A Framework for Modelling the Determinants of e-Loyalty in Business-to-Consumer Internet Commerce

Jamie Carlson ¹ Sukunesan Sinnappan ²

¹ Newcastle Business School*
University of Newcastle
New South Wales
e-mail: Carlson@mail.newcastle.edu.au

² Faculty of Information Technology**
University of Technology, Sydney
New South Wales
e-mail: Suku@it.uts.edu.au

Abstract

The issue of measuring the relationship between e-service quality to develop e-loyalty has emerged as an area of strategic importance in the information systems and marketing literature in recent times. This paper proposes a conceptual framework for measuring the determinants of e-loyalty1 that includes e-service quality, e-satisfaction2, e-value3 and Internet expertise. It is hypothesized that the quality of a Website can contribute to strengthening attitudinal and behavioural outcomes that ultimately enhance consumer relationships. Furthermore, it is hypothesized that Internet expertise moderates the impact on the proposed direct relationships. Resultant research hypotheses are explored with reference to the theoretical framework. Managerial implications are highlighted with potential research areas identified and discussed.

Keywords

e-Service Quality, e-Value, e-Satisfaction, e-Loyalty

INTRODUCTION

While the Web is a means of information delivery, it is also a means of service provision (Sweeney and Lapp 2000). Consumers are active participants in the service delivery, contributing resources including effort and time. Furthermore, customers contribute to the outcomes and thus take a degree of responsibility in the delivery of the service, affecting perceptions of service quality, service satisfaction and service value (Zeithaml and Bitner 2000). The effects of electronic service quality, or e-Service quality to enhance an organisations service offering, has attracted growing attention by academic researchers and practitioners. In 2002, The Journal of Academy and Marketing Science devoted an entire special issue on "Marketing to and serving customers through the Internet: Conceptual Frameworks, Practical Insights and Research Directions". An area of particular importance was the call for rigorous attention to the concept of service quality delivery through Websites. According to Zeithaml, Parasuraman and Malhotra (2002), this involves a comprehensive examination of the antecedents, composition and consequences of service quality. The authors further noted that little is known as to the demographic, behavioural and experience correlates of e-Service quality with such questions that require investigating include: Does age, gender, or income of customers affect their perceptions of service quality delivery through Websites? How are levels of expertise with Websites related? Are there other behavioural correlates that influence perceptions? Furthermore, Balabanis and Reynolds (2002) contend that there is still a dearth of research concerning how many important marketing concepts translate to the online environment citing notable exceptions by Reichheld and Schefter (2000), loyalty to e-business; Szymanski and Hise (2000), e-satisfaction; and Novak et al. (2000), flow and the compelling online experience.

Service quality, satisfaction and customer loyalty are issues that have figured prominently in traditional services research with Reichheld (2001), contending that the fundamental task of businesses today should be on managing loyalty. Previous scholarly research in the offline environment has focused on the relationship between service quality and satisfaction, as well as between consumer satisfaction and customer loyalty. The

¹ Refers to on-line brand loyalty.

² Refers to on-line customer satisfaction.

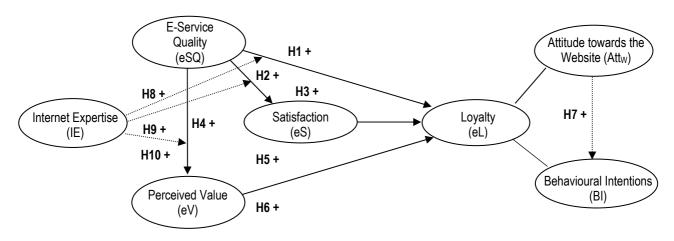
³ Refers to on-line perceived value. Carlson, Sinnappan (Paper #193)

infusion of technology into the service encounter, such as the Web, has been dramatically changing the nature of customer relationships and interactions (Bitner, Brown, and Meuter 2000). Managers are now concerned about the relationship between e-satisfaction and e-loyalty and what underlying dimensions of a Website can influence this relationship (Shankar et al. 2002; Szymanski and Hise 2000). In addition, the concept of perceived value by consumers has attracted growing concern in the consumer behaviour literature (Holbrook, 1999; Oliver, 1999; Cronin et al. 2000), with Oliver (1999) proposing that value is a "desirable end state of consumption" as a result of consumer satisfaction. On the Web, Zeithaml et al. (2002) suggest that e-Service quality has not been fully conceptualised and state that higher-level concepts such as perceived value should be investigated. Little is known about the joint relationships between perceived e-Service quality, e-satisfaction, e-value and e-loyalty for effective customer relationship management (CRM). E-businesses need to gain a better understanding of the relationship between e-satisfaction and e-loyalty in the e-business environment to allocate their e-marketing efforts between satisfaction initiatives and loyalty programs (Shankar, Smith and Rangaswamy 2002). Furthermore, O'Malley and Mitussis (2002) contend that the ability for developing successful customer relationships lies in an organization's ability to understand its customers and their individual preferences, expectations and changing needs. Such questions that need addressing include: What key factors drive esatisfaction and e-loyalty of e-businesses? What are the strengths and weaknesses of the Website as perceived by consumers? Are customers satisfied by the e-service encounter? This paper attempts to address these questions and is structured in four sections. In the first section, a conceptual model of measuring the effects of e-Service quality on e-loyalty with multiple antecedents in the e-business environment is presented. The second section is devoted to a review of relevant literature examining theoretical concepts and operationalisation of the key constructs. Third, some concluding remarks and managerial implications are presented. Finally, limitations of the study and directions for future research are identified and discussed.

CONCEPTUAL FRAMEWORK: THEORY AND HYPOTHESES

The framework adopted for this paper is inspired from the author's previous work (Sinnappan, Carlson and Sukunesan 2002) and other researchers working with the WebQual instrument notably Loiacono, Goodhue and Watson (2002), Loiacono, Goodhue and Chen (2002), and Tsikriktsis (2002). Previous empirical data from Sinnappan, Carlson and Sukunesan (2002), indicated that the intention to purchase online is highly correlated with elements related to Website design and presentation, which as a result, promotes e-Service quality. Whereas, customized information was found to be the principal driver for intention to revisit a Website. Consistent with Barnes and Vigden (2001), the authors found that 'effective' information presentation is highly associated with the element of trust, which is deemed as the key to e-Loyalty and ultimately success in the online environment.

Building on these preliminary findings, the authors of the current research intend to further empirically test the WebQual instrument in conjunction with other constructs within the Quality-Satisfaction-Loyalty chain of effects (Anderson and Sullivan 1993; Heskett et al. 1994; Zeithaml et al. 1996). Figure 1 presents the proposed model illustrating the effects of e-Service quality on e-satisfaction, e-value and e-loyalty in the e-business environment. The model proposes that the quality of a Website can influence the level of e-value and e-satisfaction, which results in positive e-loyalty consequences. As such, we have conceptualized a mediating/moderating model, whereby; e-satisfaction mediates the impact of e-Service quality and e-value, on e-loyalty. Furthermore, it is hypothesized that the level of a users expertise in using the Internet will moderate the direct relationships among e-service quality, e-value, e-satisfaction and e-loyalty. The following section presents a discussion of these key constructs for further research.



Carlson, Sinnappan (Paper #193)

e-Service Quality

E-Service quality plays a fundamental role in improving e-satisfaction and retention through the Web (Voss 2000: Lojacono et al. 2002: Zeithaml et al. 2000: Rust 2001). Previous offline scholarly research has found that perceived service quality precedes customer satisfaction (e.g., Cronin and Taylor 1992; Rust and Oliver 1994; Anderson et al. 1994; Taylor and Baker 1994; Oliver 1997) and customer satisfaction as a determinant of brand loyalty (Cronin and Taylor, 1992). Consequently, strategies that facilitate quality can influence this process. Within the services marketing literature, Zeithaml et al. (1996) empirically examined the relationship between perceived quality and behavioural intentions, and suggest that quality, through intentions and actual behaviour, has multiple financial consequences. Furthermore, their research showed that improvements in service quality lead to increases in favourable behavioural intentions and decreases in unfavourable service intentions. Although limited empirical studies exist in measuring the effects of e-Service quality, research is beginning to emerge (see for example Barnes and Vigden 2000, 2001; Chen and Wells 1999; Kaynama and Black 2000; Yoo and Donthu 2001; Zeithaml et al. 2000; Goodhue and Thompson 1995). Notable research by Wolfinbarger and Gilly (2003) employed a four-dimension measure of e-Service quality and found that the drivers of Website design to be; Fulfilment/reliability, Privacy/security and Customer service were strongly predictive of esatisfaction, e-loyalty and attitudes toward the Website. However, WebQual (Loiacono et al. 2002a) has emerged as a reliable and valid instrument surpassing other measures to operationalise and assess e-service quality. The WebQual instrument consists of 12 core dimensions: informational fit-to-task; tailored communications; trust; response time; ease of understanding; intuitive operations; visual appeal; innovativeness; flow/emotional appeal; consistent image; on-line completeness and relative advantage. These 12 dimensions further collapse into 4 second order latent constructs: (1) Usefulness, (2) Ease of use, (3) Entertainment, and (4) Complimentary relationship. The authors contend that the instrument is able to support a broad range of important information systems and marketing studies as researchers attempt to understand what contributes to success in the electronic marketspace. Based on the previous discussion the following hypothesis can be explored:

H1: e-Service quality has a direct positive relationship to e-Loyalty

e-Satisfaction

Customer satisfaction in all aspect of business has been a primary topic of research in recent years. "As the cornerstone of the marketing concept, customer satisfaction has been embraced by practitioners and academics alike as the highest-order goal of the company" (Peterson and Wilson 1992, p. 61). Satisfaction is an ex post evaluation of consumers' experience with the service, and is captured as a positive feeling, indifference, or negative feeling (Anderson 1973). Previous scholarly research in the offline environment has found that service quality and satisfaction are distinct constructs from each other (Dabholkar 1993; Oliver 1993; Rust and Oliver, 1994) and that a relationship exists between service quality and satisfaction (Cronin and Taylor 1992; Dick and Basu 1994). Oliver (1999) defines satisfaction as the perception of pleasurable fulfillment of a service, and loyalty as deep commitment to the service provider. Previous offline research has identified satisfaction as a key driver of service loyalty (Haskett et al. 1994; Rust and Zahorik 1993). Limited research exists in examining satisfaction in the e-business environment. Szymanski and Hise (2000) found that Website Design4 plays a prominent role in e-satisfaction. Further research by Wolfinbarger and Gilly (2003), Xue et al. (2000) and Luo (2002) found evidence to suggest that overall e-Service quality is strongly predictive of e-satisfaction and e-loyalty. Based on these discussions, the following hypothesis can be observed:

H2: e-Service quality has a direct positive relationship to e-Satisfaction

H3: e-Satisfaction mediates the relationship between e-Service quality and e-Loyalty

e-Value

The "value perceptions of consumers" has emerged as a topic of growing importance in consumer behaviour models (Holbrook 1999; Cronin et al. 2000). Perceived value is defined as "...the consumers overall assessment of the utility of the product/service based on perceptions of what is received and what is given" (Zeithaml 1988). Creating value has been considered an important issue in developing efficient marketing strategies, however, limited attention has been received in the development of value in service industries (Bolton and Drew 1991). Previous research by Cronin et al. (2000), Bolton and Drew (1991) and Zeithaml (1988) suggest that service quality is an antecedent of perceived value and is a function of service quality. The Web and related

⁴ Includes web atmospherics, layout, colour combinations and deliberate choice of words. Carlson, Sinnappan (Paper #193)

technologies has the potential to add value, create new markets, revolutionize the competitive landscape of business and change the societal and market structures (Stewart and Pavlou 2002). Watson et al. (2002) state that for the consumer, technology can deliver value in such a way as to extend or amplify normal conscious experience to unique contexts (e.g. a movie, theatre, event). The authors further introduce the term *immersion marketing*, whereby consciousness is immersed and extended in enhanced or artificial realities (e.g. the Web) where everyday experiences are enriched, thereby creating value for consumers. Based from the above discussion the following hypothesized relationships can be explored;

H4: e-Service quality has a direct positive relationship to e-Value

H5: e-Satisfaction has a direct relationship to e-Value

H6: The relationship between e-Service quality to e-Loyalty is mediated by e-Value

Conceptualising e-Loyalty

There is little dispute that the concept of customer lovalty is an important issue for e-marketing researchers and practitioners in services markets (deRuyter et al. 1998; Snyder 1986; Zeithaml 1981). On the Web, brand building has become of particular significance as a result of the interactive interface and exploding number of competitive choices (Gommans, Krishnan and Scheffold 2001). Loyalty is a multifaceted conceptualisation but is usually hypothesised as comprising of two principle components: attitudinal commitment (a consumers positive affirmation regarding a product or firm) and behavioral commitment (actual intentions to repeat purchase) (Day 1969; Dick and Basu 1994). Increasing customer loyalty is a method of increasing the inelasticity of demand (Reichheld 1996) with brand loyal customers who are generally less sensitive to price increases because they value the benefits of the brand (O'Guinn et al. 2000). Within the services marketing literature, service quality is believed to affect customer behavioural responses such as positive word-of-mouth, intentions to repurchase the service, or to revisit Websites (Zeithaml et al. 1996). As a result of an everincreasing number of Websites available on the Web, new e-business models must consider the value of favorable consumer attitudes and repeat patronage to the Website (Holland and Baker 2001). Reichheld and Schefter (2000) contend that technology alone will not create loyalty but through delivering a "consistently superior customer experience". Gommans et al. (2001) contend that future Web-based research efforts should examine e-loyalty that examines attitudinal (e.g. Chen and Wells 1999, attitude towards the Website measure) and behavioural outcomes (e.g. Zeithaml's et al. 1996, behavioural intention battery). Consistent with Day (1969) and Dick and Basu's (1994) conceptualisation of loyalty comprising of attitudinal and behavioural components, the following hypothesis can be explored in the Internet setting:

H7: e-Loyalty is comprised of both an attitudinal and behavioural component, where the level of attitudinal loyalty is positively related to the level of behavioural loyalty.

MODERATING EFFECT OF INTERNET EXPERTISE

Symanski and Hise (2000) suggest that future research should examine the moderating effects of Internet expertise and knowledge. According to information systems researchers, technology experience is a strong predictor of attitudes and behaviour towards the technology (Goodhue and Thompson 1995). Previous emarketing research by Novak, Hoffman and Yung (2000) and Ward and Lee (2000) consider the level of a user's expertise, as an important factor since experts can possess different search and browsing habits. Novak et al. (2000) found that the way individuals use the Web as well as their level of expertise and skill influences their e-satisfaction with the Website. Bruner and Kumar (2000) found that when a consumer's level of expertise with the Internet increases, attitudes towards the Website tended to be more favourable. Therefore, we argue that the level of Internet expertise will moderate the relationship between perceived e-Service quality and e-satisfaction. Based on these discussions, the following hypotheses can be postulated:

H8: Internet expertise will moderate the relationship between e-Service quality and e-Loyalty

H9: Internet expertise will moderate the relationship between e-Service quality and e-Satisfaction

H10: Internet expertise will moderate the relationship between e-Service quality and e-Value

DISCUSSION, CONCLUSION AND MANAGERIAL IMPLICATIONS

Overall we hypothesise a framework to suggest that the relationships dynamics involving perceived e-Service quality, e-satisfaction and e-value are the antecedent constructs to manage e-loyalty in the e-business environment. Identifying the key online service attributes and its effect on customer loyalty is a first step for organisations to improve the success of their online presence. Since service encounters are considered as critical moments of truth in which customers often develop indelible impressions of a firm providing the service (Bitner 1990), management and Web administrators must now design branding programs that are based on delivering critical elements of value and customer experiences to reinforce that value since Websites in many cases will Carlson, Sinnappan (Paper #193)

influence customer's perception of the firm (Watson, Akselsen and Pitt 1998) that can be used to "engineer" branded customer experiences (Carbone and Haeckel 1994; Schmitt 2000). Moreover, marketers must now continuously innovate and improve the online service offering that both differentiates from competitors and strengthens customer relationships (Dutta and Segev 2001). Employing emerging customer-centric applications such as online profiling agents⁵ (see Godoy and Amandi 2003, also http://agents.umbc.edu), applications for streaming online presentations e.g. audio, video, images (see Shim, Gao and Wang 2000) and Web-mining technology for personalising Web-content delivery (Han et al. 1998; Cooley, Mobasher and Srivastave 1999; Perkowitz and Etzioni 2000).

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The principal limitation of this paper is that it is currently at the conceptual stage of development and as such, suffers from the shortcomings of empirical results to explore the proposed relationships between constructs. Hence, further research should empirically test these proposed structural relationships employing advanced statistical methods such as structural equation modelling (SEM). SEM enables researchers to answer a set of interrelated research questions in a single, systematic and comprehensive analysis by modeling the relationships among multiple independent and dependent constructs simultaneously (Gerbing and Anderson 1988) therefore, this technique should be used to examine the mediating pathways of e-satisfaction and e-value on e-loyalty. The conceptual framework could be tested within e-retail and non e-retail contexts and is applicable to a variety of different industries in the business-to-consumer setting such as retailing (e.g. online shopping, pure online organisations), the entertainment industry (e.g. film/movies, sport music and theatre), the hospitality industry (e.g. hotels and holiday resorts), financial services (e.g. banks, insurance and online stock broking firms) and highly developed corporate Websites to delineate the generalisability of the proposed relationships. Furthermore, this framework can be tested in a global setting with Websites from around the world to capture the moderating effects of country culture on the perception of overall e-service quality and its related effects to build e-loyalty.

REFERENCES

- Anderson, E. (1973) Consumer Dissatisfaction: The Effect of Disconfirmed Expectance on Perceived Product Performance. *Journal of Marketing Research*, 10, 38-44.
- Anderson, E. and Sullivan, M. (1993) The Antecedents and Consequences of Customer Satisfaction for Firms, *Marketing Science*, 12(2), 125-43.
- Barnes S., and Vidgen R. (2002) An Integrative Approach to the Assessment of E-Commerce Quality, *Journal of Electronic Commerce Research*, 3(3), 14-27.
- Bitner, M. (1990) Evaluating Service Encounters the Effect of Physical Surroundings and Employee Responses. *Journal of Marketing*, 54(2), 69-82.
- Bitner, M., Brown, S. and Meuter, M. (2000) Technology Infusion in Service Encounters, *Academy of Marketing Science*, 28(1), 138-149.
- Bitner, M., Booms, B. and Mohr, L. (1994) Critical Service Encounters: The Employee's Viewpoint, *Journal of Marketing*. 58(October), 95-106.
- Bitner, M., Booms, B. and Tetreault, M. (1990) The Service Encounter: Diagnosing Favourable and Unfavourable Incidents, *Journal of Marketing*, 54(January), 71-84.
- Bolton R., and Drew J. (1991) A Multistage Model of Customers' Assessment of Service Quality and Value, *Journal of Consumer Research*, March, 17, 375-84.
- Bruner, G. and Kumar, A. (2000) Web Commercials and Advertising Hierarchy of Effects. *Journal of Advertising Research*, 40(January), 35-42.
- Carbone, L. and Haeckel, S. (1994) Engineering Customer Experiences, Marketing Management, 3(3), 8-19.
- Chen, Q. and Wells, W. (1999) Attitude Toward the Site, *Journal of Advertising Research*, 39(September/October), 27-37.
- Cooley, R., Mobasher, B., and Srivastave, J., (1999). Data Preparation for Mining World Wide Web Browsing Patterns. *Journal of Knowledge and Information Systems* 1,1.

_

⁵ A software-based system which has autonomy, social ability, reactivity, and pro-activeness (see Wooldridge 1999)

Carlson, Sinnappan (Paper #193)

- Cronin, J. and Taylor, S. (1992) Measuring Service Quality: A Re-examination and Extension, *Journal of Marketing*, 56, 55-68.
- Cronin, J., Brady, M., Thomas, G. and Hult, M. (2000) Assessing the Effects of Quality, Value and Customer Satisfaction on Consumer Behavioural Intentions in Service Environments, *Journal of Retailing*, 76(2), 193-217.
- Dabholkar, P., Shepherd, C. and Thorpe, D. (2000) A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issue through a Longitudinal Study, *Journal of Retailing*, 76(2), 139-173.
- Day, G.S. (1969) A Two-Dimensional Concept of Brand Loyalty, *Journal of Advertising Research*. (September) 9, 29-35.
- Dick A. and Basu K. (1994) Customer Loyalty: Toward an Integrated Conceptual Framework, *Journal of the Academy of Marketing Science*, (Winter), 99-113.
- Dutta, S. and Segev, A. (2001) Business Transformation on the Internet, in S. J. Barnes and B. Hunt (Eds.) *Electronic Commerce and Virtual Business*, Butterworth-Heinemann, Oxford.
- Elliott, R. and Wattanasuwan, K. (1998) Brands as Symbolic Resources for the Construction of Identity, *International Journal of Advertising*, 17(2), 131-144.
- Gerbing, D. and Anderson, J. (1988) An Updated Paradigm for Scale Development Incorporating Unidimensionality and its Assessment, *Journal of Marketing Research*, (25) May, 186-192.
- Godoy, D. and Amandi, A. (2003). A User Profiling Architecture for Textual-Based Agents. URL: http://citeseer.nj.nec.com/godoy03user.html
- Goodhue, D. and Thompson, R. (1995) Task-Technology Fit and Individual-Performance, *MIS Quarterly*, 19(2), 213-236.
- Gommans, M., Krishnan, K. and Scheffold, K. (2001) From Brand Loyalty to E-Loyalty: A Conceptual Framework, *Journal of Economic and Social Research*, 3(1), 43-58.
- Gremler, D. and Brown, S. (1999) The Loyalty Ripple Effect Appreciating The Full Value Of Customers, *International Journal of Service Industry Management*, 10(3), 271.
- Han, E. H., Boley, D., Gini, M., Gross, R., Hastings, K., Karypis, G., Kumar, V., Mobasher, B., and Moore, J. (1998). WebACE: A Web agent for Document Categorization and Exploration. 2nd International Conference on Autonomous Agents.
- Heskett, J., Jones, T., Loveman, G., Sesser, W. and Schlesinger, L. (1994) Putting the Service Profit Chain to Work, *Harvard Business Review*, 72(2), 164-174.
- Holbrook, M. (1996) Customer Value A Framework for Analysis and Research, (138-142) in *Advances in Consumer Research*, 20, ed. Provo; Association for Consumer Research.
- Holland, J. and Baker, S. (2001) Customer Participation in Creating Brand Loyalty, *Journal of Interactive Marketing*, 15(4), 34-45.
- Kaynama, S. and Black, C. (2000) A Proposal to Assess the Service Quality of Online Travel Agencies, *Journal of Professional Services Marketing*, 21(1), 63-68.
- Loiacono, E., Watson, R. and Goodhue, D. (2002) WebQual: A Measure of Website Quality, *American Marketing Association Conference Proceedings*, 432-438.
- Loiacono, E., Goodhue, D. and Chen, D. (2002) WebQual Revisited: Predicting the Intent to Use the Website, *Eighth Americas Conference on Information Systems*, 301-309.
- McAlexander, J. Schouten, J. and Koenig, H. (2002) Building Brand Community, *Journal of Marketing*. 66(January), 38-54.
- McWilliam, G., (2000) Building Stronger Brand through Online Communities, *Sloan Management Review*, (Spring) 41(3), 43-54.
- Muniz, A. and O'Guinn, T. (2001) Brand Community. Journal of Consumer Research. 27(March): 412-432.
- Novak, T., Hoffman, D. and Yung, Y. (2000) Measuring the Customer Experience in Online Environments: A Structural Modeling Approach, *Marketing Science*, 19(1), 22-42.

- Oliver, R. (1997) Satisfaction: A Behavioural Perspective on the Consumer, New York: The McGraw Hill Companies, Inc.
- Oliver, R. (1999) Whence Customer Loyalty?, Journal of Marketing 63 (Special Issue), 33-44.
- Perkowitz, M., and Etzioni, O., (1998). Adaptive Websites: Automatically Synthesizing Web pages. *In Proceedings of Fifteenth National Conference on Artificial Intelligence*, Madison, Wisconsin.
- Pitt, L., Watson, R. and Kavan, C. (1995) Service Quality: A Measure of Information Systems Effectiveness. MIS Ouarterly (June), 173-187.
- Reichheld, F. (1996) *The Loyalty Effect: The Hidden Force Behind Growth, Profits, and Lasting Value*, Boston, Harvard Business Press.
- Reichheld, F. and Schefter, P. (2000) E-Loyalty, Harvard Business Review. 78(4), 105-114.
- Reichheld, F. (2001) Loyalty Rules! How Today's Leaders Build Lasting Relationships, Boston Harvard Business School Press.
- Rust, R. and Zahorik, A. (1993) Customer Satisfaction, Customer Retention, and Market Share, *Journal of Retailing*, 69(2), 193-216.
- Rust, R. and Oliver, R. (1994) Service Quality: Insights and Managerial Implications from the Frontier. In: Rust, R. and Oliver, R. (Eds.), *Service Quality: New Directions in Theory and Practice*. Thousand Oak: Sage Publications.
- Rust, R., Zeithaml, V. and Lemon, K. (2000) Driving Customer Equity. Free Press: Boston.
- Schultz; D. and Bailey, S. (2000) Customer/Brand Loyalty in an Interactive Marketplace, *Journal of Advertising Research* 40(3), 41-52.
- Schmitt, B. (2000) Creating and Managing Brand Experiences on the Internet, *Design Management Journal*. Fall, 53-58.
- Shankar, V, Smith, A. and Rangaswamy, A. (2000) *The Relationship between Customer Satisfaction and Loyalty in Online and Offline Environments*. Working Paper, Report Number 94-114.
- Shim, S.J. and Wang, G.Y. (2000). Multimedia Presentation in E-commerce. *Proceedings of Second International Workshop on Advance Issues of E-Commerce and Web-Based Information Systems* (WECWIS) June 8 9th Milpitas: California.

 Sinnappan, S., Carlson, J. and Sukunesan. B. (2003) Website Quality in the Australian Electronic Marketspace: Application of the WebQualTM Instrument, Conference on Information Technology in Asia, Sarawak: Malaysia.
- Stewart, D. and Pavlou, P. (2002) Consumer Response to Active Consumer: Measuring the Effectiveness of Interactive Media. Journal of the Academy of Marketing Science, 30(4), 376-396.
- Sweeney, J. and Lapp, W. (2000) High Quality and Low Quality Internet Service Encounters, Australia and New Zealand Marketing Academy Conference, Gold Coast, Australia.
- Symanski, D. and Hise, R. (2000) E-Satisfaction: An Initial Examination, Journal of Retailing, 76(3), 309-322.
- Taylor, S. and Baker, T. (1994) An Assessment of the Relationship between Service Quality and Customer Satisfaction in the Formation of Consumers' Purchase Intentions. Journal of Retailing, 70(2), 163-178.
- Tsikriktsis, N. (2002) Does Culture Influence Website Quality Expectations? An Empirical Study, Journal of Service Research, 5(2), 101-113.
- Ward, M. and Lee, M. (2000) Internet Shopping, Consumer Search and Product Branding, The Journal of Product and Brand Management, 9(1), 6-20.
- Watson, R., Akselsen, S. and Pitt, L. (1998) Attractors: Building Mountains in the Flat Landscape of the World Wide Web. California Management Review, 40(2), 36-56.
- Watson, R., Pitt, L., Berthon, P. and Zinkhan, G. (2002) U-Commerce: Expanding the Universe of Marketing. Journal of the Academy of Marketing Science, 30(4), 333-347.
- Wolfinbarger M., and Gilly M. (2003) eTailQ: Dimensionalizing, Measuring and Predicting e-Tail Quality', Journal of Retailing, 79(3), 183-198.
- Wooldridge, M. (1999). Intelligent Agents. Multiagent Systems. G. Weiss. London, The MIT Press: 27-77.

- Xue, M., Harker, P. and Heim, G. (2000) Website Efficiency, Customer Satisfaction and Customer Loyalty: A Customer Value Driven Perspective (Working Paper 00-12-03), Philadelphia, PA: The Wharton School, University of Pennsylvania.
- Yoo, B. and Donthu, N. (2001) Developing a Scale to Measure the Perceived Quality of an Internet Shopping Site, Quarterly Journal of Electronic Commerce, 2(1), 31-47.
- Zeithaml, V., Parasuraman, A. and Malhotra, A. (2000) A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial Practice, Working paper, Cambridge MA, Marketing Science Institute, Report Number 00-115.
- Zeithaml, V., Parasuraman, A. and Berry, L. (1996) The Behavioural Consequences of Service Quality. Journal of Marketing, 60(April), 31-46.
- Zeithaml, V., Parasuraman, A. and Malhotra, A. (2002) Service Quality Delivery Through Websites: A Critical Review of Extant Knowledge. Journal of the Academy of Marketing Science, 30(4), 362-375.
- Zeithaml, V. and Bitner, M. (2003) Services Marketing: Integrating Customer Focus Across the Firm. Boston: Irwin McGraw Hill.

COPYRIGHT

Carlson, J and Sinnappan, S \odot 2003. The authors assign to ACIS and educational and non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to ACIS to publish this document in full in the Conference Papers and Proceedings. Those documents may be published on the World Wide Web, CD-ROM, in printed form, and on mirror sites on the World Wide Web. Any other usage is prohibited without the express permission of the authors.