IT Stress and Its Impact on Student’s Career Choice

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Abstract

The ITM field has a revolutionary impact on the economy, society, and business. Furthermore, there is an overabundance of information technology jobs available. Yet, students are not enrolling into information technology programs offered by colleges and universities. Research has suggested that stress plays a factor as to why many information technology professionals leave the information technology field. However, no research study has been conducted on the secondary education level to understand if high school seniors consider job stress as a factor when choosing a career. This presentation will provide the literature framework for our proposed study.

Keywords: IT stress, IT enrollment, IT workforce demand, student career choice

1. Relevant Literature

The field of Information Technology (IT) or Information Technology management (ITM) is unlike finance, marketing, management, and accounting in that it is a relatively new field that is constantly evolving due to the new developments in technology at various levels of use. The ITM field has a revolutionary impact on the economy, society, and business (Darrah, Giorelli, Dodson, 2007). However, the demand for IT/ITM jobs continues to exceed the supply of available ITM employees (Povich, 2012; Joseph, & Koh, 2012, National Science Board, 2010, Bartsch, 2008). Furthermore, the decreasing enrollments in ITM and related programs, has made filling ITM positions and retaining ITM professionals critical issues facing organizations (Allen and Armstrong, 2009, Hoover, 2010; Povich, 2012). Research suggested a profuse amount of explanations as why there are so few ITM professionals during this innovative IT time period for businesses (Joseph et.al. 2012; Joseph et al., 2007, Smith, Passos, Isaacs, 2010; Allen, Reid, Armstrong, & Riemenschneider, 2009). These reasons included high levels of work-related stress (Smith, et.al, 2010). However, these studies did not focus on high school student’s perception of stress. Specifically with the student’s perception of stressful careers, stress itself, and the impact that stress has on their career choice.
1.1 Stress @ Work for IT Professionals

The Health and Safety Executive (HSE) (2013) defines stress as an “adverse reaction” employees have while performing their job duties. Work related stress has been found in National Labour Force Surveys (LFS) as one of most reported types of work-related illness. The latest estimate from the 2011/12 LFS by the Office for National Statistics (ONS) in Great Britain report that approximately 40% of work related illnesses are stress related (HSE, 2013).

The impacts of work related stress are serious. There are various levels of stress that can overwhelm a person’s ability to cope. As a result, damaging psychological, health, behavioral, and performance consequences may occur changing a person’s cognitive aptitude. Lasting effects such as lack of “concentration, short-term memory, fine motor control, reasoning, and verbal performance” may occur (Lupien, S., Maheu, F., Tu, M., Fiocco, A. & Schramek, T. 2007). These cognitive functions are needed and used by IT professionals to successfully perform their job.

Work-related stress has become a serious problem affecting the ITM field (Patel, Kettinger, & Ryoo, 2013). Maccafferty (2013) reports that “more than one-half of IT administrators are considering leaving their job due to workplace stress”. Several work related stress factors for IT professionals include extensive work hours to make tight deadlines, workload challenges, lack of IT personnel, end-user frustrations and management’s lack of understanding towards technology, and end-users resistance to change (Ivancevich, Napier, & Wetherbe, 1983).

Stress for IT professionals can also be caused by the interpersonal contact with end-users/clients (Huarng, 2001). A recent study examined how emotional labor expectations creates work exhaustion/stress in IT professionals (Rutner, Reimenschneider, O’Leary-Kelly, & Hardgrave, 2011). They argued that in the past, IT professionals were often thought of in just technology terms; IT geeks that love keeping up with the latest technological developments, developing ways to automate processes, and supporting end-user and businesses technological needs. Today, Information Technology (IT) professionals go beyond the technology scope and enter into the classification of service professionals because of the current global business environment. IT professionals are expected to present a positive emotional demeanor when interacting with the end-user in the business environment. Positive emotional demeanor has been defined as ways of showing friendliness, kindness, happiness, and patience (Cote and Morgan, 2002; Erickson and Ritter, 2001). This is a stressful task for IT professionals because they are do not spend most of the day in the same type of customer related activity or problems. IT professionals typically shift back and forth from technical work to customer work. More importantly, IT professionals must respond to other’s emotions (ROEs) in order to complete their job function/task. Typically, as IT professionals ROEs, they are responding to frustrated, upset, and angry end-users as well as aggressive managers with limited of understanding regarding technology. Working with frustrated end-users is stressful for IT professionals (Rutner et. al, 2011, Shih, Lie, Klein, & Jiang, 2014).

Furthermore, additional stress has been created in the ITM sector because of globalization, outsourcing, and increasing competition, employees are under ever-escalating pressure to meet deadlines and reduce response time to the customer’s request (Salanova, Peiro, & Schaufeli, 2002, Syrek, Apostel & Antoni, 2013). Time pressure is one of the most dominant stress factors among ITM professionals (Bakker & Demerouti, 2007; Hetland, Sandal & Johnson, 2007; LePine, Podsakoff, & LePine, 2005; Syrek et. al, 2013).
For years, research reported ITM professionals working exceptionally long hours and have less of a work/life balance than their non-IT counterparts (CIO Research Report, 2011). In 2004, it was estimated that ITM employees worked over 50 hours per week including Saturdays and Sundays to make IT project deadlines (Vikram, Sethi, King, and James Campbell Quick, 2004). Today, the exceptionally long working hours continues as excessive workloads/work-overloads increase to meet the continuous education demand to stay current with the rapid technological changes and advances. A recent study conducted by Chandraiah (2012), investigated whether position level will influence ones occupational stress, for junior and senior IT managers of the Indian industries. His research found a significant difference (p<.05) between junior IT professionals and senior IT professionals. Junior level IT professionals experienced more stress due to higher workloads (t=2.18).

1.2 IT Workforce Shortage

ITM Work-overloads are also impacted by the shortage of ITM employees. World-wide there is a shortage of IT professionals entering the IT workforce compared to IT professionals leaving and retiring from the workforce (Benamati et al., 2010). Additionally, higher education institutes have also seen a decline in IT enrollments. More disturbing is that student are generally unaware of the numerous technology careers and career tracks available (Calitz, Greyling, & Cullen, 2011). This has often resulted in IT students not pursuing an IT career after graduation. The shortage of IT professionals is not going away any time soon. As a result it is important understand if IT stress is a factor as to why students are not enrolling into this discipline.

Relevance of This Research

The general question addressed in this research is similar to many previous studies, i.e., the impact of stress on information and technology professions. This work, however, focuses on senior level high school student’s perceptions of stress and career choices (ITM professions). Specifically, do students perceive IT jobs, in general, as stressful? Is stress a factor in career choices and program major concentration?

This research will add to the literature in several ways:

1. This research study analyzes a current student population of high school students.
2. It includes a large sample of high school students with an interest in technology.
3. It examines performance via three quality variables.

References


