

TECHNOSTRESS AMONG SOFTWARE PROFESSIONALS: AN INFERENCE ANALYSIS

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ABSTRACT: The study mainly focuses on analyzing stress among software professionals. The software industry is one of the growing sectors where most of the educated youth get employment. Being one of the areas that runs fully based on technology it has a negative side also. Work pressure in the software industry; which is often coined by the term techno-stress is being studied in this particular article. For the study, a thorough literature review is carried out and selected authors' viewpoints are quoted. Google Forms have been distributed among software professionals to understand their responses. Analysis of variance with the help of the Duncan Multiple Range Test is carried out to understand various techno-stress factors among different categories of employees.

KEYWORDS: techno-stress, techno-invasion, techno-uncertainty, techno-insecurity

I. INTRODUCTION:

Technological advancements are one of the most common topics of discussion among people at all levels of employment. A wide range of contemporary information technologies (IT) allow employees to manage their personal and professional responsibilities while completing their job assignments on time and at any location. Despite the undeniable advantages of IT, an increasing number of scientists studying employee productivity and organizational success caution against techno-stress, which lowers performance, causes health issues and negatively affects worker motivation and well-being. This kind of tension is known as "techno-stress" in scientific literature. (Jonušauskas, 2013)

II. LITERATURE REVIEW:

Information overload and interruptions are two negative thoughts that people are starting to associate with organizations using information and communication technology (ICT). Technostress, or stress brought on by the incompetence of employees to handle the needs of computer usage in an organization, is a concept that has been captured in recent literature to represent these thoughts. Comprehending the impact of these perceptions on employees' contentment with Information and Communication Technologies (ICT) and their efficiency in ICT-involved activities is crucial for optimizing the benefits of current computing environments since users play a crucial role in data processing throughout the organization and fulfilling application enabled routine work tasks. (Monideepa et al., 2010)

Although the influence of technostress contributors in technology-enabled transformation and performance can be mitigated by traditional effort-based mechanisms like developing technology competence, more empowering mechanisms like enhancing information systems (IS) literacy, developing technology self-efficacy, and participating in IS programs are needed to counteract the decline in overall performance caused by technostress generators. Pointing out that there are significant failure rates for IS adoption and use in the professional sales context, as well as ever-

higher expectations for technology-enabled activities/tasks in a workplace that is fundamentally interpersonal and relationship-oriented in terms of overall performance. (Monideepa et al., 2014)

Firstly, many aspects of technostress have been described that contribute to the current understanding of the stress persons face in companies. Second, the research demonstrates that technostress harms productivity, supporting the idea that unmanaged ICT-related stress might counteract anticipated gains in output. Third, the confirmation of the positive correlation between role stress and technostress introduces a fresh conceptual perspective to the body of research examining the interaction between technology and organizational structure and roles. In the practical realm, the study presents a diagnostic instrument to assess the level of technostress in an organization and indicates that role-defeating and role-overloading techniques might somewhat mitigate the negative impacts of technostress. (Monideepa et al., 2007)

Information and communication technologies (ICT) are ubiquitous in today's world and allow us to connect almost anywhere at any moment. In many facets of business and daily life, information and communication technologies (ICTs) including the internet, mobile communication networks, and cutting-edge wireless technologies are vital. To stay up with the rapidly evolving world of ICTs, workers must continually update their technical skills and endure mounting pressure from increasingly complicated systems and increased productivity standards. Workers in many firms face ICT-related technostress as a result of this employee productivity is impacted negatively. (Kanliang Wang et al., 2008)

Technology may increase workplace productivity, efficiency and flexibility; However, it may also negatively affect their physical, emotional, and cognitive health in addition to negatively affecting organizations (e.g., lower employee satisfaction, and decreased staff dedication). Information and communication technology (ICT) use exacerbates already-existing workplace stress. Research is required to look at the effects of technostress in a variety of industries, to pinpoint the workers most vulnerable to negative consequences, to investigate the influence on career choices, to assist clients in creating their coping mechanisms, and to figure out how career professionals can work with managers in the workplace. (Vernable et al., 2017)

Two psychological experiences of techno strain – technostress, where users report feelings of anxiety, exhaustion, scepticism and inefficiency beliefs related to technology use and Users who

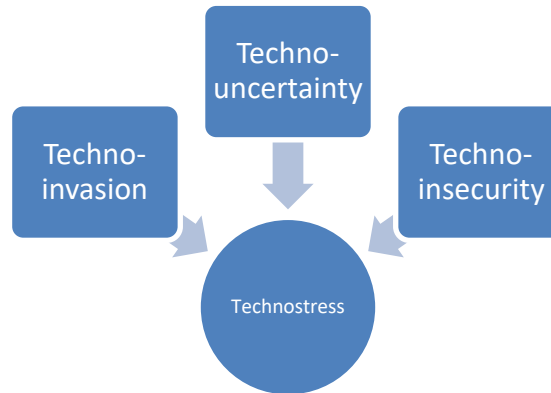
feel uncomfortable about their excessive and obsessive usage of these technologies are said to have a techno-addiction. Secondly, as anticipated, confirmatory factorial analyses demonstrated that, in addition to techno-strain, excessive and compulsive ICT use is a characteristic of technostress events. Furthermore, substantial differences were found between non-intensive and intense ICT users (as demonstrated by repeated analyses of variance) in two areas: (1) the dimensions of technostress, and (2) job/personal resources and particular job needs. Analyses showed that lack of independence, social support, ICT usage facilitators, transformational leadership, mental skills, workload stress, role uncertainty, emotional overload, harassment and barriers to ICT use all positively predict techno-strain. Techno addiction is strongly correlated with mobbing, role uncertainty, job pressure and a lack of emotional competencies. (Marisa Salanova et al., 2013)

Based on the findings, employees' contentment with ICT use and their aspirations to increase their use of it are both impacted by elements that either cause or prevent technostress. Conclusions have a significant effect on how technostress is managed in terms of both corporate performance and personal stress levels. The main conclusion is that managers should use the theoretical idea of technostress inhibitors to build coping mechanisms to deal with technology-related stress. (Sorebo et al., 2014)

Technology has greatly improved work-life effectiveness and efficiency. However, using technology at work has also made people more stressed out. Several medical and psychological issues are being brought on by workers' technostress. This study examines a variety of workplace pressures and offers strategies for addressing them, including awareness and communication, autonomy and social support, training programs, stress management programs and more. (Khan et al., 2016).

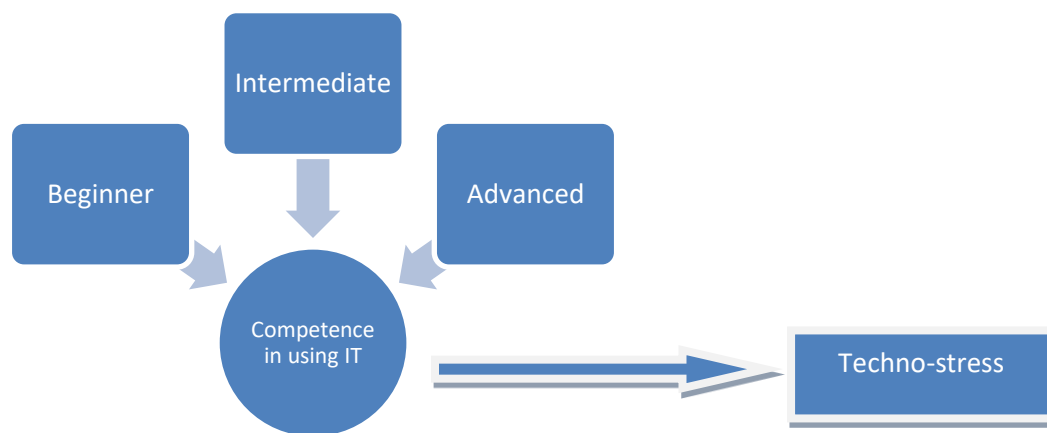
III. METHODOLOGY:

Fig 3.1 Diagram representing the relationship between variables contributing to techno-stress



The term techno-invasion refers to all new advancements made in the field of technological workspace, which is new to employees. Techno-uncertainty can be termed as the unpredictable changes that happen in the software industry. Techno-insecurity refers to the situation when employees fear being replaced by employees with hands-on experience in current technologies. Where technostress refers to the inner fear that arises among employees on using new technologies.

Fig 3.2 Diagram representing competence in using IT and technostress



Employees have been divided into three levels based on their competence in the usage of Information Technology; such as beginners (0-5 years of experience), intermediates (6-10 years of experience) and advanced (employees with more than 10 years of experience).

IV. ANALYSIS AND DISCUSSION

Table 4.1: ANOVA test to analyze significant differences among technostress variables and competence in using IT

Variables	Competence in using IT			F Value	P Value
	Beginner	Intermediate	Advanced		
Techno-invasion	22.36 ^a (8.10)	18.96 ^a (8.26)	21.36 ^a (9.26)	3.213	0.032*
Techno-uncertainty	11.26 ^a (4.23)	12.26 ^{ab} (3.96)	13.27 ^b (6.01)	1.052	0.319
Techno-insecurity	12.79 ^a (3.66)	13.78 ^a (4.01)	14.01 ^a (3.92)	4.012	0.032*
Techno-stress	16.66 ^a (4.02)	17.23 ^a (2.03)	18.54 ^b (3.02)	8.923	<0.001**

Note: * denotes significant at 5% level of significance

** denotes significance at a 1% level of significance

As the P value is less than 0.01, the variable techno-stress is significant at a 1% level of significance concerning competence in using IT among employees. Variables like techno-invasion and techno-insecurity are significant at a 5% level of significance concerning competence in using IT among employees. Techno-uncertainty is the variable which shows no significant difference among the variables under study.

Based on the Duncan Multiple Range Test (DMRT), there is no significant difference among employees in terms of techno-invasion and techno-insecurity. There is a significant difference among employees among beginners and advanced-level employees in terms of techno-uncertainty, whereas intermediate-level employees possess both the characteristics of beginners and advanced-level employees. The techno-stress level seems to be at the same level for beginner and intermediate-level employees when compared to advanced-level employees who differ in terms of competence in using IT.

V. CONCLUSION:

Any organization in general constituted of employees with different years of experience, in the case of technological competencies employees cannot be ranked based on years of service. As there are consequent advancements in the field of software industry employees at all levels are supposed to update their knowledge regularly to work with the latest software being used in the industry. In the current study, techno-stress is a significant concern which needs to be addressed among employees at all levels of employment. Frequent training programs and workshops can act as a resolution to the troubles faced by employees during their daily course of employment. Monetary rewards can be declared for employees who perform well in their project completion with the help of new software inventions.

DECLARATION:

I hereby declare that the entire content in the article is my contribution and ideas to the respective study.

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