Chapter 4.15
Validating the End-User Computing Satisfaction Survey Instrument in Mexico

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ABSTRACT

This study assesses the psychometric properties of a Spanish translation of Doll and Torkzadeh's End-User Computing Satisfaction (EUCS) survey instrument. The study provides evidence that the EUCS Spanish version can be used as a valid and reliable measure of computing satisfaction among computer users in Mexico. The study also adds support to the use of the EUCS instrument in the investigation of the perceptions of computer users in countries other than the United States (U.S.) and in languages other than English.

INTRODUCTION

For many years, information systems (IS) researchers have been interested in the evaluation of user perceptions about the "success" of an information system. For example, Zmud (1979) provided an extensive review of studies regarding the impact of individual user differences on IS success (categorized as user performance, management of IS (MIS) usage and user satisfaction). Ives and Olsen (1984) also performed a lengthy review of research on the effect of user involvement on two classes of IS success outcome variables: system acceptance (defined to include system usage, behavioral impact and information satisfaction) and system quality. Delone and McLean (1992) noted that while these reviews made valuable

Figure 1. Structural model of the EUCS measure
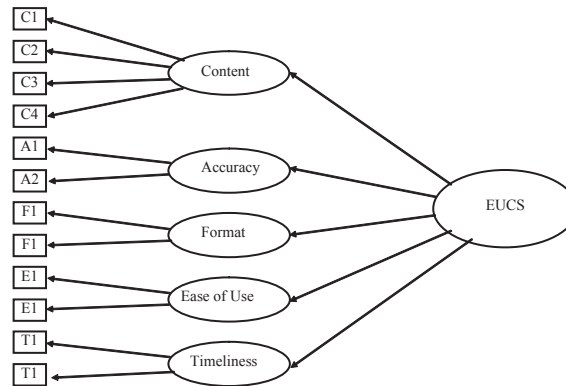
contributions to the understanding of success, both were more concerned with the investigation of independent variables than with the dependent variable—success. Delone and McLean reviewed 180 conceptual and empirical articles from the "formative period" of IS (primarily 1981-1988) and organized the research into one of six success taxa: system quality, information quality, individual impact, organizational impact, use and user satisfaction. They found that user satisfaction is the most widely used measure of IS success, and suggest that satisfaction is the preferred measure when system use is mandatory.

An important instrument frequently used to assess user satisfaction is the EUCS survey developed by Doll and Torkzadeh (1988). The EUCS survey consists of a single second-order factor (EUCS) composed of five first-order factors (Content, Accuracy, Format, Ease of Use and Timeliness) measured by 12 questions. Doll and Torkzadeh (1988) validated their survey instrument using a multi-step process and found that the instrument could be used across a variety of applications, hardware platforms, development modes and job positions. Shortly after the initial

reporting of the EUCS survey, Etezadi-Amoli and Farhoomand (1991) raised some methodological and theoretical concerns about the instrument. However, extensive testing has established the instrument's reliability, content validity, construct validity, internal validity, statistical conclusion validity and multigroup invariance. Examples of these tests include the studies of Adams, Nelson and Todd (1992) for voice and e-mail applications; Hendrickson, Glorfeld and Cronan (1994) for mainframe and PC applications; Simon, Grover, Teng and Whitcomb (1996) for computer-related training methods; McHaney and Cronan (1998, 2001) and McHaney, Hightower and White (1999) for computer simulation; Dowing (1999) for interactive telephone voice mail systems; Kim and McHaney (2000) for CASE tools; Aladwani (2002) for assessment of users' overall satisfaction; Somers, Nelson and Karimi (2003) for enterprise resource planning systems; Doll, Deng, Raghunathan, Torkzadeh and Xia (2004) for decision support, database and transaction processing systems; and Abdinnour-Helm, Chaparro and Farmer (2005) for Web sites.

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