Chapter 12
Organizational Factors and Information Technology Use: Tying Perceptions of the Organization to Perceptions of IT

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ABSTRACT

Studies of information technology (IT) use have focused on numerous antecedents to behavioral intent to use. Although some antecedents (such as subjective norms) reflect aspects of the organizational environment, most antecedents reflect beliefs or attitudes about the technology itself. Using TAM, social exchange theory, and social information processing theories as conceptual bases, we posit that general beliefs about the organizational environment influence IT use on the job. Specifically, we propose that affective commitment, autonomy, and team member trust will directly influence behavioral intent to use IT. However, TAM variables (perceived usefulness, subjective norm, and perceived ease of use) will mediate the effects of organizational variables on behavioral intent to use IT. The results provide initial evidence that organizational variables are related to behavioral intent to use IT, but only when IT is perceived to be useful and subjective norms favor its use. We suggest that when introducing IT, managers need to pay attention not only to technology-related issues, but also to the broader organizational environment in which IT will be used. Implications for researchers and practitioners are offered.

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INTRODUCTION

During the 1990s, organizations changed their technological and social infrastructures to encourage flexibility and responsiveness to global, hyper-competitive markets. In terms of technological change, organizations infused information technology (IT) into basic business processes in order to gain competitive advantage (Sambamurthy, 2000; Applegate et al., 2003). In terms of social change, when organizations restructured their business processes, they frequently engaged in activities such as outsourcing or job re-design, which changed the nature of their ties with employees (Iverson, 1996) and resulted in jobs that provided employees more autonomy over information technology use (Ahuja and Thatcher, 2005). As they emerged from the 1990s, organizations increasingly depended on IT and employee willingness to use IT applications. However, largely due to the lack of user commitment (Malhotra and Galletta, 2004), many IT implementation projects still failed.

Interestingly, the changes that occur in organizations that adopt new technologies may themselves discourage employees’ future usage of IT. For instance, organizational researchers frequently note that changes in technology have contributed to the deteriorating relationship between employer and employee, because often changes in technology lead to changing work roles, restructuring, and even downsizing (Shore and Coyle-Shapiro, 2003). With this in mind, it is possible and even likely that employees’ beliefs about the broader organizational environment may influence their use of workplace IT. Understanding how the broader organizational environment influences technology use is important because managers exert a direct influence on the work environment. Linking the organizational environment to beliefs about IT may help managers identify levers that encourage individual IT use. Hence, we examine the question: how do beliefs about the broader organizational environment influence technology use? Recent research raised concerns about the absence of detail on contextual and environmental factors that shape IT usage. In particular, Lamb and Kling (2003) argue that studies rooted in cognitive or social psychology do not pay sufficient attention to the organizational context as an influence on IT acceptance and use.

Accordingly, this study examines how the organizational environment influences IT usage. We examine three variables that, in a broad sense, capture employees’ perceptions of important elements of the organizational environment: (1) affective organizational commitment (relationship with the organization itself); (2) job autonomy (characteristics of the job), and (3) team-member trust (interpersonal relationships with coworkers).

To develop theoretical arguments between these variables and IT usage, we integrate existing research on the technology acceptance model (TAM), social exchange theory (SET; Blau, 1964) and social information processing theory (SIP, Salancik and Pfeffer, 1978). Taken together, SET and SIP suggest that employees will tend to use IT to a greater extent when (1) they have favorable exchange relationships with their organizations (high levels of organizational commitment, high job autonomy) and (2) they trust team members who advocate the use of IT themselves. However, it is possible that these conditions exist, yet employees nonetheless refuse to use IT. TAM accounts for this possibility, as it suggests that when information technology has low perceived usefulness, low ease of use, and norms that disfavor its use, it will be used to a lesser extent. As a result, our proposed model suggests that organizational and technological factors will influence IT usage: favorable employer-employee and coworker-employee relationships will lead to IT use, but only to the extent that the technology is perceived to be useful and easy to use.

This chapter unfolds as follows; first, a theoretical justification is developed to link beliefs about the organizational environment to employees’ technology use. Then the research model is intro-