

The Relationship Between Technostress And Work Engagement

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Abstract:

In this study, the effect of excessive technostress on work engagement of employees was examined. The sample of the study consists of 141 office workers working in different sectors in Konya province. Research data were collected using a survey technique. The technostress scale and the work load scale were used to measure research variables. The reliability of the scales was tested with Cronbach's Alpha, and their validity was tested. Additionally, simple regression analysis was used to determine the relationship between variables. According to the findings of the study, it is seen that employees' technostress is negative and significantly related to their work engagement.

Background: *In this study, the effect of technostress on employees' work engagement levels was examined. With these results, it is hoped that this study will guide future researchers in determining similar situations in different sectors.*

Materials and methods: *The research data was collected through a survey method. The survey was conducted physically, face to face. A total of 141 survey forms were filled out for the study. However, incomplete, inconsistent and incorrectly filled survey forms were excluded from the scope of the study. A total of 137 survey formulas were evaluated. The survey consists of three sections: demographic questions technostress and work engagement. IBM AMOS-22 and SPSS-27 package programs were used in the research.*

Result: *In this study, regression analysis was performed in order to obtain the effect of technostress on work engagement. In the analysis, while work engagement was taken as the dependent variable, technostress was taken as the independent variable. According to the results obtained, the independent variable explains 27,6% of the change in the dependent variable. ($R^2 = -0,276, p < 0.05$). Accordingly, it is understood that the technostress level of employees explains the variance of perceived by 27,6%. Consequently, it has been determined that technostress has a negative and significant effect on work engagement, and work engagement decreasing as the level of technostress of employees increases. Based on these results, H1: "Technostress of employees has a statistically significant and negative effect on their work engagement." the main hypothesis was accepted.*

Conclusion: *This study reveals that technostress reduces employees' work engagement. The study results were similar to the results of existing studies in the literature.*

Key Words: *Technostress, work engagement, organization*

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I. Introduction

The concept of stress can be expressed as pressure and strain (Baltaş and Baltaş, 1992). Stress is the source of physical and psychological distress in the organism (Sokolic, 2022). Technostress is the stress that occurs in individuals as a result of the intensive use of information technologies and is caused by the use of information technologies (Ragu-Nathan, et al., 2008). Technostress causes negative situations such as anxiety, mental fatigue, ineffectiveness and skepticism in individuals (Salanova et al., 2007 to Brivio et al., 2018). The concept of work engagement is defined by vitality, dedication and concentration. Work engagement is expressed as a satisfying and work-oriented state of mind (Schaufeli et al. 2002 to Bakker and Demerouti, 2008).

Technostress creates psychosocial factors that negatively affect employees and serious problems that disrupt work life (Salazar-Coancha et al. 2021 to Brivio et al., 2018). There are studies in the literature that demonstrate the negative impact of technostress on work engagement. As a result of the research, it was determined that there was a negative relationship between technostress and work engagement (Bail, et al., 2023). The impact of technology stress factors, work-family conflict and perceived organizational support (POS) on work engagement for employees working in virtual and hybrid work environments was evaluated; a negative relationship was found between technostress and work engagement (Harunavamwe and Kanengoni, 2023).

II. Material And Methods

Purpose and Importance of the Research

The aim of the study is to determine the effect of technostress on work engagement. The study's hypothesis was determined based on information obtained from the research and literature review conducted within the scope of the study. This hypothesis was expressed in writing.

H1: "Technostress of employees has a statistically significant and negative effect on their work engagement."

The Universe and Sample of the Research

No restrictions were made regarding sector, profession, or position when determining the population. The research sample consisted of office workers in various private institutions in Konya. The population of the research consists of employees in Konya. The sample of the research consists of 141 employees in Konya and convenience sampling method was used in the research. This research is a quantitative study and a survey was used as data collection. Survey forms were distributed to 141 employees, but 4 of the surveys were removed from the sample due to incomplete or incorrect filling. A total of 137 surveys were evaluated. Findings regarding the demographic characteristics of the research participants are presented in Table 1.

Table 1: Demographic Characteristics of the Participants (n = 137)

Demographic Characteristics		n	%
Gender	Man	51	37,2
	Woman	86	62,7
Marial Status	Married	63	45,9
	Single	74	54,0
Age	18-25 age	12	08,7
	26-29 age	26	18,9
	30-35 age	33	24,0
	36-40 age	41	29,9
	41-65 age	25	18,2
Education	Primary /secondary school	1	0,00
	High school	6	4,3
	Associate degree	49	35,7
	Bachelor	63	45,9
	Master	18	13,1
Job Duration	Less than 1 year	11	8,0
	1-5 years	9	6,5
	6-10 years	17	12,4
	11-15 years	51	37,2
	16 years and above	49	35,7
	Total	137	100

According to the findings from Table 1, 62, 7 % of the participants were women and 37,2 % were man; 45,9 % were married and 54 % were single; 24 % were 30-35 age; 29,9 % were 36-40 age; 18,2 % were 41-65 age; 45,9 % were bachelor; 37,2 % were job duration 11-15 years;

Data Collection Tool Used in the Research

The survey used in the study consisted of three sections. The first section included demographic information. The second section included the technostress scale and the third section included the work engagement scale. The technostress scale was developed by Tarafdar and colleagues and consists of 23 items and 5 sub-factors (Tarafdar et al., 2010). The work engagement scale was developed by Schaufeli et al. (2002) and adapted to Turkish by Turgut (2011) (Turgut, 2011). The scales are 5-point Likert type, with statements ranging from "strongly disagree (1)" to "strongly agree (5)".

Data Analysis

The data obtained from the survey study were analyzed with IBM AMOS-22 and SPSS-27 package program. Reliability analysis was applied to the scales used in the study. Data were also analyzed for normality. It was determined that the data showed a normal distribution and the data were analyzed using parametric analysis in this direction. Frequency, reliability and regression analysis were performed in the study.

III. Results

As a result of the validity and reliability analysis, the Technostress Scale consists of 5 factors and was tested with factor analysis. Factor loadings ranged from .689 to .967, KMO (.864) and Bartlett ($X^2=1671.197$; $p=000$) test results show that the sample size of the scale is suitable and significant for factor analysis and the total variance is 69.571. As a result of the reliability analysis of the scale, the internal consistency coefficient was

determined as 88.5%. The work engagement scale consists of 3 factors and was tested through factor analysis. Factor loadings ranged from .678 to .972, KMO (.886) and Bartlett ($X^2=1861.186$; $p=000$) test results show that the sample size of the scale is suitable and significant for factor analysis and the total variance is 79.672. As a result of the reliability analysis of the scale, the internal consistency coefficient was determined as 89.6%.

As part of the research, regression analysis was conducted to determine the impact of employees' technostress levels on their work engagement levels. The results of the simple regression analysis are presented in Table 2.

Table 2: Regression analysis test results

Model	Unstandardized Coefficients		Standardized Beta Coefficients		
Dependent Variable	B	Standard Deviation	β	T	P
	2,717	,146		,18,286	0,000
Technostress	-,228		-,315*		,003

Significance level of F ,000; Durbin-Watson -1,586; R^2 -,228; Adjusted R^2 ,916; Standard Error of Estimation 31,201; $P<0,05$. The regression analysis revealed that employees' technostress levels affected their work engagement levels. The direction of the effect was negative. On the other hand, the magnitude of the effect was -0.276.

IV. Conclusion

As a result of the analysis, it was determined that 37.2% of the participants were male and 62.7% were female. On the other hand, it was determined that the majority of the employees participating in the research, 54%, were single. In addition, it was determined that 45.9% of the employees participating in the research had undergraduate education and 35.7% had high school education. As a result of the analysis of the age ranges of the employees participating in the research, it was determined that 29.9% of the employees in question were between the ages of 36-40. As a result of the regression analysis, it was determined that when the technostress level increased by 1 unit, the work engagement levels of employees decreased by 27.8%. In line with this result, the study's hypothesis *H1*: "Technostress of employees has a statistically significant and negative effect on their work engagement." was accepted. The results obtained from the research are similar to those found in literature reviews. The research results support the results of previous studies (Bail, et al., 2023; Harunavamwe and Kanengoni, 2023). In this regard, it can be said that businesses should pay more attention to the technostress factor. Because in order for businesses to work more effectively and efficiently, technostress resulting from information technologies use must be managed and the negative consequences that may arise on employees must be eliminated. Work engagement is a factor that has positive effects on employees' productivity, performance and commitment to work. Therefore, for businesses, work engagement will have positive consequences for both employees and organizations. It is crucial for managers to take measures to prevent technostress, which negatively impacts work engagement levels.

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