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THE MEDIATING EFFECT OF PSYCHOLOGICAL SAFETY ON THE RELATIONSHIP BETWEEN POSITIVE PSYCHOLOGICAL CAPITAL AND EMPLOYEE PERFORMANCE*

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Özet

Günümüz iş dünyasında belirsizlikler, değişimler ve yoğun rekabet ortamında işgücünün performansının yükselmesi için bireysel kaynaklarından optimum düzeyde faydalanılması gerekmektedir. Bu çalışmada, çalışan performansına etki eden pozitif psikolojik kaynaklardan faydalanmanın yanı sıra, çalışanın pozitif psikolojik kaynaklarını performansını yükseltme doğrultusunda kullandığında, çalışanın işyerinde algıladığı psikolojik güvenliğin bu ilişkiyi etkileyebileceği varsayımıyla bir alan araştırması yürütülmüştür.

Bu doğrultuda, bahsi geçen değişkenlerin aralarındaki ilişkilerin ve etkilerinin araştırılacağı bir araştırma modeli geliştirilmiştir. Araştırma,

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Marmara Bölgesi'nde değişik endüstri ve iş kollarında görev yapan 454 beyaz yakalı çalışandan anket yöntemiyle toplanan verilerle gerçekleştirilmiştir.

Araştırma modeli doğrultusunda geliştirilen hipotezlerin Yapısal Eşitlik Modeli, Hiyerarşik Regresyon Analizi ve Korelasyon Analizi istatistiksel araçları kullanılarak analizleri yapılmış ve elde edilen sonuçlar literatür çerçevesinde yorumlanmıştır.

Araştırma sonucunda; çalışanların pozitif psikolojik sermayelerinin çalışan performansını, literatürdeki daha önceki çalışmaları da destekler şekilde, olumlu etkilediği görülmüştür. Psikolojik güvenlik ile pozitif psikolojik sermaye ve çalışan performansı arasında anlamlı ilişkiler bulunmuştur. Çalışanların psikolojik güvenlik algılarının, pozitif psikolojik sermayeleri ile performansları arasındaki ilişkide kısmi aracılık rolü üstlendiği görülmüştür.

Anahtar Kelimler: Pozitif Psikolojik Sermaye, Çalışan Performansı, Psikolojik Güvenlik, Aracılık Etkisi.

Abstract

In today's business world, the uncertainty, changes and intense competitive environments require the optimal utilization of the individual resources of the employee in order to improve the performance of the employee in the workplace. In this study, in addition to benefiting from positive psychological resources that affect employee performance, it is thought that the perceived psychological safety by the employee at the workplace will affect this relationship and

employee performance is expected to be increased through the perception of psychological safety. In this respect, a model has been developed to examine the relationships and effects between these variables. The research was carried out with the data collected by the survey method from 454 white collar employees working in different industries and sectors in Marmara Region. The hypotheses in the research were analyzed by using Structural Equation Modeling, Hierarchical Regression and Correlation Analyzes and the findings were stated. According to the results of the research; positive psychological capital of the employees positively affects the employee performance as supporting previous studies in the literature. A significant relationship was found between psychological safety and positive psychological capital and employee performance. In addition, employee's perceived psychological safety has partial mediating role in the relationship between positive psychological capital and employee performance.

Keywords: Positive Psychological Capital, Employee Performance, Psychological Safety, Performance, Mediating effect.

1. Introduction

In the challenging and highly competitive environment of the business world, in the face of constant changes and uncertainties, the survival of businesses, their success and their ability to maintain success depend on the performance of their employees. For this reason, it is critically important to identify and develop the factors that affect employee

performance and for employees to use their individual resources in the most effective way.

The performance of the business is affected as a result of the individual actions and behaviors of the employee towards to goals. This perspective leads to intensive research on increasing the individual psychological resources of employees and their effects on their performance, and the concept of positive psychological capital is carried to the business world with the suggestion of Luthans and friends.[*1-2]

In studies in this field, the importance of positive psychological capital is emphasized by showing that the performance of the employees is positively affected by the correct orientation and management of the positive psychological capital of the employees in the workplace.

When the studies in the literature are examined, it is seen that most studies investigate the relationship between positive psychological capital and employee performance and other variables. However, it is seen that the effect of mediating variables affecting this relationship has not been studied sufficiently. As the working conditions in the business world get more and more complex, it is seen that the range of behavior expected from the employees is also expanding. This situation necessitates the examination of other factors that affect the relationship

[1] Fred Luthans, Carolyn N. Youssef and Bruce J. Avolio, "*Psychological Capital: Developing the Human Competitive Edge*. New York: Oxford University Press, (2007a): 11-19.

[2] Fred Luthans v.d., "Positive Psychological Capital: Measurement and Relationship with Performance and Satisfaction." *Personnel Psychology*, 60, (2007b): 60, 542.

between these positive psychological resources and their performance in order for the employees to exhibit superior performance and to benefit from these factors.

In the literature, it is seen that the concept of psychological safety is not studied among the mediating variables whose effects on positive psychological capital and employee performance are examined. Comprehensive studies and analyzes conducted in different industries in the international arena emphasize the need for employees to feel safe in the workplace in order for businesses to grow, learn, contribute to the environment and achieve their goals effectively in a rapidly changing world.[†]

In addition, it is thought that by investing in the positive psychological capital of the employees, the perception of psychological safety in the workplace can increase. Thus, it is predicted that through the reduction of individual concerns in the workplace, there will be more focus on tasks, openness to innovations, increased productivity and ultimately increased performance.

In this direction, a research model was created to see the factors affecting employee performance and the relationships between them, and it was envisaged to examine these relationships. Since there is no other study examining the relationships of these variables in the

[†] Amy C. Edmondson and Zhike Lei, "Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct'', *The Annual Review of Organizational Psychology and Organizational Behavior,* (2014): 1, 41.

literature, it is thought that this study will contribute to the literature as an original study in this field.

2. Theorical Framework, Hypothesis Development

2.1. Positive Psychological Capital

The concept of psychological capital under the umbrella of positive organizational behavior[‡] arises from the theory and criteria of positive organizational behavior.[§] It is conceptually defined by Luthans et al., (2007a: 3), is "(1) the individual's confidence to take and put in the necessary effort to succeed in difficult and challenging tasks (self-efficacy), (2) the individual's positive perception to be successful now and in the future (optimism), (3) persevering towards goals in order to achieve and the power to change the way to the goal when necessary (hope), (4) willpower that will enable him to recover and go further in order to be successful when faced with problems and obstacles (resilience).[**] Positive psychological capital dimensions are shown in Figure1.

[‡] James B. Avey v.d., "Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes, Behaviors, and Performance." *Human Resource Development Quarterly*, *22*, *2*, (2011): 129.

[§] Luthans, Youssef and Avolio, *Psychological Capital,* 10.

[**] Luthans, Youssef and Avolio, *Psychological Capital,* 3.

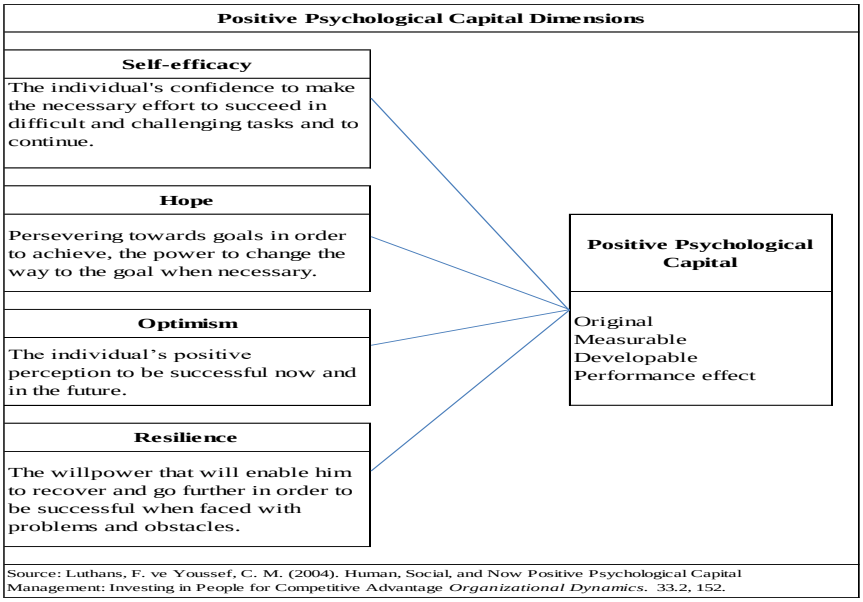


Figure.1. Positive Psychological Capital Dimensions[††]

Positive psychological capital is a higher-level synergetic foundational construct that combines positive organizational behavior criteria. For this reason, it is expected that the effect on the performance and attitude outputs that will occur as a result of investing, developing and managing psychological capital as a whole is greater than the individual positive psychological capacities that make it up. [‡‡]

2.2. Employee Performance

The concept of performance is defined as ‘’an activity in which an individual can successfully perform the task assigned to her, using

[††] Fred Luthans and Carolyn M. Youssef, “Human, Social, and Now Positive Psychological Capital Management: Investing in People for Competitive Advantage.’’ *Organizational Dynamics*, 33, 2, (2004): 152.

[‡‡] Luthans, Youssef and Avolio, *Psychological Capital*, 19.

available resources".[§§] Campbell and Wiernek[***] define the concept of employee performance as "individual actions and behaviors of employees towards business goals that directly affect the achievement of goals". According to this definition, job performance consists of workplace behaviors more than workplace results and includes only behaviors related to the goals of the business and has more than one dimension. Borman and Motowidlo (1997) evaluate the concept of employee performance from two different perspectives as task performance and contextual performance. The concept of task performance is defined as "the effectiveness in the performance of task activities, either directly as part of the technical process or indirectly by providing the necessary materials and services that enable the business to continue its operations".[†††] Contextual performance concept, on the other hand, includes "the individual's voluntary fulfillment of work outside of his/her duties and responsibilities in order to complete the activities of the business."[‡‡‡]

[§§] Muhammed Jamal, "Job Stress, Job Performance and Organizational Commitment in a Multinational Company: An Empirical Study in two Countries.'' *International Journal of Business and Social Science*, 2, 20, (2011): 20.

[***] John P. Campbell and Brenton M. Wiernik, "The modeling and assessment of work performance.'' *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 1, (2015): 47-74.

[†††] Walter C. Borman and Stephan J. Motowidlo, "Task Performance and Conceptual Performance: The Meaning of Personnel Selection Research.'' *Human Performance*, 10, 2, (1997): 99-101.

[‡‡‡] Borman and Motowidlo, "Task Performance and Conceptual Performance: The Meaning of Personnel Selection Research," 100.

2.3. Psychological Safety

Comprehensive analyzes highlight the increasing importance of psychological safety at work in various industries and international studies. In addition, the need for employees to feel safe at work is emphasized in order to grow, learn, contribute and effectively achieve goals in a rapidly changing world[§§§].

According to Edmondson[****] the concept of psychological safety describes "people's perceptions of the consequences of taking interpersonal risks in a particular context, such as the workplace". It consists of beliefs about how others will react in situations such as asking questions, getting feedback, reporting an error or proposing a new idea. Evaluation of personal comments, such as being hurt, shamed, or judged, that a person may experience as a result of his/her behavior, affects his/her action[††††].

Those who work in a psychologically safe work environment think that their colleagues accept and approve them. Employees respect each other's competence and have positive intentions for each other[‡‡‡‡]. Such

[§§§] Edmondson and Lei, "Psychological Safety: The History, Renaissance, and Future of an Interpersonal Construct,'' 41.

[****] Amy Edmondson, "Psychological Safety and Learning Behavior in Work Teams.'' *Administrative and Science Quarterly*, 44, (1999): 350-383.

[††††] Amy C. Edmondson, "Psychological Safety, Trust, and Learning in Organizations: A Group-level," Roderick M. Kramer and Karen S. Cook (Ed.). In *Trust and Distrust in Organizations: Dilemmas and Approaches*. New York: Russell Sage Foundation, (2003): 239-272.

[‡‡‡‡] Alexander Newman, Ross Donohue and Nathan Eva, "Psychological safety: A systematic review of the literatüre." *Human Resource Management Review*, 27, (2017): 522.

employees feel safe in taking risks and making minor mistakes without fear of undesirable consequences[§§§§]. Psychological safety facilitates risk-taking in relationships and serves as an important sustainability factor by enabling employees to learn and take initiative.[*****]

2.4. Mediating Effect of Psychological Safety on the Relationship Between Positive Psychological Capital and Employee Performance

When the literature is examined, it is seen that the psychological safety variable is heavily considered as a mediator variable.[†††††] Newman et al.,[‡‡‡‡‡] examined the antecedents of psychological safety at different levels of analysis. Accordingly, in 38 of the 44 studies they examined, psychological safety was considered as a mediator variable. In studies, psychological safety is mainly considered as a mediator variable to explain how supportive organizational practices, supportive leadership behaviors, relationship networks, team characteristics and individual / team differences affect workplace outcomes at individual, team and organizational levels. In studies conducted at the individual level, it is seen that the personal beliefs and attitudes of the employee strengthen

[§§§§] Binita Tiwari and Usha Lenka, "Building Psychological Safety for Employee Engagement in Post-Recession." *Development and Learning in Organizations,* 30, 1, (2016): 19.

[*****] Li Ning and Yan Jin, "The effects of trust climate on individual performance." *Frontiers of Business Research in China,* 3, 1, (2009): 43.

[†††††] Newman, Donohues, and Eva, "Psychological safety," 524.

[‡‡‡‡‡] Newman, Donohues, and Eva, "Psychological safety," 528.

the relationships between psychological safety and positive outcomes such as communication and admitting mistakes.

Newman et al.,[§§§§§] mentions two theoretical approaches on how to achieve positive work results through psychological safety. First, it is claimed that workplace outcomes such as learning, innovation, and performance of employees are affected by perceived psychological safety through the effect of supportive practices and relationships in the workplace, by making use of social learning theory. These are occurred with facilitating knowledge sharing, employee voices, seeking feedback, and testing. Second, they argue that by using social support theory, supportive practices and relationships in the workplace will increase psychological safety and lead employees to positive work results.

Positive psychological capital supports the belief in self-efficacy, employees' expressing their ideas and participating in innovation studies without interpersonal concerns in the workplace. Supportive interpersonal relationships and management perception also enable employees to learn from mistakes. Thus, the positive psychological capital of the employees affects their perception of the workplace as a psychologically safer environment and helps them to concentrate more on their duties, thereby increasing their performance. Since positive psychological capital has a structure that can develop, it is expected that individual performance will increase through the increase in the

[§§§§§] Newman, Donohues and Eva, "Psychological safety," 521–535.

psychological safety they perceive in the workplace when the positive psychological capital of the employees is invested. In line with this theoretical framework, the aim of this study is in order to see the effect on performance in the workplace by revealing the relationships between positive psychological capital, psychological safety, employee performance variables and also research the mediating effect of perceived psychological safety between individual psychological capital and employee performance. According to this theoretical framework, the following hypotheses are proposed;

H_1: There is a positive relationship between positive psychological capital and employee performance.

H_2: There is a positive relationship between positive psychological capital and psychological safety.

H_3: There is a positive relationship between psychological safety and employee performance.

H_4: Psychological safety has a mediating effect on the relationship between positive psychological capital and employee performance.

Figure 2 illustrates the theorethical framework.

Theorethical Framework of The Research Model

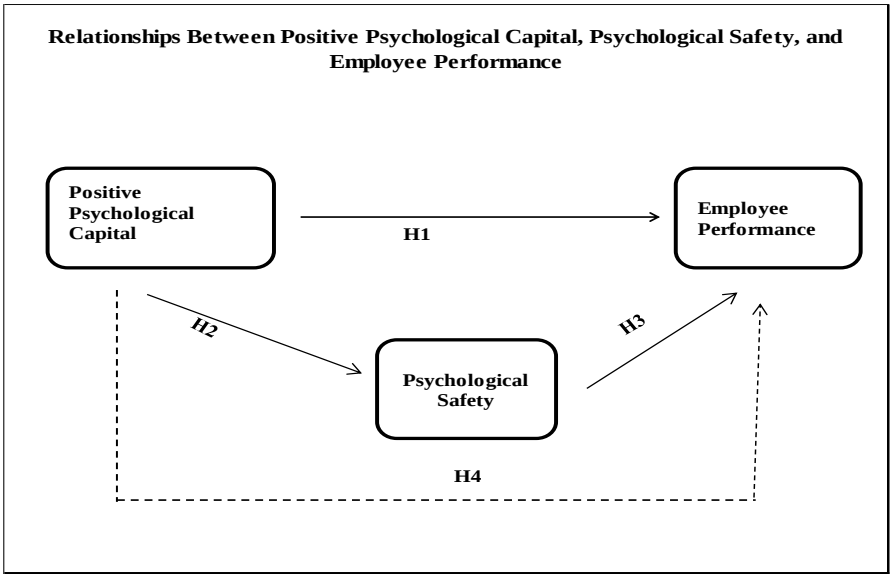


Figure.2. Theorethical framework of the research

3. Research Method

3.1. Participants, Sample Data Collection, Limitations

The data of the research consists of white-collar employees working in the private and public sectors operating in the Marmara Region. This region was chosen for the study as the Marmara Region is lead in the economy field in Turkey and the sector distribution is more diverse than other regions. In the research, convenience sampling method was used.

The first limit of the study is its conduction in the Marmara region only and not covers all other regions in Turkey. Although the measurement tools used in the research are valid and reliable, it is accepted that there may be errors that may arise from the measurement tools, sampling and research method. The data of this research was obtained from

questionnaires filled online and face-to-face interviews. A total of 500 questionnaires were distributed, and as a result of the evaluations, 46 questionnaires were excluded from the scope, and the analysis of the study was evaluated on a total of 454 data.

Table.1. Socio-demographic Characteristics of Participants

Industry type	**Number of employees**	
Manufacturing/Production	96	
Service	285	
Business	73	
Total	454	
Department of Labour	**Number of employees**	**Ratio**
Management Department	87	19,16%
Production Department	20	4,41%
Marketing Department	60	13,22%
Human Resources Department	20	4,41%
Accounting/Finance Department	53	11,67%
R&D Department	13	2,86%
Public Relations Department	7	1,54%
Other Departments	193	42,73%
Education	**Number of employees**	**Ratio**
Primary School	2	0.44%
Secondary School	2	0.44%
High School	70	15.42%
University	288	63.44%
Postgraduate/Doctorate	92	20.26%

Table.1. includes the socio-demographic information of the participants.

3.2. Measures of the Research

All the scale questions used in the study were first translated from English to Turkish and then back to English, and necessary improvements were made by checking the cultural appropriateness and intelligibility of the expressions. Afterwards, after the approval of 25 white-collar employees' eligibility was obtained, the questionnaires started to be distributed. Information about the scales used in this study is briefly stated below.

Psychological Capital Scale: It was developed from well-known and published scales of self-efficacy (Parker, 1998), hope (Synder et al., 1996), optimism (Scheier & Carver, 1985), and resilience (Wagnild & Young, 1993); The Psychological Capital Scale, which was developed in accordance with the workplace, considering the studies of these researchers, by Luthans et al., [******] was adapted and used in this study.

Psychological Safety Scale: In this study, the "Psychological Safety Scale" developed by Li and Tan in 2013 was adapted and used. [††††††]

Employee Performance Scale: In this study, the 4-statement (individual) employee performance scale developed by Rego et al.,[‡‡‡‡‡‡] was adapted and used to measure individual performance.

[******] Luthans, Youssef and Avolio, *Psychological Capital,* 211.

[††††††] Alex Ning Li and Hwee Hoon Tan, "What happens when you trust your supervisor? Mediators of individual performance in trust relationships." *Journal of Organizational Behavior,* 34, (2013): 415.

[‡‡‡‡‡‡] Armenio Rego, Carla Marques, Susana Leal, Filipa Sousa and Miguel Pina Cunha, "Psychological capital and performance of Portuguese civil servants:

3.3. Data Analysis

First, the variables were subjected to Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) using the SPSS software program.

In this context, exploratory factor analysis (EFA) was conducted for questions on positive psychological capital (self-efficacy, hope, optimism, resilience), psychological safety and employee performance in the model.

Kaiser-Meyer-Olkin (KMO) Sample Adequacy Measurement and Bartlett Sphericity test were used to test the suitability of the data in the study for factor analysis. The results of KMO and Barlett Test Values are shown in Table 2.

As seen in Table.2, Bartlett's test was found x2/df = 10,086.38/990 and p value was 0.000<0.05. These results show that the variables used are significant and indicate that there is a sufficient correlation between the statements in the scale.[§§§§§§]

Table. 2. KMO and Barlett Test Values

exploring neutralizers in the context of an appraisal system.'' *The International Journal of Human Resource Management,* 21, 9, (2010): 1540.

[§§§§§§] Sadi Can Saruhan ve Ata Ozdemirci, *Bilim, Felsefe ve Metodoloji* (Istanbul: Beta Yayınları, (2018), 226.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)		0,950
Bartlett's Test of Sphericity	Approx. Chi-Square	10,086.38
	Df	990
	Sig	0,000

Exploratory Factor Analysis (EFA)

In this analysis, the factors with a low variance value as 0.05, the expressions that were the only ones under the factor and had factor loads close to each other were excluded from the analysis and the analysis was repeated.

Table.3. The Result of Exploratory Factor Analysis for Model Variables

Variables	Questions	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Self-efficiacy	PPC1	0,60				
	PPC2	0,72				
	PPC3	0,65				
	PPC4	0,67				
	PPC5	0,72				
	PPC6	0,70				
	PPC7	0,56				
	PPC8	0,56				
Resilience	PPC10		0,55			
	PPC11		0,59			
	PPC12		0,67			
	PPC13		0,71			
	PPC14		0,68			
	PPC17		0,62			
	PPC18		0,56			
	PPC20			0,74		
Optimism	PPC21			0,57		
	PPC22			0,51		
	PPC23			0,65		
Psychological Safety	PS1				0,72	
	PS2				0,70	
Employee Performance	EP1					0,58
	EP2					0,71
	EP3					0,77
	EP4					0,80
Eigenvalue		**12,04**	**2,10**	**1,48**	**1,20**	**1,01**
Explained % variance		**37,61**	**6,55**	**4,63**	**3,74**	**3,17**

Table.3. contains the final EFA results of the model variables. It is seen that the variables are collected in a total of 5 factors. The psychological capital scale was collected in 3 factors under the variables of self-efficacy, resilience and optimism. Psychological safety and employee performance scales were also gathered under one factor each. These five factors explain 55.7% of the total variance explained for the scale. Since the total variance value of 55.7% is greater than 50%, the level of explanation is considered sufficient.

Confirmatory Factor Analysis (CFA)

After the EFA procedure, the questions remaining in the research scales were included in the confirmatory factor analysis. AMOS 20.0 was used. Table.4. shows the final results of confirmatory factor analysis with all model variables. As can be seen, the fit index values found for this model structure were c2(362)= 784.51, χ 2 /sd= 2.167, CFI= 0.93, IFI= 0.93 and RMSEA= 0.05. The fit values here are acceptable, thus showing that the fit of the model is acceptable.

Table.4. Confirmatory Factor Analysis for Model Variables

Variables	**Questions**
Self-efficiacy	PPC1, PPC2, PPC4, PPC5, PPC6, PPC7, PPC8
Resilience	PPC10, PPC11, PPC12, PPC13, PPC14, PPC17, PPC18
Optimism	PPC21, PPC22, PPC23
Psychological Safety	PS1, PS2
Employee Performance	EP1, EP2, EP3, EP4
$c^2_{(362)}$= 784.51, CFI= 0.93, IFI= 0.93 ve RMSEA= 0.05	

After the CFA analysis, the 2-factor model test proposed by Bagozzi, Yi, and Phillips[*******] was applied to test the discriminant validity. Contracting chi-square differences were determined for the constrained

[*******] Richard P. Bagozzi, Youjae Yi and Lynn W. Phillips, "Assessing Construct Validity in Organizational Research." *Administrative Science Quarterly*, 36, 3, (1991): 421-458.

and unconstrained models, and the chi-square difference was found to be (3.84). Table.5. shows the discriminant validity results.

Table.5. Discriminant Validity for Variables

Relationships between variables	**Unconstrained** (χ^2/d.f.)	**Constrained** (χ^2/d.f.)	$\Delta\chi^2$
Self-efficiacy and Resilience	435.32/77	229.14/76	206.18
Self-efficiacy and Optimism	267.49/35	59.70/34	207.79
Self-efficiacy and Psychological Safety	243.04/27	33.08/26	205.92
Self-efficiacy and Employee Performance	324.93/44	117.76/43	207.17
Resilience and Optimism	340.46/35	142.68/34	197.78
Resilience and Psychological Safety	317.74/27	121.77/26	195.97
Resilience and Employee Performance	400.22/44	208.14/43	192.08
Optimism and Psychological Safety	58.41/5	6.30/4	52.11
Optimism and Employee Performance	99.59/14	49.12/13	50.47
Psychological Safety and Employee Performance	206.26/9	50.86/8	155.4

After data purification, the average of the questions belonging to each variable was taken and the value of that variable was created. These average values reflect that variable. The correlation table of the variables, the mean and standard deviation of the variables and the Cronbach alpha numbers of the variables are shown in Table 6. As can be seen in Table 6, there is a low and moderate correlation

between the variables. Standard deviations are below 1 and reliability values are above acceptable limits. In addition to the AMOS-based extracted mean variance and composite reliability are close to or above the limit[†††††††].

Table.6. Correlations and Descriptive Statistics

Avarage	Standard Deviation		Variables	1	2	3	4	5	6
4,44	0.49	1	Self-efficiacy	(0.73)					
4,26	0.53	2	Resilience	0.68***	(0.72)				
3,58	0.76	3	Optimism	0.42***	.56***	(0.67)			
4,34	0.71	5	Psychological Safety	0.54***	0.57***	0.45***	0.43***	(0.83)	
4,30	0.60	6	Employee Performance	0.60***	0.62***	0.46***	0.51***	0.56***	(0.77)
Cronbach value				0.86	0.88	0.71	0.81	0.82	0.86
Composite Reliability				0.89	0.88	0.71	0.82	0.82	0.86
Average Variance Extracted				0.54	0.51	0.45	0.42	0.69	0.60

*p <.1, **p < .05, ***p < .01

Parenthesis values are the square root of the Average Variance Extracted.

In Table.6, it is seen that the relationship between all variables in the model is positive. Looking at the correlation between employee

††††††† Claes Fornell and David F. Larcker, "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error." *Journal of Marketing Research,* 15, 2, (1981): 39-50.

performance and all other variables, it is seen that all relationships are positive. It is seen that there is a highest level of correlation between employee performance and resilience variable ($r=0.62$, $p<0.01$) and a moderate correlation between the optimism variable and the correlation value ($r=0.46$, $p <0.01$).

4. Hypothesis Tests and Results

Structural Equation Model (SEM) and Hierarchical Regression Analysis (HRA) statistical tools were used to test the research hypotheses. First of all, SEM was tested for the test of the model, and the concept of positive psychological capital in the model was handled as a construct, in line with the theoretical discussions. Positive psychological capital is a second level structure and consists of 3 variables. These variables are self-efficacy, resilience and optimism.

Figure 3 illustrates the Structural Equation Model test results.

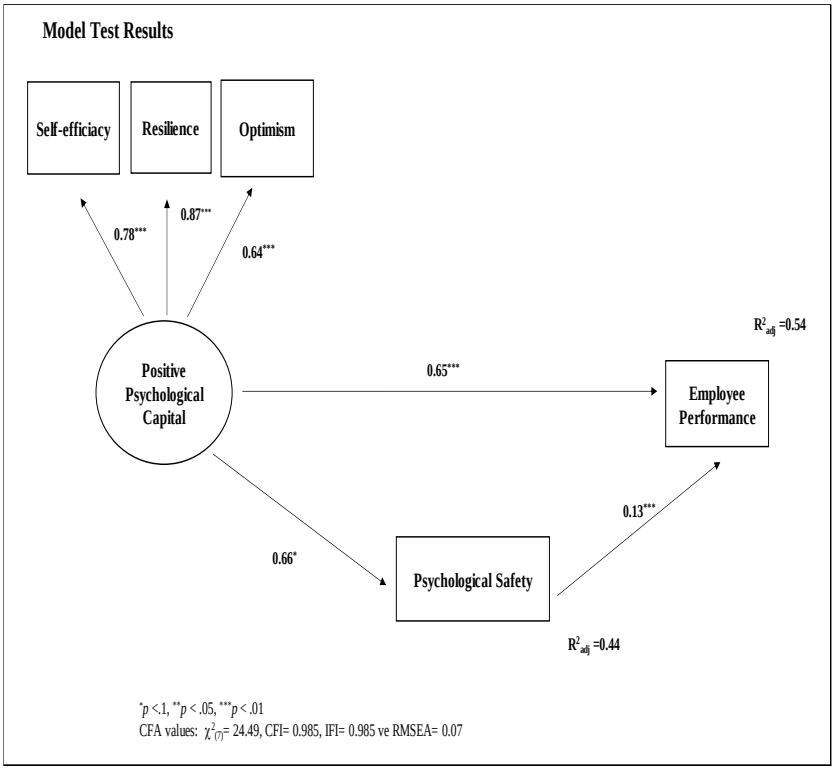


Figure.3. Model Test Results

As seen in Figure 3, there is a relationship between positive psychological capital (β=0.65, p< 0.01) and employee performance and psychological safety (β=0.66, p< 0.01). And there is a positive statistical relationship between a relationship between employee performance and psychological safety (β=0.13, p< 0.01).

In Table 7. Model 1 shows the relationship between the independent variable positive psychological capital sub-dimensions and the dependent variable employee performance.

Table.7. Mediating Effect of Psychological Safety

Dependent Variable	Employee Performance	Psychological Safety	Employee Performance
	Model 1	Model 2	Model 3
Independent Variables			
Self-efficiacy	0.32^{***}	0.28^{***}	0.26^{***}
Resilience	0.31^{***}	0.28^{***}	0.25^{***}
Optimism	0.15^{***}	0.17^{***}	0.11^{***}
Psychological Safety			0.22^{***}
R^2	0.67	0.62	0.70
R^2_{adj}	0.45	0.39	0.49
F	124.72***	95.46***	105.56***

$^{*}p$ <.1, $^{**}p$ < .05, $^{***}p$ < .01
Values are standardized.

In Table 7 there is a significant positive correlation between self-efficacy ($\beta = 0.32$, $p< 0.01$), resilience ($\beta = 0.31$, $p< 0.01$) and optimism ($\beta=0.15$, $p<0.01$) and employee performance. In other words, as positive psychological capital increases, employee performance increases. The biggest share in this effect process is seen in the self-efficacy variable, and the least effect is seen in the optimism variable. The next step is to check whether this effect is direct or through another variable.

In Table 7 Model 2 shows the relationship between positive psychological capital variables, which are independent variables, and psychological safety, which is mediating variable. There is a positive correlation between self-efficacy (β=0.28, p< 0.01), resilience (β=0.28, p<0.01), optimism (β=0.17, p<0.01) and psychological security variables. As the level of self-efficacy, resilience and optimism increases, employee performance also increases.

In Table 7 Model 3 shows the collective effect of positive psychological capital as the independent variable and psychological safety as the mediating variable on employee performance, which is the dependent variable. Here, it is seen that there is a positive relationship between self-efficacy (β=0.26, p< 0.01), resilience (β =0.25, p< 0.01), optimism (β=0.11, p< 0.01), psychological safety (β=0.22, p< 0.01) and employee performance.

In addition, as stated in Table 7 it was observed that beta coefficients in the relationship between positive psychology variables decreased with the entry of the psychological safety variable into the model. The coefficient of self-efficacy decreased from β=0.32 to β=0.26, the coefficient of resilience decreased from β=0.31 to β=0.25, and the coefficient of optimism decreased from β=0.15 to β=0.11. The entry of the mediator variable, psychological safety, did not eliminate the effect of positive psychological capital on employee performance, but in some degrees reduced it. In addition, with the entry of the psychological safety variable into the model, the explanatory level R2 value of the model increased from 0.67 to 0.70. According to these results,

psychological security has a partial mediating role between positive psychological capital and employee performance, that is, H4 is partially supported.

Table 8. shows the results of all the research hypotheses studied in the analysis.

Table.8. Results of Research Hypotheses

HYPOTHESIS				Coefficient (β)	p	RESULT
H1	H1 : There is a positive relationship between positive psychological capital and employee performance.	Positive Psychological Capital	Employee Performance	0,65	P<0,01	Supported.
H2	H2 : There is a positive relationship between positive psychological capital and psychological safety.	Positive Psychological Capital	Psychological Safety	0,66	P<0,01	Supported.
H3	H3 : There is a positive relationship between psychological safety and employee performance.	Psychological Safety	Employee Performance	0,13	P<0,01	Supported.
H4	H4 : Psychological security has a mediating effect on the relationship between positive psychological capital and employee performance.	Self-efficiacy	Employee Performance	0,26	P<0,01	H4 is partially supported.
		Resilience	Employee Performance	0,25	P<0,01	
		Optimism	Employee Performance	0,11	P<0,01	
		Psychological Safety	Employee Performance	0,22	P<0,01	

5) Discussion and Recommendations

As a result of the analysis of this study, it is seen that positive psychological capital significantly affects psychological safety and employee performance. At the same time, psychological safety also

affects employee performance. It is observed that psychological safety partially mediated the relationship between positive psychological capital and employee performance.

Looking at the literature, it is seen that the mechanisms in the components of positive psychological capital are positively related to performance.[‡‡‡‡‡‡‡] For example, Luthans et al.,[§§§§§§§] and Walumbwa et al.,[********] showed that positive psychological capital and performance are positively related in their studies. Employees use their psychological capital as a resource to achieve their goals and desired performance results. In this context, the research results of this study support the literature.

In the literature no study has been found that shows the direct relationship between positive psychological capital and psychological safety. However, in different studies, the relationship between these two variables is mentioned. For example, Luthans et al.,[††††††††] claimed that the manager and management style, which is accepted as one of the dimensions of psychological safety, contributes to the psychological capital of the employees. Accordingly, as the employees' knowledge about they are valued, recognized, appreciated, approved and believing

[‡‡‡‡‡‡‡] Avey v.d., "Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes, Behaviors, and Performance," 134.

[§§§§§§§] Luthans v.d., "Positive Psychological Capital," 541–572.

[********] Fred O. Walumbwa, Bruce J. Avolio and Chad A. Hartnell, "An Investigation of The Relationships among Leader and Follower Psychlogical Capital, Service Climate, And Job Performance." *Personnel Psychology*, 63, (2010): 937-963.

[††††††††] Luthans, Youssef, and Avolio, "*Psychological Capital*," 72.

in the existence of helpful managers and management support their psychologically safety perception of the workplace environment. In this direction, the degree of directing their psychological capital towards their goals also increases.

The results of this study also support this information in the literature. The increase in the positive psychological capital of the employees ensures the development of interpersonal relationships and the reduction of their worries. Employees are more open to new ideas to improve their work and respond more positively to management and managerial support. In this direction, their perceived psychological safety in the workplace increases.

In many literature studies dealing with the relationship between psychological safety and employee performance, it is shown that the perception of psychological safety has an impact on performance on an individual and team basis. For example, Li and Tan‡‡‡‡‡‡‡ stated in their study that employees with a high perception of psychological safety in the workplace are more likely to experiment, explore and learn. Therefore, they show that learning and innovative behaviors are observed in employees and their performance increases in this direction.

‡‡‡‡‡‡‡ Li and Tan, ‘’What happens when you trust your supervisor?’’ 413.

Singh et al.,[§§§§§§§§] stated in their study that the perceived psychological safety environment in the workplace is the critical mechanism that directs the performance behaviors of the employees.

The findings obtained as a result of this study are in parallel with the information in the literature.

The psychologically safety environment perceived by the employees in the workplace, while fulfilling their duties and responsibilities, enables them to reduce their individual concerns and express themselves better. In addition, it supports them to be open to innovative ideas and willing to innovative behaviors. The employees perceive the workplace as more reliable with the support of management and managers, they focus more on their work and make more effort to be successful. This allows them to increase their productivity and achieve a higher level of performance. On the contrary, if the work place is perceived psychologically unsafety, the workers cannot devote themselves to their work. They are not open to innovation and avoid showing enough effort for success. So, their performance decreases.

Singh et al.,[*********] showed in their studies that supportive working climates perceived in workplace environments increase the self-efficacy of the employees, reduce their anxiety and insecurity, and exhibit behaviors that benefit the business.

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§§§§§§§§ Barjinder Singh, Doan E. Winkel and T. T. Selvarajan, "Managing diversity at work: Does psychological safety hold the key to racial differences in employee performance?" *Journal of Occupational and Organizational Psychology,* 86, (2013): 254.

********* Singh, Winkel and Selvarajan, "Managing diversity at work," 248.

The results of the research are parallel with the studies in the literature. Employees' positive psychological capital has a partial mediating role in increasing employee performance by providing a safety perception of working environments in the workplace. The rise of the employee's positive psychological capital self-efficacy belief helps them feel more comfortable in proposing new ideas, participating in innovation studies, and trying new and different methods while fulfilling their duties and responsibilities. As the confidence of the employee in their abilities to accomplish their duties increases, their anxiety in the workplace decreases. Thus, it helps to exhibit more positive behaviors and improve performance. The rise of optimism increases the desire of employees to reach new information from mistakes and act innovatively by associating negative situations with external causes. Employees' positive perspectives on events affect their evaluation of interpersonal relationships, groups and management style in the workplace, that is their perception of psychological safety. In this direction, the increase in the optimism capacity of the employees enables them to perceive the workplace safer with positive thoughts that positive results will be obtained. This situation, in turn, increases employee performance by employing internal motivation that will ensure long-term success. The resilience component, which enables employees to recover and move forward to correct their current situation when they make a mistake, affects the level of safety perception of the workplace environment. Increasing the level of resilience of employees affects more their perception the support of groups and management in the workplace. In this direction, the increase in the psychological capital of the employees

produces positive workplace outputs by providing a safer perception of the workplace and increases the employee performance.

It has been observed that the effects of positive psychological capital, self-efficacy, resilience and optimism variables on employee performance alone are higher than when engaging psychological safety as a tool. It was observed that the correlation coefficients between the variables of self-efficacy, resilience, optimism and employee performance decreased with the introduction of the psychological safety variable into the model. In other words, it has been found that the employee's perception of psychological safety reduces the effect of the employee's psychological capital on employee performance on a little amount. At the same time, the psychological security variable's entry into this relationship increased the explanatory level of the model. According to these results, psychological safety has a partial mediating role between positive psychological capital and employee performance. In this context, this research study adds to the gap in the literature in this area.

This study can be done on the same model by changing the target participants to blue-collar employees. In this way, individual resources can be determined to increase the performance of employees in institutions with blue-collar employees. In addition, the results obtained from the data of blue-collar and white-collar employees can be compared and evaluated, and valuable contributions can be made to the institutions for performance improvement and to the literature.

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