A Two-Wave Study of the Impact of Job Characteristics and Motivators on Perceived Stress among Information Technology (IT) Consultants

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ABSTRACT

The aim of this two-wave study was to test whether job characteristics (job demand, job control), with ‘motivators’ (e.g., recognition, achievement, possibility for growth) as the mediating variable, can predict perceived stress (e.g., stressed, tense). These relationships were tested simultaneously using structural equation modeling analyses. A web-based questionnaire survey was conducted among 320 information technology (IT) consultants in Sweden. Data were collected at two time points, over a six-month follow-up period. Cross-sectional studies have been presented earlier but one of the contributions of this study is that it is a two-wave data set. The present two-wave study uses a model which covers more information than a cross-sectional design and the results add another aspect to existing work motivation and stress research, by using a longitudinal data set, and relating job characteristics to perceived stress directly and indirect. These findings emphasize the importance of job demand and illuminate the role of motivators in the experience of job stress among IT consultants. The presented model can be used to examine potential causes of job stress among IT consultants and may generate important lessons for managing the general workforce of tomorrow.

Keywords: IT Consultants, Job Control, Job Demand, Longitudinal, Motivation, Stress

INTRODUCTION

IT consultants are somewhat different from other IT professionals (and from white-collar workers in other occupations). According to Docherty and Huzzard (2003) IT consultants have to deal continuously with non-standard problems that originate with the customer. This work is often performed in co-operation with the customers who make strong demands...
(e.g., tight deadlines) on the consultants. In a recent paper, Oldham and Hackman (2010) [co-inventors of the Job Characteristics Model that is presented in Hackman & Oldham, 1980] explain that when they did the research on job design, the organizational work was generally organized as a linked set of specific jobs. These jobs were analyzed, defined and performed by individuals who worked mostly independently of one another. Moreover, Oldham and Hackman remark that nowadays there are fundamental changes in the relationships among people at work. Today, individuals may work in temporary teams whose membership changes as work requirements change and/or they may work in projects in which other members come from different organizations – for example, suppliers and clients. Oldham and Hackman give many examples of “new factors” in the “new” work environment that have existed for several years in the IT consultants’ work environment.

In the IT consultancy sector, where very high work commitment and high performance are expected, working time is non-regulated and is often more than 50-60 hours a week (Alvesson & Robertson, 2006). According to Caplen Jensen, Netterström, and Borg (2003) their daily work is characterized by projects with strict deadlines where there is often no time for important recovery since projects overlap – it is not unusual that a new task starts before the last one is completed. Adding to the pressure is the requirement that the relationship to the customer must remain strong, and therefore the IT consultant must also nurture the customer relationship in order to acquire future business (Maister, 1997).

JOB CHARACTERISTICS AND STRESS

The concept of “psychosocial work environment” is widely associated with health in the workplace, and numerous studies have established associations between psychosocial factors at work and (poor) health. According to Cox, Griffiths, and Rial-Gonzales (2000), one such factor is stress, which is a negative psychological condition that originates in the dynamic interaction between the individual and his/her work environment.

Job stress is a major issue among employees in advanced industrial societies and is recognized as a major health challenge, both for employees and for employers (International Labour Organization, 1986, 1992). Although there was a decrease in work-related disorders (both physical and mental) from 2003 to 2010 in Sweden, approximately 16% of the knowledge workers in Sweden reported stress and other types of mental strain during the last 12 months measured (Swedish Work Environment Authority, 2010).

Stress often results from high job demands in relation to the worker’s abilities, frustrated aspirations and dissatisfaction with valued goals (Kalimo & Mejman, 1987). A basic hypothesis in stress theory is that psychosocial stressors in the work environment, such as quantitative overload, qualitative underload, lack of control and lack of social support, and the interaction of such conditions, may have harmful effects on an individual’s health and wellbeing (Karasek & Theorell, 1990; Levi, Frankenhaeuser, & Gardell, 1986; Melin & Lundberg, 1997). Those effects may be specific to an industry, and they may be considerable in certain occupational groups, such as assembly line workers and service workers (Karasek & Theorell, 1990). However, there is little knowledge about these effects in the knowledge-worker industry, such as information technology (IT).

A number of research studies have been conducted on workplace burnout. One study shows that burnout consists of several core dimensions including emotional exhaustion and cynicism (disengagement) (Bakker, Demerouti, & Verbeke, 2004). Another study argues that burnout may be averted on several levels – individual, organizational and societal (Hansen, Sverke, & Näswall, 2009).

Different job demands can result in many different stress reactions. However, according to Le Blanc et al. (2000), the relationship between
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