

Nadir Ersen<sup>1</sup>, Uğur Can Usta<sup>2</sup>, Bahadır Cagri Bayram<sup>3</sup>, İlker Akyüz<sup>4</sup>

# Intermediate Role of Presenteeism in Relationship Between Organizational Stress and Organizational Silence: A Research on Forest Industry Employees

Posredna uloga prezentizma u odnosu između organizacijskog stresa i organizacijske šutnje: istraživanje o zaposlenicima u drvoprerađivačkoj industriji

## ORIGINAL SCIENTIFIC PAPER

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Licensee Faculty of Forestry and Wood Technology, University of Zagreb.

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**ABSTRACT** • *The purpose of this study is to investigate the mediating role of presenteeism in the relationship between organizational stress and organizational silence of 305 forest products employees in İstanbul and Kocaeli, Turkey. According to our literature review, although some important studies about presenteeism, stress, and silence can be found, this study is the first to explore the mediating role of presenteeism in the relationship between organizational stress and organizational silence in forest products sector. The research was designed as a field study and conducted using a questionnaire. The questionnaire involved forest industry employees' demographic data, Organizational Stress Scale, Organizational Silence Scale, and Stanford Presenteeism Scale. Data were analyzed in SPSS and AMOS, incorporating statistical tests such as exploratory and confirmatory factor analysis, correlation analysis, and structural equation modeling. Results of the analyzed data showed that presenteeism had a significant moderating effect on the relationship between organizational stress and organizational silence. Moreover, organizational stress had a positive effect on presenteeism, while organizational silence had a negative effect. Organizational stress had no effect on organizational silence. Therefore, managers should develop strategies for coping with stress to reduce presenteeism behavior of their employees and identify organizational stress factors causing organizational silence.*

**KEYWORDS:** *stress, silence, presenteeism, forest products sector*

<sup>1</sup> Author is researcher at Artvin Çoruh University, Artvin Vocational School, Department of Forestry, Artvin, Turkey. <https://orcid.org/0000-0003-3643-1390>

<sup>2</sup> Author is researcher at Bursa Technical University, Faculty of Forest, Department of Forest Industry Engineering, Bursa, Turkey. <https://orcid.org/0000-0002-0097-5786>

<sup>3</sup> Author is researcher at Kastamonu University, Faculty of Forest, Department of Forest Industry Engineering, Kastamonu, Turkey. <https://orcid.org/0000-0002-8563-0233>

<sup>4</sup> Author is researcher at Karadeniz Technical University, Faculty of Forest, Department of Forest Industry Engineering, Trabzon, Turkey. <https://orcid.org/0000-0003-4241-1118>

**SAŽETAK** • Cilj ovog istraživanja bilo je rasvijetljavanje posredničke uloge prezentizma u odnosu između organizacijskog stresa i organizacijske šutnje 305 zaposlenika u drvoprerađivačkoj industriji u Istanbulu i Kocaeliji u Turskoj. Iako su u literaturi pronađena neka važna istraživanja o prezentizmu, stresu i šutnji, ovo je istraživanje prvo koje se bavi posredničkom ulogom prezentizma u odnosu između organizacijskog stresa i organizacijske šutnje u drvoprerađivačkom sektoru. Istraživanje je pripremljeno kao terensko i provedeno je putem ankete. Anketa je obuhvatila demografske podatke zaposlenika u drvoprerađivačkoj industriji, razinu organizacijskog stresa, razinu organizacijske šutnje i standfordsku razinu prezentizma. Podatci su analizirani u SPSS-u i AMOS-u statističkim testovima kao što su eksplorativna i konfirmatorna faktorska analiza, korelacijska analiza i modeliranje strukturnih jednadžbi. Rezultati analiziranih podataka pokazali su da je prezentizam imao znatan posrednički utjecaj na odnos između organizacijskog stresa i organizacijske šutnje. Štoviše, organizacijski je stres pozitivno utjecao na prezentizam, dok je organizacijska šutnja imala negativan utjecaj na nj. Organizacijski stres nije utjecao na organizacijsku šutnju. Stoga bi menadžeri trebali razviti strategije za suočavanje sa stresom kako bi smanjili prezentističko ponašanje svojih zaposlenika i identificirali čimbenike organizacijskog stresa koji uzrokuju organizacijsku šutnju.

**KLJUČNE RIJEČI:** stres, šutnja, prezentizam, drvoprerađivački sektor

## 1 INTRODUCTION

### 1. UVOD

Employees are the most important element that companies have in order to keep them in business. The productivity of employees, which is important for companies, directly affects the performance of the organization. Therefore, ensuring employee productivity is one of the organizational goals. Employee performance can vary due to many factors. Stress is also accepted as a concept that affects the productivity of the individual (Şahin, 2020).

All jobs might be a potential source of stress because every job has its own working conditions. Work-related social psychological stress might be considered as organizational stress. Organizational stress is defined as “an ongoing transaction between an individual and the environmental demands associated primarily and directly with the organization within which he or she is operating”. Organizational stress factors include role ambiguity and conflict, cultural and political environment, coaching and/or management style, lack of participation in the decision-making process, inadequate communication channels, lack of participation in the decision-making process, etc. (Fletcher *et al.*, 2006; Rumbold and Didymus, 2021).

There are many factors that cause silence. Such reasons include stress, lack of experience, structural and cultural hierarchy, lack of support, fears and suspicions, fear of being labeled or stigmatized or viewed negatively, fear of losing contact, feelings of emptiness and fear of punishment (Saeidipour *et al.*, 2021). Silence occurs when employees in the organization do not express their thoughts and it is an undesirable phenomenon in an organization. Due to organizational silence, employees withhold their useful ideas, and this can have negative effects on their motivation and attitude. In addition, at the individual level, silence can create a feeling of emptiness, lack of control and anomalies (such as mobbing) in the organization

(Managheb *et al.*, 2018; Saeidipour *et al.*, 2021; Mousa *et al.*, 2021).

Silence behavior might be exhibited intentionally, purposefully, actively and consciously. This situation leads to the formation of different forms of organizational silence (Yalçınsoy, 2017). Knoll and van Dick (2013) discussed organizational silence in a four-dimensional structure: quiescent silence, opportunistic silence, acquiescent silence and prosocial silence. Quiescent silence is briefly defined as “suffering in silence”. Acquiescent silence is withholding work-related ideas, information, or opinions, due to resignation. Prosocial silence is withholding work-related ideas, information, or opinions, based on altruistic or cooperative motives. Opportunistic silence is defined as strategically withholding work-related ideas, information or opinions in order to gain an advantage for oneself (Knoll and van Dick, 2013).

One of the factors affecting the productivity of employees is presenteeism. Presenteeism is the loss of productivity of employees due to health problems or other events that negatively affect employees, even though they are physically at the workplace (Yang *et al.*, 2017). Maestas *et al.* (2021) reported that presenteeism causes an average productivity loss of 20 % and workers with high absence rates and presenteeism have more than 80 % probability of leaving the job in 3 years. In studies conducted in different countries, it has been reported that presenteeism causes 30 % - 90 % loss of productivity (Lohaus and Habermann, 2019; Knani, 2022). In addition, at the organizational level, presenteeism increases direct and indirect costs and reduces global performance; at the individual level, it negatively impacts employees’ physical and mental health (Knani, 2022).

The purpose of this study is to determine the mediating role of presenteeism in the relationship between organizational stress and organizational silence. In addition, the effect of organizational stress

on organizational silence and presenteeism and the effect of presenteeism on organizational silence were investigated.

## 2 MATERIALS AND METHODS

### 2. MATERIJALI I METODE

The research focuses on employees in the forest products sector (furniture, timber, particleboard, coating, wooden packaging) operating in the provinces of Istanbul and Kocaeli in Turkey. The reason for the selection of employees in the forest products sector in Istanbul and Kocaeli is as follows: Based on TOBB Industry Database, the number of enterprises operating in forest products in Istanbul and Kocaeli is 9596, which accounts for approximately 41 % of all enterprises operating in this sector in Turkey (TOBB, 2021).

The total number of employees in the forest products sector in Turkey was taken as the research universe. Based on TOBB data, the number of employees in the forest products sector in Turkey is 350346 (TOBB, 2021). The following sample determination formula was used to determine the total number of participants to whom the surveys would be applied (Dorman *et al.*, 1990):

$$n = \frac{N \cdot p \cdot q \cdot Z^2}{(N - 1) \cdot d^2 + p \cdot q \cdot Z^2} \quad (1)$$

Where  $n$  is sample size,  $N$  is universe size (350346 employees in the forest products sector),  $p$  is probability of the occurrence of the characteristic to be measured in the universe (this ratio was taken as 50 % because this study was multi-purpose),  $q$  is  $1 - q$  (improbability of the occurrence of the characteristic to be measured in the universe),  $Z$  is confidence coefficient ( $Z$ -score at 95% confidence interval was taken as 1.96), and  $d$  is accepted sampling error (6 % taken).

As a result, the sample size was determined to be 267 employees. In order to increase the validity and reliability of the study, the sample number was kept high. For this purpose, the survey study was conducted with 335 employees, but 305 surveys were assessed. The research was carried out between June 2021 and October 2021.

The research was planned as a field study and the survey technique was used to obtain the data. Survey forms were submitted to the employees directly. The survey form used in the research consists of 4 parts. The first part contains statements related to the demographic characteristics of the participants. The second part contains statements about organizational stress. The “Organizational Stress scale” was created using the job stress scale developed by Balcı (1993) and the studies conducted by Akova and Işık (2008), Soysal

(2009) and Çökük (2018) and it consists of 14 statements. The third part uses the “Organizational Silence scale” developed by Knoll and van Dick (2013) and consists of 20 statements. The scale was translated into Turkish by Çavuşoğlu and Köse (2019) and validity and reliability analyses were performed. The fourth part uses the “Standford Presenteeism scale” developed by Koopman *et al.* (2002) and it contains 6 statements. The scale was translated into Turkish by Coşkun (2012) and validity and reliability analyses were performed. The statements in the scales were designed according to a 5-point Likert scale (5 = Strongly Agree, 4 = Agree, 3 = Undecided, 2 = Disagree, 1 = Strongly Disagree).

According to the purpose of the research, 4 main hypotheses and 4 sub-hypotheses were formed. The hypotheses of the research are as follows;

$H_1$ : Organizational stress has a positive effect on organizational silence.

$H_{1a}$ : Organizational (internal) stress has a negative effect on organizational silence.

$H_{1b}$ : Organizational (external) stress has a positive effect on organizational silence.

$H_2$ : Organizational stress has a positive effect on presenteeism.

$H_{2a}$ : Organizational (internal) stress has a positive effect on presenteeism.

$H_{2b}$ : Organizational (external) stress has a negative effect on presenteeism.

$H_3$ : Presenteeism has a negative effect on organizational silence.

$H_4$ : Presenteeism has a mediating role in the relationship between organizational stress and organizational silence.

The IBM SPSS Statistics 15 packaged software and AMOS 22.0 packaged software were used in the analysis of the data. Explanatory Factor Analysis was used to determine how many dimensions, used in the scale expressions in the study, were separated, and Confirmatory Factor Analysis was used to determine the accuracy of the dimensions. The percentage and frequency distribution of the demographic characteristics of the participants and the arithmetic mean of the participants’ opinions on the statements about organizational stress factors, presenteeism and organizational silence were calculated. Pearson correlation analysis was used to determine the relationship between “organizational stress scale and dimensions” and “organizational silence and presenteeism scales and dimensions”. Path Analysis was used to determine organizational stress and the effect of its dimensions on organizational silence and presenteeism. Path Analysis was also used to determine the mediating role of presenteeism in the relationship between organizational stress and organizational silence.

**Table 1** Statements used in scales**Tablica 1.** Iskazi primijenjeni za izradu ljestvica

Questions Pitanje	Organizational stress scale Razina organizacijskog stresa	Presenteeism scale Razina prezentizma	Organizational silence scale Razina organizacijske šutnje
Q1	The restlessness and gossip in the workplace lead to stress. <i>Nemir i ogovaranje na radnome mjestu dovode do stresa.</i>	Despite my health problems, I was able to complete difficult tasks in my work. <i>Unatoč zdravstvenim problemima, uspio sam obaviti teške zadatke na poslu.</i>	I remained silent at work fearing negative consequences. <i>Na poslu sam šutio zbog straha od negativnih posljedica.</i>
Q2	The conflict with senior managers leads to stress. <i>Sukob s voditeljima dovodi do stresa.</i>	Despite my health problems, I was able to focus on achieving my professional goals. <i>Unatoč zdravstvenim problemima, mogao sam se usredotočiti na ostvarenje svojih profesionalnih ciljeva.</i>	I remained silent at work fearing the disadvantages of speaking. <i>Na poslu sam šutio zbog straha od pogrešaka u istupu.</i>
Q3	The conflict with subordinates leads to stress. <i>Sukob s podređenima dovodi do stresa.</i>	Despite my health problems, I have enough energy to complete all my tasks. <i>Unatoč zdravstvenim problemima, imam dovoljno energije da obavim sve svoje zadatke.</i>	I remained silent at work so as not to be vulnerable to my colleagues or superiors. <i>Na poslu sam šutio kako se ne bih pokazao ranjivim pred kolegama ili nadređenima.</i>
Q4	Incompatibility with colleagues leads to stress. <i>Nekompatibilnost s kolegama dovodi do stresa.</i>	Because of my health problems, it was much more difficult to deal with work-related stresses. <i>Zbog zdravstvenih problema bilo mi je mnogo teže nositi se sa stresom na poslu.</i>	I remained silent to avoid conflicts <i>Šutio sam kako bih izbjegao sukobe.</i>
Q5	The inadequacy of the physical working environment and tools leads to stress. <i>Neadekvatnost fizičkoga radnog okruženja i alata dovodi do stresa.</i>	Because of my health problems, I could not enjoy my job. <i>Zbog zdravstvenih problema nisam mogao uživati na poslu.</i>	I remained silent at work because I did not want to be seen as a troublemaker. <i>Na poslu sam šutio jer nisam želio da me radna okolina doživljava problematičnim.</i>
Q6	The lack of senior management support in decisions leads to stress. <i>Nedostatak potpore voditelja pri donošenju odluka dovodi do stresa.</i>	Despite my health problems, I felt hopeless about finishing certain work-related tasks. <i>Unatoč zdravstvenim problemima, osjećao sam se beznadno glede dovršavanja određenih radnih zadataka.</i>	I remained silent at work because other people at work said nothing. <i>Na poslu sam šutio jer ni ostali nisu ništa govorili.</i>
Q7	Inadequate and lack of direct participation in the decision-making process lead to stress. <i>Neadekvatno sudjelovanje i isključivanje iz procesa donošenja odluka dovodi do stresa.</i>		I remained silent at work because I do not want to embarrass others. <i>Na poslu sam šutio jer ne želim osramotiti druge.</i>
Q8	Inadequate staff in terms of quality and quantity leads to stress. <i>Nekvalitetno osoblje i njihov nedovoljan broj dovodi do stresa.</i>		I remained silent at work because I do not want others to get into trouble. <i>Na poslu sam šutio jer ne želim da drugi upadaju u nevolje.</i>
Q9	Inequality in staff assignments and evaluations leads to stress. <i>Nejednakost pri dodjeljivanju i evaluaciji zadataka dovodi do stresa.</i>		I remained silent at work because I did not want to damage relationships with my co-workers or superiors. <i>Na poslu sam šutio jer nisam želio narušiti odnose s kolegama ili nadređenima.</i>
Q10	The confusion in the bureaucracy leads to stress. <i>Neorganiziranost u birokraciji dovodi do stresa.</i>		I remained silent at work not to lose my knowledge advantage. <i>Na poslu sam šutio da ne izgubim prednost u znanju.</i>
Q11	Political repressions about the works lead to stress. <i>Političke represije nad radom dovode do stresa.</i>		I remained silent at work because of the concern that others could take an advantage of my ideas. <i>Na poslu sam šutio zbog bojazni da bi drugi mogli iskoristiti moje ideje.</i>

Questions Pitanje	Organizational stress scale Razina organizacijskog stresa	Presenteeism scale Razina prezentizma	Organizational silence scale Razina organizacijske šutnje
Q12	The difference of political opinion in the work environment leads to stress. <i>Različitošć političkih stajališta u radnom okruženju dovodi do stresa.</i>		I remained silent at work because I wanted others to understand the consequences of their mistakes. <i>Na poslu sam šutio jer sam želio da drugi nauče koje su posljedice njihovih pogrešaka.</i>
Q13	Religious differences and repressions in the work environment lead to stress. <i>Vjerske razlike i represija u radnom okruženju dovode do stresa.</i>		I remained silent at work because my superiors do not deserve my involvement. <i>Na poslu sam šutio jer moji nadređeni ne zaslužuju moj angažman.</i>
Q14	The frequency of inspections leads to stress. <i>Učestale kontrole dovode do stresa.</i>		I remained silent at work because I did not want to do additional work. <i>Na poslu sam šutio jer nisam želio dodatni posao.</i>
Q15			I remained silent at work because I could not find anyone (a sympathetic ear) who shared my thoughts. <i>Na poslu sam šutio jer nisam mogao pronaći nikoga tko dijeli moje razmišljanje.</i>
Q16			I remained silent at work because my superiors were not open to offers, concerns, and the like. <i>Na poslu sam šutio jer nadređeni nisu bili otvoreni za ponude, dvojbe i sl.</i>
Q17			I kept silent at work because I thought nothing will change. <i>Na poslu sam šutio jer sam mislio da se ništa neće promijeniti.</i>
Q18			I remained silent at work because I did not expect to participate (be involved). <i>Na poslu sam šutio jer nisam očekivao da ću biti uključen u proces.</i>
Q19			I remained silent at work because of bad experiences I have had with speaking up on critical issues in the past. <i>Na poslu sam šutio jer sam u prošlosti imao loša iskustva zbog govorenja o kritičnim problemima.</i>

### 3 RESULTS

#### 3. REZULTATI

Male employees made up the majority of the survey respondents. The vast majority of participants were younger than 41. Most participants were married. The vast majority of participants had a salary lower than 4000 Turkish liras. The graduation rate of the participants was poor. The majority of participants had less than 11 years' experience in the workforce. The majority of the participants worked in the furniture or wood-based board sector. The vast majority of participants were workers.

The Cronbach Alpha internal consistency test was used to test the reliability of the scales and their dimensions used in the research. As seen in Table 5, Cronbach's Alpha values of organizational stress, pres-

enteeism and organizational silence scales were 0.927, 0.884 and 0.958, respectively. Cronbach's Alpha values of the dimensions of the scales vary between 0.833 and 0.936. Based on these values, it can be said that the scales used are reliable.

Before applying the exploratory factor analysis to the scales, it was first determined whether the data showed a normal distribution. Skewness and kurtosis values should be between -1.5 and + 1.5 (Tabachnick and Fidell, 2013). When Table 5 was examined, it was seen that the skewness and kurtosis values of the scales were between -1.5 and + 1.5, meaning that the data were found to have a normal distribution.

After it was determined that the data showed normal distribution, Kaiser-Meyer-Olkin (KMO) measurement and Bartlett's Sphericity Test were applied to analyze whether the scales were suitable for factor

analysis, and the results are given in Table 2, 3 and 4. Based on the KMO values and the Bartlett test results of the scales, it was determined that the data were suitable for factor analysis (KMO: 0.913 and Bartlett Test: 0.000 for organizational stress scale, KMO: 0.773 and Bartlett Test: 0.000 for presenteeism scale, and KMO: 0.945 and Bartlett Test: 0.000 for organizational silence scale). When applying factor analysis, attention was paid to factors such as factor loads greater than 0.30, factor load difference between adjacent items equal to or greater than 0.10, and the use of Varimax rotation method (Karaman *et al.*, 2017).

As a result of the factor analysis, it was found that the organizational stress scale was collected from 2 factors and the results are given in Table 2. There are 9 statements in the first factor (Organizational (Internal) Stress), and 5 statements in the second factor (Organizational (External) Stress). These two factors explain 64.382 % of the total variance. The factor loads of the first factor vary between 0.611 and 0.787, whereas the factor loads of the second factor vary between 0.621 and 0.872.

Presenteeism scale was determined to consist of 2 factors (Table 3). There are 3 statements in the first factor (Completing Work) and 3 statements in the second factor (Avoiding Distraction). The scale of presenteeism is similar to the literature data. These two factors explain 81.178 % of the total variance. The factor loads vary between 0.838 and 0.920.

As a result of the factor analysis of the organizational silence scale, it was determined that the factor

load difference between the adjacent items in the 7th statement was less than 0.10 (2nd factor: 0.531 and 3rd factor: 0.580) and this statement was removed. After the statement was removed, factor analysis was applied again, and the analysis results are given in Table 4. The original scale consists of 4 dimensions. In this study, the scale consisted of 3 dimensions and the dimensions of prosocial and acquiescent silence were gathered under a single dimension. This dimension has also been renamed as the prosocial and acquiescent silence. These three factors explain 69.888 % of the total variance. The factor loads of the first factor (Quiescent Silence) vary between 0.631 and 0.826, the factor loads of the second factor (Opportunistic Silence) vary between 0.694 and 0.806, and the factor loads of the third factor (Prosocial and Acquiescent Silence) vary between 0.643 and 0.768.

In order to determine the accuracy of the structure obtained as a result of the explanatory factor analysis, confirmatory factor analysis was applied to the study scales. Some statements were modified to improve the results of the organizational stress and organizational silence scales covariance among residual values (for example, between 1 and 2 in the organizational stress scale and between 4 and 5 in the organizational silence scale). In other words, new covariances were created for statements with high covariance among residual values. Confirmatory factor analysis results of the scales are given in Figures 1.

When the fit indices of the models were examined, the fit index values of the organizational silence

**Table 2** Exploratory factor analysis results of organizational stress

**Tablica 2.** Rezultati eksplorativne faktorske analize organizacijskog stresa

Factors / Čimbenici	Number of questions Broj pitanja	Factor load Faktorsko opterećenje	Explained variance Objašnjena varijanca	Total explained variance Ukupni postotak objašnjene varijance
Factor 1: Organizational (internal) stress <i>organizacijski (unutarnji) stres</i>	9 (1-9)	0.611-0.787	51.963	64.382
Factor 2: Organizational (external) stress <i>organizacijski (vanjski) stres</i>	5 (10-14)	0.621-0.872	12.419	
Kaiser-Meyer-Olkin (KMO)			0.773	
Bartlett's Test of Sphericity ( <i>p</i> )			0.000	

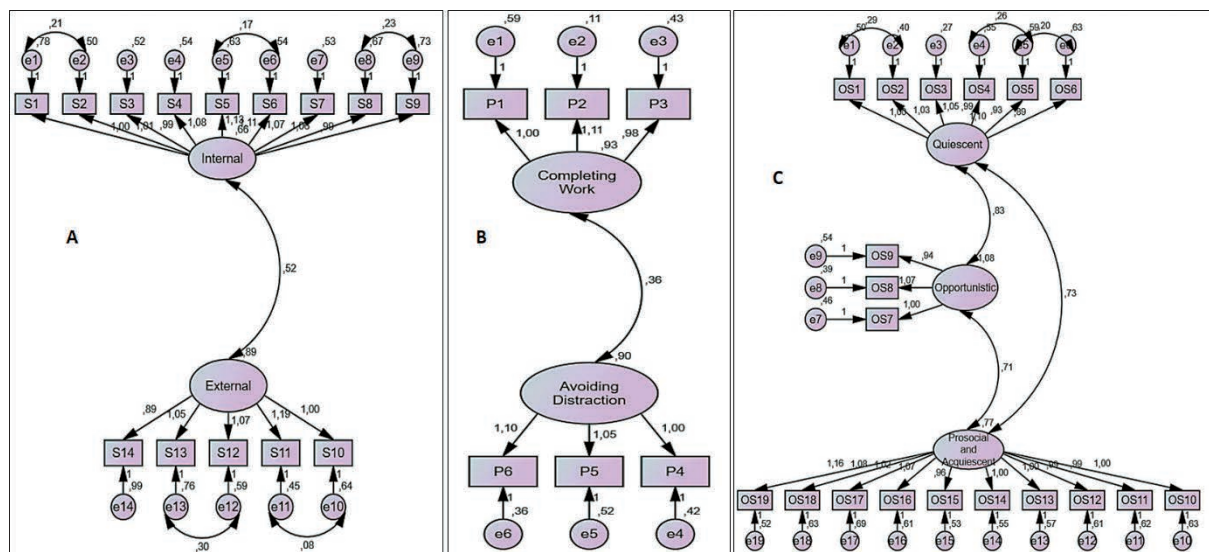
**Table 3** Exploratory factor analysis results of presenteeism

**Tablica 3.** Rezultati eksplorativne faktorske analize prezentizma

Factors / Čimbenici	Number of questions Broj pitanja	Factor load Faktorsko opterećenje	Explained variance Objašnjena varijanca	Total explained variance Ukupni postotak objašnjene varijance
Factor 1: Completing work <i>dovršavanje posla</i>	3 (1-3)	0.859-0.920	54.955	81.178
Factor 2: Avoiding distraction <i>izbjegavanje ometanja</i>	3 (4-6)	0.838-0.899	26.223	
Kaiser-Meyer-Olkin (KMO)			0.913	
Bartlett's Test of Sphericity ( <i>p</i> )			0.000	

**Table 4** Results of exploratory factor analysis of organizational silence  
**Tablica 4.** Rezultati eksplorativne faktorske analize organizacijske šutnje

Factors / Čimbenici	Number of questions Broj pitanja	Factor load Faktorsko opterećenje	Explained variance Objašnjena varijanca	Total explained variance Ukupni postotak objašnjene varijance
Factor 1: Quiescent silence <i>mirna šutnja</i>	6 (1-6)	0.631-0.826	57.072	69.888
Factor 2: Opportunistic silence <i>oportunistička šutnja</i>	3 (7-9)	0.694-0.806	7.542	
Factor 3: Prosocial and acquiescent silence <i>prosocijalna i popustljiva šutnja</i>	9 (10-19)	0.643-0.768	5.275	
Kaiser-Meyer-Olkin (KMO)			0.945	
Bartlett's Test of Sphericity ( <i>p</i> )			0.000	



**Figure 1** Confirmatory factor analysis models: A) organizational stress; B) presenteeism; C) organizational silence  
**Slika 1.** Modeli konfirmatorne faktorske analize: A) organizacijski stres; B) prezentizam; C) organizacijska šutnja

model were as follows:  $\chi^2/df = 3.754$ , GFI = 0.880, CFI = 0.926, RMSEA = 0.097. The fit index values of the presenteeism model were:  $\chi^2/df = 3.523$ , GFI = 0.969, CFI = 0.980, RMSEA = 0.093. The fit index values of the organizational silence model were:  $\chi^2/df = 2.645$ , GFI = 0.879, CFI = 0.947, RMSEA = 0.075. According to the literature,  $\chi^2/df$  value should be less than 5, RMSEA value should be less than 0.10, CFI and GFI value should be less than 0.85 (Byrne and Campbell, 1999;

Schermelleh-Engel *et al.*, 2003; Kline, 2011; Çokluk *et al.*, 2014). The values of the models are among the generally acceptable values. These values confirm the validity of the scales of organizational stress, presenteeism and organizational silence.

The arithmetic mean values of the answers given to the scales by the employees participating in the research are given in Table 5. The following classification was used in the interpretation of the arithmetic

**Table 5** Descriptive statistical values of scales and scale dimensions  
**Tablica 5.** Deskriptivne statističke vrijednosti i dimenzije razina

Scales and scale dimensions / Razine i njihove dimenzije	Mean	Skewness	Kurtosis	Cronbach's Alpha
Organizational stress / organizacijski stres	3.3159	-0.212	-0.651	0.927
Organizational (internal) stress / organizacijski (unutarnji) stres	3.4255	-0.348	-0.725	0.919
Organizational (external) stress / organizacijski (vanjski) stres	3.1185	-0.048	-0.891	0.882
Presenteeism / prezentizam	3.0057	0.010	-0.533	0.884
Completing work / dovršavanje posla	2.9807	0.150	-1.031	0.873
Avoiding distraction / izbjegavanje ometanja	3.0306	-0.029	-1.024	0.833
Organizational silence / organizacijska šutnja	2.6399	0.066	-0.589	0.958
Quiescent silence / mirna šutnja	2.6258	0.026	-0.898	0.931
Opportunistic silence / oportunistička šutnja	2.7785	0.056	-0.896	0.936
Prosocial and acquiescent silence / prosocijalna i popustljiva šutnja	2.6067	0.180	-0.560	0.872

means of the scales: 1.00-1.79: very low, 1.80-2.59: low, 2.60-3.39: medium, 3.40-4.19: high, 4.20-5.00: very high (Özdamar, 2003).

As seen in Tables 5, organizational stress level of the participants is close to high. Presenteeism level of the participants is moderate. Organizational silence level of the participants is close to low. Organizational (external) stress has the highest arithmetic mean among organizational stress dimensions. Avoiding distraction has the highest arithmetic mean among the presenteeism dimensions. Opportunistic silence has the highest arithmetic mean among the organizational silence dimensions. However, both the organizational silence scale and the dimensions of organizational silence have a mean score close to low. It is seen that the mean scores of the dimensions of each scale are close to each other.

There is a positive relationship between “organizational stress” and “was silence is weak, whereas the relationship between organizational stress and presenteeism is moderate. There is also a negative relationship between presenteeism and organizational silence and this relationship is moderate. When the relations between the scales and the dimensions were examined, a positive relationship was determined between “organizational stress” and “avoiding distraction and prosocial and acquiescent silence”. There is a negative relationship between presenteeism and dimensions of organizational silence, whereas there is a positive relationship between presenteeism and dimensions of organizational stress. There is a positive relationship be-

tween organizational silence and organizational (external) stress, whereas there is a negative relationship between organizational silence and completing work (Table 6).

A structural equation model was created to determine the effects of organizational stress and its dimensions on presenteeism and organizational silence. The effect of presenteeism on organizational silence was also investigated. Structural equation modeling was used to determine the mediating role of presenteeism in the relationship between organizational stress and organizational silence. The models are given in Figure 2 and the analysis results are given in Table 7 and 8.

When the model designed to determine the effects of organizational stress and its dimensions on presenteeism and organizational silence and effect of presenteeism on organizational silence was examined, the fit index values of the models were at an acceptable level [Model 1:  $\chi^2/df = 3.236$ , GFI = 0.748, CFI = 0.853, RMSEA = 0.087; Model 2:  $\chi^2/df = 3.832$ , GFI = 0.823, CFI = 0.880, RMSEA = 0.098; Model 3:  $\chi^2/df = 3.221$ , GFI = 0.792, CFI = 0.894, RMSEA = 0.087; Model 4:  $\chi^2/df = 2.940$ , GFI = 0.766, CFI = 0.873, RMSEA = 0.081; Model 5:  $\chi^2/df = 2.904$ , GFI = 0.862, CFI = 0.920, RMSEA = 0.080].

According to the fit indices of the model designed to determine whether presenteeism has a mediating effect between organizational stress and organizational silence, it might be said that this model is also acceptable [Model 6:  $\chi^2/df = 2.963$ , GFI = 0.724, CFI = 0.843, RMSEA = 0.082].

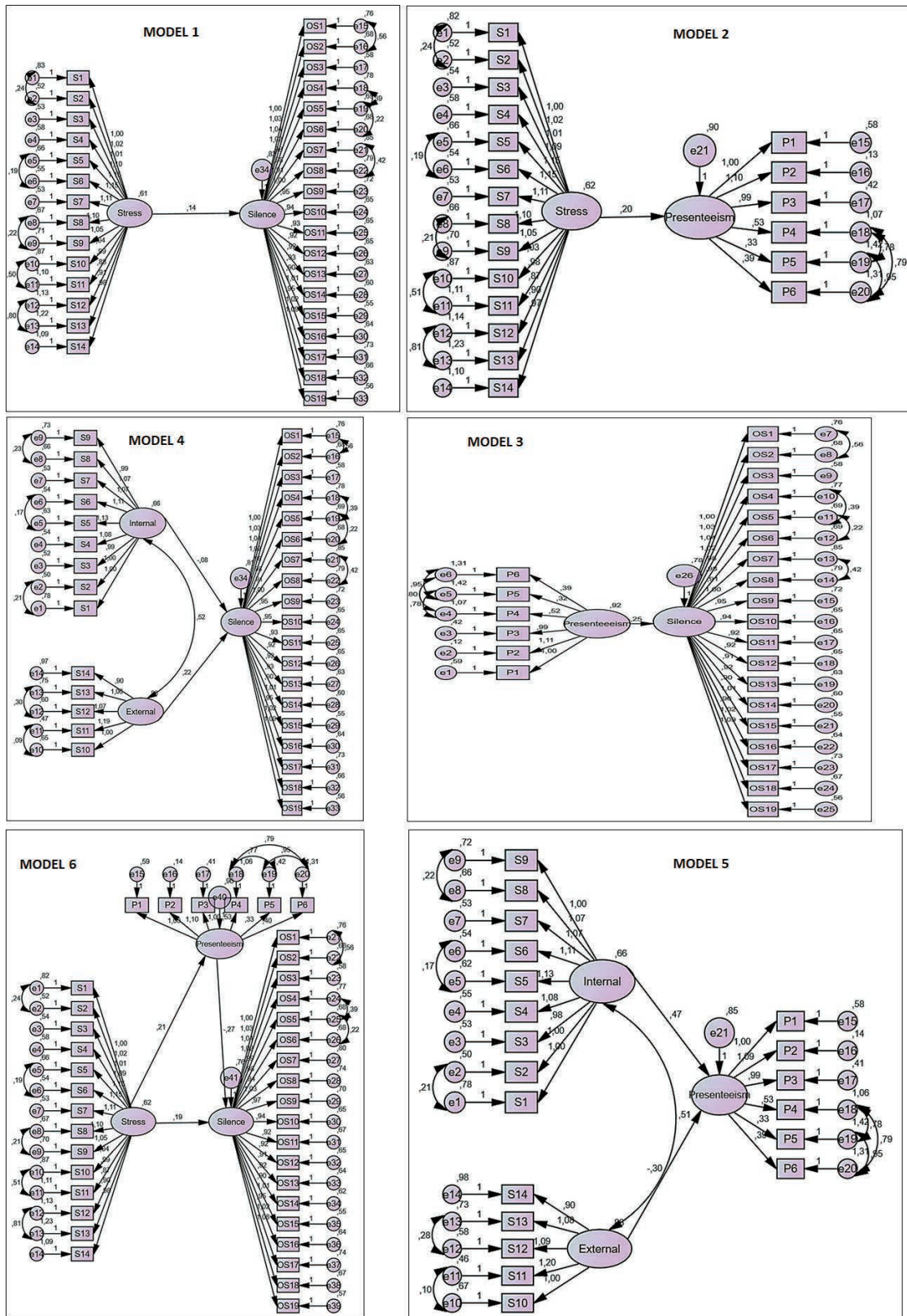
**Table 6** Correlation analysis of relationship between scales and their dimensions  
**Tablica 6.** Korelacijska analiza odnosa između razina i njihovih dimenzija

	1	2	3	4	5	6	7	8	9
1: Organizational stress 1: <i>Organizacijski stres</i>	1								
2: Internal stress 2: <i>Unutarnji stres</i>	0.937**	1							
3: External stress 3: <i>Vanjski stres</i>	0.846**	0.608**	1						
4: Presenteeism 4: <i>Prezentizam</i>	0.306**	0.340**	0.177**	1					
5: Completing work 5: <i>Dovršavanje posla</i>	0.110	0.187**	-0.035	0.820**	1				
6: Avoiding distraction 6: <i>Izbjegavanje ometanja</i>	0.391**	0.371**	0.324**	0.826**	0.355**	1			
7: Organizational silence 7: <i>Organizacijska šutnja</i>	0.116*	0.065	0.166**	-0.202**	-0.23**	-0.103	1		
8: Quiscent silence 8: <i>Mirna šutnja</i>	0.067	0.025	0.113	-0.188**	-0.184**	-0.126*	0.900**	1	
9: Opportunistic silence 9: <i>Oportunistička šutnja</i>	0.098	0.077	0.106	-0.148*	-0.156**	-0.089	0.831**	0.700**	1
10: Prosocial and acquiescent silence 10: <i>Prosocialna i popustljiva šutnja</i>	0.136*	0.075	0.194**	-0.194**	-0.247**	-0.074	0.944**	0.734**	0.708**

\*\*Correlation is significant at the 0.01 level; \*Correlation is significant at the 0.05 level.

\*\*Korelacija je značajna na razini 0,01; \*korelacija je značajna na razini 0,05.





**Figure 2** Structural equation models (Model 1: model of the effect of organizational stress on organizational silence; Model 2: model of the effect of organizational stress on presenteeism; Model 3: model of the effect of presenteeism on organizational silence; Model 4: model of the effect of dimensions of organizational stress on presenteeism; Model 5: model of the effect of dimensions of organizational stress on presenteeism; Model 6: model of constructed regarding the mediating role of presenteeism in the relationship between organizational stress and organizational silence)

**Slika 2.** Modeli strukturalnih jednačbi (model 1: model učinka organizacijskog stresa na organizacijsku šutnju; model 2: model učinka organizacijskog stresa na prezentizam; model 3: model utjecaja prezentizma na organizacijsku šutnju; model 4: model utjecaja dimenzija organizacijskog stresa na organizacijsku šutnju; model 5: model utjecaja dimenzija organizacijskog stresa na prezentizam; model 6: model konstruiran s obzirom na posredničku ulogu prezentizma u odnosu između organizacijskog stresa i organizacijske šutnje)

**Table 7** Results of hypotheses about scales and their dimensions  
**Tablica 7.** Rezultati hipoteza o razinama i njihovim dimenzijama

Hypotheses <i>Hipoteza</i>	Relationship / <i>Odnos</i>		$\beta$	<i>t</i> -statistics	<i>p</i> value	Results <i>Rezultat</i>	
$H_1$	Organizational stress <i>organizacijski stres</i>	→	Organizational silence <i>organizacijska šutnja</i>	0.118	1.867	0.062	Reject <i>odbijena</i>
$H_{1a}$	Organizational (internal) stress <i>organizacijski (unutarnji) stres</i>	→	Organizational silence <i>organizacijska šutnja</i>	-0.069	-0.744	0.457	Reject <i>odbijena</i>
$H_{1b}$	Organizational (external) stress <i>organizacijski (vanjski) stres</i>	→	Organizational silence <i>organizacijska šutnja</i>	0.227	2.350	0.019	Accept <i>prihvaćena</i>
$H_2$	Organizational stress <i>organizacijski stres</i>	→	Presenteeism <i>prezentizam</i>	0.167	2.606	0.009	Accept <i>prihvaćena</i>
$H_{2a}$	Organizational (internal) stress <i>organizacijski (unutarnji) stres</i>	→	Presenteeism <i>prezentizam</i>	0.393	4.017	0.000	Accept <i>prihvaćena</i>
$H_{2b}$	Organizational (external) stress <i>organizacijski (vanjski) stres</i>	→	Presenteeism <i>prezentizam</i>	-0.284	-2.931	0.003	Accept <i>prihvaćena</i>
$H_3$	Presenteeism <i>prezentizam</i>	→	Organizational silence <i>organizacijska šutnja</i>	-0.259	-4.110	0.000	Accept <i>prihvaćena</i>

**Table 8** Results of mediation effect  
**Tablica 8.** Rezultati medijacije

		$\beta$	<i>S.E</i>	<i>C.R.</i>	<i>p</i>	
Organizational stress <i>organizacijski stres</i>	→	Presenteeism <i>prezentizam</i>	0.169	0.079	2.627	0.009
Presenteeism <i>prezentizam</i>	→	Organizational silence <i>organizacijska šutnja</i>	0.166	0.061	-4.481	0.000
Organizational stress <i>organizacijski stres</i>	→	Organizational silence <i>organizacijska šutnja</i>	-0.287	0.073	2.650	0.008

The standardized  $\beta$  coefficients, *t*-statistics, *p* values and hypothesis results of the models are given in Table 7. As shown in Table 7, the organizational stress and organizational (internal) stress dimension have no effect on the organizational silence. The organizational (external) stress dimension has an effect on the organizational silence. Organizational stress and its dimensions have an effect on presenteeism. Presenteeism also has an effect on organizational silence. Both the effect of organizational (external) stress on presenteeism and the effect of presenteeism on organizational silence were negative. Other effects were positive. For this reason,  $H_{1b}$ ,  $H_2$ ,  $H_{2a}$ ,  $H_{2b}$  and  $H_3$  hypotheses were accepted.  $H_1$  and  $H_{1a}$  hypotheses were rejected.

Based on Table 8, it was concluded that presenteeism has a mediating role in the relationship between organizational stress and organizational silence. In other words, the  $H_4$  hypothesis was accepted.

## 4 DISCUSSION

### 4. RASPRAVA

Stress, which has become a part of life, can negatively affect individual and organizational life when it is excessive and intense. It is thought that stress will increase the probability of employees leaving the organization and cause organizational silence. There are several studies on the relationship between the organizational stress and organizational silence in the litera-

ture. Dileep Kumar *et al.* (2015) said that employee silence increases the stress level. Dedahanov *et al.* (2016) reported that individuals experience stress when they withhold information. Çakır Yıldız and Güneş (2017) stated that individuals under stress at workplaces prefer to remain silent about the events in the organization and are hesitant to express their opinions. A study on Iranian insurance staff found that job stress has no significant effect on organizational silence but the effect of job stress on organizational silence was confirmed (Norouzi and Aghbelaghi, 2020). Mantı (2020) stated that the things that can be done to reduce organizational stress can also affect organizational silence. There are also studies showing the relationship between organizational stress and presenteeism and supporting the findings of this study. In a study conducted in 2016, it was determined that the degree of presenteeism has a positive effect on the relationship between perceived job stress and happiness (Chia and Chu, 2016). El-Kurdy *et al.* (2022) reported that presenteeism has a negative non-significant correlation with stress. In some studies, stress has been identified as a critical factor in triggering presenteeism (Coutu *et al.*, 2015; Lauzier *et al.*, 2017; Yang *et al.*, 2017; Kim *et al.*, 2019; Mohamed *et al.*, 2021; Jiang *et al.*, 2021). There are studies showing that presenteeism has an effect on organizational silence. For example, in the study of Yıldırım and Oruç (2019), a negative relationship was found between “presenteeism” and “acquires-

cent and protective silence”. In another study, it was determined that presenteeism significantly affected the dimensions of organizational silence (Karagöz ve Uzunbacak, 2020). There is no previous study on the mediating role of presenteeism in the relationship between organizational stress and organizational silence.

## 5 CONCLUSIONS

### 5. ZAKLJUČAK

It was discovered that people working in the forest products sector were under considerable stress. Although the stress level of the participants is high, the level of presenteeism of the participants is low. Individuals under stress prefer to remain silent about the events taking place in the organization. It was discovered that organizational stress factors caused presenteeism. While organizational (internal) stress factors affect the presenteeism level positively, organizational (external) stress factors negatively affect the presenteeism level. It was discovered that the participants did not remain silent as the level of presenteeism decreased. Presenteeism had a mediating effect on organizational silence. Organizational stress factors causing organizational silence might be identified. Active participation of employees in decision-making processes should be supported so that they do not remain silent about the issues in the organization. Companies might reorganize their organizational culture and working habits in order to eliminate presenteeism. The research findings were limited to individuals working in the forest products sector in Istanbul and Kocaeli provinces in Turkey. The lack of studies on the relationship between “organizational stress” and “organizational silence and presenteeism”, and the mediating role of presenteeism in the relationship between organizational silence and organizational silence, limited the comparison of research findings with different or similar research results. To see the situation in different sectors, similar studies should be carried out with different samples. Although there are studies on presenteeism, organizational stress and organizational silence in different sectors, there is no study on the relationship between presenteeism, organizational stress and organizational silence for the forest products sector. Moreover, this study is the first to explore the mediating role of presenteeism on the relationship between organizational stress and organizational silence. This study is a significant contribution that can fill the gap in the existing literature.

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### Corresponding address:

#### NADIR ERSEN

Artvin Çoruh University, Artvin Vocational School, Department of Forestry, Artvin, TURKIYE,  
e-mail: nadirersen20@artvin.edu.tr