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Role of Organizational Environment in Reducing the Effect of Techno-Stress on Work Behavior of the University Teachers

Abstract　　This research determines the role of the Organizational Environment in reducing the effects of the Techno-Stress on Work Behavior of the University Teachers. The quantitative research method was followed whereas descriptive research design for being the most befitting in these kinds of investigations was opted for reaching certain findings and drawing the conclusions. The study was conducted on 394 university teachers appointed in various public sector Universities situated in the province of Punjab. A scheduled questionnaire built on a five-point Likert scale was used for gathering required data, whereas, in addition to descriptive analysis, inferential analysis of the collected data was done using t-test, correlation, and regression. Results of the study revealed that a significant correlation among the organizational environment and techno-stress prevails, whereas the analyzed data affirmed a significant effect of the techno-stress on the work behavior of the University Teachers.

Key Words: Organizational Environment, Techno-Stress, Work Behavior, University Teachers

Back Ground of the Study

It is a matter of fact that nowadays technology has emerged into a powerful tool for progress and development in almost all kinds of organizational setups. Globally, it has been observed that most of the organizations are at present, not only utilizing the technology practically, but different kinds of the organizations tend to largely rely upon technology for diverse tasks to be done adequately. It has been observed that the technology is changing the ways of exploration as well, and consequently, most of the organizations are seeking as to how and where they should initiate working for altering the manners for the promotion of desired interests for which the organization has been established. Now a day, different kinds of technologies are helping the individuals to accomplish the assigned work accurately and with considerably faster speed. Furthermore, the technology, with special reference to teaching and education, is proving to be quite helpful in enhancing the quality of teaching and learning by equipping the teachers with numerous skills to apply different ways and means for the acquirement of their assigned work quite appropriately in the educational institutions. It is noteworthy that in the first place, technology brought quite visible changes in social interactions and contacts among the human, and now, the technology is going to emerge into a general paradigm and is being recognized as pervasive computing. According to Wooldridge (2015) at present, the technology is acquiring new and has comparatively improved shape in any organization, where different kinds of digital equipment and devices are linked to the internet with hyper-connectivity and data saturation (Wooldridge, 2015). It has been observed that the technology is also being owned by the teaching community, to explore a variety of knowledge and experiences for the promotion of teaching disciples. The technology is proving to be quite effective in encouraging the teachers and promoting collaboration with fellow experts in various disciplines within the Institutions, in the country and by and large, all over the world which can be helpful to preferment over existing issues. On the other hand, it can be a point of concern for the stakeholders that the Teachers, during the course of the application of technology, may face a lot of problems associated with the use of

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technology which may alter their way of thinking, attitude, actions and conduct known as techno-stress. It is also worth mentioning that according to findings of a research study, it has been noted that technology affects negatively on behaviors and psychology of individuals, which is caused by an inability to cope with information and communication technology (Weil & Rosen, 1997).

The organization is a place where different types of people work together for the achievement of common goals, whereas the environment of an organization can be termed as the external factor which has a direct impact on the organization regarding policies, activities, and support (Schneider and Richers, 1983). The environment prevailing in any organization plays a vital role in organizational innovations for the very reason that it helps promote different aspects like motivation level, support (Farr et al, 2003) and the relationship between the goal attainment and performance of the respective employees (Glatly & Irving, 2001). Organizational support is, in fact, the key element which proves to be very effective in decreasing the techno-stress with support staff, provision of training, skills and appropriate knowledge at any workplace (Gündüz, 2014). Findings of a research study revealed that an organization, enjoying the services of highly satisfied individuals can attain comparatively much more in terms of the expectations of that organization (Moser & Galais, 2007).

Technology and Todays Education

In the present era, every person is connected with technology one way or the other, which is being identified as a core cause of stress in different ways too. Due to rapid change in the advancement of technology, individuals are supposed to adopt new styles of working with an underlying aim to enhance their workability and job efficacy. The current trends of the working environment are getting changed because of technology which is going to swamp in the daily work of individuals (Ayyagari, et al., 2011). It can be observed that most of the educational employees are using technological gadgets for the enhancement of professionalism as well as ease of work. They are using technology to facilitate students in their research work. On the other side, educational employees need to work faster with the use of technology to complete organizational tasks. Consequently, multiple challenges arise resulting from technological development which probably causes stress and feeling of frustration in educational employees. Employees are striving to get familiar with new software and hardware due to fear of being replaced with some skillful one at their workplaces (Garland & Noyes, 2008). As we all know that going for the change is not an easy task, therefore it is hard to adjust with new technologies.

Statement of the Problem

New trends and moves are being exercised and opted elsewhere in the world for the development of the organizations nowadays. For the increase in their capacities and potentialities, the organizations are raising utility and dependency upon technology to meet high standards and quality of services rendered to the pubic (Trafdar, et al., 2010). Users of the technologies can increase the level of their daily work assigned to them, with the help and assistance of information and communication technology, but it has been observed that most of the time they do not possess appropriate skills due to lack of proper training about the interaction with technology. It is therefore considered that the potentials of the users can probably affect their personal life negatively. Consequent upon, it is believed as critical for the users of such technologies to utilize the technology for the promotion of the level of work effectively, while they are satisfied with the present system of work, without any proper support of the organization (Huang, Yang, Jin, and Chiu, 2004). However, there is a dire need for proper investigation and research about factors that cause the techno-stress effects on the environment (Tarafdar, Tu, Ragu Nathan, et al., 2007). Thus, the techno-stress is becoming a consequential area in the studies concerning with the organizational behavior. Those Individuals who are enjoying positive support from their respective organization and they feel much satisfied with their present environment, are more productive and collaborative than those who are being provided with less support. According to a study conducted on the topic under discussion, the level of

satisfaction may increase the work productivity of the employees while accepting the organizational goals (Ostroff, 1992). It has been advocated by Trist (1978) that the potential of any organization is based on both i.e. the technical and the social domains, which only becomes possible with the good practice and policies of that organization. Hence, the organizational support is quite essential to mitigate the stress level among the employees and the Teachers, in case of Universities. In this perspective, the present study was designed to explore the relationship between techno-stress and work behavior with the moderating effect of organizational environment in the higher educational institutions, the Universities of the Punjab province, in the Islamic Republic of Pakistan.

Objectives of the Study

Following were the Objectives of the Research Study

1. To know the effects of organizational environment on the work behavior of the University Teachers.
2. To determine the effects of techno-stress on the work behavior of University Teachers.

Research Hypotheses

The following research hypotheses were built and tested with the help of appropriate statistical measures.

H$_1$: There is no significant effect of Technostress on the work behavior of University Teachers.

H$_2$: There is no significant effect of organizational environment on the work behavior of the University Teachers.

Delimitations of the Study

This study was delimited to the Teachers appointed in different Universities of the province of Punjab. Further, the study was delimited to two faculties of the entire target Universities including the faculty of Arts and the faculty of sciences. Furthermore, despite the qualitative approach, the results were sought only through quantitative data and thus the study was confined to the mere quantitative method.

Literature Review

Techno-Stress

The term techno-stress, for the first time, was introduced by one of the famous clinical psychologists who had considerable experience and quite a large contribution to the field of information and communication technology. He defined the term techno-stress as one of the modern diseases which existed in the world of computer technology. The prime symptom of the aforesaid disease was explained as the inability of respective individuals in dealing properly with technology, who unfortunately failed to handle the technology appropriately and in a healthy manner (Brod, 1984).

Milis (1998) while defining techno-stress maintained that it is the name of the situation where technology induces stress on a person who has a lack of support, equipment, and adequate technology as well. It has also been said that technology is supposed to change organizational work and it refers to the resistance in the way of change, which is not comfortable neither easily acceptable. It is thus much more desirable and therefore required to manage the change in any organization rather than managing the techno-stress (Clark & Kalin, 1996).

In 2007, a research journal was published on the techno-stress by Tarafdar, Tu, Ragu-Nathan, who explained problems concerning with the adoption of technology, due to inability of a certain individual, who was unable to use the technology properly, which quite naturally resulted in many kinds of stresses upon them related to the technology. They also identified five components of techno-stress, which are being narrated hereunder:

Techno-Overload

They maintained that the use of technology creates a situation in certain organizations where individuals are forced to work more, and faster due to the pressure of technology. When the individuals are supposed to exert extra energy on work-load, resistance against change is ultimately caused during the course of familiarization and adaption of new technologies regarding tight schedules.

Techno-Invasion

introduction of technology intends to change the world by altering manual work with new computer technology. This process of change creates a situation where individuals working in any organization are supposed to be always connected with technology without any distinction between work and personal context. Supposed to be connected always, the respective individuals feel deprived, lacking in finding a sufficient amount of time for their family and friends, because of mostly remaining in touch with the technology and working for the organization constantly.

Techno-Complexity

It is believed that there is a need for specific knowledge and adequate skills for working with new technology. Lack of skills and adequate knowledge of the procedures and functions of technology and difficulties in handling new technology can create a situation where an individual can feel frustrated due to their inability of operating appropriately using the technology. Hence they feel forced to spend enough time acquiring respective knowledge, various skills and deep understanding for use of technology, it commonly results in complexity about technology.

Techno-Insecurity

When the individuals involved in the use of technology are caught in complexity in technological skills, then a situation of fear and insecurity become quite apparent. The individuals who unfortunately cannot attain sufficient knowhow and operative abilities, and fail to learn new technological skills, always remain under pressure and feel the fear of replacement with skilled ones having comparatively a better understanding as they tend to constantly update themselves with new technological skills.

Techno-Uncertainty

introduction of new technologies and constant up-gradation of existing knowledge and skills ultimately raise a condition of uncertainty. It is a situation where variation and upgrading of experience for a short life cycle of the computer system continues. Consistent process of change results in uncertainty where individuals start thinking that prevailing knowledge will no longer last and it is supposed to be replaced shortly with a new one. This continual threat of rejection and replacement of existing with the new knowledge always causes uncertainty.

Work-Environment and Organizational Environment

Work environment refers to the actions, forces, and totality of different other factors that assist and promote the activities and performance of the employees and Teachers in case of the educational institutions i.e. the Universities (Kohun, 1992). It plays a key role in optimizing the performance and output level of the Teachers and the employees of the organization. It can be termed as an interrelationship among the worker and the environment of an organization where employees work together for the attainment of common goals set by the organization. It is valuable to mention that the working environment has many dimensions, but work and context are the two broader ones. Work pertains to all the job characteristics that are carried out by employees in an organizational setup. It is a matter of fact that the workers i.e. the Teachers in the Universities or other employees in the organization are supposed to face adverse effects on their performance in those organizations

where the work environment is being ignored. In addition to the above, many other factors can be termed as part of the work environment specifically in the Universities for the Teachers. These factors include good and fraternal relationships among the Teachers, incentives, and motivation for the improvement of the performance, performance-based recognition, safety, and job security for optimal performance. Moreover, once the Teachers and other employees are considered as important, contributor and valuable assets for the organization, and where they are given to believe that the organization respects and realizes their worth, then the level of potentiality and commitment is quite significantly increased (Spector, 1997).

According to Oppeman (2002) work environment consists of three sub-environmental factors which are categorized as human environment, organizational environment, and technical environment. As regards the Human environment, it relates to the workforce including main and co-workers i.e. the Teachers and the support staff. It is also related to the issues concerning interactions, leadership, management workgroups, and teams. As far as the Organizational environment is concerned it refers to all procedures, practices, philosophy, and values which are the basics for every organization. On the other hand, the Technical environment consists of all the elements that relate to the technical facilities associated with the performance of the Teachers and other employees following their activities and responsibilities.

Methods and Materials

Research Method and Design

There are three methods of research most commonly used in social sciences as well as in the field of education, including a Qualitative research approach, a Quantitative approach for conducting research and Mixed Method research. Keeping in view the perception-based data required for determining the role of organizational environment prevailing in the Universities, in this era of technological advancement and utilization, and its ultimate effect in belittling techno-stress upon the Teachers, the present study was built upon the premises of quantitative research method. Within Quantitative method, there are many research designs including Experimental design, Causal comparative design, and Descriptive design, hence for being the most relevant and accomplishing one the descriptive design was opted for pursuing this study as it is believed that the descriptive is the best research design for examining persisting issues related with education and other concerning issues in the society. The descriptive research design involves the process of gathering perception oriented measurable facts for reaching findings and drawing the conclusion.

The population of the Study

The population of the present research comprised of all the Teachers appointed in the Public sector Universities, located in the province of Punjab in Pakistan. A total number of the Government established Universities situated in different cities of the province counts as 26, and a large number of Teachers are working in the aforesaid Universities. Keeping ahead limited resources and the time constraints, 13 Universities out of a total of 26 i.e. 50% were taken for the selection of sampled population from Arts and the Sciences faculties of the respective Universities.

Sampling Technique and Sample Size

Sampling is a process of selecting a smaller approachable portion from the whole population to gather the required data. There are different techniques for taking samples used in qualitative as well as quantitative studies. Stratified sampling technique was used for the selection of samples as in this study; the entire population was grouped into two strata i.e. Faculty of Science formed stratum one whereas the Faculty of Arts formed stratum two. A total of 394 Teachers from both Sciences and Arts faculties of the above mentioned 13 Universities were selected as sample, and for the purpose,

a pertinent formula of Yamane (1967) for determining the sample size was applied, which is as follow:

n = N/1+Ne

'N' refers to Population, 'e' stands for the level of significance and 'n' refer to the calculated sample size

An instrument for Data Collection

Because of the nature of the data required, the Questionnaire was considered to be the most suitable device for data collection. For the purpose, a structured questionnaire was built whereas the five-point Likert scale was used for grading the responses received from the respondents.

The questionnaire was developed following rigorous study of the related literature and with the consultation of the experts in the field of social sciences, specifically from the area of education. The five Point Likert scale rated replies of the respondents as strongly agree, agree, undecided, disagree and strongly disagree. The questionnaire was divided into two parts. The preliminary part of the questionnaire was specified for demographic information of the respondents including the status of the respondents, category of the teaching faculty, qualification, and gender, etc. The main body or second segment of the questionnaire comprised statements concerning perceptions of the respondents regarding test variables i.e. organizational environment of the Universities, techno-stress, and effects on work behavior of the Teachers.

Validity, Reliability and Pilot Testing of the Instrument

The questionnaire was formally administered following the determination of its validity, reliability and after pilot testing. The validity of the instrument was affirmed with the help of relevant literature and the assistance of the experts in the area concerned. The suggestions of the experts were positively acknowledged and necessary incorporation, alteration, and changes were made in light of the recommendations of experts. The reliability of the data collection tool was checked on Cronbach's Alpha and the score i.e. .82 was found as acceptable for launching the instrument for data collection. A group of Teachers from amongst the population was taken for pilot testing of the instrument as a trial run and to assess the level of ease and understanding of the respondents in apprehending and accordingly replying to the queries. This group of Teachers was not included in the sampled population for gathering data. After validation and pilot test of the questionnaire through the above mentioned means, it was administered upon the sampled population for the collection of required data.

Analysis of Gathered Data

The data after the collection was organized and accordingly arranged whereas it was tabulated in the shape of the data matrix for analysis. SPSS version 20 was used for the statistical treatment of the data and in addition to the descriptive analysis, the inferential analysis was done for which Pearson's Product Correlation, linear regression, and t-test were used.

Analysis and Interpretations of Data

Table 1. Relationship Between Techno-Stress and Work Behavior of University Teachers.

Correlations			
Variables	**Tests**	**Techno-Stress**	**Work behavior**
Techno-Stress	Pearson Correlation	1	.728
	Significance		.000
Work behavior	Pearson Correlation	.728	1
	significance	.000	

The result of the analysis depicted that correlation is 0.728, and the P-value is .000 which indicated that it is significant.

Table 2. Correlation Between Organizational Environment and Techno-Stress

Correlations

Variables	Tests	Organizational Environment	Techno-Stress
Organizational Environment	Pearson Correlation	1	.816
	Significance		.000
Techno-Stress	Pearson Correlation	.816	1
	Significance	.000	

The result of the analysis demonstrated that the correlation is 0.816, while the P-value is 0.000 which indicated that it is significant.

Table 3. T-Test Showing the Difference Between Male and Female Respondents Regarding Organizational Environment, Techno-Stress and Work Behavior

Testing Variables	Locality	N	Mean	Std. Deviation	t	Sig.
Organizational Environment	Male	200	3.416	1.54	.541	.529
	Female	194	3.725	1.31		
Techno-stress	Male	200	3.352	0.78	.872	.462
	Female	194	3.649	0.91		
Work Behavior	Male	200	3.315	0 .87	.362	.794
	Female	194	3.657	0 .48		

The analysis indicated that no significant differences found in male and female views regarding the organizational environment, techno-stress and work behavior.

Table 4. Impact of Organizational Environment on Techno-Stress

Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	p
1	.231	.659	.011	.451	0.001

Predictors: (Constant), Organizational Environment; Dependent Variable: Techno-Stress

The table above declared that Techno-Stress was predicted by the Organizational Environment (65%). Therefore, it is concluded that the Organizational Environment has a significant effect on Techno-Stress.

Table 5. Impact of Techno-Stress on the Work Behavior

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	p
1	.455	.549	.001	.221	0.000

Predictors: (Constant), Techno-Stress; Dependent Variable: Work Behavior

The results of the regression highlighted that variance in Work Behavior was predicted by Techno-Stress (55%). Hence it is concluded that the Techno-Stress has a significant effect on the Work Behavior

Findings and Conclusion

This research study intended to investigate and highlight a few very important aspects of the problem. The research study aimed to know the existence of any correlation among the organization environment prevailing in the subject Universities of the province of Punjab and consequent techno-stress, for which Pearson's product-moment was applied. It was found that a significant positive correlation between the environment and the techno-stress exists which is resultant of the demand and use of modern technology in the teaching and learning process.

The research study also intended to investigate the relationship between existing techno-stress and work behavior of the teachers engaged in the teaching and learning process and is supposed to utilize available technology for the purpose. The analyzed data affirmed the presence of a significant positive correlation among techno-stress and work behavior of the teachers supposed to seek technical assistance while teaching in and from outside the classroom.

The researchers attempted to know the difference of perception among male and female teaching staff regarding the prevalence of techno-stress due to the organizational setup of the Universities and its relationship with the workability and performance of the respective teachers. T-test was applied for the purpose and the results revealed no significant difference of perception among the respondents as both simultaneously agreed that techno-stress, due to usage of the technology persists, and it is significantly related to the work behavior of the stakeholders.

To know the role and effectuality of the organizational environment in the Universities, in creating a sort of techno-stress for the users of technology provided for teaching purposes, linear regression analysis was done. It was concluded that demand and ultimate use of technology and the role of the organizational environment is significantly and considerably exerting techno-stress upon its users.

For addressing the question regarding effects of techno-stress upon the teachers, who are supposed, rather required to use the latest technology while teaching, yet again linear regression analysis of the gather data was done. Findings of the analysis revealed that work behavior and efficacy of the respective teachers are adversely affected due to techno-stress they tend to bear when they are involved in teaching with the assistance of technology. The stress mount if unfortunately, the teachers, not all, but many of them feel hardships in dealing with modern technology for usage in the teaching and learning process.

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