Chapter 3.1
Measurement of End-User Computing Satisfaction

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BACKGROUND

Doll and Torkzadeh (1988) developed their measure of end-user computing satisfaction because "decision analysis" (examination of specific uses of computer applications in decision making) is "generally not feasible" (p. 259), but that satisfaction is a reasonable surrogate for assessing use. Doll and Torkzadeh claim that evidence from other studies support an expectation that satisfaction leads to use (as opposed to use leading to satisfaction). The Doll and Torkzadeh study focused more on broad notions of systems and applications (Mini- or mainframes, microcomputer applications, analysis, and monitor applications).

The end-user computing satisfaction scale is a multidimensional instrument. Doll and Torkzadeh (1988) started with 40 items, and reduced those first to 18 items, and then reduced the scale further to a final set of 12 items. The dimensions of the end-user satisfaction scale are content, accuracy, format, ease of use, and timeliness.

Aladwani (2003) reviewed the existing measures of information satisfaction and found the Doll and Torkzadeh (1988) measure to be less limited by particular context or application than other measures are. Aladwani applied the end-user computing satisfaction scale to assess student satisfaction with e-mail. McHaney and Cronan (1998) used the end-user computing satisfaction scale to assess responses to computer simulations.

RELIABILITY

Doll and Tofkzaheh (1988) report an overall reliability (alpha) of .92 for the end-user computing satisfaction scale. The reliabilities for the specific dimensions are: Content, .89; Accuracy, .91; Format, .78; Ease of use, .82; and Timeliness .82. Torkzadeh and Doll (1991) demonstrated high test-retest reliability for the end-user computing datisfaction scale.

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VALIDITY

Doll and Torkzadeh (1988) conducted a multitrait-multimethod approach to assess the validity of the end-user computing satisfaction scale, and reported strong convergent and discriminant validity. They report a criterion-related validity coefficient of .76. Doll and Weidong (1997) and also McHaney, Hightower, and Pearson (2002) replicated the original factor analytic structure with a confimatory factor analysis. McHaney, Hightower, and Pearson (2002) demonstrated the utility of the end-user computing satisfaction scale to test for differences between competing applications, features, and technologies. Lee and Kim (1995) demonstrated that end-user computing satisfaction predicts information system acceptance and job satisfaction.

RESULTS

Researchers typically sum the items on the entire scale or on the respective dimensions to achieve composite scores. Researchers in the literature on the end-user computing satisfaction scale do not commonly report using factor score coefficients when calculating scores.

COMMENTARY

Doll and Torkzadeh (1991) responded to concerns raised about the end-user computing satisfaction scale. They indicate that most of the concerns are misunderstandings or unreasonable demands that exceed normal standards for measurement development and use. The scale is clearly one of the more popular instruments in the literature on technology usage.

COST

The end-user computing satisfaction scale is readily available in print (Doll & Torkzadeh, 1988). The *MIS Quarterly* holds the copyright on the original publication, so researchers should consult that journal before assuming any rights to the use of the instrument.

LOCATION

Doll, W. J., & Torkzadeh, G. (1988). The measurement of end-user computing satisfaction. *MIS Quarterly, 12*, 259-274.

An electronic version of the instrument is available from the author of this profile, so long as the user takes personal responsibility for protecting the rights of the copyright holder.

REFERENCES

Abdinnour-Helm, S. F, Chaparro, B. S., & Farmer, S. M. (2005). Using the end-user computing satisfaction (EUCS) instrument to measure satisfaction with a Web site. *Decision Sciences, 36*, 341-363

Aladwani, A. M. (2003). A deeper look at the attitude-behavior consistency assumption in information systems satisfaction research. *The Journal of Computer Information Systems*, *44*, 57-63

Doll, W. J., & Torkzadeh, G. (1988). The measurement of end-user computing satisfaction. *MIS Quarterly, 12*, 259-274.

Doll, W. J., & Torkzadeh, G. (1991). The measurement of end-user computing satisfaction: Theoretical and methodological issues. *MIS Quarterly, 15,* 5-10.

Doll, W. J., & Weidong, X. (1997). Confirmatory factor analysis of the end-user computing

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