

Chapter 35

An Empirical Investigation of the Consequences of Technostress: Evidence From China

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ABSTRACT

With the growing adoption of information technology in organizations, technostress has become a problem that can no longer be ignored. Despite the fact that this form of stress emanates from excessive dependence on technologies, prior studies investigated its consequences mostly from job-centric points of view. The current study argues that technostress consequences are multi-faceted and lead to not only job-centric but also IT-centric detriments. It proposes a model that theoretically ties together the immediate reactions and extensive consequences of technostress for users. Using a survey of 221 Chinese knowledge workers, it was found that the negative influences of technostress expand far beyond what have been identified in prior research. Putting in a broader perspective, it can be detrimental to both the employee's job satisfaction and global attitude towards using information and communications technologies. Theoretical and pragmatic implications are also discussed.

INTRODUCTION

Technostress was defined by Weil & Rosen (1990) as any negative effect on human attitudes, thoughts, behavior, and psychology that was direct or indirect results from information and communications technology (ICT) use. Anecdotal evidences showed that technostress could result in adverse effects on the individual's productivity and performance, perceived workload, job satisfaction and organizational continuance commitment (Weil & Rosen, 1997; Ragu-Nathan et al., 2008). Other symptoms of tech-

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nostress include information fatigue, loss of motivation at work, high job stress, anxiety and tension, and even mental and physical health dysfunctions (Heinssen et al., 1987; Tu et al., 2005). Physical symptoms such as sleep difficulties, headaches, irritability, stomach intestinal problems, and cardio vascular diseases have also been linked to technostress (Brillhart, 2004; Brod, 1984). Therefore, managers must understand the counterproductive nature of technostress and its toll on the workforce and start to actively and properly manage these issues.

Technostress is also a global phenomenon. For example, Tu et al. (2005) found heightened technostress among Chinese employees. The existence of heightened technostress in emerging economies is understandable as workers in these countries experienced dramatic changes in technological and business environments within a very short period of time. Prior studies have also found that technostress was experienced by both IT professionals and end-users. The stress for IT professionals stems from rapid obsolescence of technical skills and increasing end-user demands for technical support (Sethi et al., 2004; Thong & Yap, 2000). The stress was attributed to high absenteeism and turnover rate among IT professionals (Igbaria & Siegel, 1992). In addition to white collar workers, unskilled clerical workers whose jobs involved repetitive data entry reportedly experience a high level of technostress as well (Uhl, 1984). Technostress is therefore a universal and global phenomenon which has been witnessed among workers across business functions, organizational levels, and national and cultural boundaries.

Despite the rapid development and adoption of ICTs in the workplace, the issues relevant to technostress have not been adequately studied. There is currently a lack of conceptual models and empirical studies on work-related stress caused by information technologies. In the practical domain, most organizations are oblivious, in denial, or naïve about the existence of technostress and its negative impact on employees and organizations (Weil & Rosen, 1999). The lack of understanding of technostress is likely to limit employees' potentials at work and prevent organizations from amplifying their return on investments in ICTs.

The primary objective of this study is to address the research gaps in literature on technostress by developing and validating a theoretical model for studying the technostress consequences that are both immediate and extensive based on the widely accepted stressor-reaction-consequence work-related stress framework. More importantly, it integrates both job-centric and IT-centric consequences into a nomological network of the technostress consequences. The remainder of the paper is organized as follows. It begins with a review of existing literature on work-related stress and technostress. The research gaps from existing literature, which led to the development of the research model of this study, are then discussed. The research methodology and data analysis are presented next. The paper concludes with a discussion of results, contributions to theory and practice, limitations and recommendations for future research.

LITERATURE REVIEW

There is a constellation of studies on work-related stress in social science research. The general findings from this area can be best summarized using the Model of Work-Related Stress (See Figure 1) adapted from Kompier & Marcelissen (1990) and Cooper, Dewe & O'Driscoll (2001), both of which have received overwhelming empirical support. Furthermore, this model of work stress has provided foundation for subsequent studies on technostress (e.g. Ragu-Nathan et al., 2008). According to the model, work-related stress is conceptualized in terms of the relationship between the job and the person which is a function of many job condition variables. When exposed to stress, employees generate stress reactions,

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