Impact of Techno-Stress on Job Performance Among its Employees in Chennai City

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ABSTRACT

Techno stress refers to the negative psychological response and feelings of distress or anxiety that individuals may experience when faced with the use or introduction of new technologies. It is often associated with an individual's perceived inability to cope with the demands and complexities of using technology, particularly within an organizational or work context. A study analyzes the impact of techno-stress on job performance among IT employees in Chennai at Tamilnadu. It is inferred that Techno-uncertainty, Techno-complexity, Techno-insecurity and Techno-overload are positivity effect with Job performance but Techno-invasion are negativity effect with Job performance.

Keyword: Techno stress, Job performance, Technology and Tamilnadu.

INTRODUCTION

Technostress refers to use of technology harmful effect of mental and physical feeling, particularly among employees who interact with technology extensively in their work. As our reliance on technology increases, technostress has become more prevalent. There are several factors that can contribute to technostress among IT employees. One key factor is the constant connectivity to work. Many IT professionals feel compelled to continuously check their emails and respond to

messages, even outside of regular work hours. This can lead to burnout and make it challenging for employees to disconnect and recharge. Another factor is the feeling of being overwhelmed by technology. IT employees often bear the responsibility of managing and troubleshooting complex systems. When issues arise, it can be frustrating and stressful. Additionally, the rapid advancements in technology can create pressure on employees to keep up with the latest tools and techniques, leading to feelings of inadequacy and anxiety.

To prevent technostress among IT employees, companies can take various measures. Encouraging employees to take breaks and disconnect from work during non-work hours is one approach. Providing training and support to help employees stay updated on the latest technology and tools is another helpful step. It's important to note that stress, in general, is a cognitive state experienced when an individual perceives a situation that exceeds their capabilities and resources, with expectations of significant differences in rewards and costs between meeting or not meeting the demand. Its consequences can include reduced job satisfaction, organizational commitment and productivity. Regular assessments are necessary to monitor the extent of this stress affecting employees.

Five components of techno-stress by Tarafdar et al., (2007)
Techno-overload
Techno-overload refers to situations where the use of computers and technology compels individuals to work more quickly and for longer hours. It is characterized by an overwhelming number of tasks, information, and demands that are facilitated or imposed by technology.

Techno-invasion
Techno-invasion refers to the constant accessibility and reachability facilitated by technology, where individuals feel the need to be constantly connected and available. It describes a situation where work-related demands and communication extend beyond regular office hours and permeate into personal time.

Techno-complexity
Techno-complexity refers to the challenges and stress associated with complex computer systems used in the workplace. It describes situations where individuals have to invest time and effort in learning and understanding new applications, updating their skills, and navigating through intricate systems.

Techno-insecurity
Techno-insecurity refers to the feeling of job insecurity and fear of losing one's job due to a perceived lack of understanding or proficiency with new gadgets, computing devices or emerging technologies. It is often associated with the belief that individuals who possess better technological skills or knowledge may replace them in their current positions.

Techno-uncertainty
Techno-uncertainty refers to the unsettling feeling that arises from the rapid changes and upgrades in computer systems, which result in short life cycles for technology. It relates to the constant need to acquire new knowledge and skills as systems evolve, leaving individuals with the challenge of keeping up and relearning rapidly and frequently.

STATEMENT OF THE PROBLEM
Techno-stress refers to the negative psychological and emotional effects experienced by individuals due to the use of technology, particularly in the workplace. In the context of IT employees, who often work extensively with technology, techno-stress can have a significant impact on job performance. IT employees often face high workloads and demanding expectations due to the fast-paced and rapidly evolving nature of the industry. The constant need to learn new technologies, meet deadlines, and handle multiple tasks can contribute to increased techno-stress, potentially affecting job performance. The IT field requires employees to constantly update their skills and knowledge to keep up with emerging technologies and industry trends. While this learning aspect can be stimulating, it can also cause stress when employees feel overwhelmed by

the need to constantly acquire new knowledge and skills. IT employees often work with complex systems, software and tools. Dealing with intricate technologies can lead to frustration and anxiety, especially when employees encounter technical issues or challenges. This can impede job performance and increase stress levels. The pervasive use of technology in IT roles blurs the boundaries between work and personal life. Constant connectivity and the expectation of being available outside of regular working hours can lead to reduced work-life balance. This imbalance can result in increased stress, which may ultimately affect job performance and overall well-being. IT employees are often bombarded with vast amounts of information, including emails, notifications and data. Managing this information overload can be overwhelming and distract from important tasks, potentially decreasing productivity and job performance. IT employees play a crucial role in ensuring the security of digital systems and data. The responsibility and pressure associated with safeguarding sensitive information can contribute to techno-stress, especially when dealing with potential cybersecurity threats or incidents. IT employees often spend long hours working with computers and other devices, which can lead to physical strain, eye strain and musculoskeletal problems. These physical health issues, combined with the psychological stressors of the job, can impact overall job performance.

OBJECTIVES OF THE STUDY

- ➢ To study the employee opinion towards techno stress
- ➢ To test the employee opinion towards job performance.
- ➢ To analysis the relationship among techno stress and job performance
- ➢ To test the factors effect on techno stress and job performance

HYPOTHESIS OF THE STUDY

H_o: Techno stress is not affecting the job performance of the employees

H_o: Techno stress does not have relationship with performance

SCOPE OF THE STUDY

Encourage work-life balance by establishing policies that promote boundaries between work and personal life. Encourage employees to take breaks, disconnect from technology after work hours, and provide flexible work arrangements where feasible. Foster open communication channels to address concerns, provide feedback and encourage a supportive work environment. Regular check-ins with employees can help identify and manage techno-stress triggers. Assess the usability and effectiveness of technology tools and systems used by IT employees. Identify areas where improvements can be made to reduce complexity, enhance efficiency and minimize frustration. Implement wellness initiatives, such as stress management workshops, mindfulness training, and physical wellness programs, to support employees' mental and physical well-being. Rayler, (2010) Encourage collaboration among IT employees to share knowledge, distribute workload and provide mutual support. Foster a team-oriented culture to alleviate the pressure and isolation that can contribute to techno-stress. By recognizing and addressing the impact of techno-stress on job performance, organizations can create a healthier work environment that promotes employee well-being and productivity in the IT sector. The advent of the digital revolution has led to a simultaneous rise in the complexity of everyday life, consequently contributing to elevated stress levels (Varma (2016); Winter & Koger (2011). Gaudioso, Turel, & Glimberti, (2017); Ayyagari et al., (2011); La Torre et al., (2019) This transformative era of technology has significantly impacted various aspects of our lives, encompassing work, communication, information access and entertainment. While these advancements offer numerous advantages, they also introduce new challenges and stress-inducing factors. Technology plays a significant role in today's organizations, and it can have both positive and negative impacts on individual and organizational performance.

FRAME WORK OF THE STUDY
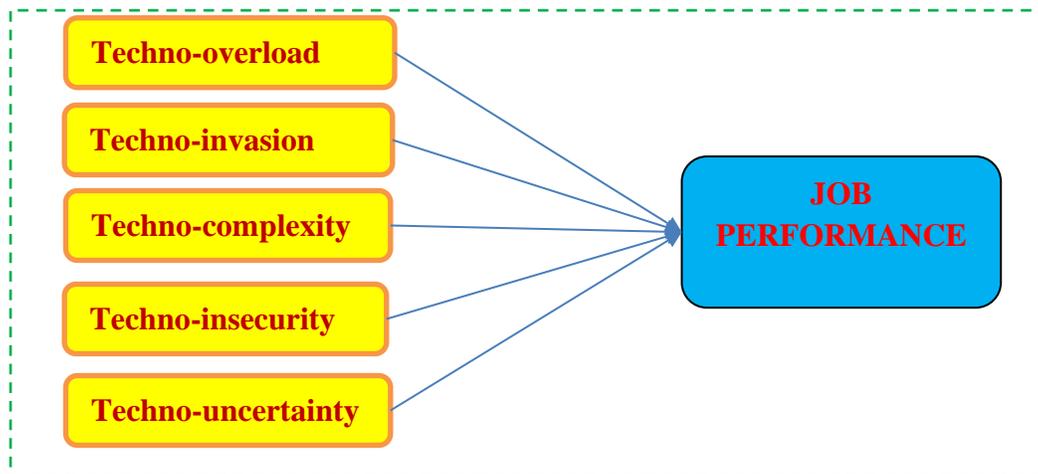
RESEARCH METHODOLOGY

The current study adopts a descriptive research approach. The primary objective is to gather information about the IT employees' perspectives on their techno-stress and its impact on their performance. Descriptive method is helping to the relationship between employee techno-stress and performance. The stratified random sampling was applied to collected the data from the respondents in Chennai. In this study a sample of 200 employee's data has been collected for analysis. Further, descriptive statistic, correlation and regression analyses are computed.

ANALYSES AND DISCUSSION

Table-1 depicts the techno-stress among the employees in IT companies. Techno-stress is analyzed with five statements in the five-point likert scale, where five stand for highly stress and one stands for not at all stress. The mean and standard deviation are calculated to know the stress level of the employee for each statement.

Table-1: Employees opinion towards techno-stress

S.NO	Techno-stress	Mean	Std. Dev
1.	Techno-overload	4.17	0.65
2.	Techno-invasion	4.16	0.60
3.	Techno-complexity	4.53	0.69
4.	Techno-insecurity	4.18	0.72
5.	Techno-uncertainty	3.71	0.76

Source: Primary data computed.

The mean values calculated range from 3.71 to 4.53, indicating the average scores obtained in the given data. The standard deviation values computed range from 0.60 to 0.76 representing the extent of variability or dispersion around the mean for each set of data points. From the mean values, it is observed that the employees are highly stress for Techno-complexity (4.53), followed by Techno-insecurity (4.18), Techno-invasion (4.16), Techno-overload (4.17) and Techno-uncertainty (3.71). It is found that the employees given more rate their opinion towards Techno-complexity, Techno-insecurity, Techno-invasion, and Techno-overload. But similarly low mean score varied the opinion towards Techno-

uncertainty. The study conducted by Balamurugan and Selvalakshmi (2019) explored the relationship between techno stress and organizational effectiveness among workers in private Textile Industries. The study found that a significant percentage of employees (76%) believed that their career prospects would be negatively affected by the experience of techno stress. This indicates that employees who reported experiencing stress related to technology felt that it could have detrimental effects on their professional growth and advancement within the organization.

Table-2: Employees opinion on Job Performance

S.NO	Opinion on Performance	Mean	Std. Dev
1.	To improve the quality of my work by technology	4.01	0.59
2.	To improve my productivity by technology	4.05	0.56
3.	To accomplished more work by technology	3.95	0.89
4.	This technology helps to perform my job better	4.14	0.71

Source: Primary data computed.

Based on the information provided, Table 2 presents the employee opinions regarding job performance, which is analyzed across four aspects using a five-point scale. A rating of five indicates a high level of performance, while a rating of one indicates a very low level of performance. The mean and standard deviation values are calculated to assess the overall level of job performance. The calculated mean values range from 3.95 to 4.14, indicating that employees have generally rated their job performance favorably across the four aspects. The aspect with the highest mean rating is "This technology helps me to perform my job better" with a mean of 4.14. This is followed by "This technology helps to improve my productivity" with a mean of 4.05, "This technology helps to improve the quality of my work" with a mean of 4.01, and "This technology helps me to accomplish more work than would otherwise be possible" with a mean of 3.95.

It is inferred that employees have a positive opinion regarding how technology assists them in performing their job, improving their productivity, enhancing the quality of their work, and enabling them to accomplish more tasks. These high mean ratings suggest that employees perceive technology as beneficial for their job performance. Techno stress factors highlight the psychological and emotional strain that individuals may experience as a result of their interaction with technology in various domains of life, including the workplace. Employee performance refers to the level of productivity, effectiveness, and achievement demonstrated by an individual in their work or job-related tasks. It involves the ability of employees to meet or exceed expectations, goals, and targets set by their organization. Employee performance is often assessed based on various criteria such as quality of work, quantity of output, timeliness, accuracy, innovation, teamwork, problem-solving abilities, and adherence to organizational policies and values.

Table:3-Relationship between techno stress and job performance

S.NO	Competency	Job performance	
		r-value	p-value
1.	Techno-overload	0. 238	0.001*
2.	Techno-invasion	0.243	0.001*
3.	Techno-complexity	0.358	0.001*
4.	Techno-insecurity	0.362	0.001*
5.	Techno-uncertainty	0.537	0.001*

Source: Primary data computed; * 1% Level of significance.

Table-3 presents the correlation between techno stress factors and job performance. The following correlation values indicate the relationship between each techno stress factor and its impact on performance: Techno-uncertainty (0.537), Techno-insecurity (0.362), Techno-complexity (0.358), Techno-invasion (0.243) and Techno-overload (0.238).

H₀: Techno stress does not have relationship with performance

Pearson correlation analysis, the p-values obtained were found to be significant at the one percent level. This indicates that there is strong evidence to reject the null hypothesis and support the stated hypothesis. The significant p-values suggest that there is a statistically significant relationship between the techno stress factors and job performance. Thus, the stated hypothesis (H_0) is rejected.

It is inferred that the Techno-overload, Techno-invasion, Techno-complexity, Techno-insecurity and Techno-uncertainty have relationship with performance. Kanimozhi and the study conducted by Kanimozhi and Buvaneswari in 2019 focused on investigating the impact of technostress on job performance among employees in the IT sector. These strategies included providing more technical support to employees, offering training programs to enhance their technological skills, providing a flexible work environment to reduce work-related stress, implementing stress management programs, arranging short vacations for employees to relax and recharge, and employing motivational techniques to alleviate the problem of techno-stress. it is found that techno-uncertainty, which refers to the uncertainty associated technology used and significant impact on the performance employees. This suggests that higher levels of techno-uncertainty were associated with better job performance among the employees. Additionally, the study found that working hours had a significant influence on techno-stress. Longer working hours were likely to contribute to higher levels of techno-stress among employees in the IT sector.

Table-4: Effect of techno stress on Job performance

R	R Square	Adjusted R Square	F-value	P-value
0.767	0.588	0.572	35.768	0.001*

S.NO	Predictors	B	Std. Error	Beta	t-value	p-value
	(Constant)	1.029	0.359	-	2.864	0.004*
1.	Techno-overload	0.027	0.008	0.148	3.537	0.001*
2.	Techno-invasion	-0.059	0.011	-0.334	-5.592	0.001*
3.	Techno-complexity	0.054	0.015	0.235	3.537	0.001*
4.	Techno-insecurity	1.833	0.370	0.340	4.954	0.001*
5.	Techno-uncertainty	1.132	0.330	0.222	3.434	0.001*

Source: Primary data computed; * 1% Level of significance.

Table-4 explains the effect of techno stress on job performance of the employees.

H₀: Techno stress is not affecting the job performance of the employees

The coefficient of determination, often denoted as R-square, is a measure of the strength of association in regression analysis. However, the adjusted R-square value, which takes into account the number of predictors and adjusts the R-square value accordingly. In this case, the adjusted R-square value was found to be 0.572, indicating that approximately 57.2 percent of the variation in the dependent variable can be explained by the independent variables included in the regression model.

The unstandardized coefficient beta value represents the relative significance of the predictors on the dependent variable. It quantifies the strength of the relationship using the following equation.

Job performance = 1.833 (Techno-insecurity) + 1.132 (Techno-uncertainty) + 0.054 (Techno-complexity) + 0.027 (Techno-overload) - 0.059 (Techno-invasion)

It is inferred that Techno-insecurity, Techno-uncertainty, Techno-complexity and Techno-overload are positivity effect with Job performance but Techno-invasion are negativity effect with Job performance. The study conducted by Purisiol, Bauwens and Batistic (2020) examined the effects of techno-stress on employees working in childcare facilities in the Netherlands. The study findings indicate that techno-stress has a negative impact on employee well-being, leading to low

work engagement and high emotional exhaustion. This, in turn, results in decreased performance in terms of the quality of care provided by employees. The study also revealed that employee well-being plays a mediating role in the relationship between techno-stress and its negative effects. It suggests that maintaining a positive state of well-being can help reduce the impact of techno-stress on individuals. The findings imply that employees in childcare facilities are experiencing stress related to technology, which has significant consequences for their well-being and job performance. High employee performance is desirable for organizations as it contributes to overall productivity, customer satisfaction, and business success. It is influenced by a combination of individual factors (such as skills, knowledge, motivation and attitude) and contextual factors (such as organizational culture, leadership, resources and work environment). Effective performance management systems are often implemented by organizations to set clear expectations, provide feedback, identify developmental needs and recognize or reward high performance.

CONCLUSION

This present study analyse the effect of techno-stress on job performance IT employees in Chennai at Tamilnadu. Higher computer technology awareness leads to lower computer-related anxiety and computer phobia. Indeed, certain technological tools or systems may not align well with individuals' cognitive abilities, leading to increased cognitive demands, irritation and frustration among employees. In such cases, it is reasonable to consider developing effective training programs and wellness initiatives to alleviate stress levels and enhance employees' sense of technological mastery and personal value, specifically in the context of Indian conditions. By providing training that focuses on improving technological skills and promoting well-being, organizations can help employees navigate technology more effectively and feel empowered in their work. These interventions can contribute to a healthier work environment and potentially enhance overall productivity and job satisfaction among academicians in India. It is inferred that Techno-insecurity, Techno-uncertainty, Techno-complexity and Techno-overload are positivity effect with Job performance but Techno-invasion are negativity effect with Job performance.

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