Assessing Customer Perceptions of Website Service Quality in Digital Marketing Environments

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ABSTRACT

The e-commerce literature has rarely addressed the measurement of customer perceptions of website service quality in digital marketing environments. It is argued that the current SERVQUAL and IS-SERVQUAL instruments need to be refined and validated to fit the digital marketing environment, as they are targeted primarily towards either traditional retailing or information systems contexts. This article validates and refines a comprehensive model and instrument for measuring customer-perceived service quality of websites that market digital products and services. After a discussion of the conceptualization and operationalization of the service quality construct, the procedure used in modifying items, collecting data, and validating a multiple-item scale is described. Subsequently, evidence of reliability and validity on the basis of analyzing data from a quota sample of 260 adult respondents is presented. Implications for practice and research are then explored. Finally, this paper concludes by discussing limitations that could be addressed in future studies. The final EC-SERVQUAL instrument with good reliability and validity will be essential to the development and testing of e-business theories, and provide researchers with a common framework for explaining, justifying, and comparing differences across results.

Keywords: electronic commerce, digital products, service quality, SERVQUAL, measurement

INTRODUCTION

Digital marketing\(^1\) is one of the most significant phenomena having taken place in the e-commerce environment in the last five years. Because most firms have only begun to position themselves to exploit the business opportunities presented by e-commerce, it is difficult to know how best to measure the success and effectiveness of an e-business’s efforts. To provide better management of e-business, more empirical research and theoretical development are required with respect to the effectiveness measure of websites.

As Kettinger and Lee (1994) noted, developing measures of effectiveness has long been a focus of the MIS field (Delone
& McLean, 1992; Zmud, 1979). Such techniques as system usage (Ein-Dor & Segev, 1982; Lucas, 1974), cost/benefit analysis (King & Schrems, 1878), information economics (Maish, 1979), and critical success factors (Zahedi, 1987) have all been used with mixed results to gauge the contribution that information systems and the information services function make to firms and individuals. While acknowledging the contribution of these approaches, the most commonly used measures of effectiveness within the MIS field are users’ perceptions of satisfaction (Delone & McLean, 1992; Melone, 1990). Traditionally, both the User Information Satisfaction (UIS) and End-User Computing Satisfaction (EUCS) instruments have been used as surrogate measures of system effectiveness to evaluate user satisfaction toward information systems (e.g., Bailey & Pearson, 1983; Ives et al., 1983; Doll & Torkzadeh, 1988). To more comprehensively measure IS service quality, Kettinger and Lee (1994) validated and refined the IS-SERVQUAL and used it to enhance the effectiveness measure of information services function. Accordingly, the effectiveness of websites can be measured by different techniques, such as system usage, cost/benefit, and customer perceptions of website service quality. In our study, customer perceptions of website service quality were also used as a surrogate measure of e-commerce system effectiveness. The effectiveness measure of websites must incorporate different aspects of service quality to become a diagnostic instrument for practical and theoretical use. Such purposes cannot be achieved when effectiveness is captured using only a single aggregated scale.

To assess the extent and specific nature of customer perceptions of service quality rendered by websites, different dimensions of service quality must be theoretically and operationally defined. The development of such a multidimensional instrument can (1) capture multiple aspects of website service quality that may be subsumed within general (single-scale) measures, (2) provide insight into the nature of interrelationships among website service quality dimensions, and (3) provide a more accurate diagnostic tool to assess digital marketing activities within organizations. Until such an instrument is developed, the varying criteria of website service quality among studies will inhibit the generalizability and accumulation of research findings. In addition, using a well-validated instrument, e-commerce managers can better justify their Internet marketing activities when they devote a significant portion of their organizational resources to such activities.

Traditionally, the SERVQUAL (c.f., Parasuraman et al., 1988, 1991; Babakus & Boller, 1992; Carman, 1990; Cronin & Taylor, 1992; Zeithaml, 1988; Zeithaml et al., 1990) scale has been used as a generic instrument for measuring customer-perceived service quality of traditional retail and service businesses. And, the IS-SERVQUAL scale (c.f., Kettinger & Lee, 1994; Kettinger et al., 1995; Van Dyke et al., 1997, 1999) has been used to evaluate user-perceived service quality of information systems. However, both the SERVQUAL and IS-SERVQUAL scales developed for the conventional retailing or information systems environments may no longer be appropriate for the digital marketing context, where the roles of a web customer are in some ways different to those of a traditional consumer or an IS end user (see Table 1). The SERVQUAL and IS-SERVQUAL instruments focus primarily on general or specific perceived service quality in physical environments rather than on perceived website service quality in digital marketing environments.
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