Chapter IV
Assessing a Spanish Translation of the End–User Computing Satisfaction Instrument

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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 results show that the EUCS Spanish version is a valid and reliable measure of computing satisfaction among computer users in Mexico and adds support to the usefulness of the instrument in countries other than the United States and in languages other than English.

INTRODUCTION

The evaluation of user perceptions about system “success” has been a topic of interest among information system (IS) researchers for a number of years. Examples can be found in Zmud’s (1979) extensive review of studies about the impact of user differences on system success measures such as performance, usage and satisfaction, and in Ives and Olsen’s (1984) review of research on the effect of user involvement on IS success variables such as system quality, system usage and information satisfaction. While these early reviews focused on the independent variables affecting success,
Delone and McLean (1992) were more concerned with the nature of success as a dependent variable. They reviewed 180 formative IS articles with the intent of categorizing the manner in which success had been operationalized and identified six success taxa: system quality, information quality, individual impact, organizational impact, use, and user satisfaction. They found user satisfaction to be the most widely used measure of IS success, and suggested that satisfaction is the preferred measure when system use is mandatory.

An important instrument that is frequently used to assess user satisfaction is the End-User Computing Satisfaction (EUCS) survey developed by Doll and Torkzadeh (1988). The EUCS survey consists of a single second-order factor (End-User Computing Satisfaction) composed of 5 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.

Extensive testing by numerous researchers in a variety of settings has established the EUCS instrument’s reliability, content validity, construct validity, internal validity, statistical conclusion validity, and multigroup invariance. Examples include studies for Web sites (Abdinnour-Helm et al., 2005; Zviran et al., 2006), voice and e-mail applications (Adams et al., 1992), assessment of users’ overall satisfaction (Aladwani, 2002), decision support, database and transaction processing systems (Doll et al., 2004), enterprise systems (Deng et al., 2008; Somers et al., 2003), interactive telephone voice mail systems (Dowing, 1999), mainframe and PC applications (Hendrickson et al., 1994), computer simulation (McHaney & Cronan, 1998, 2001; McHaney et al., 1999), CASE tools (Kim & McHaney, 2000), on-line banking (Pikkarainen et al., 2006; Hwang et al., 2006), and computer-related training methods (Simon et al., 1996).

The EUCS survey also has been used successfully in different cultural and linguistic contexts including studies in Finland (Pikkarainen et al., 2006), Great Britain (Al-Gahtani & King, 1999), India (Deng et al., 2008), Israel (Igbaria & Zviran, 1996), Kuwait (Aladwani, 2002), New Zealand (Igbaria et al., 1998), Singapore (Igbaria & Tan, 1997), Taiwan (Deng et al., 2008; Igbaria, 1992; Igbaria & Zviran, 1996; McHaney et al., 2002) and Western Europe (Deng et al., 2008). Studies which have used versions of EUCS in languages other than English include translations in Arabic (Deng et al., 2008), Chinese (McHaney et al., 2002), Finnish (Pikkarainen et al., 2006) and Hebrew (Igbaria, 1992; Igbaria & Zviran, 1996). Interestingly, the use of a standard IS research instruments like the EUCS remains largely unexplored in Latin America. The primary goal of this investigation is to address this gap in the IS literature and examine the robustness of the EUCS survey when applied to Latin American subjects.

More precisely, this study will examine the validity and reliability of a Spanish translation of the End-User Computing Satisfaction survey instrument administered to Mexican respondents. Since most end-user computing research is conducted in the U.S., there is a belief that these results can be generalized to other countries (Shayo et al., 1999). However, the belief that instruments like EUCS can be generalized across countries may be ill advised since cultural characteristics, socio-work roles and IT sophistication levels might influence the satisfaction process and produce results different from those observed in America using English surveys (Hofstede, 1980; Shayo et al., 1999). Therefore, before instruments like the EUCS can be applied confidently in new cultural, country or linguistic contexts, it is recommended that its universality be established through an investigation of the instrument’s validity, psychometric stability, and robustness (Davis, 1989; 1994; McHaney et al., 2002; Shayo et al., 1999; Somers et al., 2003).
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