

IMPACT OF TECHNOSTRESS ON ORGANISATIONAL COMMITMENT IN INFORMATION TECHNOLOGY SECTOR

Anjali Taneja¹
Ekta Singh²

ABSTRACT

Technology-induced stress or Technostress is caused by one's inability to cope or deal with information and communication technologies in a healthy manner. The adverse impact of enhanced work pressures created by technological environment is increasingly evident in the Indian Information Technology (IT) industry, where the technological changes have been most evident and most frequent. The present study aims to analyse the impact of Technostress on Organisational commitment of employees working in IT sector. For this purpose, a survey, using Technostress scale (Westermann, 2017) and Organisational Commitment Scale wrt Continuance Commitment (Allen & Meyer, 1990) was administered to a sample of 108 IT sector employees. The study was restricted to respondents working in Delhi NCR. Correlation and Regression analysis was performed for analysis of the results. Findings clearly revealed that Technostress is negatively related to organisational commitment and is also a significant predictor of commitment of employees. Hence, stress caused by Information and Computer Technology (ICT) usage needs to be effectively managed by both employers and employees for continued commitment of employees towards the organisation.

Keywords: *Continuance Commitment, ICT, IT Sector, Organisational Commitment, Technostress.*

INTRODUCTION

The boom in IT sector during the past few decades has brought in great influx of technology into our day to day life. From farms to factories, kitchens to workplaces, technology has made tasks simpler and faster. Because technology allows us to accomplish more in less time, we tend to take on 'too' much, feeling overwhelmed and never really see 'closure' of the task, as we are always plugged in. The continued accessibility at work and even while on vacation, gives the means to work non-stop, 24*7, which accentuates stress levels and eventually, causes burnout. Research suggests that individuals, who are continually stressed, experience significant degradation of their lifestyles (Kessler, 1997; Lazarus, 1993).

Simply stated, 'Stress' is an outcome of a transaction between an individual and the environment (Lazarus, 1990). Stress has been defined by Cooper, et al. (2001) as a 'psychological response' to the imbalance between individual and environment. Stress occurs when an individual is not able to match the demands placed on him/her by the environment. Technology-induced stress or Technostress was a term coined in 1984 by clinical psychologist Craig Brod, who described it as a modern disease caused by one's inability to cope or deal with information and communication technologies in a healthy manner. Weil and Rosen (1997:p5) defined technostress as "any negative effect on human attitudes, thoughts, behaviors, and psychology that directly or indirectly results from technology".

In fact the adverse impact of enhanced work pressures created by technological environment is increasingly evident in the

Indian IT industry, where the technological changes have been most evident and most frequent. Technostress in individuals and its impact on various employee outcomes for the organisation is, therefore, an important area of inquiry and needs to be adequately addressed (Cooper et. al. 2001).

The understanding of the nature and implications of Technostress, heretofore, has largely been based on studies conducted in the developed economies, especially in western countries. This paper, hence, aims to fulfill a gap in literature wrt the study of impact of technostress on employee's commitment to the organisation in the IT sector in India.

LITERATURE REVIEW

Technostress

Tarafdar et al. (2007) described technostress as a problem of adaptation due to a person's inability to cope with or to get used to the technology. They observed technostress to have five components, also called Techno-stress creators i.e Techno-overload, Techno- invasion, Techno-complexity, Techno-insecurity and Techno- uncertainty.

Salanova, et al (2013) examined technostress experiences and used the terms techno-strain and techno-addiction while comparing two groups based on intensity of ICT (Information and computer technology) use, i.e. non-intensive and intensive users. Findings indicated that those who use technology develop the skills necessary to enable them to be less anxious, skeptical, and more efficient. Non-intensive technology users had significantly more anxiety, skepticism, and inefficiency.

¹ Assistant Professor, Gitarattan International Business School, Delhi, anjali.monga@gmail.com

² Student, Gitarattan International Business School, Delhi, ekta51093@gmail.com

Fuglseth and Sorebo (2014) examined how managers cope with the negative effects of technostress on employee use of ICT. The study reported that “technostress creators have the strongest direct effect on employee satisfaction with the use of ICT, and further, the strongest mediated effect on employee intentions to extend the use of ICT” (p.168). Among the employees examined, technology - that was too complex to understand, and use, significantly impacted dissatisfaction with their use of ICT. The authors noted that increasing complexity can undermine employee willingness to use ICT. Hence, managers should implement strategies for coping with technostress.

Similarly Jena and Mohanti (2014) propounded that Technostress, arising out of new technologies, causes a negative psychological response on people. They further observed that since information and computer technology in education sector is changing fast, influx of ICT added to the work pressure amongst academicians. They also concluded that impact of Technostress levels varied depending upon gender, age, awareness levels and tenure etc. It was particularly reported that male academicians experienced higher level of Technostress than women. The younger generation was reported to have less impact of Technostress than their older peers. However no correlation was observed between Technostress and individual’s marital status.

Tarafdar et al (2015) examined technostress, technology-enabled innovation, technology-enabled performance, and overall performance of institutional sales professionals. The study identified technostress creators as reasons why individuals experience technostress, and technology characteristics such as usefulness, complexity, reliability, and pace of change.

Findings revealed an inverse relationship between technostress creators and decreasing performance. They also found that while traditional effort-based mechanisms, such as building technology competence, reduce the impact of technostress creators on technology-enabled innovation and performance, more empowering mechanisms such as developing technology self-efficacy and information systems (IS) literacy enhancement and involvement in IS initiatives are required to counter the decrease in overall performance because of technostress creators (p. 103).

Recognizing technology as an integral part of every aspect of society today, Jena (2015) described Technostress as a disease due to inability to cope with the newer technologies in a healthy manner. They state that “these diseases manifest itself in the process to accept and adopt computer technology efficiently in work place. Those who struggle to accept computer technology often feel pressure to accept and use computers” (Jena, 2015:p117). He conducted research to study the impact of Technostress vis-a-vis job satisfaction amongst academicians in India. It was observed that Technostress had negative impact on job satisfaction.

Organizational Commitment

Employee commitment to organization may be described as high involvement with their organisations which results in their staying with the organisation for a longer period of time. It is in the favour of organisations to have committed employees because commitment is not just linked to remaining with the organisation but also to reduced absenteeism and willingness of employee to share and make sacrifices for the sake of their organizations (Greenberg, 2005).

Research suggests that individuals who exhibited higher commitment to their organizations were also found to have higher loyalty and lower work stress (Muthuveloo & Rose, 2005), higher performance (Boshoff & Mels, 1994), and were much more willing to accept organizational change (Vakola & Nikolaou, 2005).

Allen & Meyer (1990) defined three major components of Organisational commitment. These were Affective, Continuance and Normative Commitment. Meyer & Allen (1991) report two aspects of commitment; investments and alternatives. They observed that employees may invest in the organization in various ways, including e.g. costs connected with moving their families to a place of current employment or devoting time to acquire specific organizational skills, which may require a personal sacrifice on their part. They describe the opposite of employee investment in an organisation as alternatives or limited possibilities of finding another job. They observe that strong continuance commitment will develop in those employees who believe that they have few such possibilities.

Wolowska (2014:p131) noted the factors affecting employee perception of alternative possibilities of employment to include information on labor market and general economic climate, the employee’s evaluation of own skills (current and desired on labor market or outdated), the effects of prior attempts of job search as well as the degree to which family factors limit their ability to change their place of residence.

Kumar et al (2013) attempted to study Technostress in relation to job satisfaction and organisational commitment. They proposed that Technostress is linked to reduced job satisfaction and may significantly reduce commitment. They noted that management of technostress depends on how one perceives technology changes and interprets it. Positive attitude and involvement in job work may help software professionals to cope up with technostress.

Based on the literature review, this paper proposes that Technostress may significantly reduce commitment of IT sector employees wrt Continuance commitment.

OBJECTIVES & SCOPE OF THE STUDY

The objective of the study was to explore the relationship between Perceived Technostress and an employee’s commitment to the organisation within the IT industry.

This study focused on the variable of Technostress and its effect on Continuance Commitment, which refers to the awareness of costs connected with leaving the organisation. The selection of respondents for the study was limited to the employees of IT sector employees whose offices were located within Delhi NCR.

METHODOLOGY

The research design was descriptive in nature and survey method was used to collect primary data. Self-report standardized questionnaires were used for data collection to measure the variables of Technostress and Organisational Commitment wrt Continuance Commitment.

Population and Sampling Techniques

A survey method was employed to collect data regarding the demographic profile and perceived Technostress of employees of IT sector. The sample for the study was selected using Convenience and Snowball sampling method. Total sample size for the study was 108 employees of IT sector.

Measuring Instrument

The questionnaire was divided into three sections, i.e. demographic data of respondent, perception of Technostress and measure of Organisational commitment. The Technostress measure perceived stress in terms of three dimensions which deal with the complexity of the technology being used, the invasiveness of technology and overload being felt by an employee due to technology usage. Technostress was measured using Westermann's (2017) adaptation of Technostress scale given by Tarafdar et al (2007) and contained 12 items.

Organisational commitment was measured using a 6 item scale developed by Allen & Meyer (1990) to measure Continuance commitment of employees. Both variables were measured on a Likert scale ranged from 1 to 5, with 1 representing 'Strongly disagree' and 5 representing 'Strongly agree'. Cronbach alpha was used for measuring the reliability of the questionnaires. The values are presented at Table 1.

Table 1: Reliability Statistics

Variable	Cronbach's Alpha	Items
TS	0.713	12
OC	0.647	6

TS: Technostress; OC: Organisational Commitment

HYPOTHESES

The following hypotheses were formulated to achieve the research objectives:

H₁: Perceived Technostress has a statistically significant relationship with Organisational commitment of the employee.

H₂: Perceived Technostress has a statistically significant impact on Organisational commitment of the employee.

DATA ANALYSIS

Table 2 presents the demographic profile of the respondents.

Table 2: Demographic Profile of Respondents

Gender Distribution (N=108)		
Gender	Frequency (in numbers)	Percentage (%)
Male	56	53.2%
Female	52	46.8%
Age Distribution (N=108)		
Age group	Frequency (in numbers)	Percentage (%)
21-30 years	89	74%
31-40 years	15	23%
41-50 years	4	3%
Above 50 years	0	0%
Educational Qualification (N=108)		
Education	Frequency (in numbers)	Percentage (%)
Graduate	31	23.9%
Post-Graduate	42	34.4%
Professional	24	30.1%
Others	11	12.6%

Out of 108 respondents, 53% are male, 74% were from the age group of 21-30 years and maximum respondents were post-graduates (34.4%).

Relationship between Technostress and Organisational Commitment

The relationship between the two variables of the study was analysed using correlation and regression techniques. Table 3 presents the results of Pearson product moment correlation analysis. The results indicate that there is a statistically significant negative relationship between perceived Technostress and Organizational commitment of respondents, $r(106) = -.684, p < .05$. Hence, we accept hypothesis H₁ that Perceived Technostress has a statistically significant relationship with Organisational commitment.

Table 3: Correlation Coefficients of Technostress, and Organisational Commitment (N=108)

Variable	TS	OC
TS	1	-0.684
OC	-0.684	1

Correlation is significant at the 0.01 level (2-tailed) TS: Technostress; OC: Organisational Commitment

Table 4: Regression Analysis of Technostress on Organisational Commitment (N=108)

Criterion Variable	Predictor Variable	β	R ²	Adjusted R ²	F	Sig
OC	TS	-0.848	0.468	0.463	93.991	0.000

TS: Technostress; OC: Organisational Commitment

Table 4 presents the results of regression analysis performed to test hypothesis 2. The results indicate that perceived Technostress is a significant predictor in lowering the organisational commitment of respondents ($\hat{\alpha} = -.848, p < .01$). Technostress also explained approximately 47% of the variance in Organisational commitment ($R^2 = .468, F(1,108) = 93.991, p < .01$). Hence we accept hypothesis H₂.

DISCUSSION

Previous literature suggests that stress in individuals may develop due to imbalance caused by pressures put on them by various factors in their environment. The stress caused by Information and Computer Technology to its users, termed as Technostress, can have several negative outcomes on employee attitudes.

Many authors have noted the fact that there exists negative impact of technostress on organizational commitment (Kumar, et al, 2013; Raghunathan et al, 2008). The results of this study fortify this finding, particularly towards continuance commitment which is the degree that you stay with the organization because you believe you have to stay.

Technostress may be caused by invasion of technology in our life, its overload and/or the complexity of the technology we may be using. The constant pressure and even urge, in some cases, to check emails/ texts at odd hours for the purpose of staying in loop may cause burnout in employees. It is thus in favour of both, the manager and the employee, to create a balance in their personal and professional lives. On part of the employee, self-regulation, i.e. limiting one's usage of technology like cell phones, laptops, television, etc is a must. On part of the manager, respecting an employee's personal space wrt life beyond working hours is a must.

Previous research notes that the employees evaluate their skills or lack of them before evaluating their choices of moving jobs (Allen & Meyer, 1996). Clark and Kalin (1996:p32) have also noted that training is critical for all staff, and the timing of training is very important and should coincide with "people's actual need to use the technology." Hence, managers must ensure an evaluation of tech-skills of their employees and provide them with training wherever required.

CONCLUSION

Technostress is perhaps the most common and important factor today in causing stress and burnout in employees. Technology may have simplified our life, but continuous updation in technology and it's over usage has created imbalance in our lifestyles. It is must for individuals today, to regulate their usage

of technology, motivate themselves to learn, adapt and acquire skills to keep themselves updated with the changes in technology. It is also essential for managers today, to recognize the complexity of technologies being used today and encourage their employees to develop coping skills to better manage the stress that technology use may cause in their lives. This will help their employees stay committed to the organisation, thus retaining the human capital of the organisation.

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