both as well.

Overlay portals are social network website's gateway to increase the efficiency and connectivity of those to be represented better in online environment. This tool enables online networking to represent better information sharing through their gateways for users.

There are some rules for portals and one of them is to eliminate the information which is redundant in channels of connection and provide reliable information for all users to gain profit for businesses and the other enterprises. The other portal's aspect is to provide reliable information for social network's manager to help, and give business explicit information content formal active users, by this manner the related perspective of website usability is being perceived by founder to improve website and its business profit [20].

Internet users who are social network websites' members can find information and contribute relevant information to be

shared within communication channels. Also portals provide interaction between online communities in the virtual environment and enable users to share their information by each other by this virtual gateway.

This web technology provides an online collaborative environment for a community of interest even for social network websites. The online gateway becomes stronger by informing and providing an open place for communication, interaction, and the exchange of ideas.

Anyway online gateway channels helps social network enrich online community with data sharing facilities such as chat rooms. This is a process which shares information between their users through customized information access [20].

Nowadays technologies which are used to expand online community's gateways are seriously engaged to distribute information for users in an efficient manner. Those online gateways allow online networking to become more effective at the task of sharing information.

To make information more accessible for user online gateways helps both users and social network websites to engage with each other better. The other feature which offers by online community portals represents high quality searching widow in different web channels.

Finally social network websites are using lots of communication channels from different field of network analysis [42]. Web-based online social network represents a set of people to make relationships between them. Information which exists in their profiles is accessible to show how users are matching to each other.

This networking gateways stretch out the effect of online communication and social collaboration in different online communities.

XI. CUSTOMER SATISFACTION

Nowadays customer satisfaction is known as a significant key for long-term success for any business activity. This customer satisfaction is directly related to internal business activity and performance [30]. When a business get engaged with the customer and communicate with them, customers become more loyal to the business. This is the only way to make long term connection with the customer [36]. Also these kinds of relationships can be managed easier for businesses in virtual environment especially by using online communities.

The other way of satisfaction is coming from the services which represents by business. This study mostly focuses on social networks and customer satisfaction level and how both of them can be used to make ideal profitable situation. As can be seen the competition in online environment is increasing and the business notices about the importance of customer satisfaction to increase their profit so they try to find a way to increase this satisfaction.

About the social network website increasing competition is obvious and all of those website founders try to find a way to increase their customer satisfaction in online environment to

attract more users. Previous studies proved that the customer satisfaction is directly related to financial business profit [2].

As a result the performance business is directly related to customer satisfaction and this satisfaction causes financial profit for business, those discussed points shows that how social network websites by their performance can increase their user's satisfaction and also their business profit to gather [36]. There are many studies in satisfaction area especially for online activities but the number of research in customer satisfaction through social networking is limit. This limitation causes to use related literature in e-commerce and internet banking to conduct this study. Some other related literature consider its study on reward system to increase their customer satisfaction, which means by conducting this system in organization they tries to improve their performance and then increase customer satisfaction [32]. The other significant factor in satisfaction area is how to measure it and transfer it to the business as meaningful information to get proper feedback. One of this satisfaction's measurements perceived as service quality that can significantly contribute to the comparison of services or product which is offered by company and the customer expectation of those by this comparison the quality of this offered service will be revealed. According to this model, customer satisfaction can be defined as perceived quality of services as the difference between customer's expectation and perceptions. This expectation can be considered as feeling or perception of customer about the services before its purchase from a company to meet its needs [32]. Hence, other studies indicate this measurement in online environment can be conducted easily when the customer expectation and perception is examined. And this kind of measurement is not so comprehensive. For instance a social network website user perception about the website is quietly same as other online activity by some differences. Accordingly all users are sensitive about the website ease of use and its accessibility for networking. Also the innovation is the other important factor especially for the feature which was used to design that website. The other factor could be the user's privacy which is so important for any online activity. Customization is another important satisfaction factor in online environment activities, this factor enable users to customize its profile and own web page to do better online networking through that social network website.

XII. RESEARCH FRAMEWORK

This research is trying to extract satisfaction factors for social networking through net based activities. The main concern for this research is to specify a model to study the factors which influence the level of satisfaction in social network websites. Due to limitations and other related barriers in this study, other studies and other models were used and localized for social networking web based activities to have better clarifications. There are many satisfaction studies based on SERVQUAL instrument, a customer information satisfaction instrument [44]. All the above models are used to examine

satisfaction levels and were appropriately used to meet this end. All the models which were mentioned were appropriate in determining satisfaction level but some of them could not be used to determine the satisfaction level for social networking in net based activities. The research frame contains measures, and independent variables which were extracted from the literature review. These independent factors were consistently related to this kind of satisfaction level for net based social networking. These factors are Innovation, Ease of use, Trust and Customer support. The conceptual framework is shown below in a schematic diagram frame. This frame explains how the independent variables influence the customer satisfaction level. The factors are partly extracted from the Wang and Tang Model (2001) Zeithaml V. (2000). The measure factors are taken from Ishida (2002), Einemann and Paradiso (2004).

XIII. CONCLUSION

This research tried to reveal the relationship between these defined variables with each other. The study tested all its hypotheses. The SPSS calculations and tests such as one sample T-test and Normality proved most of the hypotheses. This study also provided important insights for social network website founders and managers who are searching and following reliable users' satisfaction level measurement relationship with social network websites. Also the result given above can help website managers to better understand the users of the social network websites. The most important perspective to consider before choosing any strategy understands the customer's perceptions and expectations about their need and wants. In order to have a clearer insight of understanding a Customer's decision making process, website founders and managers should understand how the internet influences the customer's networking activities. Online social network website users are becoming choosier because of the number of competitors in this area. The winning website in this competition would be the website which offers high performance, professional web design; easy web features, innovative application for all users, and provides reliable security to satisfy their users. The observable points within the social network website competition are the increasing amount of improved and upgraded services which are offered to users. With this competition by the social network websites, the power of users is increasing. The users can choose their favorite website and that is why managers and website designers in this area are trying to personalize their website profile pages and giving their users as much service as possible services to keep them active. This satisfaction area related to social network websites is an area that faces a lack of research and empirical study in order to understand the controversial issues in net based activities.

FIGURE I
 RESEARCH FRAME

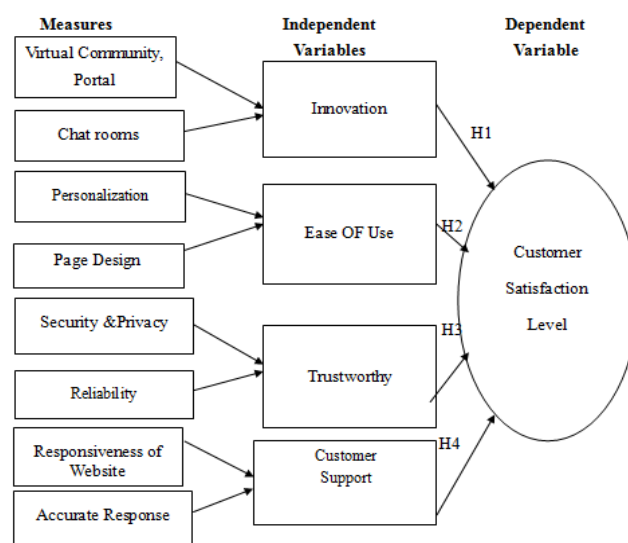


Fig. 1 Research Frame

XIV. APPENDIX

TABLE I
 CORELATION ANALYSIS OUTPUT BETWEEN INDEPENDET
 VARIABLES AND DEPENDENT VARIABLE

Table 1 Correlation Analysis Output Between Independent Variables and Dependent

		Variable				
		Ease of use	Trustworthy	Innovation	Customer Support	CSL
Ease of use	Pearson Correlation	1	.461**	.481**	.413**	.597**
	Sig.		.000	.000	.000	.000
	N	300	300	300	300	300
Trustworthy	Pearson Correlation	.461**	1	.464**	.584**	.688**
	Sig.	.000		.000	.000	.000
	N	300	300	300	300	300
Innovation	Pearson Correlation	.481**	.464**	1	.567**	.788**
	Sig.	.000	.000		.000	.000
	N	300	300	300	300	300
Customer Support	Pearson Correlation	.413**	.584**	.567**	1	.748**
	Sig.	.000	.000	.000		.000
	N	300	300	300	300	300
	Sig.	.000	.000	.000	.000	
	N	300	300	300	300	300
CSL	Pearson Correlation	.597**	.688**	.788**	.748**	1
	Sig.	.000	.000	.000	.000	
	N	300	300	300	300	300

REFERENCES

- [1] Aladwani, A. (2001), "Online banking: a field study of drivers, development challenges and expectations", *International Journal of Information Management*, Vol.21 No.3, pp.213-25
- [2] Anderson, E. W. (1996), "Customer satisfaction and price tolerance", *Marketing Journal*, Vol. 7 No. 3, pp. 265-74.
- [3] Babakus, E. & Boller, G. (1992), "An empirical assessment of the SERVQUAL scales", *Journal of Business Research*, Vol. 24, pp. 253-68.
- [4] Bernhardt, K. L., Donthu, N. & Kennett, P. A. (2000), "A longitudinal analysis of satisfaction and profitability", *Journal of Business Research*, Vol. 47, pp. 161-71.
- [5] Berners-Lee, T., Hendler, J. & Lassila, O. (2001), "The Semantic Web", *Scientific American Journal*, Vol.184 No. 5, pp.34-43.
- [6] Boyd, D. & Heer, J. (2006). Profiles as conversation: Networked identity performance on Friendster. Proceedings of Thirty-Ninth Hawai'i International Conference on System Sciences. Los Alamitos, CA: IEEE Press.
- [7] Bruce, B. H. (1999), "Marketing performance measures: history and interrelationships", *Journal of Marketing Management*, Vol. 15, pp. 711-32.
- [8] Carman, J. (1990), "Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions", *Journal of Retailing*, Vol. 65, pp. 33-55, spring.
- [9]
- [10] Currell, S. C. & Inkpen, A. C. (2002) 'Joint venture trust: Interpersonal, intergroup, and inter firm levels', In D. Faulkner and M. De Rond (Eds.), *Cooperative Strategy: Economic, Business, and Organizational Issue*, pp. 324-340. Oxford: Oxford University Press.
- [11] Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 10(3), 318-340.
- [12] Einemann, E. & Paradiso, M. (2004), "Digital cities and urban life: a framework for international benchmarking", Proceedings of the Winter International Symposium on Information and Communication Technologies, Cancun, Mexico.
- [13] Fornell, C. (1992), "A national customer satisfaction barometer: the Swedish experience", *Journal of Marketing*, Vol. 56, pp. 6-21.
- [14] Go'ztl, I., Tanabe, M., Besselaar, P. & Ishida, T. (2002), "Telecities – digital cities network. Digital cities", *Lecture Notes in Computer Science* 2362, Springer-Verlag Berlin Heidelberg, and pp. 101-9.
- [15] Golder, S. A., Wilkinson, D., & Huberman, B. A. (2007, June). "Rhythms of social interaction: Messaging within a massive online network". In C. Steinfield, B. Pentland, *M Journal*.
- [16] Hallowell, R. (1996), "The relationships of customer satisfaction, customer loyalty and profitability: an empirical study", *International Journal of Service Industry Management*, Vol. 7 No. 4, pp. 27-42.
- [17] Heaphy, M. S. & Gruska, G.F. (1995), *The Malcolm Baldrige National Quality Award: A Yardstick for Quality Growth*, Addison Wesley Publishing Company, Reading, MA.
- [18] Hivner, W., Hopkins, S. A. & Hopkins, W. E. (2003), "Facilitating, accelerating and sustaining the innovation diffusion process: an epidemic modeling approach", *European Journal of Innovation Management*, Vol. 6 No. 2, pp. 80-9.
- [19] Hogg, T. & Adamic, L. (2004), "Enhancing reputation mechanisms via online social networks", Proceedings of the 5th ACM Conference on Electronic Commerce, EC'04, ACM Press, New York, NY, 17-20 May, pp. 236-7.
- [20] Indrit Troshani, Bill Doolin, (2007) "Innovation diffusion: a stakeholder and social network view", *European Journal of Innovation Management*, Vol. 10 No: 2, pp.176 - 200
- [21] Ishida, T. (2002), "Digital city Kyoto", *Communications of the ACM*, Vol. 45 No. 7, pp. 76-81.
- [22] Kaplan, R.S. & Norton, D. P. (1996), *Translating Strategy into Action: The Balanced Scorecard*, Harvard Business School Press, and Boston, MA.
- [23] Kaplan, R. S. & Norton, D. P. (2001), *The Strategy-focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*, Harvard Business School Press, Boston, MA.
- [24] Kaplan, R. S. & Norton, D. P. (2004), *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*, Harvard Business School Press, Boston, MA.
- [25] Kim, H. M. (2002), "Ontologies for the semantic web: can social network analysis be used to develop them?", Proceedings of the Conference on Computational Analysis of Social and Organizational Systems (CASOS), Pittsburgh, PA, 21-23 June, available at: www.yorku.ca/hmkim/files/Kim02-CASOS-wcopyright.pdf
- [26] Lara, R., Sung-Kook, H. & Holger, L. (2003), *An Evaluation of Semantic Web Portals*, Digital Enterprise Research Institute (DERI), Universita't Innsbruck, Innsbruck.
- [27] Lelis, S., Kavassalis, P., Sairamesh, J., Haridi, S., Holmgren, F., Rafea, M. & Hatistamatiou, A. (1999), "Regularities in the formation and evolution of information cities", IST-1999-11337, Project funded by European Commission, Future and Emerging Technologies.
- [28] Loiacono, E. T., Watson, R. T. & Goodhue, D. L. (2002), "WbQual: a measure of web site quality", in Evans, K. R. & Scheer, L. K. (Eds), *Proceedings of the 2002 American Marketing Association Winter Educators' Conference: Marketing Theory and Applications*, American Marketing Association, Chicago, IL, pp. 432-7.
- [29] Metz, Sharon. September 2008. *The Business Impact of Social Computing on the CRM Software Market*. Gartner Research.
- [30] Mihelis, G., Grigoroudis, E., Siskos, Y., Politis, Y. & Malandrakis, Y. (2001), "Customer satisfaction measurement in the private bank sector", *European Journal of Operational Research*, Vol. 130 No. 2, pp. 347-60.
- [31] Muzzi, C. & Kautz, K. (2004), "Information and communication technologies diffusion in industrial districts", in Damsgaard, J. & Henriksen, H.Z. (Eds), *Networked Information Technologies: Diffusion and Adoption*, Kluwer Academic Publishers, Dordrecht.
- [32] Oliver, R. (1989), "Processing of the satisfaction response in consumption: a suggested framework and research propositions", *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 2, pp. 1-16.
- [33] Rashed, J. (2001). *Perception Antecedents and Their Impact on User Acceptance of Information Technology*. The George Washington University, *Government Information Quarterly* Vol. 26, Issue 1, January 2009, Pages 128-136.
- [34] Rogers, E. M. (1995), *Diffusion of Innovations*, the Free Press, New York, NY.
- [35] Rousseau, D. J., Sitkin, S. B., Burt, R. S., & Camerer, C. "Not So Different After All: A Cross-Discipline View of Trust," *The Academy of Management Review*, July 1998, o/pp. 393-404.
- [36] Rust, R. & Zahorik, A. (1993), "Customer satisfaction, customer retention and market share", *Journal of Retailing*, Vol. 69, pp. 193-215.
- [37] Solomon, M. R. (1994), *Consumer Behavior*, Allyn & Bacon, Boston, MA.
- [38] Giese, J.L. & Cote, J. A. (2000), "Defining customer satisfaction", *Academy of Marketing Science Review*, Vol. 01, pp. 1-34.
- [39] Sundén, J. (2003). *Material Virtualities*. New York: Peter Lang.
- [40] Sure, Y., Maedche, A. & Staab, S. (2000), "Leveraging corporate skill knowledge – from ProPer to OntoProPer", in Mahling, D. & Reimer, U. (Eds), *Proceedings of the 3rd International Conference on Practical Aspects of Knowledge Management (PAKM 2000)*, Basel, 20-31 October, available at: www.aifb.uni-karlsruhe.de/WBS/Publ/2000/PAKM_ysuetal_2000.Pdf
- [41] Tse, D. & Wilton, P. (1988), "Models of consumer satisfaction formation: an extension", *Journal of Marketing Research*, Vol. 25, pp. 204-12.
- [42] Wang, Y. & Tang, T. 2001. An instrument for measuring customer satisfaction towards web sites that market digital products and services. *Journal of Electronic Commerce Research*, 2, 3, 1 – 28.
- [43] Wellman, B. (1996), "For a social network analysis of computer networks: a sociological perspective on collaborative work and virtual community", *Proceedings of the 1996 ACM SIGCPR/SIGMIS Conference on Computer Personnel Research*, ACM Press, New York, NY, pp. 1-11.
- [44] Wolfinger, Mary & Mary C. Gilly (2002), ".comQ: Conceptualizing, Measuring and Predicting e-Tail Quality," Working Paper, Report #02-100, Boston, MA: Marketing Science Institute.
- [45] Zeithaml, V. (2000), "Service quality, profitability, and the economic worth of customers: what we know and what we need to learn", *Journal of the Academy of Marketing Science*, Vol. 28 No. 1, pp. 67-85.