Chapter 19
The Measurement of Electronic Service Quality: Improvements and Application

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ABSTRACT

Several measurement scales have been designed by both practitioners and researchers to evaluate perceptions of electronic service Quality. This chapter tests three of the main academically developed scales: Sitequal (Yoo & Donthu, 2001), Webqual 4 (Barnes & Vidgen, 2003) and EtailQ (Wolfinbarger & Gilly, 2003) and compares them against the scale ensuing from our research: NetQual (Bressolles, 2006). Based on 204 evaluations of consumers that participated in a laboratory experiment involving two Canadian Websites in travel and online insurance, NetQual best fits the data and offers the highest explanatory power. Then the impact of nature of task and success or failure to complete the task on the evaluation process of electronic service quality and attitude toward the site is examined and discussed on over 700 respondents that navigated on six different Websites.

INTRODUCTION

A relatively recent form of commerce, electronic commerce is increasingly becoming routine. Despite recent years' turbulence, electronic commerce is on the rise in Canadian commercial landscape. Representing a sales volume of $4.7 billion, about 1.3% of Canadian retail sales, e-commerce is becoming an indispensable tool for retailers Statistics. In total, 67% of Canadian households use the Internet (eMarketer 2005). While only 18.4% of consumers that use the Internet claim to purchase products on the Web, 56% of Web users report using this medium to obtain product information before purchasing it at a brick-and-mortar store. The systematic increase of Internet integration in consumers' decision making processes has created a strong impetus for retailers to go online. In 2005, 34% of Canadian retailers had a Website and 11.4% sold products on the Web. The proportions at finance and insurance sectors were 43% and 8%, respectively, compared with 51% and 14% for that of arts and culture. While

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both transactional and informational commercial activity on the Web is growing, studies did not find sites directed at consumers to always meet expectations.

A study by the e-tailing group[1] found that only 3% of consumers who visit a site to complete a purchase; more than 47% of consumers abandon their order before checking out (cart abandonment). Partly explained by Internet anonymity, such statistics could be also explained by the fact that many sites do not meet consumers' needs or poorly tailor their decision-making processes. One could argue that having an online presence and posting low prices seemed to be sufficient to succeed; neither of these conditions, however, does guarantee service quality. Inevitably, certain quality issues have appeared, such as the inability to carry out online transaction, non-compliance with delivery time, undelivered products, unanswered emails, and inaccessible or inadequate information. As at a brick-and-mortar store, the service quality of a commercial Website plays a vital role in its survival. Internet sales have particular characteristics that differentiate them from traditional sales. For these reasons, measurement instruments have been developed by practitioners and researchers to evaluate service quality in e-commerce.

While literature on service quality includes articles that compare various scales across different contexts such as health, arts, professional services, and retail stores, it do not offer any study that offer a comparison of Web-oriented scales. Results observed in tangible situations, where interpersonal contact is a key, can not be taken for granted in a virtual context (Bitner, Brown & Meuter, 2000; Dabholkar, 2000; Parasuraman & Grewal 2000). For instance, Parasuraman & Grewal (2000) posit that online and offline environments are sufficiently different to justify the development of scales specifically dedicated to the measurement of electronic service quality. Even when the same product or service was purchased, online and offline environments present different shopping experiences. Consequently, such measurement instruments of service quality became a necessity.

This article starts by defining the concept of electronic service quality, and compares it with the traditional one. Given the abundance of measures of electronic service quality put forth by practitioners and researchers, we then selected to test three of the main academically developed scales: Sitequal (Yoo & Donthu, 2001), Webqual 4 (Barnes & Vidgen, 2003) and EtailQ (Wolfinbarger & Gilly, 2003) and to compare them against the scale ensuing from our research, NetQual (Bressolles, 2006). Based on 204 evaluations of consumers who participated in a laboratory experiment that involved two Canadian Websites (travel and online insurance), we intend to determine the most relevant scale in terms of content, parsimony and explanatory power in an e-commerce context. Then we explore the impact of task nature and success or failure to complete a specific task on the electronic service quality evaluation. The link between electronic service quality and attitude toward site is studied. Discussion of limitations and future research avenues conclude the paper.

THEORETICAL BACKGROUND OF ELECTRONIC SERVICE QUALITY

Definition, Similarities and Differences with Traditional Service Quality

Whereas dimensions, variables, and other aspects of traditional service quality have received extensive study over the past two decades, the study of electronic service quality is a relatively new domain. While traditional service quality was defined as an overall evaluation or an attitude relative to the superiority of the service (Parasuraman, Zeithaml & Berry, 1988), electronic service quality were considered as "the extent to which a Web site facilitates efficient and effective