Mandatory Usage of Mobile IS by Unsophisticated Users:
Welfare and Compatibility with Work

Yong-Young Kim, Temple University, USA
Hee-Dong Yang, Ewha Womans University, Korea
JoongHo Ahn, Seoul National University, Korea

ABSTRACT

This study investigates the factors that influence the user's (postal workers') welfare in using personal digital assistants (PDAs) that were implemented by mandate in the Korea Postal Services (KPS). The authors propose to expand our perspective towards users' welfare that becomes vulnerable when information systems (IS) are implemented by mandate, and suggest user satisfaction with IS as the appropriate measure of success. The authors are especially interested in the mandatory introduction and implementation of IS in organizations where users of such information systems are unsophisticated with limited educational background or IS experience, and whose job is relatively simple and labor-intensive. They hypothesized that information quality, system quality, and perceived usefulness are important factors for user satisfaction with mandatory IS. They also found that compatibility with work is a critical mediator through which the independent variables make significant influence on user satisfaction.

Keywords: Case Study, Quality of Information, System Quality, User Satisfaction, Wireless Technologies

INTRODUCTION

Mobile information technology services (MITS) have been readily adopted for personal and organizational purposes because of improvements in data processing capability of mobile devices such as cellular phones, personal digital assistants (PDAs), and smart phones. Applications of this technology have also been expanded to electronic mail, short message service (SMS), and multimedia messaging service (MMS) (Mathiassen & Sørensen, 2003; Sørensen, Mathiassen, & Kakihara, 2002). The architecture and vision of MITS have been called "ubiquitous computing" (Weiser, 1991), "persasive computing" (Saha & Mukherjee, 2003), "nomadic computing" (Lyytinen & Yoo, 2002), and "mobile informatics" (Dahlbom, 2000). Whatever the label, this technology gives users access to communication services anywhere and anytime by being mobile and wireless (Malladi & Agrawal, 2002) and emancipates informa-
tion systems (IS) users from the constraints of wires, hence providing freedom of movement (Philips, 2002). Such a communication environment, freed from constraints of time and place, improves the efficiency, flexibility, and convenience of communication behavior (Looney, Jessup, & Valacich, 2004).

Since the most successful cases of MITS relate to individual usage, we are primarily interested in cases where an organization has successfully implemented MITS for business process improvement. We are especially interested in the mandatory introduction and implementation of MITS in organizations where users of such information systems are unsophisticated with limited educational background or IS experience; these are users whose educational background or IS experience is limited, and whose job is relatively simple or labor-intensive. These users in particular could more likely suffer from negative experiences such as increased aggravation related to the input and output of IS and stress due to technical problems in handling IS in person. The mandatory implementation of IS and the subsequent negative symptoms can be due to the CEO’s aggressive investment in IT for the sake of fast productivity enhancement and government-support of the IT industry. In this sense, this study is concerned with employee satisfaction in the successful adoption of governance mandated IS. This paper investigates the following question: “how can organizations help unsophisticated employees adopt and use MITS for their welfare when the system is mandated by the organization?”

Rogers (2003) contended that individuals and organizations display distinct differences in how they adopt and utilize innovative technology. First, individuals tend to make an independent choice about whether to adopt new and innovative technology, whereas organizations are more likely to require users to utilize the innovation, whether they want to or not. Second, when an individual decides to adopt new technology, the adopter and user are one of the same; this is not necessarily true in the context of organizational adoption, where the enthusiastic adopter may be a room or a continent away from the reluctant user.

Many organizations take the initiative to require employees to use IS replacing traditional and/or labor-intensive tasks or business processes with the new technology. MIS studies, however, have generally focused on volitional IS adoption and utilization, and have been comparatively sparse for non-volitional (either quasi-volitional or mandatory) adoption. TAM (Technology Acceptance Model) is representative of the studies regarding voluntary adoption and use of IS, which is the distinct opposite focus from our study.

The major concern in the mandatory implementation of IS is on the user’s welfare due to the negative connotations triggered by the segregation of adopter and user (Rogers, 2003). IS studies have been active in clarifying the definitions of IS success with greater focus on IS use (e.g., Barki, Titah, & Boffo, 2007; Burton-Jones & Meso, 2006), but have paid less attention to the appropriate construct of IS success for the sake of user welfare in the context of mandatory IS adoption. In behavioral economics, welfare has been considered identical to satisfaction (Tinbergen, 1991; van Praag, Frijters, & Ferrer-i-Carbonell, 2003). Satisfaction, or happiness, can be derived from five factors such as consumption (to satisfy physiological and mental needs), learning, productive activity, leisure, and security (Tinbergen, 1991). In light of this perspective, we articulate our research question as follows:

1. What is the appropriate definition and measure of IS success in the mandatory adoption of information systems focusing on unsophisticated personnel? If we address this issue clearly, we then ask,
2. What is the causal model of factors for this measure of IS adoption success?

To answer these questions, we refer to DeLone and McLean’s (1992) and Seddon’s (1997) comprehensive reviews of IS success. Both studies listed a set of measures for IS
Cyber-Learning in Cyberworlds
www.igi-global.com/article/cyber-learning-cyberworlds/3189?camid=4v1a