Validating the End-User Computing Satisfaction Instrument for Online Shopping Systems

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ABSTRACT

End-user satisfaction has always been an important component of Information Systems (IS) success. This is also true for online applications, including online shopping systems, where in addition to being a customer, the shoppers play the role of end-users. Shoppers may not come back to or make a purchase on a Web site if they have an unsatisfactory experience. In this research, we focus on this aspect of online shopping by examining shoppers' experiences as end-users.

Keywords: customer satisfaction; end-user computing satisfaction; online shopping

INTRODUCTION

Electronic commerce has proliferated during the last decade. In order for people to more effectively use technology in the global online business environment, a better understanding of the factors influencing a successful implementation is needed (Khalil & El-kordy, 1999; Shayo, Guthrie & Igbaria, 1999). It has been demonstrated that shopper satisfaction with a Web store is a crucial determinant of important outcomes, such as revisiting and purchase intentions (O'Cass & Fenech, 2003). Several instruments for measuring user satisfaction with a Web store have been proposed and developed (McKinney, Yoon & Zahedi, 2002; Szymanski & Hise, 2000).

A key difference between shopping through the Web and shopping in other environments is that Web shopping resides in an Internet-mediated environment (Fenech & O'Cass, 2001). Compared to the shoppers in a brick-and-mortar store, online shoppers play a dual role: that of "the shopper" in the traditional sense and that of "the end-user" interacting with a computer information system (Koufaris, 2002). Part of the system is the Web site, which is the store with which online shoppers interact. Thus, we can study online shopper satisfaction using two perspectives: (1) the marketing perspective and (2) the computing perspective. From the marketing perspective, abundant research has focused on factors contributing to customer satisfaction, such as perceived value, service quality, and image (Ball, Coelho & Machas, 2004; Chen & Dubinsky, 2003; Dodds, Monroe & Grewal, 1991; Jamal & Goode, 2001; Wang, Lo & Yang, 2004; Woo & Ennew, 2005; Yang & Fang, 2004). From the computing perspective, end-user satisfaction is considered to be one of the most critical aspects of success, and its measurement has been one of the major concerns in the IS field (DeLone & McLean, 1992). We posit that in addition to the marketing perspective, testing an existing IS instrument dealing with end-user satisfaction with online shopping systems can be a valuable approach. In this study, we conduct a research to validate an instrument called the End-User Computing Satisfaction (EUCS) from the computing perspective for use

in the online shopping context. EUCS is a 12-item questionnaire regarding user satisfaction with an information system (Doll & Torkzadeh, 1988). It consists of five constructs: content, accuracy, format, ease of use, and timeliness. EUCS has already been applied and validated for various computer applications such as Decision Support Systems (DSS) (McHaney, Hightower & White, 1999), Enterprise Resource Planning (ERP) applications (Somers, Nelson & Karimi, 2003), and for a Web site (Abdinnour-Helm, Chaparro & Farmer, 2005). These studies have demonstrated the stability of psychometric properties of EUCS across applications and user groups. However, because the task of online shopping has its own characteristics, there is no guarantee that EUCS will be as effective for online shopping systems as for other kinds of computer systems. The main focus of this research is to try to bridge the gap by validating EUCS for online shopping systems. Once the hypothesized psychometric properties of this instrument are demonstrated to be consistent with those in prior studies, we can confidently use the instrument as a measure of end-user satisfaction in the online shopping context. In addition, we compare our results with those of three particular prior studies that focused on various kinds of information systems so we can study the differences among dimensions of EUCS in various situations. Our research will provide online practitioners with not only a tool to evaluate the end-user satisfaction with their systems, but also

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