

2009

The Effect of Online Reviews on Customer Satisfaction: An Expectation Disconfirmation Approach

Sergio Picazo-Vela

Southern Illinois University Carbondale, sergio.picazo@udlap.mx

Follow this and additional works at: http://aisel.aisnet.org/amcis2009_dc

Recommended Citation

Picazo-Vela, Sergio, "The Effect of Online Reviews on Customer Satisfaction: An Expectation Disconfirmation Approach" (2009). *AMCIS 2009 Doctoral Consortium*. 6.
http://aisel.aisnet.org/amcis2009_dc/6

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2009 Doctoral Consortium by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

The Effect of Online Reviews on Customer Satisfaction: An Expectation Disconfirmation Approach

Sergio Picazo-Vela

Southern Illinois University Carbondale
spicazo@siu.edu

ABSTRACT

During the last decade online retail sales have been growing constantly. This growth has been possible due to different factors like online reviews. Online reviews have been proven successful in predicting different variables like trust and sales in online settings; however the impact of online reviews on other variables like customer satisfaction has not been widely studied. Based on expectation-disconfirmation theory, this study analyzes the effect of online reviews on customer satisfaction. A laboratory experiment allowed collecting data from a sample of 225 undergraduate and graduate students from a US university. It is expected that results will indicate that online reviews shape expectations that later impact customer satisfaction when mediated by disconfirmation. Results will have implications for research and practice. For research, results will help to increase the understanding of customer expectations formation in online settings. For practice, results will give advice to practitioners about how to increase customer satisfaction.

Keywords

Online reviews, customer satisfaction, expectation-disconfirmation theory.

INTRODUCTION

According to the U. S. Census Bureau, online retail sales have been growing since 2001. In 2006 the value of online retail sales was \$106.6 billion (U.S. Census Bureau, 2008). Although this amount could be considered large, it only represents 2.7% of total retail sales in the U.S. Online retail sales are expected to continue growing in the following years with the U. S. Census Bureau estimating that by 2012 the value of online retail sales will be \$334.7 billion. One tool that has helped in the success of online transactions is online feedback mechanisms; online feedback mechanisms allow participants in transactions to send feedback comments about their experience with transactions.

In online transactions buyers have uncertainty in several areas of the transaction. They may relate to the quality of the product and the honesty of the seller. One tool that buyers are using to reduce this uncertainty is online feedback mechanisms, which may help to reduce quality uncertainty (Chen, Wu and Yoon, 2004). Chevalier and Mayzlin (2006) noted that “online user reviews have become an important source of information to consumers, substituting and complementing other forms of business-to-consumer and offline word-of-mouth communication about product quality” (p. 345). Online feedback mechanisms have become a very important tool for buyers when deciding whether to purchase online.

Customer satisfaction has been a central construct in marketing research (Luo and Homburg, 2007; Tam, 2004) with outcomes of customer satisfaction having positive impacts in organizations. For example, authors have found that customer satisfaction has an impact on financial performance measures (Anderson, Fornell and Lehmann, 1994), increases customer loyalty (Oliver, 1997), influences future repurchase intentions (Bearden and Teel, 1983; Olsen, 2002), and can lead to positive word-of-mouth communication (Brown, Barry, Dacin and Gunst, 2005) that may help companies attract new customers. Customer satisfaction may impact future sales of an organization as a result of increasing customer loyalty and attracting new customers.

During the last several years, several authors have been studying the impact of online feedback mechanisms on different variables. These include: sales (Chen, Dhanasobhon and Smith, 2007; Chen et al., 2004; Chevalier and Mayzlin, 2006; Etzion and Awad, 2007), trust (Bohnet and Huck, 2004; Kuan and Bock, 2007; Lim, Sia, Lee and Benbasat, 2006), price premiums (Ba and Pavlou, 2002; Pavlou and Dimoka, 2006), willingness to pay (Lopes and Galletta, 2006), and their role in predicting and reducing fraud (Gregg and Scott, 2006). One area that has not been widely studied is the impact of online feedback mechanism on customer satisfaction.

One problem that researchers have found is that the majority of the reviews submitted are positive (Chevalier and Mayzlin, 2006). This could lead to high expectations of buyers that could be difficult to confirm leading to a reduction in the number of satisfied customers, with a potential negative impact on future sales. Thus, it is important for online retailers to understand the impact of online feedback mechanisms on customer satisfaction.

Researching the antecedents of customer satisfaction in online transactions can help organizations understand how they can increase the number of satisfied customers with the potential to increase their online sales. The purpose of this study is to analyze the impact of online reviews on customer satisfaction.

This study is organized in four additional sections. In section two a literature review of previous studies about online feedback mechanisms and antecedents of customer satisfaction will be discussed. In section three the expectation-disconfirmation theory will be explained, and the theoretical framework and the hypotheses will also be developed. Section four describes the research methodology. Finally, section five includes a brief explanation of the possible contributions of the study for both theory and practice.

LITERATURE REVIEW

This section includes a discussion of the findings of a set of previous studies related to the two research areas of interest in this study: online reviews and customer satisfaction. While customer satisfaction has been a very important topic in marketing research for many years, online reviews are a relatively new research topic. However, because it has been of interest to many researchers, the number of studies about this topic has been increasing during the last years.

Online Reviews

The Internet supports new ways of communications in our society, and one of these is online feedback mechanisms, Dellarocas (2003) explains that “online feedback mechanisms use the Internet’s bidirectional communication capabilities to artificially engineer large-scale, word-of-mouth networks in which individuals share opinions and experiences on a wide range of topics, including companies, products, services, and even world events” (p. 1407). In practice, online feedback mechanisms have been identified in many ways. Some of them are: reputation systems (Resnick, Zeckhauser, Friedman and Kuwabara, 2000), consumer reviews (Chevalier and Mayzlin, 2006), computer-based evaluation services (Avery, Resnick and Zeckhauser, 1999), and online reviews (Clemons, Gao and Hitt, 2006). In this study we will use the term online reviews for online feedback mechanisms. Online reviews are sent by a customer to a web site to evaluate online transactions. Usually they have two elements: online rating and feedback comments. An online rating is a number that assigns a grade to the overall transaction, and feedback comments include observations related to the seller, the product or the service.

As we mentioned earlier, previous studies have analyzed the impact of online reviews on different variables; two of the streams researched are the impact of online reviews on sales and the impact of online reviews on trust. Several studies have found a relationship between online reviews and sales. For example, Chen et al. (2007) used customer reviews of books from Amazon.com, to analyze the differential impact of reviews and reviewers. They found that higher book ratings were associated with higher sales, and that high quality reviews created additional sales. In other study, Chen et al. (2004) investigated the impact of recommendations and consumer feedback on sales. They collected data from Amazon.com for three groups of books: bestsellers, popular books, and less-popular books. They found that more recommendations improved sales, and that recommendations work better for less-popular books than for more-popular books.

Studies that have focused on the impact of online reviews on trust include the studies by Lim et al. (2006), and Koufaris and Hampton-Sosa (2004). Lim et al. (2006) examined how portal association and satisfied customer endorsements affect trust and the consequences of trust. They conducted two studies at a large public university in Hong Kong and found that satisfied customer endorsement by similar peers, but not portal association, was found to increase consumers’ trusting beliefs about the store. In other study, Koufaris and Hampton-Sosa (2004) analyzed how new customers of a web-based company develop initial trust in the company after their first visit. They used a questionnaire to collect data from undergraduate and graduate students of a major Northeastern U.S. university, and one of their findings indicate that perceived company reputation can significantly affect initial trust.

Some other streams in the study of online reviews include their impact on price premiums (Ba and Pavlou, 2002; Pavlou and Dimoka, 2006), willingness to pay (Lopes and Galletta, 2006), and their role in predicting and reducing fraud (Gregg and Scott, 2006). All studies in this section show that online reviews are influential in electronic transactions.

Customer satisfaction

Customer satisfaction has been a very important topic in marketing research. Many studies have been conducted along this line. Szymanski and Henard (2001) developed a meta-analysis of 50 empirical academic studies on customer satisfaction. They found equity and disconfirmation as dominant predictors of satisfaction effects on average. For future research, they recommended studying what leads to expectation formation. According to their findings, when studying customer satisfaction, it is a good idea to use disconfirmation as an antecedent of customer satisfaction. In this respect there is a theory developed in the marketing area: the expectation-disconfirmation theory (ECT), which posits that expectations and perceived performance lead to satisfaction when moderated by disconfirmation (Oliver, 1977, 1980). This theory has been widely used to measure satisfaction in several fields, including MIS field.

In his paper Bhattacharjee (2001a) used the ECT to examine the key drivers of consumers' intention to continue using business-to-consumer e-commerce services. One of his findings is that consumers' continuance intention is determined by their satisfaction with initial service use, their perceived usefulness of service use, and the interaction between perceived usefulness and loyalty incentives for service use. Staples, Wong, and Seddon (2002) used disconfirmation theory as a theoretical basis to examine the relationship between pre-implementation expectations and their perceived benefits based on post-implementation experience. They found that unrealistically high expectations result in lower levels of perceived benefit than those associated with realistic expectations. Another study by McKinney, Yoon, and Zahedi (2002) used expectation-disconfirmation theory to develop theoretically justifiable constructs for measuring Web-customer satisfaction during the information phase, when customers search for information regarding their intended purchases. Their results include instruments for operationalizing the key constructs in the analysis of Web-customer satisfaction within the expectation-disconfirmation paradigm. Finally, Bhattacharjee (2001b) used expectation-disconfirmation theory, and other auxiliary theories, to develop a model of IS continuance. The model was validated empirically, He found that users' continuance intention is determined by their satisfaction with IS use and perceived usefulness of continued IS use.

In this study we will use the expectation-disconfirmation theory as theoretical background to analyze the impact of online reviews on customer satisfaction.

THEORY DEVELOPMENT

The research model to be tested is shown in Figure 1. The model is based on expectation-disconfirmation theory (ECT).

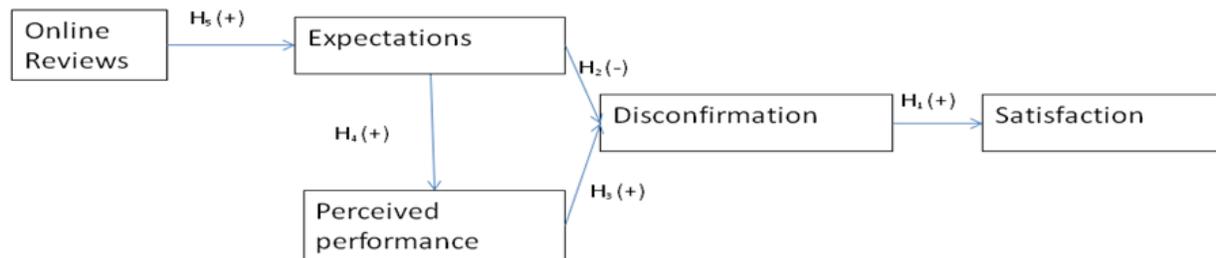


Figure 1. Research Model

According to ECT, consumers compare their expectations to perceived performance. If perceived performance exceeds expectations, positive disconfirmation results and satisfaction occurs, but when expectations exceed perceived performance, negative disconfirmation results and dissatisfaction occurs (Cadotte, Woodruff and Jenkins, 1987; Churchill and Surprenant, 1982; Oliver, 1980).

Customer satisfaction has been defined as “a post-choice evaluative judgment of a specific purchase occasion” (Anderson et al., 1994, p. 54). Based on Staples et al. (2002) and McKinney et al. (2002), in this study we will consider disconfirmation as consumers' subjective judgment of the gap between expectations and perceived performance. The relationship between disconfirmation and satisfaction has been analyzed in several studies. For example, Bhattacharjee and Premkumar (2004) developed and tested a theoretical model for understanding technology usage; they tested the impact of disconfirmation on satisfaction in two points in time. In both cases disconfirmation was found to be a significant predictor of satisfaction. In another study, Doong and Lai (2008) studied the factors influencing intention of system usage continuance, and they found positive disconfirmation had a significant impact on satisfaction.

In online transactions when customers perceive positive disconfirmation, that is when they perceive that performance exceeds expectations, they will be satisfied.

H1: Online customer extent of positive disconfirmation has a positive effect on customer satisfaction.

Expectations can be defined as “the aggregation of individual belief elements in a consumer's cognitive structure” (McKinney et al., 2002, p. 299). The impact of expectations on disconfirmation has been studied before. Churchill and Surprenant (1982) developed an experiment to investigate the determinants of customer satisfaction. They found that expectations had an impact on disconfirmation, with high expectations leading to negative disconfirmation, and low expectations leading to positive disconfirmation. In another study, Spreng, MacKenzie, and Olshavsky (1996) developed and tested a model to assess the determinants of customer satisfaction. In their model they analyzed the impact of expectations on expectations congruency, the definition they included for expectations congruency matches the one for disconfirmation used in this study. They found that expectations had a negative effect on expectations congruency.

Positive disconfirmation is more probable for customers with low expectations than for customers with high expectations.

H2: There is a negative relationship between online customer' expectations and disconfirmation.

Perceived performance will be defined as how well a consumer perceives that product performance fulfills needs, wants, or desires (Cadotte et al., 1987). In the literature the impact of perceived performance on disconfirmation has been studied. Cadotte et al. (1987) studied the impact of perceived brand performance on disconfirmation. They found a positive relationship between perceived performance and disconfirmation, with higher performance leading to more positive disconfirmation. In another study, Churchill and Surprenant (1982) developed an experiment to test disconfirmation as an intervening variable affecting satisfaction. They tested the impact of perceived performance on disconfirmation and they found that perceived performance had a positive impact on disconfirmation.

When the product arrives in the hands of the consumer, he or she evaluates the transaction. If the evaluation of the customer is good performance, it is more likely that positive disconfirmation will result; on the other hand, if the evaluation is bad performance, it is more likely that negative disconfirmation will result.

H3: There is a positive relationship between the degree of perceived performance and the degree of disconfirmation experienced.

Previous studies have found a significant positive impact of expectations on perceived performance. For example, Susarla, Barua, and Whinston (2003) studied satisfaction with application service providers (ASPs). They operationalized expectations by using technical service guarantees and functional capability of the ASP, and they found that both technical service guarantees and functional capability had a significant positive impact on perceived provider performance. In another study, Olshavsky and Miller (1972) studied the effects of overstatement and understatement of product quality (expectations) on product ratings. They found that overstatement (high expectations) resulted in more favorable ratings and understatement (low expectations) resulted in less favorable ratings.

When the consumer has high expectations, he or she has a favorable attitude to the transaction so it is more likely that he or she perceives good performance; in the other case, if expectations are low, the attitude is not so good so the perception of performance is more likely to be low.

H4: There is a positive relationship between Online customer' expectations and perceived performance.

According to Oliver (1980) consumers utilize previous purchase experience or external information to form expectations when considering buying a product. “Subjective evaluations by others are a valuable tool for consumers who are choosing which products to buy or how to spend their time” (Avery et al., 1999, p. 564). In online transactions, consumers have high levels of uncertainty, as they do not know the seller and do not see the product; they also have to pay a few days before they actually get the product. “Online user reviews have become an important source of information to consumers, substituting and complementing other forms of business-to-consumer and offline word-of-mouth communication about product quality” (Chevalier and Mayzlin, 2006, p. 345). In their study Chen and Xie (2008) explain that “recent evidence suggests that consumer reviews have become very important for consumer purchase decisions and product sales” (p. 477). Because of the importance of online reviews in online transactions, online customers may shape their expectations by reading the description of the product and service offered by the seller, as well as reading the online reviews that previous buyers sent to websites to comment on all the components of the transaction: the seller, the product and the service. It is expected that when a customer

reads a set of online reviews including only positive comments, customer expectations will be high, and when a customer reads a set of online reviews that include only negative comments, his or her expectations will be low.

H5: Online reviews have a positive impact on online customer' expectations.

METHOD

In this study, a laboratory experiment will be conducted to test the hypotheses. Experiments have been one of the favorite methodologies used in previous studies about online feedback mechanisms (e.g., Abbasi, Chen and Nunamaker Jr., 2008; Ba and Pavlou, 2002; Kumar and Benbasat, 2006). Three levels of online reviews (positive, mixed, and negative comments) and three levels of performance (excellent, good, and poor) will be manipulated in a 3 x 3 factorial design.

Independent variables

Online Reviews. Participants will be shown one of three types of online reviews: only positive comments, a mix of positive and negative comments, and only negative comments.

Performance. Participants will be shown one of three types of performance: excellent, good and poor. In excellent performance both the product and the service will be good; in the case of good performance only one: product or service will be good, and in the case of poor performance neither the product nor the service will be good.

Three levels of online reviews and tree levels of performance create the nine treatments shown in table 1.

		Levels of Online Reviews		
		Positive Comments	Mixed Comments	Negative Comments
Levels of Performance	Excellent			
	Good			
	Poor			

Table 1. Nine Treatments

Dependent Variables

We have four dependent variables in the study: expectations, perceived performance, disconfirmation and satisfaction. Table 2 shows the number of items and the sources for the measures of every dependent variable.

Construct	Definition	Source of the measure
Expectations	The aggregation of individual belief elements in a consumer's cognitive structure*	McKinney et al. (2002) (five items)
Perceived Performance	How well a consumer perceives that product performance fulfills needs, wants, or desires*	McKinney et al. (2002) (five items)
Disconfirmation	Consumers' subjective judgment of the gap between expectations and perceived performance*	Bhattacharjee (2001b) (three items)
Satisfaction	a post-choice evaluative judgment of a specific purchase occasion*	McKinney et al. (2002) (six items)

* The source can be found in the theory development section.

Table 2. Dependent Variables

Sample

Subjects of the study will be students enrolled in classes offered by the College of Business at a Midwest state US University. Although the participation of students has been criticized in several studies, in this case it is justified because “they are a major group of Internet shoppers” (Lim et al., 2006, p. 242). Professors and instructors teaching the classes will support the study, and they will offer incentives to students who participate, so a high response rate is expected. A sample of 225 undergraduate and graduate students will be selected for a total of 25 participants in each cell. Sample size meets the requirements of the two techniques used to analyze the data. In SEM analysis 200 subjects are recommended for models of the size we are using in this study. In the case of ANOVA it is recommended to have at least 20 observations by treatment (Hair, Black, Babin, Anderson and Tatham, 2006). In this case we have 9 treatments, so 225 participants is an adequate number for ANOVA analysis.

Data Collection

A questionnaire will be used to collect the data. The questionnaire will have 19 questions distributed in eight sections: introduction, demographics, online review manipulation, expectations, performance manipulation, perceived performance, disconfirmation, and satisfaction. Satisfaction items will be measured on a continuous 11-point semantic differential scale. Items for expectations, perceived performance, and disconfirmation will be measured on a continuous 11-point schematic differential scale, where 0 = not likely at all and 10 = highly likely.

The introduction and the description of the product and service required will be the same in all questionnaires. In the demographics section the information collected will be: gender, number of years using the Internet, and number of purchases made over the internet. As mentioned earlier, items for constructs in expectation-disconfirmation theory (expectations, perceived performance, disconfirmation, and satisfaction) were taken from the literature and adapted to our study. Each questionnaire will include one of nine possible scenarios; and each scenario will be applied to 25 participants.

Experimental task

Participants in the experiment will be told that they need to buy a book. They will receive the description of a book offered by a seller in an electronic marketplace. All participants will receive the same description of the product, and one of the three different types of online reviews. To eliminate systematic bias, participants will be randomly assigned to the different treatments. The book they need to buy will be one not related with classes offered by the College of Business of the Midwest University in which we are conducting the study. The seller of the book will be a company created by the authors of the study. After reading the description of the product and online reviews, they will answer the section of the questionnaire related to expectations. After completing this section, they will be shown a description of one of the three possible conditions for performance. Finally, participants will complete the rest of the sections of the questionnaire: perceived performance, disconfirmation, and satisfaction.

Validity and Reliability

Internal validity of the experiment will be tested by manipulation checks. The success of the manipulations in producing the desired expectations and performance effects will be assessed by including one question in expectations and one question in perceived performance. The question used for manipulation checks in expectations is: in general I expect that the transaction will be ..., and the question used for manipulation checks in perceived performance is: the overall quality of the transaction is In both cases response values range from not very good to excellent. To assess the effectiveness of the manipulations we will use analyses of variance (ANOVA).

Content validity of the questionnaire will be established by using items taken from the literature and by asking the opinion of expert professors in IT and Operations Management, who will read the instrument.

Exploratory factor analysis will help to test construct validity (convergent and discriminant) of the instrument. The study has the requirements needed in exploratory factor analysis: 1) sample size is greater than the number of items ($225 > 19$), 2) the minimum absolute sample size should be greater than 50 ($225 > 50$), and 3) at least five observations per item are needed ($225 > 19 \times 5$). Assumptions in factor analysis will be tested by means of: correlation analysis, Bartlett's test of sphericity, and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. It is expected that items will have significant loadings on only one factor; loadings will be considered significant when they are greater to .40 because in this study we will have 225 observations (Hair et al., 2006, p. 128).

Reliability of the instrument will be assessed by using Cronbach's alpha as a measure of internal consistency. It is expected that all factors will have a reliability value greater than .7 as suggested by Nunnally (1978) for basic research.

Data analysis

Data will be analyzed by using: structural equation modeling (SEM) analysis, and ANOVA analysis.

SEM Analysis

The five hypotheses presented will be tested collectively using structural equation modeling (SEM) using EQS. SEM is useful when testing theories that include a series of dependence relationships simultaneously (Hair et al., 2006). SEM is useful to assess both the measurement model and the structural model.

The measurement model will allow us to confirm model fit. There are two ways of assessing model fit: 1) a non significant chi-square ($p > .05$), and 2) goodness of fit indicators. If a significant chi-square ($p < .05$) is found, according to Hair et al. (2006) other goodness of fit indicators to assess model fit should be examined. It is recommended to verify that comparative fit index (CFI) or Tucker Lewis Index (TLI) be higher than .95, Relative Noncentrality Index (RNI) must be higher than .95, Standardized Root Mean Residual (SRMR) must be equal or lower than .08, and root mean square error of approximation (RMSEA) must be lower than .08. The structural model will allow us to test hypotheses 1 through 5.

ANOVA Analysis

By using ANOVA we will analyze differences between experimental treatments. In this analysis, we will focus on only one dependent variable: customer satisfaction. Customer satisfaction will be the dependent variable, online reviews and actual performance will be the independent variables. The purpose of this analysis is to find if differences in customer satisfaction are due to treatment effect or to random sampling variability.

CONCLUSION

The primary contribution of this research is the study of the effect of online reviews on customer satisfaction. If hypotheses are supported, results will show that online reviews impact customers' satisfaction by shaping their expectations. In this case, implications for practice include recommendations for sellers to analyze online reviews in order to understand what customers expect from online transactions; by using the information obtained in the analysis sellers can focus on the characteristics of the performance that will help them to increase customer satisfaction and future sales. Implications for theory include: 1) the confirmation of the success of expectation-disconfirmation theory to assess customer satisfaction, 2) the support of the importance of online reviews in online transactions, and 3) the increase of the understanding of expectations formation in online settings. In the case that hypotheses are not supported, it might be appropriate to analyze alternative predictors of expectations or the use of alternative models to assess customer satisfaction.

REFERENCES

1. Abbasi, A., Chen, H. and Nunamaker Jr., J. F. (2008) Stylometric Identification in Electronic Markets: Scalability and Robustness, *Journal of Management Information Systems*, 25, 1, 49–78.
2. Anderson, E. W., Fornell, C. and Lehmann, D. R. (1994) Customer Satisfaction, Market Share, and Profitability: Findings From Sweden, *Journal of Marketing*, 58, 53-66.
3. Avery, C., Resnick, P. and Zeckhauser, R. (1999) The Market for Evaluations, *The American Economic Review*, 564-584.
4. Ba, S. and Pavlou, 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.
5. Bearden, W. O. and Teel, J. E. (1983) Selected Determinants of Customer Satisfaction and Complaint Reports, *Journal of Marketing Research*, 20, 1, 21-28.
6. Bhattacharjee, A. (2001a) An empirical analysis of the antecedents of electronic commerce service continuance, *Decision Support Systems*, 32, 201–214.
7. Bhattacharjee, A. (2001b) Understanding Information Systems Continuance: An Expectation-Confirmation Model, *MIS Quarterly*, 25, 3, 351-370.
8. Bhattacharjee, A. and Premkumar, G. (2004) Understanding Changes in Belief and Attitude Toward Information Technology Usage: A Theoretical Model and Longitudinal Test, *MIS Quarterly*, 28, 2, 229-254.

9. Bohnet, I. and Huck, S. (2004) Repetition and Reputation: Implications for Trust and Trustworthiness when Institutions Change, *American Economic Review*, 94, 2, 362-366.
10. Brown, T. J., Barry, T. E., Dacin, P. A. and Gunst, R. F. (2005) Spreading the Word: Investigating Antecedents of Consumers' Positive Word-of-Mouth Intentions and Behaviors in a Retailing Context, *Journal of the Academy of Marketing Science*, 33, 2, 123-138.
11. Cadotte, E. R., Woodruff, R. B. and Jenkins, R. L. (1987) Expectations and Norms in Models of Consumer Satisfaction, *Journal of Marketing Research*, 24, 305-314.
12. Chen, P.-y., Dhanasobhon, S. and Smith, M. D. (2007) An Analysis of the Differential Impact of Reviews and Reviewers at Amazon.com, in *Proceedings of the Twenty Eighth International Conference on Information Systems*, December 9-12, Montreal, Quebec, Canada, 1-17.
13. Chen, P.-Y., Wu, S.-y. and Yoon, J. (2004) The Impact of Online Recommendations and Consumer Feedback on Sales, in *Proceedings of the Twenty-Fifth International Conference on Information Systems*, December 12-15, Washington, DC, USA, 711-724.
14. Chen, Y. and Xie, J. (2008) Online Consumer Review: Word-of-Mouth as a New Element of Marketing Communication Mix, *Management Science*, 54, 3, 477-491.
15. Chevalier, J. A. and Mayzlin, D. (2006) The Effect of Word of Mouth on Sales: Online Book Reviews, *Journal of Marketing Research*, 43, 345-354.
16. Churchill, G. A. and Surprenant, C. (1982) An Investigation Into the Determinants of Customer Satisfaction, *Journal of Marketing Research*, 19, 491-504.
17. Clemons, E. K., Gao, G. and Hitt, L. M. (2006) When Online Reviews Meet Hyperdifferentiation: A Study of the Craft Beer Industry, *Journal of Management Information Systems*, 23, 2, 149-171.
18. Dellarocas, C. (2003) The Digitization of Word of Mouth: Promise and Challenges of Online Feedback Mechanisms, *Management Science*, 49, 10, 1407-1424.
19. Doong, H.-S. and Lai, H. (2008) Exploring usage continuance of e-negotiation systems: expectation and disconfirmation approach, *Group Decision & Negotiation*, 17, 2, 111-126.
20. Etzion, H. and Awad, N. (2007) Pump up the Volume? Examining the Relationship between Number of Online Reviews and Sales: is More Necessarily Better?, in *Proceedings of the Twenty Eighth International Conference on Information Systems*, December 9 - 12, Montreal, Quebec, Canada, 1-14.
21. Gregg, D. G. and Scott, J. E. (2006) The Role of Reputation Systems in Reducing On-Line Auction Fraud, *International Journal of Electronic Commerce*, 10, 3, 95-120.
22. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. L. (2006) *Multivariate Data Analysis*, Pearson Prentice Hall, New Jersey.
23. Koufaris, M. and Hampton-Sosa, W. (2004) The development of initial trust in an online company by new customers, *Information & Management*, 41, 377-397.
24. Kuan, H.-H. and Bock, G.-W. (2007) Trust transference in brick and click retailers: An investigation of the before-online-visit phase, *Information & Management*, 44, 175-187.
25. Kumar, N. and Benbasat, I. (2006) The Influence of Recommendations and Consumer Reviews on Evaluations of Websites, *Information Systems Research*, 17, 4, 425-439.
26. Lim, K. H., Sia, C. L., Lee, M. K. and Benbasat, I. (2006) Do I Trust You Online, and If So, Will I Buy? An Empirical Study of Two Trust-Building Strategies, *Journal of Management Information Systems*, 23, 2, 233-266.
27. Lopes, A. B. and Galletta, D. F. (2006) Consumer Perceptions and Willingness to Pay for Intrinsically Motivated Online Content, *Journal of Management Information Systems*, 23, 2, 203-231.
28. Luo, X. and Homburg, C. (2007) Neglected Outcomes of Customer Satisfaction, *Journal of Marketing*, 71, 133-149.
29. McKinney, V., Yoon, K. and Zahedi, F. (2002) The Measurement of Web-Customer Satisfaction: An Expectation and Disconfirmation Approach, *Information Systems Research*, 13, 3, 296-315.
30. Nunnally, J. C. (1978) *Psychometric Theory*, McGraw-Hill, New York.
31. Oliver, R. L. (1977) Effect of Expectations and Disconfirmation on Postexposure Product Evaluations - an Alternative Interpretation, *Journal of Applied Psychology*, 62, 4, 480-486.

32. Oliver, R. L. (1980) A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions, *Journal of Marketing Research*, 17, 460-469.
33. Oliver, R. L. (1997) *Satisfaction: A Behavioral Perspective on the Consumer*, McGraw-Hill, New York.
34. Olsen, S. O. (2002) Comparative Evaluation and the Relationship Between Quality, Satisfaction, and Repurchase Loyalty, *Journal of the Academy of Marketing Science*, 30, 3, 240-249.
35. Olshavsky, R. and Miller, J. A. (1972) Consumer Expectations, Product Performance, and Perceived Product Quality, *Journal of Marketing Research*, 9, 19-21.
36. Pavlou, P. A. and Dimoka, A. (2006) The Nature and Role of Feedback Text Comments in Online Marketplaces: Implications for Trust Building, Price Premiums, and Seller Differentiation, *Information Systems Research*, 17, 4, 392-414.
37. Resnick, P., Zeckhauser, R., Friedman, E. and Kuwabara, K. (2000) Reputation Systems, *Communications of the ACM*, 43, 12, 45-48.
38. Spreng, R. A., MacKenzie, S. B. and Olshavsky, R. W. (1996) A Reexamination of the Determinants of Consumer Satisfaction, *Journal of Marketing*, 60, 15-32.
39. Staples, D. S., Wong, I. and Seddon, P. B. (2002) Having expectations of information systems benefits that match received benefits: does it really matter?, *Information & Management*, 40, 115-131.
40. Susarla, A., Barua, A. and Whinston, A. B. (2003) Understanding the Service Component of Application Service Provision: An Empirical Analysis of Satisfaction with ASP Services, *MIS Quarterly*, 27, 1, 91-123.
41. Szymanski, D. M. and Henard, D. H. (2001) Customer Satisfaction: A Meta-Analysis of the Empirical Evidence, *Journal of the Academy of Marketing Sciences*, 29, 1, 16-35.
42. Tam, J. L. (2004) Customer Satisfaction, Service Quality and Perceived Value: An Integrative Model, *Journal of Marketing Management*, 20, 897-917.
43. U.S. Census Bureau (2008, May 16) E-Stats 2006 E-commerce Multi-sector Report, retrieved February 3, 2009 from <http://www.census.gov/compendia/statab/tables/09s1013.pdf>