

# Chapter 6.12

## Impact of Personal Innovativeness on the Use of the Internet Among Employees at Work<sup>1</sup>

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### ABSTRACT

Examining Internet use among employees, this research investigated the theoretical proposition that personal IT innovativeness will positively impact the use of novel computer technologies. The research model included the individual traits of age, gender, experience with IT, and educational level. The article discusses the categories of organizationally relevant versus personal use of the Internet. Using a questionnaire, data was collected from 328 respondents in one organization. The results indicated that users perceive structural differences across various types of Internet use areas, although no clear support for a distinction between organizationally relevant and personal use was found. Additionally, the analyses indicated that personal use is considerably lower than orga-

nizationally relevant use of the Internet. However, employees may not distinguish clearly between these two categories. Personal IT innovativeness was the best predictor of organizationally relevant use of the Internet. Age contributed negatively to Internet use. Males appear to use the Internet more frequently than females. Educational level had no impact on Internet use.

### INTRODUCTION

A recurring theme within the domain of end-user computing is explaining differences in individual computer use patterns among employees (DeLone & McLean, 1992; Harris, 2000; Powell & Moore, 2002; Seddon, 1997). Recently, Internet usage has emerged as an area of particular importance (Otto, Najdawi & Caron, 2000; Stanton, 2002).

Because of the recent dot-com bubble collapse and numerous e-commerce failures, one would expect the Internet to have less importance to individual users. However, in addition to some dot-com successes, private and public institutions are developing an increasing number of Internet services. Employees of large organizations are active users, and their use is expected to grow (Charlton et al., 1998; Roberts, 2000). Research addressing differences in personal Internet use patterns has relevance.

Based on the view that change is key, a series of studies have investigated the effect of *personal information technology (IT) innovativeness* on the use of novel technologies. Studies addressing *personal IT innovativeness* often differ from research using the technology acceptance model (Chau, 2001) because the impacts of attitude, beliefs, and intention on behavior (that is, use) are not the focus. Rather, *personal IT innovativeness* has been viewed as a trait that in its own right may explain use. Hence, the present research builds on the theoretical assumption that *personal IT innovativeness* is positively related to the use of novel technologies regardless of usage area.

The samples used in previous studies addressing *personal IT innovativeness* are users (in general) of the World Wide Web (Agarwal & Karahanna, 2000), online shoppers (Limayem, Khalifa & Frini, 2000), academicians (Pajo, 2000), and adolescents (Wolfradt & Doll, 2001). The overall interpretation is that *personal IT innovativeness* has a positive impact on Internet use, yet the relationship between *personal IT innovativeness* and Internet use among the broad population of employees in business organizations has not been directly investigated.

The argument that the present fast-changing business environment requires constant innovation efforts also applies to individual employees. The concept of innovation covers a wide range of issues (Damanpour, 1991; Robey & Boudreau, 2000). Clearly, *personal IT innovativeness* is only a small element within the larger issue of innova-

tion in organizational settings. It has also been argued that there is a difference between change and innovation (Katz & Kahn, 1978; Larsen, 1993). According to these authors, an innovation effort would impact a large part of, if not the entire, organization. Change activities are defined as individual actions taken where the objective is limited to improvements in the individual's own job situation.

However, an information technology that offers a large degree of freedom with regard to its use may leave the responsibility of its use to individual users. In this regard, the degree of *personal IT innovativeness* may play a role. Obviously other socioeconomic characteristics may explain use (Brancheau & Wetherbe, 1990; Rogers, 1983). For these reasons, the present research project focused on the following research question: What are the relationships among employees' degree of *personal IT innovativeness*, other socioeconomic factors, and the use of the Internet at work?

## **THEORY, HYPOTHESES, AND RESEARCH MODEL**

IT use (also denoted *system use or utilization*) is one of the most frequently applied concepts of IS success (e.g., Seddon, 1997; Straub, Limayem & Karahanna-Evaristo, 1995). Among IS researchers, there is a widespread belief that use of IT affects white-collar performance (Davis, 1989; Thompson, Higgins & Howell, 1991). However, as Guthrie and Gray (1996) and Markus (1994) have observed, IT can be utilized in both appropriate and inappropriate ways. Ineffective or inappropriate use often prevents or undermines positive impacts (Markus, 1994). For example, indiscriminate use of the Internet for personal matters may result in reduced job performance. Because the Internet can be employed for multiple purposes, the issue has been raised that organizations must promote appropriate or organizationally relevant Internet use<sup>2</sup> (Spar & Bussgang,

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