The Influence of Dispositional Factors and Situational Constraints on End User Performance: A Replication and Extension

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ABSTRACT

Organizations introduce end user computing (EUC) technology to enhance productivity. Given the practical significance of end user performance, it is important to uncover factors with potential to influence end user performance (EUP). However, prior research has relied almost exclusively on dispositional variables to predict EUP. In this study, the effects of both dispositional and situational variables on EUP were examined. Of the variables examined, dispositional variables explained more variance in EUP than situational variables. Together, both sets of variables explained 40% of the variance in performance. Consistent with the predictions of several theoretical models of performance (e.g., Peters & O’Connor, 1980), dispositional variables were less predictive of performance when situational constraints were present than when they were absent. Implications of results for practitioners are discussed and avenues for future research on end user performance are suggested.

Keywords: end user computing, productivity, end user performance

The emergence of end user computing (EUC) can be traced to the proliferation of microcomputers, increased organizational computing needs, and the availability of sophisticated user application tools (Shayo, Guthrie, & Igbaria, 1999). One survey reported that EUC accounts for up to 50% of the computer resource budget in many organizations, with some estimates as high as 75% (Nord & Nord, 1994). Another study by Amoroso and Cheney (1991) reported that many organizations spend more than 60% of their information technology budgets on EUC activities, and some spend as much as 80%.

End users often extract and manipulate data stored in organizational databases (Palvia, Liao, & To, 1992). They often use database technology to address nontrivial organizational problems (Batra, Hoffer, & Bostrom, 1990). One approach to increase database management skills of end users...
is training. For instance, several scholars have acknowledged end user training as an essential contributor to the productive use of computer systems in organizations (Compeau & Higgins, 1995; Davis & Bostrom, 1993; Rivard & Huff, 1988). The practitioner literature also supports the view that training is essential for effective use of computer technology. Testimonials to the importance of training are common features in the popular press (Warner & Smith, 1990). Not surprisingly, a survey conducted during the second quarter of 1995 by Elin Computer Resources Inc., reported that more than 40% of companies plan to increase spending on computer training by 35% and that nearly three in four companies spend at least $100,000 a year on computer training (Finley, 1996).

To date, user satisfaction has served as the most popular measure in the literature for measuring EUC success (Igbaria & Nachman, 1990; Mahmood, Burn, Gemoets & Jacquez, 2000; Munro, Huff, Marcolin & Compeau, 1997). Use of user satisfaction as the primary measure of EUC success is based on the implicit assumption that satisfied users perform better than dissatisfied users (Amoroso, 1992). Unfortunately, evidence to support this assumption is lacking. Equating user satisfaction with end user computing success is problematic because it does not tell us anything about productivity. Munro et al. (1997) aptly noted that a better measure of EUC success than user satisfaction is necessary to justify the substantial investments in end user technologies and in end user training. Given that the primary reason organizations computerize their operations is to improve productivity, competitiveness and profits (Harrington, McElroy, & Morrow, 1990), unless end users learn the skills and utilize those skills to improve their job performance, the expected benefits of EUC are unlikely to accrue.

Given the practical significance of end user performance, it is important to uncover factors that influence end user performance. Educators and trainers could then use knowledge of such factors to design better programs and enhance end user performance.

Previous research has focused almost exclusively on dispositional factors for predicting end user performance. For instance, a recent study conducted with end user surrogates reported that attitudes toward working with computers, goal setting, and self-efficacy explained 35% of the variance in end user performance (Jawahar & Elango, 2001). One objective of this study is to replicate Jawahar and Elango’s (2001) study. In addition to the dispositional factors investigated by Jawahar and Elango, this study will also examine the influence of four situational factors. Thus, the primary purpose of this study is to extend Jawahar and Elango’s study by investigating the effects of both dispositional and situational factors on end user performance. A secondary purpose is to examine the relative influence of the dispositional and situational sets of factors on end user performance. The study will also examine if the presence of situational constraints reduces the influence of dispositional factors on end user performance, as predicted by theoretical models of performance. Finally, implications of this study for practitioners and researchers will be discussed.

This paper is organized into four sections inclusive of this introductory section. In the second section, a major shortcoming of extant research is noted, and a case is made for using situational factors for predicting end user performance. In the third section, relevant literature is reviewed to develop hypotheses. Finally, results of the study are presented, suggestions to en-
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