

İlhami Yücel
Erzincan Binali Yıldırım
University
Faculty of Economics and
Administrative Sciences
24050 Erzincan, Türkiye
iyucel@erzincan.edu.tr

Fikret Bayat
Erzincan Binali Yıldırım
University
Faculty of Economics and
Administrative Sciences
24050 Erzincan, Türkiye
fikretbayat@gmail.com

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THE MEDIATING ROLE OF CO-WORKER SUPPORT IN THE RELATIONSHIP BETWEEN OCCUPATIONAL STRESS AND EMPLOYEE PERFORMANCE: A STUDY OF AIRPORTS

ABSTRACT

Purpose: This study aims to examine the relationship between occupational stress and employee performance of ARFF (Airport Rescue and Firefighting) officers working at airports in the transportation sector, with a particular focus on the role of co-worker support in this relationship.

Methodology: The research was evaluated in detail using statistical analysis tools such as SPSS, AMOS and Process Hayes, based on data collected from surveys completed by 415 ARFF officers.

Results: The findings revealed a negative relationship between occupational stress and employee performance, while a positive relationship was identified between co-worker support and employee performance. Furthermore, co-worker support was found to play a partial mediating role in the effect of occupational stress on employee performance, i.e., co-worker support helps to reduce the impact of stress on employee performance. These findings indicate that reducing occupational stress levels and increasing co-worker support among ARFF officers can have a positive impact on employee performance.

Conclusion: The research results emphasize the importance of co-worker support in improving job performance of employees in public institutions operating in the transportation sector. In addition, the study discusses academic and practical implications and offers suggestions for future research.

Keywords: Occupational stress, employee performance, co-worker support

1. Introduction

Public institutions have the responsibility to continually maintain the services they provide to the community at a high level of quality. In fulfilling these

duties, they strive for continuous improvement and renewal. The most effective factor in achieving these objectives is the institution employees. However, employees may encounter professional risks

and other challenges while performing their duties. Occupational stress is one such challenge that is frequently examined, as emphasized by the Mental Health Foundation (2018). Occupational stress can trigger many negative consequences originating from the organization, such as tension, physical and mental pressure. Therefore, institution employees are required to continually improve themselves and take appropriate measures to enhance service quality and cope with these challenges.

Employee performance is a complex concept encompassing an individual's process of carrying out a specific task or responsibility, often including measurable elements such as time, speed, and efficiency (Zeb et al., 2019). High employee performance is highly important for both organizations and individuals. High performance increases the effectiveness of business processes, provides a competitive advantage, and ensures better customer satisfaction. Therefore, both individuals and institutions should strive to improve employee performance.

In every organization, there exists a structure where employees interact with colleagues who perform similar tasks. This interaction underscores the importance of support provided by co-workers, which has a significant impact on employees' commitment to the organization and their job performance (Chiaburu & Harrison, 2008). Particularly, since co-workers have the capacity to shape the social atmosphere of the workplace, the support they offer positively influences individuals' motivation and satisfaction, thereby enhancing overall job performance (Schneider, 1987). In this context, it has been found that employees who receive support from co-workers demonstrate higher organizational commitment compared to those who do not receive such support (Rousseau & Aubé, 2010). Therefore, co-worker support is a crucial factor that not only enhances individual performance but also strengthens organizational commitment. As evidenced by literature reviews, co-worker support is crucial for employees. Among employees who interact daily in the workplace, co-worker support includes elements such as sharing knowledge and expertise, providing encouragement and support, and assisting in tasks (Zhou & George, 2001). Depending on the context, co-worker support may not only be limited to interaction among colleagues but

may also provide a basis for solidarity and collective resistance with management. In this context, co-worker support among colleagues can shape the dynamics of work life and influence relationships with management.

This study aims to examine the impact of occupational stress experienced by employees in public institutions on their performance and the role of co-worker support. The study focuses on topics such as occupational stress, employee performance, and co-worker support. This study could be a significant resource for improving the quality and effectiveness of institutions' services and contribute to the literature for future research.

2. Conceptual framework

2.1 Occupational stress

Individuals' personality traits and coping abilities determine how they respond when faced with stress. Stress can result in various responses at physical, psychological, and behavioral levels, along with the stressors individuals encounter in their lives. These responses can be influenced by genetic factors, lifestyle, parenting styles within the family, and the individual's overall psychological state (Langton et al., 2016). Stress in the workplace arises due to various reasons, with psychosocial factors being among the most significant ones. These factors can influence the nature of work, its quality, and workplace relationships (Güney, 2000). Nowadays, factors such as intense competition and rapid globalization have made occupational stress increasingly prevalent, affecting both businesses and employees. This condition can adversely affect employees' occupational performance. Occupational stress is a prominent form of stress encountered by adult individuals (Sahoo & Kharat, 2017).

Research indicates that workplace stress is associated with a range of health issues. For example, a study conducted by Blanc-Lapierre et al. (2017) revealed that over 50% of analyzed cancer cases were linked to occupational stress. Additionally, occupational stress was found to be associated with hypertension or high blood pressure (Landsbergis et al., 2013). Another study by Kyaw-Myint et al. (2015) yielded significant findings regarding the effects of occupational stress not only on mental health but also on respiratory and skin symptoms related to chemical and physical hazards. These

studies emphasize the widespread effects of occupational stress. In this context, living under constant stress can adversely affect both physical and mental health, which can significantly impact work productivity. Therefore, developing effective coping strategies for stress and taking steps to reduce its effects are vital for maintaining healthy brain function and overall quality of life.

2.2 Employee performance

Employee performance is a complex concept involving the process of individuals carrying out specific tasks, often encompassing measurable factors such as time, speed, and efficiency (Zeb et al., 2019). Research emphasizes the significance of employee performance as a crucial resource for organizational leaders due to its potential to build or destroy profitability and reputation in the corporate sector. High employee performance enhances the effectiveness of organizational processes, provides a competitive advantage, and increases customer satisfaction. Moreover, employees who successfully fulfill their roles enhance the company's reputation and contribute to its growth. Researchers agree that employee performance is a process (Yozgat et al., 2013).

The existence of two separate dimensions, task performance and contextual performance, plays a significant role in evaluating employee performance (Borman & Motowidlo, 1993). Task performance requires the fundamental prerequisites of individuals' abilities and knowledge within the business, while contextual performance refers to actions that make individuals, teams, and organizations more effective and successful (Yıldız & Neşe, 2018). Contextual performance, influenced by personal qualities and sincerity, supports the fulfillment of tasks and responsibilities (Özdevecioğlu & Kanıgür, 2009). Consequently, evaluating employee performance necessitates a comprehensive approach.

Two significant studies relevant to evaluating public sector employee performance are those by Rudolph (2023) and Roxbury (2022). Rudolph's research examines the relationship between the educational achievements and job performance of employees in the public sector. This study proposes an alternative, non-monetary approach to assessing the performance of public employees, going beyond traditional monetary measurement methods. The underlying idea is that the success of employees in public institutions is generally not directly related

to market conditions. Therefore, understanding the connection between the educational level of government employees and user satisfaction is critically important for organizations to provide more effective services (Rudolph, 2023).

On the other hand, Roxbury examines the effects of customer service training on employee performance. This study includes a needs assessment conducted to address the issues of inadequate customer service and employee training observed in a specific public agency. This assessment highlights deficiencies in the customer experience within the organization, shedding light on performance issues faced by employees (Roxbury, 2022).

Both studies contribute significantly to the evaluation of public sector employee performance. Rudolph's research delves into the relationship between educational level and learning achievements, emphasizing the impact of education, while Roxbury's work reveals the positive effects of customer service training on employee performance. In this context, both studies illustrate how crucial it is to enhance employee performance to improve service quality in public institutions and ensure customer satisfaction.

2.3 Co-worker support

It offers a valuable perspective that collaboration and support among co-workers in the workplace can help employees overcome job-related challenges and meet their emotional needs. As noted by Çoban (2005), this support is crucial not only for professional matters but also for coping with the stresses and challenges of daily life. Support among colleagues encompasses elements such as sharing knowledge and expertise, providing encouragement and assistance, and aiding tasks (Zhou & George, 2001). According to Şirin and Yücel (2020), this support involves assisting each other both in work-related matters and emotionally. Social relationships in the workplace can significantly contribute to employees' job satisfaction, productivity, and overall well-being (Hodson, 1997).

Kaul and Lakey (2003) highlight the connection between positive social relationships and physical and mental health, emphasizing the potential impact of co-worker support on overall well-being beyond the workplace. However, there exists a contrasting view suggesting that the behaviors of colleagues may be associated with politics or per-

sonal development and may not always align with a constructive work attitude. From this perspective, co-worker support can be perceived as a weakness or dependency, especially in a political or competitive environment (Babin & Boles, 1996). Findings suggesting that co-worker support can enhance job performance emphasize the importance of positive social relationships in the workplace.

Building on this foundation, a study conducted by Baumeister (2023) examines the positive interaction techniques employed by co-worker support mentors in law enforcement organizations to foster resilience in police officers. The study also explores how a positive police culture contributes to the effectiveness of co-worker support programs. Assia's (2020) study, on the other hand, highlights limited knowledge about the learning and development processes of young adults serving in co-worker support roles despite the benefits of colleague support programs in mental health services among young adults. These studies represent important steps in understanding how co-worker support can be effective in various contexts and sectors.

Co-worker support may generally have a positive rather than negative impact. In this context, the role of co-worker support should be considered significant for both individual and organizational success in the workplace.

2.4 Hypothesis development

2.4.1 The relationship between occupational stress and co-worker support

Employees are required to fulfill their duties in the workplace under the influence of various factors, among which stress stands out as a significant element that can affect both employee performance and their overall well-being. Stress can arise from a range of factors such as job demands, time pressure, work relationships, and job expectations, and can negatively impact the physical and psychological health of employees. In this regard, colleague support can play an important role in coping with stress. Support among colleagues can take various forms, including moral encouragement, practical advice, collaborative problem-solving, and emotional support. This support among colleagues can help reduce stress for employees and enhance employee performance. The study by Walker & Pe-

terson (2021) showed that co-worker support can play a significant role in individuals' recovery process. Co-worker support systems can contribute to individuals' recovery by increasing their hopes and positively influencing psychosocial outcomes.

As emphasized by Ng and Sorensen (2008), co-worker support includes sharing work-related issues, providing moral support and encouragement, and assisting each other in the workplace. A study by Shirom et al. (2011) found that employees who receive co-worker support experience improved quality of life, reduced stress levels, and better overall health. These findings indicate that co-worker support has a significant impact not only in the workplace but also on overall quality of life and health. Therefore, creating a supportive environment among colleagues in the workplace and promoting this support can contribute to employees' stress coping mechanisms and a healthier work environment. Based on these studies, the following hypothesis is formulated:

H1: There is a negative and significant relationship between occupational stress and co-worker support.

2.4.2 The relationship between occupational stress and employee performance

Occupational stress is a significant factor directly affecting employee performance. As stated by Çepni (2023), employees may face various negative consequences due to the impact of work-related and non-work-related stress. These consequences include discomfort, psychological problems, suicide, unhappiness, decreased productivity, lack of motivation, decreased self-confidence, and fear of failure. Particularly, job stress can significantly affect employee performance. With increasing stress, employees may struggle to perform their tasks effectively. They may experience difficulty in focusing under stress, diminished decision-making abilities, and decreased job performance. Additionally, employees under constant stress may lose their motivation and interest in their work. This situation can generally lead to a decrease in productivity and employee performance. The study conducted by Mbambe (2021) evaluates the effects on healthcare workers' performance, while the study by Tran (2022) investigates the effects of transformational leadership, job satisfaction, and work-life balance

on job performance. Rootes (2020) examines the impact of emotional intelligence on occupational stress among private security personnel, while Balboa (2020) investigates the effects of teacher stress on employee performance and identifies factors contributing to teacher attrition. These studies represent important steps in understanding the impact of occupational stress on employee performance and in creating a healthier and more productive work environment. Based on these studies, the following hypothesis is formulated:

H2: There is a negative and significant relationship between occupational stress and employee performance.

2.4.3 *The relationship between co-worker support and employee performance*

Performance is a highly critical concept in the business world and generally reflects an individual's or an organization's ability to achieve specific goals. This concept is used to assess how effectively an employee fulfills their tasks and is typically defined as the completion of a task under certain conditions and a person's behavioral style. Employee performance fundamentally relates to the actions and behaviors of an employee in the workplace (Jackson & Frame, 2018). In the workplace, support among colleagues establishes a strong network of solidarity among individuals working in an organization. This support not only involves the sharing of professional knowledge and skills but also extends to providing emotional and non-work-related support among co-workers. Solidarity among colleagues helps employees overcome work-related challenges and meet their emotional needs. Support among employees in daily interactions in the workplace, as noted by Zhou and George (2001), includes elements such as sharing knowledge and expertise, providing encouragement and support, and assisting in tasks. This support helps employees perform their jobs more effectively and cope better with work-related stress, but it also makes a positive contribution to the overall morale and productivity of the workplace. In this context, the following hypothesis is formulated based on the studies considered:

H3: There is a positive and significant relationship between co-worker support and employee performance.

2.4.4 *Mediating effect of co-worker support on the relationship between occupational stress and employee performance*

Understanding the impact of workplace co-worker support mechanisms on individuals' ability to cope with occupational stress and, consequently, their job performance is critically important in today's business environment. However, the existing literature lacks sufficient studies on the mediating role of co-worker support in the relationship between occupational stress and employee performance, as well as the interactions between these dynamics. This gap presents an opportunity to gain a deeper understanding of co-worker support dynamics in the workplace.

Our research aims to make a significant contribution to the literature in this field. By focusing on the H4 hypothesis, we will examine the relationship between occupational stress and employee performance through the mediating role of co-worker support. Investigating how co-worker support enhances employees' abilities to cope with occupational stress and positively influences their job performance will be one of the main focal points of our study.

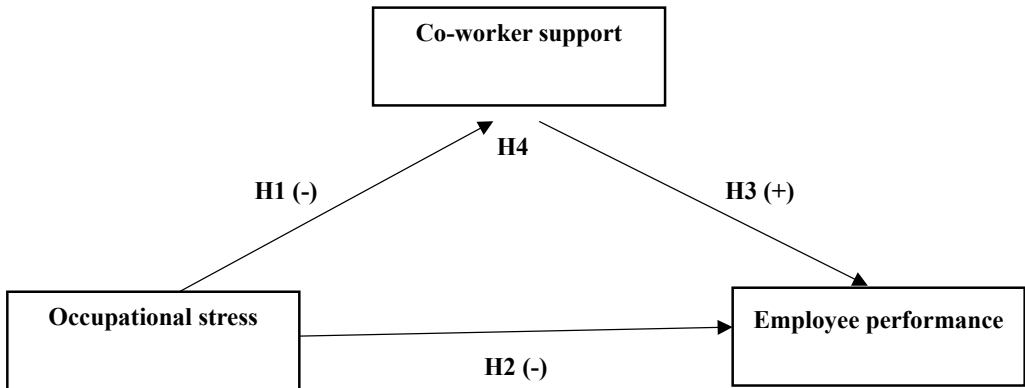
Our findings could contribute to the development of strategies aimed at strengthening co-worker support mechanisms in the workplace. In this context, we aim to enhance employees' coping abilities, thereby improving overall performance. Thus, we believe our research will provide a valuable contribution to the literature.

H4: Co-worker support mediates the relationship between occupational stress and employee performance.

2.4.5 *Research model and hypotheses*

This research is designed to focus on the impact of occupational stress on employee performance, aiming to explore the mediating role of co-worker support. Based on the formulated hypotheses, a model has been developed. This model suggests that occupational stress directly affects employee performance, while co-worker support influences this relationship as a mediating variable. In other words, co-worker support demonstrates a mediating effect in the relationship between occupational stress and employee performance.

Figure 1 Research model



Source: Authors

3. Method

3.1 Sample and procedure

This research represents a study covering ARFF (Airport Rescue and Firefighting) officers serving in different airports within the transportation sector. Data was collected from a total of 432 employees in these institutions, and after excluding incomplete or erroneous surveys, 415 surveys were analyzed. The face-to-face survey method was used during the data collection process. The survey content was formulated in clear language understandable by the participants. It was assumed that these questions were answered sincerely by the employees, reflecting their true thoughts and attitudes. This approach was adopted to ensure the reliability and meaningfulness of the data and it is believed that the research results reflect the real experiences and opinions of ARFF officers in the sector.

3.2 Measures

The survey consists of four main sections. The first section includes demographic questions aimed at gathering information on participants' marital status, education level, gender, years of work experience in the workplace, age, and position.

3.2.1 Occupational stress scale

The second section contains the "Occupational Stress Scale," adapted to Turkish from the scale developed by Cohen and Williamson (1988), consisting of a total of 14 questions.

3.2.2 Employee performance scale

The third section includes the "Employee Performance Scale," adapted to Turkish from the scale developed by Kirkman and Rosen (1999), used by Sigler and Pearson (2000), consisting of four items in this study.

3.2.3 Co-worker support scale

The fourth and final section includes the "Co-worker Support Scale" developed by Zhou and George (2001), containing four questions. The components of this survey were carefully selected to provide in-depth information about important factors such as participants' perception of occupational stress, performance, and co-worker support, aiming to achieve the objectives of the study.

3.3 Purpose and importance of the study

This research aims to explore airport employees' perceptions of occupational stress in performing their duties and to assess its impact on personnel performance. Specifically, understanding the potential effects of occupational stress on employee performance and evaluating the role of support and solidarity provided by co-workers within the institution are important objectives. The significance of this study lies in the limited literature on similar research conducted in airport operations. Therefore, the findings are expected to make a significant contribution to policy-making in airport operations and the development of strategies to sustainably improve employee performance. Additionally, the

results of this research can contribute to identifying effective measures aimed at creating a healthy work environment and enhancing employee well-being.

3.4 Empirical findings

As part of the research, an initial examination was conducted on the demographic characteristics of the participants to determine whether the participant cohort exhibited homogeneity or heterogeneity across various demographic parameters. Subsequently, diverse statistical methodologies were employed to analyze the scales used. The analyses were conducted using the AMOS software. The

reliability of the scales was assessed, and internal consistency criteria were utilized to gauge the reliability of the scales. Correlation analyses were conducted to explore the interrelations among the principal variables of the study, while the magnitude of these associations was investigated. Finally, regression and bootstrap analyses were performed using the AMOS software to delve deeper into the relationships between occupational stress, co-worker support, and employee performance, and to assess the causal links between these variables. This analysis aimed to test the primary hypotheses of the study and unveil potential interactions among the variables.

Table 1 Demographic and sociological characteristics

Variables		Frequency	Percentage
Gender	Male	144	82.3
	Female	31	17.7
Marital status	Married	97	55.4
	Single	78	44.6
Education status	High school	5	2.9
	Associate degree	81	46.3
	Bachelor's degree	75	42.9
	Postgraduate	14	8.0
Age	20-25	30	17.1
	26-30	59	33.7
	31-35	38	21.7
	36-40	28	16.0
	41+	20	11.4
Experience in years	1-5	120	68.6
	6-10	1	0.6
	11-15	26	14.9
	16-20	16	9.1
	21+	12	6.9
Job	ARFF officer	153	87.9
	ARFF chief - ARFF manager	21	12.1

Source: Authors

Table 1 presents sociological and demographic characteristics that reflect various characteristics of the individuals participating in the study in detail. In terms of gender distribution, 82.3% of the participants are male, while 17.7% are female, indicating that the surveyed profession is predominantly male. Regarding marital status, we see that 55.4% of the participants are married, while 44.6% are single.

Concerning educational level, it is observed that the majority of participants hold associate degrees (46.3%), while a significant proportion are graduates (42.9%). When examined by age groups, 33.7% of the participants fall within the 26-30 age range. Regarding years of service, 68.6% of the participants have been employed for 0-5 years, indicating that ARFF officers are predominantly young and newly

employed. As expected, 87.9% of the employees are ARFF officers in terms of job classification.

The demographic profile obtained from the table provides an important foundation for understanding occupational stress, performance, and support

mechanisms. The effects of a young and educated workforce on the profession, the role of co-worker support elements, and gender imbalance offer insights into the dynamics within the sector. These findings are crucial for developing effective stress management strategies in the workplace.

Table 2 Reliability (Cronbach's alpha) and Kaiser-Meyer-Olkin (KMO) values of the scales

	Cronbach's alpha	Kaiser-Meyer-Olkin (KMO)
Occupational stress	0.856	.914
Employee performance	0.873	.843
Co-worker support	0.936	.796

Source: Authors

Table 2 presents a detailed overview of the reliability and suitability of the scales, which are fundamental criteria for the research. The Cronbach's alpha values calculated for occupational stress, employee performance, and co-worker support are 0.856, 0.873, and 0.936, respectively. These values indicate that each scale demonstrates high internal consistency and provides reliable measurements. The Kaiser-Meyer-Olkin (KMO) values were also evaluated as an important criterion. The calculated KMO values are 0.914, 0.843, and 0.796 for occu-

pational stress, employee performance, and co-worker support, respectively, demonstrating that the data is suitable for factor analysis and that the inclusion of each variable in the analysis is valid. In conclusion, both Cronbach' alpha and KMO values provide strong evidence supporting the reliability and suitability of the measurements in this study. These findings indicate that the research is based on reliable foundations and that the results can be interpreted robustly.

Table 3 Normality values of variables

	Min.	Max.	Average	Skewness	Kurtosis
Occupational stress	1.00	5.00	3.316	.773	-.668
Co-worker support	1.00	5.00	1.480	-.853	-.335
Employee performance	1.00	5.00	5.570	-1.129	1.339

Source: Authors

In terms of the normality values of the variables presented in Table 3, the minimum value of occupational stress is 1, the maximum value is 5, and the average value is 3.316. Skewness value is 0.773 and kurtosis value is -0.668. These results suggest that the data is slightly skewed to the right but is generally close to a normal distribution. Similarly, in terms of co-worker support, the minimum value was 1, the maximum value was 5, and the average value was 1.480. The skewness value and the kurtosis value are -0.853 and -0.335, respectively. This indicates that the data is slightly skewed to the left but is generally close to a normal distribution. Finally, the minimum value of the employee performance

variable is 1, its maximum value is 5, and its average value is 5.570. The skewness value was -1.129 and the kurtosis value was 1.339. These results show that the data are highly skewed to the left but are generally close to a normal distribution.

Confirmatory factor analysis

At this stage of the research, a model comparison was carried out in which relevant factors were analyzed using various approaches to identify the most suitable model. As a result of these analyses, the most appropriate model was selected. This process was performed using confirmatory factor analysis.

Table 4 Comparison of the models used

Models	X ² (df)	RMSEA	CFI	SRMR	NFI	TLI	Model comparison $\Delta x^2(\Delta df)$
Measurement model, three-factor model	509.27(191)	.078	.926	.067	.900	.912	
Model 1, one-factor model ^(a)	216.64(209)	.150	.626	.107	.604	.587	292.63 (18)
Model 2, two-factor model ^(b)	172.39(208)	.133	.711	.096	.685	.679	336.88 (17)
Model 3, two-factor model ^(c)	140.02(208)	.118	.772	.095	.744	.747	369.25 (17)
Model 4, two-factor model ^(d)	139.34(208)	.091	.774	.107	.746	.749	369.93 (17)

Notes: n=415; The significance value for all models is $p < .05$; x^2 , Chi-square discrepancy; df, degrees of freedom; RMSEA, root mean square error of approximation; CFI, comparative fit index; SRMR, standardized root mean square residual; Δx^2 , Chi-square difference; Δdf , difference in degrees of freedom.

Measurement Model, Three-Factor Model, Model Analyzing Occupational Stress, Employee Performance, and Co-Worker Support

^aHarman's Single-Factor Model 1, all factors combined into a single factor

^bTwo-Factor Model 2, Occupational Stress and Co-Worker Support combined into a single factor.

^cTwo-Factor Model 3, Co-Worker Support and Employee Performance combined into a single factor.

^dTwo-Factor Model 4, Occupational Stress and Employee Performance combined into a single factor.

Source: Authors

Table 4 was used to evaluate the fit of measuring variables under different factor structures. First, when examining the fit indices of the three-factor measurement model referred to as the "Measurement Model, Three-Factor Model", it appears to fit the data well. The X^2 (df) value is given as 509.27 (191), and fit indices such as RMSEA, CFI, SRMR, NFI, and TLI are at acceptable levels. This indicates that the measurement model fits the data appropriately. When evaluating the one-factor (Model 1) and two-factor models (Model 2, Model 3, Model 4), which serve as alternative models, it is observed

that the fit indices of the one-factor model are quite poor. The high X^2 (df) value and insufficient RMSEA, CFI, NFI, and TLI values indicate that this model does not fit the data appropriately. Two-factor models perform better than the three-factor model, but they are not at the desired level. The fit indices of these models do not contain results that can replace the measurement model. Therefore, it is recommended to use a three-factor measurement model as it best explains the data, while the other alternative models fail to provide an adequate fit.

Table 5 Correlation analysis of occupational stress, employee performance, and co-worker support

Variables	Occupational stress	Employee performance	Co-worker support
Occupational stress			
Employee performance	-.535** .000		
Co-worker support	-.493** .000	.541** .000	

** $p < 0.01$; * $p < 0.05$ are significant at the level of 1% and 5%, respectively.

Source: Authors

The correlation analyses in Table 5 clearly demonstrate the relationships between the main variables of the study. Firstly, the negative and highly

significant relationship between occupational stress and employee performance ($r = -0.535^{**}$, $p < 0.01$) is noteworthy. This finding indicates that as occu-

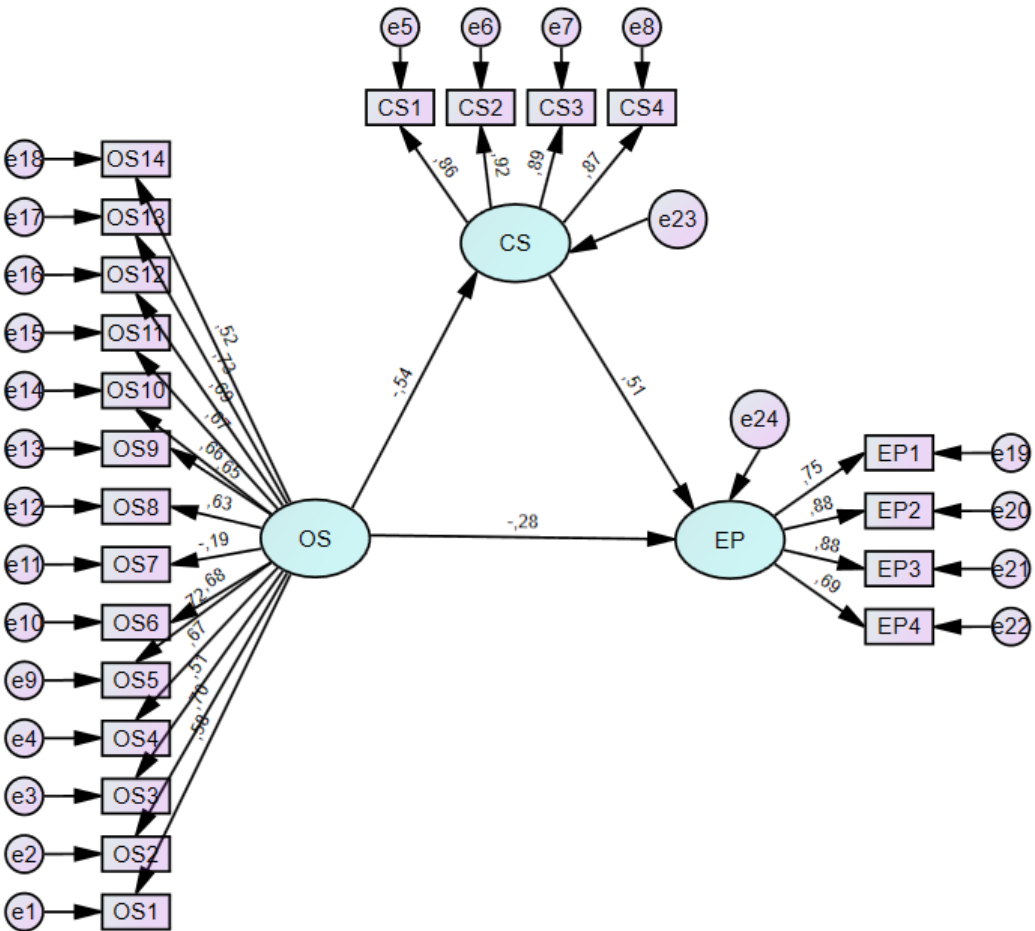
pational stress increases, employee performance decreases, revealing a strong negative relationship between occupational stress and employee performance. Similarly, another negative and highly significant relationship between occupational stress and co-worker support ($r=-0.493^{**}$, $p<0.01$) further reinforces this relationship. On the other hand, a positive and highly significant relationship between co-worker support and employee performance ($r=0.541^{**}$, $p<0.01$) is remarkable. This result demonstrates that as co-worker support increases, employee performance increases as well. Therefore, these analyses support the conclusion that as employees' perceptions of occupational stress in-

crease, their performance decreases, but increasing co-worker support can improve their performance.

Testing of hypotheses

In this section, the hypotheses that form the basis of the research are tested using regression analyses, and the results are presented in the tables below. These analyses aim to evaluate the relationships between occupational stress, employee performance, and co-worker support, providing in-depth insights into how these variables interact within the workplace context. Firstly, the research model using AMOS will be presented, followed by regression analyses.

Figure 2 Research model - AMOS



Source: Authors

Table 6 Occupational stress, employee performance, and co-worker support

Structural relationships	Regression coefficients	Std. regression coefficients	Critical ratio (C.R.)	R ²	P	Hypotheses	Hypotheses results
EP < --- CS	.432	.656	10.860	.178	***	H1	Supported
EP < --- OS	-.442	-.517	-8.670	.378	***	H2	Supported
CS < --- OS	-.632	-.419	-8.696	.359	***	H3	Supported

Bootstrap

Structural relationships	Prediction	Standardized prediction	Lower bound	Upper bound	P
EP < --- CS	.656	.048	.563	.739	***
EP < --- OS	-.517	.001	-.630	-.392	***
CS < --- OS	-.632	.092	-.883	-.473	***

*** p<0.01; *p<0.05 are significant levels.

EP = Employee performance, CS = Co-worker support, OS = Occupational stress

Source: Authors

In Table 6, the research hypotheses were tested using regression and bootstrap analyses with the AMOS software. The results revealed that employee performance exhibited moderate associations with co-worker support and occupational stress, as reflected by R² values of 0.178 and 0.378, respectively. It was observed that an increase in co-worker support significantly correlated with an increase in employee performance ($\beta = 0.432$, $p < 0.01$), while an increase in occupational stress correlated with a decrease in employee performance ($\beta = -0.442$, $p < 0.01$). Moreover, it was identified that occupational stress had the most substantial impact on employee

performance ($\beta = -0.632$). This outcome underscores the detrimental impact of workplace stress on employees' professional efficacy, accounting for 37.8% of the variance in employee performance. Furthermore, co-worker support was found to both enhance employee performance (17.8%) and alleviate occupational stress (35.9%). Consequently, in work environments characterized by robust co-worker support, employees experience reduced stress (63.2%) and exhibit improved performance (43.2%). In light of these findings, hypotheses H1, H2, and H3 are supported.

Table 7 Co-worker support mediates the relationship between occupational stress and employee performance

Variables	Effect	Occupational stress	Co-worker support	Employee performance	Hypothesis	Hypothesis results
Co-worker support	Direct	-.493	.000	.000	H4	Supported
	Indirect	.000	.000	.000		
	Total	.496	.000	.000		
Employee performance	Direct	-.237	.466	.000		
	Indirect	-.230	.000	.000		
	Total	-.467	.466	.000		

Bootstrap

Variables	Effect	Occupational stress	Co-worker support	Employee performance
Co-worker support	Lower bound	.000	.000	.000
	Upper bound	.000	.000	.000
Employee performance	Lower bound	-.301	.000	.000
	Upper bound	-.168	.000	.000

Source: Authors

Table 7 delves into the mediating effect of co-worker support on the relationship between occupational stress and employee performance. The findings presented here provide compelling evidence for a significant mediation effect. As expected, occupational stress exhibits a direct negative impact on employee performance ($\beta = -.237, p < .000$). However, this detrimental effect is mitigated by the presence of a supportive co-worker. The analysis reveals that co-worker support significantly buffers the negative influence of occupational stress on employee performance ($\beta = -.230, p < .000$). Furthermore, bootstrap analysis reinforces the evidence for mediation. The confidence interval for the indirect effect of occupational stress on employee performance ranges from -0.301 to -0.168. This implies that the buffering effect of co-worker support is statistically significant and not attributable to a random sampling error. In conclusion, the results from Table 7 support Hypothesis H4, indicating that co-worker support significantly mediates the relationship between occupational stress and employee performance.

4. Discussion

This study investigates the mediating role of co-worker support in the relationship between occupational stress and employee performance. Our primary hypothesis posits that co-worker support mediates this effect, supported by demographic, confirmatory factor, correlation, and regression analyses. The participant demographic data reveal a predominantly male group (82.3%), with 55.4% married and 46.3% holding an associate degree. These figures suggest that ARFF (Airport Rescue and Firefighting) personnel are primarily young and newly hired, with 87.9% classified as ARFF officers. Reliability and validity assessments indicate high internal consistency of the scales, as confirmed by the Kaiser-Meyer-Olkin criterion. Normal distribution analyses indicate a slight right skewness for occupational stress and a significant left skewness for co-worker support and employee performance. Correlation analyses reveal a significant negative relationship between occupational stress and performance (-0.535^{**}), and a positive relationship between co-worker support and performance (0.541^{**}). Regression analyses confirm that increased co-worker support enhances performance ($\beta = 0.432, p < 0.01$), while higher occupational stress decreases it ($\beta = -0.442, p < 0.01$). Finally, the

study demonstrates that co-worker support significantly mitigates the negative impact of occupational stress on performance, thereby validating our hypothesis.

The findings of our research clearly highlight the positive impact of co-worker support on employee performance. Demirhan et al. (2014) emphasize that managerial support shows a positive and significant relationship with job satisfaction. Similarly, Kurt's (2013) study explores the relationships between perceived co-worker support and employee performance, revealing that both managerial and co-worker support significantly affect job performance. The negative relationship between occupational stress and employee performance holds a significant place in the existing literature. Demerouti and Bakker (2011) note that workplace stress can lead to burnout, subsequently negatively impacting employee performance. Moreover, findings supporting the notion that co-worker support enhances job performance while reducing occupational stress are corroborated by research conducted by Chiaburu and Harrison (2008). In conclusion, both co-worker support and managerial support are crucial for enhancing employee performance and effectively managing stress.

5. Conclusion and recommendations

This research comprehensively examines the effects of occupational stress on employee performance and the role of co-worker support in this relationship, yielding significant findings. Our first finding reveals a negative relationship between occupational stress and employee performance, which supports numerous studies in the existing literature. Notably, Kahn and Byosiére (1992) emphasized the adverse effects of stress on individual job performance and argued that these findings should be considered within an organizational context. Furthermore, Sonnentag and Frese (2013) highlighted the negative impact of workplace stressors on performance in a recent review, underscoring the importance of stress management strategies.

Our second finding illustrates the negative relationship between occupational stress and co-worker support, reaffirming the significance of social support mechanisms in the workplace. De Clercq et al. (2020) conducted two time-lagged surveys across six organizations in Pakistan and found a connection between reduced stress levels and co-worker

support. Andrews et al. (2007) noted that co-worker support relationships in the workplace enhance employees' abilities to cope with stress. Manning et al. (1996) argued that co-worker support can mitigate the negative health effects of stress.

Thirdly, a positive and significant relationship was identified between co-worker support and employee performance. This finding emphasizes that as support from co-workers increases, employee performance generally improves. Demerouti and Bakker (2011) demonstrated that co-worker support enhances motivation in the workplace.

Lastly, the mediating role of co-worker support underscores the importance of social support mechanisms in alleviating the effects of stress. Co-worker support may moderate the relationship between laissez-faire leadership and perceived stress among employees. Previous studies have found a positive correlation between laissez-faire leadership and stress. In this context, when employees receive support from co-workers while working under a laissez-faire leader, they may mitigate the negative relationship, thereby reducing perceived stress. Karasek and Triantis (1982) tested the buffering effects of co-worker support using data from a national survey conducted in the U.S. in 1972. The authors reported that employees experienced lower psychological strain in high-stress job situations when co-worker support was strong. These studies indicate a direct link between co-worker support and reduced stress levels among employees and demonstrate that co-worker support acts as a moderator in relationships related to employee outcomes. These findings contribute to our understanding of the effects of stress factors in the workplace on employee performance and emphasize the need for management strategies to include stress-reducing measures. Additionally, they highlight the importance of strengthening solidarity and support relationships in the workplace, which can help improve employee performance and cope with stress.

This study examines the mediating role of co-worker support in the impact of occupational stress on employee performance. The research was conducted using a survey method, with data collected from ARFF (Air Rescue and Fire Fighting) personnel working at an airport. Airports operate 24/7 to ensure uninterrupted air traffic at both national and international levels, necessitating a "zero-error" approach to ensure the safety of passengers' lives. In this context, the safe operation of airports is vital

not only for operational success but also for the overall safety of the community. ARFF personnel undertake extremely risky duties, such as responding to aircraft emergencies and saving passengers' lives. However, it has been observed that this occupational group works under intense stress, which can negatively affect their performance. Successfully performing their duties is crucial for both their health and passenger safety. Therefore, understanding the relationship between ARFF personnel's step-coping abilities and their performance is of great importance, particularly when co-worker support is provided, as it is expected to enhance performance in fulfilling their critical responsibilities. Literature reviews indicate that no similar study has addressed the mediating role of co-worker support in the relationship between occupational stress and employee performance, specifically among ARFF personnel at airports. As such, this research fills a significant gap in the literature.

This research not only contributes to the literature but also provides valuable insights into strategies for reducing stress and enhancing performance among ARFF personnel within airport environments and related institutions. It suggests that the continuous 24/7 operation of airports necessitates increased flexibility in the shift schedule of ARFF personnel, and that flexible working hours could help them achieve a better work-family balance and reduce stress levels. Implementing part-time work on less busy days may enable individuals to manage their family and personal responsibilities more effectively. Additionally, regular sports events and social activities are believed to support employees' physical and mental health, increasing motivation and strengthening team cohesion. Psychological support services are also suggested to enhance stress-coping abilities, contributing to better management of emotional challenges. Individual counseling and group therapy can maintain employees' mental health, improving job performance and overall quality of life. Finally, team-building activities that foster collaboration and solidarity can strengthen interaction among colleagues, reduce stress, and promote a more positive workplace environment.

Recommendations for future research

Several avenues for future research in this field warrant consideration. First, the impact of stress

management programs on employee performance could be explored further, investigating the content and effectiveness of these programs. Additionally, measuring and enhancing co-worker support in workplaces presents another opportunity for research, focusing on different types of support and their effectiveness. The role of organizational culture also merits investigation, particularly in terms of how a positive culture can reduce stress and enhance co-worker support. Furthermore, research could examine how employees' demographic characteristics—such as gender, age, and ethnic background—affect perceptions of occupational stress, co-worker support, and performance, evaluating

the impact of diversity and equality policies on stress management. Finally, the role of technology should be explored, specifically how advancements like remote work and digital communication tools influence occupational stress and support dynamics. These recommendations aim to provide deeper insights into various perspectives, ultimately facilitating the development of more effective workplace strategies. This study, which investigates the relationships among occupational stress, employee performance, and co-worker support, contributes a fresh perspective to the existing literature, particularly by highlighting the mediating role of co-worker support in this context.

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