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The Effect of Perceived Organizational Support of Seafarers on Their Subjective Well-Being through Psychological Resilience: The Role of Job Stress

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ABSTRACT

Seafarers working on ships on international voyages have to work in closed environments away from their families and social life, and are socially isolated. In other words, seafarers work in environments in which all vital workplace activities take place together, and the possibility of socialization is very limited. In this regard, the purpose of this study is to examine the indirect effect of perceived organizational support on subjective well-being through psychological resilience and the moderator role of job stress in this interaction by seafarers on merchant ships operating internationally. Data were obtained from 408 seafarers by questionnaire technique. Mediation, moderator, and moderated mediation analyses were performed using Hayes Process Macro. The results show that psychological resilience has a mediation variable role in the relationship between organizational support perception and subjective well-being, but the mediation role of psychological resilience does not change by the level of job stress. This study is the first of its kind to holistically evaluate the relationship between these variables and with a specific focus on seafarers, it offers valuable suggestions to shipping businesses and researchers interested, thus making a significant contribution to the relevant literature.

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1 Introduction

The COVID-19 epidemic had a negative impact on maritime trade and global supply chains, as well as on all aspects of trade in 2020. Indeed, the volume of maritime trade decreased by 3.8% to 10.6 tons in 2020 due to this epidemic; still, maritime transportation managed to take a quite tough stance against the negative effects of this epidemic compared to other forms of transportation. With the rapid adaptation of all stakeholders to the epidemic and various measures taken by them, maritime transportation continued unabated during the epidemic, and the decreased demand for maritime transportation was met uninterruptedly through effective management (UNCTAD, 2021). Seafarers have played a key role in carrying out maritime activities for the successful maintenance of maritime transport under difficult pandemic conditions.

Due to the nature of the maritime profession, seafarers perform one of the most difficult and dangerous profes-

sions in the world. Seafarers work under high-performance pressure during long-service contracts that can last up to 12 months on ships dominated by a strong hierarchy (Muslu, 2008). With their areas of work and rest limited by the ship's environment, seafarers may have to share their private areas, including cabins, with their colleagues as there is limited space on ships (Sampson et al., 2018). This makes it difficult for them to move away from the work environment in their leisure time and find a space where they can be alone with themselves. Also, seafarers are exposed to adverse conditions on ships all day long, such as extremely cold or hot weather, light, vibration, and noise. These factors negatively affect their well-being and psychology during working hours, and also reduce the quality of their sleep and rest. Seafarers do not get enough rest, which leads to a constant state of fatigue and carelessness, and this poses a risk to the seafaring profession, which is a perilous profession that requires considerable attention (Sampson et al., 2017; Sampson et al., 2018). In ad-

dition to the difficult physical conditions caused by the nature of the maritime profession, another serious problem that seafarers struggle with on ships is about social life. Seafarers live an isolated life away from their families, relatives, and a stable land-life on ships during their long service contracts. Another stressor for seafarers is their inability to adequately communicate with their families due to a lack of communication facilities, which makes them experience a serious longing for their loved ones. Seafaring is a way of life, rather than a profession, that greatly affects the lives of seafarers and their families because the social life of seafarers on ships is limited to ship conditions and ship crew (Thomas et al., 2003). Under these difficult conditions, it is essential for seafarers to have strong psychological resilience and to exhibit positive attitudes towards their lives and jobs, both for their own happiness and for the continuity of their seafaring activities.

Seafarers on ships are exposed to various negative factors that may affect their subjective well-being (SWB), including excessive workload, a dangerous work environment, monotony, insufficient rest, insomnia, career concerns, and being away from family (Kahn et al., 1992). SWB is highly effective on the individual performance of seafarers, the total performance of the crew, and the staff turnover rate (Muslu, 2018). This study seeks to investigate the indirect effect of the perceived organizational support (OS) of seafarers serving in merchant ships operating internationally on their SWB levels through psychological robustness (PR) and the moderated mediation role of job stress (JS) in this interaction. The literature presents studies on the relationship between OS and SWB (De Paul & Bikos, 2015; Panaccio & Vandenberghe, 2009; Yu et al., 2019; Pauli et al., 2018), the mediation role of PR in the relationship between OS and SWB (Akçakanat et al., 2018; Qiu et al., 2020; Zhang et al., 2021), the relationship between PR and SWB (Bostan & Duru, 2019; Andreou et al., 2020; Yubero et al., 2021), the effect of PR on JS (Butavicius et al., 2018; Shiralia et al., 2021), and the moderator role of JS (Karacaoğlu & Arat, 2019; Özüdoğru & Yıldırım, 2020); no previous research has examined the relationship between the mentioned variables from a holistic perspective. Given that this study is the first of its kind to holistically evaluate the relationship between these variables and with a specific focus on seafarers, it offers valuable suggestions to shipping businesses and researchers interested, thus making a significant contribution to the relevant literature.

2 Literature Review and Hypothesis Development

2.1 The Relationship Between Organizational Support and Subjective Well-being

Humans, who are social beings by nature, have had to develop social relations from the first day of their existence to survive. Homans (1958) defines a social relationship as a series of activities between two or more people

that result in either rewarding or punishing outcomes. Based on this idea, Blau (1964) argues that individuals support each other and constantly expect appreciation from each other in order to achieve certain rewards considering their mutual interests according to the Social Exchange Theory. As for organizations, this theory manifests itself as mutual expectations and obligations reflected in the relationship between an organization and its employees, although these expectations and obligations are not specified in written form (Coyle-Shapiro & Conway, 2005:). Gouldner (1960) argued that any beneficial behavior performed by any individual should not go unrewarded; similarly, Eisenberger et al. (1986) believed that the performance of employees should be evaluated by the organization and that the social and mental needs of the employees who create value should be met to support employee happiness. From this standpoint, Eisenberger et al. (1986) developed the concept of perceived OS, which can be defined as the degree of satisfaction of the employees of an organization regarding the evaluations and rewards presented by the organization to them in regard to their performance.

The questions of what happiness is and how to be happy are among the most frequently asked questions since the existence of mankind, which is constantly in search of happiness. According to Diener (1984), the happiness of individuals depends on their ability to achieve their goals that are compatible with their needs. Aristotle believed that the way individuals feel happy is by doing the things they like. SWB is often identified with the expression "happiness" and a concept used since the second half of the 20th century (Kuzu, 2021). SWB refers to the evaluation that one makes of their own life, including their positive and negative feelings and life satisfaction (Diener, 1984). According to Ryff (1995), SWB involves being independent, acknowledging and accepting aspects of oneself, being able to control one's own life, having goals that they consider realistic, and growing constantly.

OS theory posits that the impressions of employees that they are valued, and cared for, and that their interests are protected by the organization they work for are critically important for SWB (Eisenberger et al., 1986). The positive relations between employees and their managers and colleagues at work, as well as the opportunities offered by workplaces such as salary, human resource management, and promotion, have a positive effect on the SWB levels of employees (Siqueira, 1995). The literature offers many studies examining the relationship between OS and SWB. Paul and Bikos (2015) performed a study to determine the impact of OS on SWB with the participation of 159 employees that serve in international non-governmental organizations and ascertained that the perceived support of employees by the host organization in the countries they serve as well as their sociocultural adaptation have a significant effect on their SWB levels. Using a sample of 220 employees from different sectors and countries, Panaccio and Vandenberghe (2009) concluded that

OS shapes SWB through organizational commitment. Yu et al. (2019) carried out a study with a sample of 606 nurses in the province of Liaoning, China, and found a significant relationship between the perceived OS and SWB levels by nurses working under harsh physical and psychological conditions. To investigate the relationship between the perceived OS, organizational citizenship behaviors and SWB levels of 195 employees in public institutions, Pauli et al. (2018) ascertained that there is a significant relationship between these variables. Their study emphasized the importance of OS in revealing the organizational citizenship behaviors of employees that affect their SWB levels. Based on these arguments in the literature, Hypothesis 1 has been proposed.

Hypothesis 1: Seafarers' perception of organizational support positively affects subjective well-being.

2.2 The Mediation Role of Psychological Resilience in the Relationship Between Organizational Support and Subjective Well-being

Though it is notable that the early studies on psychology concentrated on negative psychology, this focus has recently changed towards positive psychology, increasing the number of studies on the strengths of the individual (Seligman, 2005). PR has emerged as a concept studied since the 1990s when scholarly attention started to focus on positive psychology; thus, its theoretical basis dates back to the recent past. PR refers to the ability of a person facing difficulties to overcome these difficulties and cope with difficult conditions. PR is one's gaining the ability to overcome difficulties and move on with their lives (Masten & Coatsworth, 1998). Two aspects stand out in the definitions of PR. First of all, PR entails the presence of a threat or a negative situation, and then a healthy adaptation process that occurs despite the presence of such a threat or negative situation (Luthar et al., 2000). The level of the perceived OS has an impact on the PR levels of employees. Among the studies on the relationship between OS and PR, the study by Akçakanat et al. (2018), which was performed with 271 academics to measure the effect of the perceived social support and OS of the academics on their PR levels and happiness, indicated that OS had a positive and significant effect on PR levels. To evaluate the relationship between OS, PR, and fatigue, Qiu et al. (2020) conducted a study with 886 doctors in China and found that OS had a significant effect on the PR levels of doctors, and PR had a significant effect on their fatigue levels. Similarly, Zhang et al. (2021), using a sample of 476 employees, found that there is a significant relationship between the perceived OS, PR levels, and fatigue of Chinese nurses. Based on these arguments in the literature, Hypothesis 2 has been proposed.

Hypothesis 2: Seafarers' perception of organizational support positively affects their psychological resilience.

Various studies on the relationship between PR and SWB have found that PR has a significant effect on SWB. Drawing on structural equation modeling to analyze the mediation role of PR and social commitment in the relationship between psychological abuse and SWB, Bostan and Duru (2019) carried out a study with 1,247 high school students and ascertained that the SWB levels of the students were influenced by their PR levels. Investigating the relationship between the levels of bullying students are exposed to, their SWB and PR levels, Andreou et al. (2020) reported that the students with high PR levels also had high SWB levels. In a similar vein, Yubero et al. (2021) studied the relationship between bullying, PR, and SWB among students and revealed that PR moderated the relationship between bullying and SWB. Based on these arguments in the literature, Hypothesis 3 has been proposed.

Hypothesis 3: The psychological resilience of seafarers positively affects subjective well-being.

With a sample of 632 participants, Karreman and Vingerhoets (2012) examined the mediation role of emotion regulation and PR in the relationship between attachment styles and SWB and concluded that PR had a significant mediation variable role in the relationship between attachment styles and SWB. The study by Shi et al. (2015), which was performed with the participation of 2,925 students and aimed at analyzing the relationship between stress and life satisfaction of medical school students studying in China, revealed the mediation role of PR. Likewise, both the study by Bajaj and Pande (2016) on the mediation role of PR in the effect of mindfulness on life satisfaction and affect and the study by Arslan (2016) on the mediation role of PR in the effect of adolescent maltreatment on emotional-behavioral problems highlighted the mediation role of PR. Based on these arguments in the literature, Hypothesis 4 has been proposed.

Hypothesis 4: Psychological resilience plays a mediating role in the relationship between seafarers' perception of organizational support and subjective well-being. In other words, the psychological resilience of seafarers with a positive perception of organizational support increases, and the increasing psychological resilience also increases subjective well-being.

2.3 The Moderator Role of Job Stress

The first comprehensive review of job stress was conducted by the Michigan Institute for Social Research in the early 1960s. This review focused especially on negative psychological and physical factors that can cause stress at work (Akarca, 2021). JS refers to the stress caused by the negative situation in the workplaces where employees spend most of their time. JS can be described as the physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker while fulfilling the responsibilities

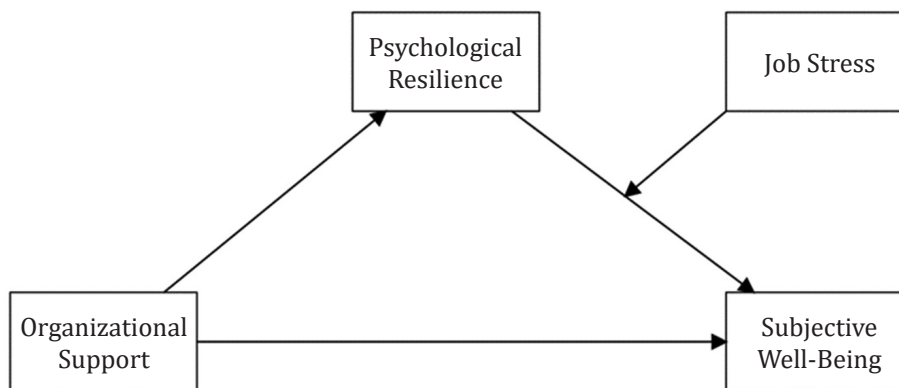


Figure 1 Research model

Source: Authors

required by the job (Thomas & Lankau, 2009). In other words, JS is the discrepancy between the responsibilities and skills that employees have in relation to their jobs (Williams et al., 2001). JS has a significant direct impact on the organizational behaviors of employees; further, the organizational citizenship behaviors exhibited by employees may differ depending on the JS they experience. Butavicius et al. (2018) examined the relationship between PR, JS, and information security with a sample of 1,048 participants, and identified a significant relationship between PR with JS. Similarly, Shiralia et al. (2021) carried out case-control studies to examine the relationship between JS and PR levels experienced by Iranian nurses during the COVID-19 epidemic based on a sample of 400 nurses and ascertained that JS is a key determinant of PR. JS has an effect on the PR levels of employees as well as their attitudes and behaviors, and also affects the level of interaction between these two variables. In their study on the moderator effect of JS in the correlation between perceived business policy and job alienation, Karacaoğlu and Arat (2019) used a sample of 441 participants and found out that JS had a significant moderator effect in this relationship. Özüdoğru and Yıldırım (2020) also probed into the role of JS in the relationship between cyberloafing and employee performance and determined that JS had a significant moderator role in this relationship. That said, it is plausible to argue the PR levels of seafarers may differ by the JS they experience, and their JS may be a variable that plays a moderator role in the effect of their PR levels on their SWB levels. Considering these, Hypothesis 5 has been established.

Hypothesis 5: The job stress that seafarers experience has a moderate role in the relationship between their psychological resilience and subjective well-being. In other words, seafarers who experience less job stress have a higher positive effect on subjective well-being than seafarers who experience more job stress.

According to the Conservation of Resources Theory, stress arises when one loses or is likely to lose or access to work-life, characteristic features, power, and material val-

ues, which are among the resources available to individuals (Stevan, 2001). Therefore, the stress experienced by employees, which can arise at any time in work life, emerges as a pivotal phenomenon that shapes individual or organizational attitudes and behaviors (Gilboa et al., 2008). Moreover, considering the studies that pointed out the mediation role of PR in the relationship between perceived OS and SWB (Karreman & Vingerhoets, 2012; Shi et al., 2015; Bajaj & Pande, 2016; Arslan, 2016) and the moderator role of JS (Zhang et al., 2011; Makkar & Basu, 2018; Karacaoğlu & Arat, 2019; Özüdoğru & Yıldırım, 2020), it seems that the JS experienced by seafarers may have a moderated mediation role in the effect of the perceived OS of seafarers on their SWB levels through PR. Considering these, Hypothesis 6 and the research model in Figure 1 have been established.

Hypothesis 6: The indirect effect of seafarers' perception of organizational support on subjective well-being through psychological resilience varies according to the level of job stress.

In other words, the indirect effect of organizational support on subjective well-being through psychological resilience is less when seafarers experience high job stress and more when seafarers experience low job stress.

The research model in Figure 1 shows that job stress moderated mediation role in the indirect effect of organizational support on subjective well-being through psychological resilience.

3 Method

3.1 Sample and data

The data used in the study were obtained by the questionnaire technique via Google form. 408 Turkish seafarers working on cargo ships have participated in this research, which was conducted between April and June 2020 with the support of human resources departments of ship businesses, ship management firms performing ship person-

nel management activities, and graduate platforms of maritime schools. The majority of the participants were male 388 people (95.1%), 207 people (50.7%) were between the ages of 25-35, 373 people (91.4%) graduated from university, 219 people (53.7%) had maritime service between 4-7 years, 261 people (63.9%) worked on deck, 121 people (29.6%) machinery and 26 people (6.5%) worked in the cousin department and 275 people (67.3%) worked on dry cargo, 89 people on tankers (21.7%) and 45 people (11.0%) on container ships.

3.2 Measures

The six-item and one-dimensional scale (Cronbach Alpha= 0.77) was used by Eisenberger et al. (2001) to measure the seafarer’s OS. The scale includes expressions such as “My organization shows little interest in me (R)”.

In order to measure PR, validity and reliability analysis with adaptation to Turkish were utilized from the six-item and one-dimensional scale (Cronbach Alpha= 0.83) by Doğan (2015). As a result of the confirmatory factor analysis (CFA), the expression “It takes a long time to recover from the effects of the negativities in my life (R)”, has a low factor load (sd. $\beta = 0.32$), was excluded from the analyses.

The seven-item and one-dimensional scale (Cronbach Alpha= 0.80) was developed by House and Rezzo (1972) to measure JS. The scale includes expressions such as “Working on board directly affects my health”. The five-item and one-dimensional scale (Cronbach Alpha= 0.83) was used by Diener (1984) to measure SWB. The scale includes expressions such as “My living conditions are quite good”.

The validity and reliability of the scales used in the study were determined as a result of the analyses made in previous studies and the expressions in the scales were arranged according to a 5-point Likert type rating system (1=strongly disagree, 5= strongly agree).

3.3 Procedure

The data was collected from seafarers by questionnaire technique were analyzed with SPSS (v22) and AMOS (v22) statistical package programs. Similarity and decomposition validity analyses were used in CFA for the structural validity of the measurement model, and Cronbach Alpha and combined reliability coefficients were used to determine its internal consistency. Bootstrap 5000 samples were selected for the test of research hypotheses, and the SPSS Process macro (v3.4) plugin and Models 1, 4, and 14 developed by Hayes (2019) were used.

4 Findings

4.1 Validity and reliability analysis

As a result of the CFA analysis performed to define the validity of the model, after a substance belonging to the PR scale with a low factor load (std. β : 0.32) was removed from the analysis, the standardized factor loads of the observed variables were greater than 0.50 and statistically significant (std. β : 0.598-0.964; $p < 0.001$). Accordingly, the measurement model has been compared with two alternative models, which show the goodness of fit values in Table 1.

The measurement model consists of four factors mainly OS, PR, JS, and SWB scales, each one-dimensional. It is understood that the goodness of fit values of the measurement model ($\chi^2/sd = 3.436$; CFI= 0.934; TLI= 0.925; RMSEA= 0.077; SRMR= 0.038) in Table 1 are among the acceptable values (Hair et al., 2014) and they have the best goodness of fit values compared to other models.

AVE and CR values and the values of ASV and MSV values for discriminant validity were calculated in order to define the convergent validity of the scales, and the findings are given in Table 2.

Table 1 Measurement and Alternative Models

Measurement models	χ^2	sd	χ^2/sd	CFI	TLI	RMSEA	SRMR
Measurement model	756.006	220	3.436	0.934	0.925	0.077	0.038
Unrelated model	1313.192	226	5.811	0.867	0.851	0.109	0.069
Single factored model	2984.855	226	13.207	0.663	0.623	0.173	0.124

Source: Authors

Table 2 Cronbach Alpha, Pearson Correlations, and Validity

Variables	CA	CR	AVE	MSV	ASV	std. β	1	2	3	4
1. OS	0.932	0.949	0.759	0.395	0.268	0.734-0.954	0.871	0.603**	-0.214**	0.629**
2. PR	0.911	0.960	0.687	0.373	0.280	0.736-0.964		0.828	-0.322**	0.611**
3. JS	0.899	0.892	0.542	0.103	0.064	0.603-0.803			0.736	-0.212**
4. SWB	0.895	0.898	0.641	0.395	0.271	0.734-0.959				0.800

** $p < 0.01$; Numbers in the cross are the square root of the AVE of each variable.

Source: Authors

Table 3 Means, Std. Dev., Std. Err., Skewness, Kurtosis

Variables	Mean	Std. Dev.	Skewness	Std. Err.	Kurtosis	Std. Err.
1. OS	3.261	1.078	-0.522	0.121	-0.481	0.241
2. PR	3.428	1.086	-0.736	0.121	-0.330	0.241
3. JS	2.774	0.979	0.032	0.121	-0.793	0.241
4. SWB	3.122	0.976	-0.432	0.121	-0.545	0.241

Source: Authors

As can be seen from Table 2, it has been determined that convergent validity is ensured for the measurement model (Hair et al 2014; Fornell & Larcker 1981), since AVE numbers of each factor in the measurement model are greater than 0.50, CR values are greater than both 0.70 and AVE values which are critical values. In addition, it is understood from Table 2 that AVE values are greater than ASV with MSV numbers and also because AVE square root numbers are greater than the correlation values of the factors in the measurement model; therefore the discriminant validity of the measurement model is ensured. In addition, since both CR and CA coefficients are greater than 0.70, it is determined that the measurement model is reliable (Hair et al. 2014).

The averages, standard deviations, skewness, and kurtosis coefficients of the variables in the measurement model whose validity and reliability was determined were calculated and given in Table 3.

When Table 3 is examined, it is accepted that the PR levels of seafarers are high according to averages ($X=3.428$) and whereas the others are moderate, the skewness of the variables (0.032; -0.736) and kurtosis coefficients are among (-0.330; -0.793) and the data are normally distributed due to the fact that the values of the said coefficients are between ± 3 and ± 10 and their critical values are less than from reference value (Kline, 2016).

Harman’s one-factor test was applied to define the widespread process bias that may emerge due to the evaluation of all variables in the questionnaire by the same persons at the same time and the said error was tried to be checked by ranking the scale in a questionnaire. In the questionnaire form, expressions related to SWB in the dependent variable status in the first stage, then IS, PR, and finally OS, which is the independent variable, was includ-

ed. Therefore, the scale ranking was balanced. In addition, factor components with eigenvalues greater than 1, four factors, 63.5% of the total variance explained and 24.8% of the total variance explained by the first factor alone have emerged in the explanatory factor analysis (EFA) performed with the Basic Components method without rotation for all expressions in the scale. In other words, in the non-rotational EFA analysis, it was understood that more than one-factor structure was formed and the first factor did not have a significant explanatory value within the total explained variance. Finally, CFA was made in which all items in measurement models were laden on an only variable and it was decided that the goodness of fit numbers of the single factor model shown in Table 1 did not form common method bias due to being below acceptable limits (Podsakoff et al, 2003; Podsakoff et al, 2012).

4.2 Hypotheses testing

In the relationship between OS and SWB, the results of the mediation analysis were applied by selecting the Process macro (v3.4) plugin, Bootstrap technique, and 5000 sample options and Model 4 advanced by Hayes (2019) for SPSS to examine the mediator role of PR are given in Table 4. Table 4 shows that the models in the mediation analysis are statistically significant ($p < 0.001$). It is understood from Table 4 that the total positive effect of OS on SWB ($B= 0.640$; $t:20.197$; $p < 0.001$) and its positive effect on PR ($B= 0.607$; $t: 15.244$; $p < 0.001$) are statistically significant. Furthermore, it is observed that the effect of OS on SWB continues to decrease with PR in Table 4 and that PR has a positive effect on SWB ($B=0.342$; $t: 9.574$; $p < 0.001$).

However, OS and PR account for almost 59% of the variance in SWB ($R^2 = 0.591$). The moderate role of PR in the

Table 4 Mediation role of PR

Variables	PR			SWB			SWB		
	B	SE	t	B	SE	t	B	SE	t
Constant	1.423	0.136	10.398***	1.032	0.109	9.469***	0.545	0.110	4.916***
OS	0.607	0.039	15.244***	0.640	0.031	20.197***	0.433	0.036	12.038***
PR	-	-	-	-	-	-	0.342	0.035	9.574***
Model Summ.	$R^2=0.364$; $F(1;406)=232.399$; $p < 0.001$			$R^2 = 0.501$; $F(1;406)=407.949$; $p < 0.001$			$R^2=0.593$; $F(2;405)=295.36$; $p < 0.001$		
Bootstrap Indirect Effect	B=0.207; $p < 0.05$; 95% BCA CI [0.148; 0.271]								

Source: Authors

Table 5 Moderating Effect Test of JS

Variables		B	SE	t	95% CI	
					LL	UL
Constant		3.159	0.035	28.114***	3.086	3.227
PR		0.543	0.036	15.110***	0.472	0.613
JS		-0.061	0.037	-1.666	-0.134	0.011
PR*JS		-0.061	0.031	-4.728***	-0.209	-0.086
Conditional Effect	L (Mean-1SD)	0.687	0.037	18.547***	0.614	0.760
	M (Mean)	0.543	0.036	15.110***	0.472	0.613
	H (Mean+1SD)	0.398	0.055	7.185***	0.289	0.507
Model Summary		R ² =0.478; F(3;404)= 123.315; p < 0.001; (PR*JS) ΔR ² =0.028; F(1;404)= 22.354				

***p < 0.001; Dependent Variable= SWB.

Source: Authors

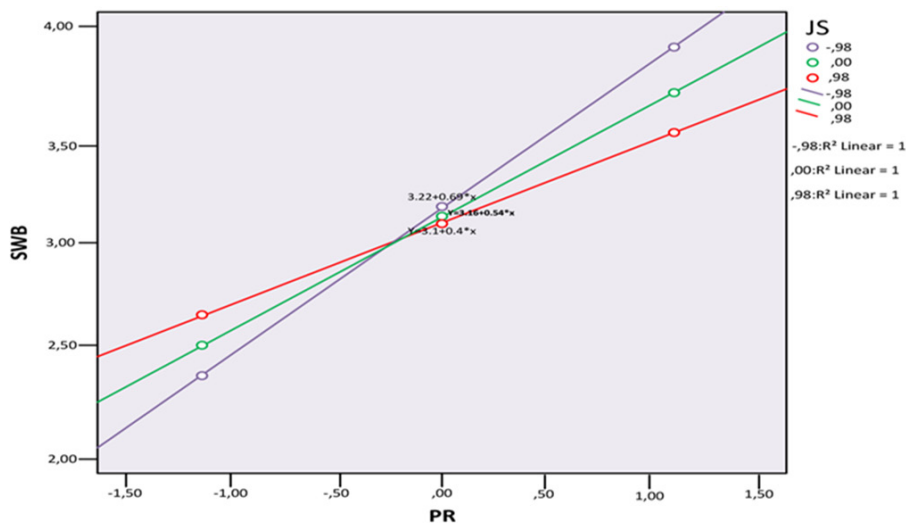
relationship between OS and SWB was decided by looking at the confidence intervals reached as a result of the Bootstrap analysis. Accordingly, it has been determined that corrected bias and accelerated confidence interval (BCA CI) were found to be statistically significant (B=0.207; p < 0.05; 95% BCA CI [0.148; 0.271]), and PR had a moderate variable effect in the relationship between OS and SWB because they did not cover zero (MacKinnon, Lockwood & Williams, 2004).

In addition, it was determined that the mediation effect of PR was statistically significant with the Sobel test result (z=9.517; SE=0.023). According to these findings, *Hypotheses 1, 2, 3, and 4* are supported. The results of the analyses were conducted by selecting the Bootstrap 5000 re-sampling method and Model 1 in SPSS (v22) Process macro (v3.4) to examine whether the JS experienced by seafarers have a moderator effect on the relationship between PR and SWB are given in Table 5.

It is understood that the effect of the model (R²=0.478; F=123.135; p<0.001) in which the moderator impact anal-

ysis is performed in Table 5 and interaction term (PR*JS) on SWB was found to be statistically significant (B = -0.061; t = -4.728; ΔR²=0.028) and it did not include a zero value (95%CI [-0.209, -0.086]). The significance of the term interaction indicates that the positive effect of PR on SWB varies according to the JS levels of seafarers. In order to clarify the moderator role of JS, the Slope test proposed by Aiken and West (1991) was performed and the results obtained are shown in Chart 1. The fact that the slopes of a standard deviation from the mean of JS in Chart 1 are low, medium, and high values are different from zero and also because the regression results of the averages mentioned in Table 5 do not include the zero value of the values (CI) in the 95% confidence interval (LL<95%CI<UL; p < 0.01) shows that JS has a moderator role in the relationship between PR and SWB (MacKinnon, Lockwood & Williams, 2004; Aiken & West, 1991). According to these findings, *Hypothesis 5* is supported.

Graph 1 shows that as the seafarers' JS levels increase, the positive effect of PR on SWB decreases. In other words,



Graph 1 Slope of PR and JS Interaction

Source: Authors

seafarers with low JS levels have a stronger positive effect of PR on SWB than seafarers with high JS levels. The results of the analyses were performed by selecting the Bootstrap 5000 re-sampling method and Model 14 in SPSS (v22) Process macro (v3.4) to examine whether the JS experienced by seafarers have a moderator effect on the relationship between PR and SWB are given in Table 6.

Table 6 Moderated Mediation Effect of JS

Variables	B	SE	t	95% CI	
				LL	UL
Constant	1.768	0.132	13.360***	1.508	2.028
OS	0.417	0.038	10.800***	0.341	0.493
PR	0.343	0.036	9.347***	0.271	0.415
JS	-0.033	0.032	-1.027	-0.098	0.030
PR*JS	-0.031	0.029	-1.063	-0.089	0.026

***p < 0.001; Dependent variable: SWB.

Source: Authors

It is understood that the interaction term (PR*JS) in Table 6 is not meaningful (B = -0.031; p (0.288) > 0.05; t = -1.063) and the values in the 95% confidence interval (CI) are between zero (95%CI [-0.089, 0.026]). Since the term interaction is not statistically significant and the values in the 95% confidence interval cover zero, it has been determined that JS has no moderator effect on the mediating role of PR. According to these findings, *Hypothesis 6* is not supported.

5 Discussion

This study draws on the survey method to collect its data to investigate the effect of the perceived OS of seafarers on internationally operating ships on their SWB levels through PR, and the moderated mediation role of JS in this interaction. The data obtained from a total of 408 seafarers on the commercial ships, where the vast majority of employees are male, university graduates, serve in the deck department, were then analyzed using Model 4, 1, and 14 in the SPSS Process macro plug-in (v3.4) improved by Hayes (2019) and 5,000 Bootstrap samples as well as via AMOS 22 software. Based on the results of the analyses, five of the six proposed research hypotheses have been supported (Hypotheses 1, 2, 3, 4, 5), whilst one of them (Hypothesis 6) has not been supported. The first of the study findings showed that the perceived OS of the seafarers had a positive and significant effect on their SWB levels. This finding is congruent with the findings of previous research on the relationship between OS and SWB (De Paul & Bikos, 2015; Panaccio & Vandenberghe, 2009; Yu et al., 2019; Pauli et al., 2017). Considering the adverse effects of the professional difficulties of the maritime profession on the psychology of seafarers, the perceptions of

seafarers on the support they receive from their organization have a significant impact on their OCs and SWB levels in both their work and individual lives. According to Sampson and Ellis (2019), who underlined the importance of the OS provided by shipping businesses for the SWB levels of seafarers, shipping businesses should be dedicated to creating resources that support the SWB levels of seafarers and ensure their work-life balance and should embrace supporting their SWB levels as an organizational goal.

Another striking finding is that the perceived OS of seafarers had a positive and significant effect on their PR levels. This finding is supported by other findings in the studies examining the relationship between perceived OS and PR (Akçakanat et al., 2018; Qiu et al., 2020; Zhang et al., 2021). Al-Omar et al. (2019) emphasized the importance of the individual happiness and PR levels of employees in boosting motivation, productivity, and retention within the organization. That said, it is essential that shipping businesses seeking to enhance the PR levels of their seafarers and retain them and increase their productivity and motivation within the ship, place greater efforts on OS.

This study further revealed that the PR levels of seafarers positively affected their SWB levels. This is congruent with the findings obtained in the research on the relationship between PR and SWB in the literature (Bostan & Duru, 2019; Andreou et al., 2020; Yubero et al., 2021). Yaşar (2015) reported that individuals encounter many problems that deeply affect both their daily lives and life course over time, and those who can fight against these problems fiercely adopt a more optimistic perspective towards their lives thanks to the experiences they gained. From this standpoint, the experience gained by seafarers, who are always struggling with the difficulties of the maritime profession, while coping with these difficulties, increases their fighting power and, therefore, their PR levels. Seafarers with increased PR levels can make more constructive assessments of both their jobs and private lives, and their SWB levels are enhanced as well.

Another striking finding of this study shows that PR has a significant mediation effect on the relationship between OS and SWB. This finding is congruent with the findings of different studies that reveal the mediation role of PR (Karreman & Vingerhoets, 2012; Shi et al., 2015; Bajaj & Pande, 2016; Arslan, 2016). Believing that they are supported by their organizations through material and moral resources, seafarers are able to adapt more easily to professional difficulties and be even stronger in the face of difficulties. Also, seafarers who feel safe about OS and become more confident in life enjoy greater satisfaction both in their private and business lives. Thus, seafarers are able to act more independently, have more courage in making new decisions, become willing to constantly improve themselves, and confidently move forward with goals that they find realistic.

Seafarers are exposed to various sources of stress both in their working lives and in their private lives. This study further concluded that JS is a variable that plays a signifi-

cant moderator role in the effect of the PR levels of seafarers on their SWB levels. This finding is backed up by the findings obtained in similar studies examining the effect of JS on PR, and the moderator role of JS (Butavicius et al., 2018; Shiralia et al., 2021; Karacaoğlu & Arat, 2019; Özüdoğru & Yıldırım, 2020). This finding implies that the positive effect of PR on SWB is greater among seafarers who have lower JS, compared to those who have higher JS. The last finding of this study suggested that the indirect effect of the perceived OS of seafarers on their SWB levels through PR does not differ by the JS level.

6 Conclusions

The research findings underlined the importance of the perceptions of seafarers on the support they receive from their organization for their SWB levels. The positive opinions of seafarers that they receive financial/moral support from their organizations in every sense and that they are rewarded for their hard work, boost their SWB levels.

According to the research findings, it has been revealed that the PR levels of seafarers are high and OS, JS, and SWB levels are moderate, the OS perceived by seafarers had a positive effect on both SWB and PR, while PR had a positive effect on SWB, and also PR had an moderate variable role in the relationship between OS and SWB. In other words, it can be said that as the OS perceived by seafarers increases, PR increases, and the increased PR levels increase SWB levels. In addition, research findings indicate that when seafarers experience low JS levels, the positive effect of PR on SWB is even greater; in other words, the level of JS regulates the relationship between PR and SWB. In addition to thereof, it was found that the JS experienced by seafarers had no formative effect on the indirect effect of OS on SWB through PR. In other words, it has been determined that JS has no moderator effect on the mediating role of PR. **When all findings are evaluated together, it can be said that the negative moderator role of JS has no effect on the positive effect of PR on SWB when it comes to positively perceived OS.** In other words, seafarers with high PS levels due to the characteristics of the maritime profession, even in the negative situations created by the theCovid-19 pandemic process, do not feel the negative effect of JS on SWB when they receive positive support from their organizations.

Seafarers working on ships sailing on international voyages have to work in closed environments away from their families and social life and are dominated by compulsory social isolation. In other words, seafarers work in environments where all vital and workplace activities take place together and socialization is very limited. Seafarers, whose normal working lives are difficult, have to continue their duties in order to ensure the continuity of international trade in goods during the Covid-19 pandemic, which affects the whole world. Due to the nature of the maritime profession, the working environments of seamen are quite stressful. While the PR levels they have are important for their success in this stressful business environment, one

of the results of this study is that seafarers with a positive perception of OS are psychologically strengthened, which also increases SWB. In other words, seafarers who are psychologically sound also have high SWB, and this positive relationship is also more when the perceived OS is positive.

Another result of this research is that PR, which has a moderate role in the relationship between OS perception and SWB, is not dependent on JS of this moderate role. This indicates that seafarers are psychologically sound due to the high perceived OS, so the JS they experience has no formative effect on the effect of this situation on SWB. In other words, it has been revealed by this research that seafarers supported by their organizations do not change this positive relationship between PR and SWB.

This is the first study examining the moderator role of JS in the indirect effect of seafarers' perceived OS on SWB through PR. Therefore, it is thought that the results of this study will contribute to the literature.

6.1 Theoretical contributions

The relevant literature lacks a study that holistically examines the relationship between these research variables. Moreover, the number of studies in the literature on the SWB levels of seafarers and variables influencing SWB levels is quite limited. It is considered significant for the maritime literature that more and more studies are performed to provide suggestions for investigating and supporting the well-being of seafarers, who have demanding jobs with many sources of stress by nature and are also expected to have strong psychological resilience. This is a unique study that holistically examines the relationship between the variables OS, PR, SWB, and JS, and scrutinizes this relationship between these variables with a specific focus on seafarers. This study can serve as a guide for future studies to be conducted on the SWB levels of seafarers.

6.2 Practical implications

In the maritime profession, which incorporates psychological threats and often triggers mental health issues, the SWB levels of seafarers are critical for the smooth conduct of maritime activities. Shipping businesses and their stakeholders interested in ensuring smooth maritime activities by increasing productivity, motivation, and job retention on ships first need to acknowledge the difficulties faced by seafarers in their professional lives. It is recommended that shipping businesses that acknowledge the importance of the happiness of seafarers in the conduct of maritime activities and seek to increase their SWB levels through PR by reducing the JS experienced by seafarers focus on the activities toward OS. Considering that one of the biggest problems faced by seafarers on ships is the difficulty in communicating with their families and relatives, shipping businesses are strongly recommended to offer free and unlimited Internet access on all ships. Further, as

seafarers have restricted social lives on ships, entertainment opportunities such as sports facilities, darts, barbecues, various games, a library, television, and so forth, which allow seafarers to have a pleasant time in their leisure time, should be improved. To overcome the problem of insufficient rest and sleep, which is one of the foremost difficulties faced by seafarers, shipping businesses need to prioritize using comfortable beds and furniture in the cabins on their ships. Moreover, the light and sound insulation in the cabins should be improved as much as possible. Although the improvement of working conditions on ships positively affects the SWB levels of seafarers, their social environment, limited only to the ship environment during long voyage periods, has a negative impact on their mental state. For this reason, managers of ship businesses are recommended to allow seafarers at all levels to take shore leave as much as possible.

6.3 Limitations and future research

This study is a cross-sectional study and covers the Covid-19 pandemic process, which is a certain period, and Turkish seafarers experiencing this period. Therefore, the results obtained are valid for the period and sample in question. In addition, it is important to test the research model and hypotheses in normal periods and to reveal the differences, if any. However, research data were obtained from seafarers who went through a very challenging training process and periodically underwent physical and psychological health checks in order to maintain their profession and had to receive vocational refresher training. Therefore, it should be kept in mind that the results of the research are specific to seafarers within the scope of the research, whose professional competencies are determined according to international standards and the results may vary for different sector employees. Thus, the research model should also be tested with data obtained from different sector employees. In addition, in order to develop the research model, different studies can be carried out by adding variables such as emotional intelligence or emotional labour of employees that can regulate the relationship of PR between OS and SWB.

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