

## A PROPOSED CONCEPTUALIZATION OF ELECTRONIC SERVICE QUALITY AS A HIGHER-ORDER FORMATIVE-INDICATOR CONSTRUCT

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### ABSTRACT

The conceptualization and measurement of service quality delivery through electronic channels has attracted significant research attention in recent years. Electronic commerce in general and online retailing in particular continue to expand at a staggering rate. The enormous growth in the number of companies that engage in online activities has resulted in an extremely competitive electronic marketplace. Whereas low price and Web presence were initially considered as the key drivers of success, firms soon realize that the provision of high quality services is the primary source of competitive advantage in online channels. By providing a high level of electronic service quality (e-SQ), companies can strengthen customers' satisfaction and loyalty, and encourage repeat visits and purchases. Naturally, the definition and measurement of e-SQ became a primary issue of concern among academic researchers and business practitioners. In light of these developments, the main objective of this study is to develop and empirically test a measurement model of e-SQ.

A thorough review of the relevant literature reveals a wide consensus among researchers that e-SQ is a multidimensional construct. Accordingly, most previous studies focused on identifying the key quality dimensions that serve as the basis for customers' evaluation of electronic services. As a result of these efforts, various conceptual models of e-SQ emerged in the literature. Early studies in this area focused exclusively on the website interface. More recent studies, however, adopt a broader conceptualization of e-SQ that examines the whole purchase process. In addition, it is now recognized that customers' perceptions, attitudes and behavioral intentions are based on an overall assessment of the quality of a website and not on the assessment of individual quality dimensions. Therefore, e-SQ is commonly conceptualized as a higher-order construct, comprising a number of first-order quality dimensions. An important issue, however, that requires further clarification is whether e-SQ should be specified as a reflective- or formative-indicator construct. Whether a multi-item construct should be specified as reflective or formative is a critical decision which has direct implications for the robustness of structural parameter estimates. A number of methodological studies conducted during the past few years investigated more systematically the issue of measurement model specification and proposed a set of key criteria that should be used to determine whether a construct is formative or reflective. Drawing upon a thorough examination of these criteria, we propose that e-SQ should be conceptualized as a second-order formative-indicator construct.

In order to develop a robust measurement scale for e-SQ we initially undertook an extensive review of the e-SQ literature. We concluded that there is a great diversity in the e-SQ dimensions examined by different authors. However, at least four dimensions, namely *fulfillment/reliability*, *privacy/security*, *website design* and *customer service*, are included in most recent studies. Moreover, there is ample evidence that information aspects and opportunities for website customization play a critical role when evaluating e-SQ. Therefore, *informativeness* and *customization* were added to the four quality dimensions mentioned above to form a six-dimension conceptualization of e-SQ.

We used an online intermediary in the travel industry as the context for testing our measurement model. Our sampling frame consisted of all customers that made a hotel reservation from a specific site during the 12 months period that preceded this study. We received 139 usable responses for a response rate of 13.9%. We measured our constructs using existing scales, which we adapted to suit the context of the specific study. We performed confirmatory factor analysis in order to verify the hypothesized factor structure and assess constructs' validity and reliability. In order to empirically assess the hypothesized factorial structure of e-SQ we followed available guidelines regarding the estimation of formative-indicator models. Particularly, the following critical issues were addressed: content and indicator specification, identification, indicator collinearity, and nomological validity. Following standard psychometric scale construction procedures we found that the proposed second-order e-SQ construct, as well as its underlying first order dimensions, performed excellently on all relevant validity and reliability tests. Moreover, our results confirmed the appropriateness of specifying e-SQ as a formative-indicator construct. Furthermore, all six quality dimensions we examined had a significant contribution on forming e-SQ perceptions. Future research should further assess the external validity of the e-SQ scale through replication studies in different online contexts, using larger samples. Another fruitful research avenue is to examine whether different customer segments, defined in terms of demographic, psychographic and other characteristics, have similar perceptions of e-SQ.