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MEDIATION ROLE OF PSYCHOLOGICAL SAFETY IN THE EFFECT OF LEADER-MEMBERS EXCHANGE ON INDIVIDUAL CREATIVITY

Hasan Sadık TATLI* - Tuba BIYIKBEYİ** - İrem YUMAC***

Abstract

Leader-member exchange theory argues that positive relationships between employees and leaders will positively contribute to organizations. This research was conducted to determine the effect of leader-member exchange on individual creativity through psychological safety. The research was performed with white-collar employees in various sectors in Istanbul. The study sample consists of 390 white-collar employees, and the data were collected through online survey forms. Mediation models were used to test the hypotheses. According to research findings, leader-member exchange positively affects employees' psychological safety and creativity. Additionally, psychological safety positively affects employees' creativity. Finally, psychological safety has a mediating role in the effect of leader-member exchange on individual creativity. According to the research results, the positive relationships of white-collar employees with their leaders motivate individual creativity by increasing psychological confidence. All research hypotheses were supported. Suggestions have been provided in terms of both practical and theoretical aspects.

Keywords: Leader-member exchange, Psychological safety, Individual creativity.

Jel Code:L2, L20, M10

Lider-Üye Etkileşiminin Bireysel Yaratıcılık Üzerindeki Etkisinde Psikolojik Güvenliğin Aracılık Rolü Öz

Lider-üye etkileşimi teorisi, çalışanlar ile liderlerin olumlu ilişkilerinin örgütlere olumlu katkılar sunacağını savunmaktadır. Bu araştırma, lider-üye etkileşiminin, psikolojik güven aracılığıyla bireysel yaratıcılığa olan etkisinin tespit edilmesi amacıyla gerçekleştirilmiştir. Araştırma İstanbul'daki çeşitli sektörlerdeki beyaz yakalı çalışanların katılımı ile yürütülmüştür. Çalışmanın örneklemi 390 beyaz yakalı çalışandan oluşmaktadır ve veriler online anket formları aracılığıyla toplanmıştır. Hipotezlerin test edilmesinde aracılık modelleri kullanılmıştır. Araştırma bulgularına göre, lider-üye etkileşimi çalışanların psikolojik güvenliğini ve yaratıcılığını olumlu yönde etkilemektedir. Ayrıca, psikolojik güvenlik çalışanların yaratıcılığını olumlu yönde etkilemektedir. Son olarak, lider-üye etkileşiminin bireysel yaratıcılığa etkisinde psikolojik güvenliğin aracılık rolü bulunmaktadır. Araştırma sonuçlarına göre, beyaz yakalı çalışanların liderleri ile olan olumlu ilişkilerinin psikolojik güveni artırarak bireysel yaratıcılığı motive ettiği tespit edilmiştir. Araştırma hipotezlerinin tamamı desteklenmiştir. Araştırma kapsamında pratik ve teorisi açısından öneriler sunulmuştur.

Anahtar Kelimeler: Lider-üye etkileşimi, Psikolojik güvenlik, Bireysel yaratıcılık. Jel Kodu: L2, L20, M10

^{*} Dr., İstanbul Beykent Üniversitesi, Lojistik Bölümü, Lojistik Yönetimi Anabilim Dalı, hasantatli@beykent.edu.tr, https://orcid.org/0000-0003-1918-3188

^{**} Dr., Kilis 7 Aralık Üniversitesi, İşletme Bölümü, Yönetim ve Organizasyon Anabilim Dalı, tuba.biyikbeyi@kilis.edu.tr, https://orcid.org/0000-0003-1770-7304

^{***} Arş. Gör., İstanbul Beykent Üniversitesi, İşletme Bölümü, İşletme Anabilim Dalı, <u>iremyumac@beykent.edu.tr</u>, https://orcid.org/0000-0002-3840-8912

1. Giriş

Creativity and innovation are important in adapting to today's competitive conditions and for businesses to access opportunities that can provide a competitive advantage. In this environment where more is needed to develop innovation only by working in special departments such as R&D, businesses can expect employees to show creative behavior during their duties. In the modern industrialized world, where time and distance change, performance increases can be achieved through productivity achieved through invention, creativity and psychological safety rather than a simple concept of efficiency (Amedome, 2023; Michelsen, 2008).

Creativity is defined as the display of a different and value-creating idea (Karcıoğlu & Kaygın, 2013). When the employee shows this behavior, he/she may want to work beyond formal methods because he/she will go beyond the ordinary and make extra effort. That is why it is important for him to feel supported by management. An employee who does not know whether the organization will reward him due to his behavior (Assen & Caniels, 2022; Caniels & Veld, 2019) can shape his creativity (IC) with the attitude of the management. Apart from this, not knowing how the management will react to a possible mistake while trying to show their creativity can leave the employee hesitant and risk-averse. The concept of psychological safety (PS) (Edmondson, 2002), which refers to individuals' perceptions about the consequences of the risks they may take in their working environment, gains importance at this point. PS occurs when individuals believe that the work environment in which they operate is safe while taking risks. For example, when employees feel psychologically safe, they do not hesitate to make mistakes, ask questions to their managers, or find solutions to problems (Edmondson & Mogelof, 2004; Özer et al., 2021).

For this reason, employees who feel psychologically safe will be more likely to show creative behavior. The reward or punishment attitude mentioned results from an exchange between the manager and the employee. The concept that enables exchange and communication between the manager and the employee is the leader-member relationship (LMX). It is stated that employees who benefit from a high-quality leader-member relationship are more willing to take risks and deviate from the current situation (Tierney, 1999). This may indicate that they are more open to innovation.

When previous studies in the literature were examined, it was seen that studies were addressing the relationship of creativity with LMX and PS. However, it has been determined that the role of employees' PS perceptions in the effect of LMX on employees' IC has yet to be modeled. LMX is important in developing effective working relationships in work teams (Graen et al., 2006). A low-quality leader-member relationship is viewed as strictly based on the terms of the employment contract. In this situation, members tend to be assigned unattractive job duties and have limited opportunities to exchange with the leader. In organizations with low levels of leader-member relations, the leader is perceived as autocratic, and a structure that is open to innovation and encourages creativity is not felt in such environments (Othman et al., 2010). For these reasons, the research's starting point was the need to examine the effect of LMX on employees' creativity and to test whether PS has a significant role in this effect. The research aims to determine the mediating role of PS in the effect of LMX on employees' IC. The findings obtained as a result of the research are important in determining how the PS of employees is affected by their relationships with leaders and how IC is shaped as a result.

1.1. Conceptual Framework

Under the research's conceptual framework, the concepts of LMX theory, PS, and IC are first explained. Then, the relationships between concepts are presented, and the hypotheses of the research are developed.

1.2. Leader-Member Exchange

LMX theory is a theory that focuses on the quality of social exchange relationships between leaders and employees (Blau, 1964). This word, which means "exchange" in English, has been translated into Turkish as "interaction". The reason for this can be interpreted as a mutual energy exchange in which the leader provides motivation, employment and various resources to the employee, while the employee shows high performance (Dansereau et al., 1975) and behaves beneficial to the organization.

LMX theory is founded on social exchange theory and expects leaders to have a unique relationship with each employee (Graen & Uhl-Bien, 1995). These relationships emerge over time due to fulfilling the role expectations between the leader and the follower (Volmer et al., 2012). LMX theory focuses on the relationship ties between the leader and each employee (member). However, it suggests that the leader approaches employees with different behavioral styles. The basic assumption of the theory is that the leader cannot treat every employee in the same manner within the same organization or unit (Ercan, 2019).

While high-quality LMX indicates safety, respect and commitment, low-quality LMX indicates dissafety, low respect and lack of commitment (Morrow et al., 2005). Employees with higher quality exchange with their leaders have impressed the leader with their performance. These people have a higher quality LMX relationship than employees who do not perform well. The quality exchange established by high-performing employees with their leaders also increases the sharing of valuable resources between the leader and the member. In this way, employees who impact the leader can more easily access resources and support that will support their job performance (Bauer & Graen, 1996; Liden & Maslyn, 1998). Such employees are introduced to important people in the workplace by their leaders, providing them access to more information and social and political resources. A high-quality relationship between the leader and the member can lead to many positive results, such as job satisfaction and organizational commitment (Martin et al., 2016). However, a quality leader-member relationship ensures that employees feel their work environment is suitable for taking risks. It has been determined that employees with high-quality relationships with their leaders have fewer conflicts with their colleagues, encouraging them to think beyond the routine in their tasks (Zhao et al., 2018). In addition, the creativity of employees who feel that the LMX is strong is positively affected; they are more innovative than employees who have a feeling of low-quality leader-member relationship (Volmer et al., 2012; Saeed et al., 2019), and the necessary motivation is provided for them to take part in tasks where they can display their creativity (Atwater & Carmeli, 2009; Güler, 2019).

1.3. Individual Creavity

Creativity is an important element for organizations to achieve their goals, make a difference, find existing problems and solutions, and succeed. Creativity means revealing different and valuable ideas to create value (Karcıoğlu & Kaygın, 2013). Creativity is an ability that emerges according to the environment and conditions and occurs with the relational integrity of emotions, awareness and mental skills used in the thinking phase (Onur & Zorlu, 2017). Individual creavity (IC) is a concept that is innate and can be developed over time. IC is being able to create a new product or produce new and different solutions to problems with the knowledge and experience one has (Sunar & Canbek, 2021).

IC is an extremely important strategic feature for organizations to survive, increase performance, and gain competitive advantage (Kanbur & Özyer, 2016). If employees are encouraged and rewarded for creativity, their creative abilities improve. However, if employees do not receive sufficient support, their creativity abilities atrophy (Williamson, 2001). High creativity is seen as an important element that increases the organization's performance (Gong et al., 2013). Employees who have a positive relationship with their managers, receive feedback and are not subject to close monitoring have high

creativity (Zhou & Su, 2010). The creativity of employees who comfortably express their wishes and thoughts and cooperate in the organization is positively affected (Akduru, 2019).

PS is a fundamental cognitive element required for employees to continue their creative activities. Their risk perception affects employees' motivation and behavior to participate in discovery studies (Edmondson, 2004). As long as the individual feels safe, he or she will dare to take risks. Therefore, PS can contribute to employees' creative activities (Carmeli et al., 2010).

1.4. Psychological Safety

Psychological safety (PS) means that individuals can use their talents and express their thoughts without fear of negative situations about their status, image or career (Kahn, 1990). A high level of perceived security makes team members more open to feedback from others and seek opportunities for collaboration (Edmondson, 2004). Behaviors such as sharing information, receiving feedback, experimenting, asking for help, and reporting errors (Edmondson, 1999) and greater creativity and innovation (Agarwal & Farndale, 2017; Gong et al., 2012; Joo et al., 2023) positively affect PS. These are concepts that can influence the direction.

PS does not mean a comfortable working environment that results from employees establishing close friendships. This concept, along with a comfortable working environment, also shows no pressure in the work environment or difficult problems that wear out employees (Edmondson, 2004; Özer et al., 2021). What leaders say and how they speak when giving feedback, including humor, affects employees' cognitive and emotional confidence. In turn, the behavior of employees is shaped (Karakowsky et al., 2020). Therefore, while PS can be achieved through LMX, employees can also be expected to engage in creative activities.

1.5. Relationships Between Concepts and Hypothesis Development

The origin of the basic relationships between the research variables and the foundations that lead to the formation of hypotheses are discussed under this heading.

1.5.1. The Relationship Between Leader-Member Exchange and Psychological Safety

High-quality LMX reduces the possibility of conflict by increasing safety and commitment between the leader and the member (Vecchio et al., 2000). When positive relationships develop between leaders and employees, employees feel supported. In addition, employees feel psychologically safe and do not worry about the consequences of taking risks. Zeng et al. (2020) stated that leaders attaching importance to the recommendations of their employees and making them feel that they respect and save them increases the PS of the employees. Leader behaviors play an important role in creating and destroying interpersonal safety (Walumbwa & Schaubroeck, 2009), and it has been observed that leadership types such as ethical leadership and inclusive leadership, where LMX is seen as quality, have a positive effect on PS (Carmeli et al., 2010; Liu et al., 2016; Nembhard and Edmondson, 2006). Based on this information, the following hypothesis was created:

H1: LMX has a positive effect on PS.

1.5.2. The Relationship Between Leader-Member Exchange and Individual Creativity

For members to creatively accomplish their tasks in the group, it is inevitable for them to establish different relationships with the same group leader due to differences in their abilities and task assignments (Martin et al., 2018). Studies conducted by Atwater and Carmeli (2009) and Çiçek and Çiçek (2020) found that LMX has a positive effect on creativity. In the study conducted by Tierney et al. (1999), it was revealed that leader and member exchange significantly affected the creativity of employees. Volmer et al.'s (2012) study determined that high-quality LMX supports employees'

creativity. Van Dyne et al. (2002) also revealed a positive relationship between LMX and creativity. In addition, another study by Qu et al. (2017) found a positive relationship between LMX and employees' creativity activities. Based on this information, the following hypothesis was created:

H2: LMX has a positive effect on IC.

1.5.3. The Relationship Between Psychological Safety and Individual Creativity

Psychologically safe individuals tend to perceive uncertain and challenging situations as opportunities. Therefore, they are more prone to innovative work behaviors (Richter et al., 2012). PS helps employees not worry about taking risks. For example, employees feel safer if they think they will not encounter situations such as ridicule, condemnation or scolding (Edmondson, 1999, 2004; West & Anderson, 1996). Employees in an organization with weak safety relationships think they will encounter a negative situation when they engage in creative activities. They do not want to act creatively because they are afraid of failure. However, in environments where safety relations are high, they are willing to participate in creative activities (Edmondson, 1999). The study conducted by Gong et al. (2012) determined that the creativity of employees with PS was positively affected. In the study conducted by Hu et al., (2018), it was determined that PS was effective on creativity. In light of this information, it is thought that there may be a relationship between PS and IC, and the hypothesis created is as follows:

H3: PS has a positive effect on IC.

1.5.4. The Relationship Between Leader-Member Exchange, Psychological Safety and Individual Creativity

PS affects employees' IC (Kark & Carmeli, 2010). Employees with a high perception of PS can see improvements in their learning ability, status, self-image and career development desires. They can try new methods and technologies and constantly outdo themselves. However, employees with low PS spend more energy dealing with interpersonal relationships. For this reason, their desire to innovate may be lower (Ling et al., 2010). One of the most important relationship types supporting employees' desire to innovate is the leader-member relationship (Graen et al., 2006). When employees realize their leaders are open, accessible and supportive, they feel psychologically safe and want to reciprocate (Edmondson, 2004). One of these responses may be the desire to perform their duties by revealing their creativity and providing useful outputs to the workplace. Based on this information, the following hypothesis was created:

H4: PS has a mediating role in the effect of LMX on IC.

2. Method

Under the research method heading, information about the research sample and sampling method is presented first. Afterward, information about data collection tools and analysis techniques is given. Finally, the conceptual model of the research is introduced.

2.1. Population and Sample

The sample of the research is white-collar employees in companies operating in Istanbul. A convenience sampling technique was used to determine the sample. In determining the number of samples, Hair et al. (2014) used criteria of 10 samples per item in their measurement tools and the restrictions of reaching 384 people in cases where the population is very large (Kurtuluş, 2011). Thus, it was deemed sufficient to reach 390 samples for 22 items. Since no inappropriate responses were detected, the same number was accepted as the reached sample. When the sample characteristics are examined, 65.4% of the participants are women, and 34.6% are men. 34% of the participants are between the ages of 18-25, 43.4% are between the ages of 26-35, and 22.6% are 36 and over. 15.1% of the

participants are at high school, 12.3% are at associate degree, 44.4% are at undergraduate level, and 28.2% are at master's/doctoral level. 61.3% of the participants are single, and 38.7% are married. While 32.3% of the participants have a management position, 67.2% do not have a management position. A small percentage, specifically 0.5%, of the participants chose not to respond to this question.

2.2. Research Process

Online survey forms were used during the data collection process. Online survey forms were sent to participants through online channels. The number of participants was 390 and the suitability of the data was checked.

2.3. Data Collection Tools

In the first part of the survey form, the LMX scale created by Liden and Maslyn (1998) and adapted into Turkish by Aslan and Özata (2009) was used. The measurement tool consists of 11 items and a single dimension. In the second part of the questionnaire, Liang et al. (2012) and translated into Turkish by Soyalın (2019). PS consists of a single dimension and 5 (five) items. In the third part of the survey form, the IC scale used from Tür (2019) study and taken from the study of Aydın and Çilesiz (2022) was used. The scale consists of 6 items and a single dimension. A 5-point Likert scale (1 - strongly disagree, 5 - strongly agree) was used to collect responses to the measurement tools. The last part of the survey form included demographic (age, gender, marital status, etc.) questions.

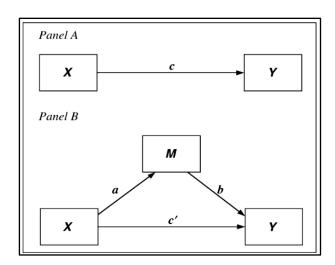
2.4. Research Ethics

The study has been prepared in accordance with the rules of the ethics committee. Ethical approval was obtained from the Ethics Committee for Social and Human Sciences of Beykent University on 20.11.2023 with the protocol number 128158 for the collection of research data.

2.5. Data Analysis

Mediator analyses were performed with the SPSS Process 2.16.3 macro. The simple mediation model (Model 4) was used in the mediation analysis (Figure 1).

Figure 1Basic Mediation Model



In Figure 1, the x variable is the independent variable, the m variable is the mediator, and the y is the dependent variable. Path A shows the effect of the independent variable on the mediator variable; path b shows the effect of the independent and mediator variables on the dependent variable. Path c in Panel A shows the effect of the independent variable on the dependent variable (total effect), and path

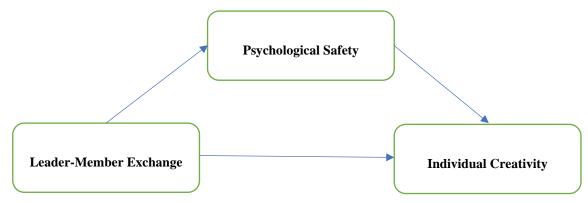
c' in Panel B shows the direct effect of the independent variable on the dependent variable. In summary, it is expressed as c = total effect, a.b = indirect effect, c' direct effect, c = c' + (a.b) (Gürbüz, 2021; Hayes, 2018; Preacher & Hayes, 2004).

A regression model based on the resampling technique was used to test the model. Many researchers in the literature (e.g., Gürbüz, 2021; Hayes, 2018; Preacher et al., 2007) argue that resampling provides more effective results than traditional methods. A constraint of 5000 was used for resampling during the mediation analysis. In mediation tests conducted with resampling, the confidence interval (CI) value is used instead of the p-value. In order to express that the analysis results are within the confidence range, there should not be a value of 0 between the LLCI and ULCI values (Hayes, 2018). The fact that the confidence interval does not contain a value of 0 indicates that the hypotheses are supported.

2.6. Conceptual model

Figure 2

Conceptual model of the research



The conceptual model of the research is presented in Figure 2. The simple mediation model presented in Figure 1 was based on creating the conceptual model. According to the model, LMX refers to the independent variable (x), PS refers to the mediating variable (m), and IC refers to the dependent variable (y).

3. Findings

This part of the research includes findings about factor analysis, reliability analysis, descriptive statistics, correlation analysis findings and the test of the mediation model.

Table 1Factor and Reliability Analyzes

		LMX	PS	IC
Kaiser-Meyer-Olkin (KMO)		,906	.858	.879
Bartlett Sphericity test	Approximate chi- square	3422,736	1374,632	1510,355
	df	45	10	15
	p	,000	,000	,000
Total variance explained		%65,133	%74,751	%68,404
Cronbach's Alpha		.940	.915	.905
Item		10(11)	5(5)	6(6)

Factor, reliability and factor analysis findings of the scales are given in Table 1. According to the findings, the KMO value of the LMX scale was found to be 0.906, Bartlett's test was significant at p<0.05, the explained variance was 65.13%, and the reliability coefficient was 0.940. One (1) of the 11 items in the LMX scale was excluded from the research during factor analysis. The KMO value of the PS scale is 0.858, Bartlett's test is significant at the p<0.05 level, the total variance explained is 74.75%, the reliability coefficient is 0.915 and the number of items is 5. The KMO value of the IC scale is 0.879, Bartlett's test is significant at the p<0.05 level, the total variance explained is 68.40%, the reliability coefficient is 0.905, and the number of items is 6. The obtained values are based on Hair et al. (2014), so it is possible to state that the measurement tools are appropriate.

 Table 2

 Descriptive statistics and correlation analysis

	Ā	σ	LMX	PS	IC
LMX	3,5397	1,06	1		
PS	3,4672	1,10	,654**	1	
IC	3,7363	0,94	,547**	,617**	1
**= p at 0.01 level					N: 390

The findings of the correlation analysis performed to examine the relationships between the variables and the descriptive statistics of the variables are presented in Table 2. According to the findings, there are high and positive relationships between LMX and PS, moderate and positive relationships between LMX and IC, and high and positive relationships between PS and IC. All relationships obtained are significant at the p<0.05 level. Moreover, It was determined that participant perceptions were at a medium level regarding LMX, PS and IC.

In the analysis conducted to determine the mediation effect of psychological safety on the relationship between leader-member exchange and individual creativity, Hayes' contemporary approach based on the Bootstrap technique was preferred over Baron and Kenny's traditional approach. Contrary to the Baron and Kenny method, in this method, the total effect (c) does not need to be statistically significant to discuss mediation. The effect of the independent variable (x) on the mediator variable (m) does not need to be significant on its own. Additionally, the effect of the mediator variable (m) on the dependent variable (y) does not need to be significant on its own while controlling for the effect of the independent variable (x) (c'). Instead of using partial or full mediation terms, it is considered more scientifically appropriate to calculate and interpret the values of direct effect (c'), indirect effect (a*b), and total effect (c = c' + ab). Furthermore, testing these values with Bootstrap confidence intervals is crucial for mediation analysis (Gürbüz, 2021). According to these results, to discuss mediation, the confidence interval (LLCI and ULCI) should not contain zero (Hayes, 2018).

Table 3 *Mediation analysis findings*

Variables	R2	P	В	P	LLCI	ULCI	Hypothesis
LMX	0,4272	0,0000	0,6820	0,0000	,6032	,7608	H1 Supported
PS			1,0532	0,0000	0,7619	1,3444	
LMX	0,2993	0,0000	0,4878	0,0000	0,4133	0,5623	IIO Cummonto d
IC			2,0095	0,0000	17342	2,2848	H2 Supported

LMX	0,4165	0,0000	,2242	0,0000	,1343	,3142	
PS			,3865	0,0000	,3003	,4728	H3 Supported
IC			1,6024	0,0000	1,3350	1,8699	
X	M	Y	Effect	BootSE	BootLLCI	BootULCI	Hypothesis
LMX	PS	IC	,2636	,0420	,1867	,3502	H4 Supported

The analysis findings are presented in Table 3 to determine the mediating role of PS in the effect of LMX on IC. According to the findings, the level (R2) of LMX explaining PS is 42.72%. The PS explanation coefficient (β) of LMX was found to be 0.682, and the confidence interval [CI] was 0.6032;0.7608. According to the findings, it is possible to state that LMX positively affects PS. Hypothesis H1 was supported because the effect of LMX on PS was significant.

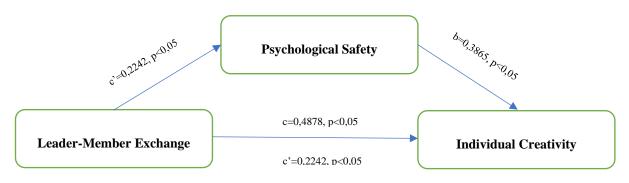
The level (R2) of LMX explaining IC is 29.9%. The coefficient (β) of LMX explaining IC was found to be 0.4878, and the confidence interval [CI] was 0.4133;0.5623. According to the findings, LMX positively affects IC. Hypothesis H2 was supported since the effect of LMX on IC was significant.

The level (R2) of LMX and PS together explaining IC is 41.65%. The coefficient (β) of LMX explaining IC is 0.2242, and the coefficient (β) of PS explaining IC is 0.3865. The confidence interval [CI] of the explanatory coefficients is significant because it does not contain a value of 0. Explanation coefficients are positive. Hypothesis H3 was supported because the effect of PS on IC was significant.

It appears that PS's mediating role in the effect of LMX on IC is significant. The effect coefficient (β) is 0.2636, and the confidence interval [CI=0.1867;0.3502] is significant because it does not include the value 0. According to the findings, PS has a mediating role in the effect of LMX on IC. The actual model created according to the findings is presented in Figure 3. The findings are visualized by paths a, b, c, and c'.

Figure 3

Result model



Indirect Effect= 0,2636, %95 CI [0,1867;0,3502]

4. Results, Discussion, and Recommendations

Factors important for organizations to achieve sustainable competitive advantage in markets where competition is high have been frequently researched in recent years. IC is seen as an important factor in the competitive advantage of organizations/companies. However, some organizational and managerial elements are important in the emergence of creativity. Managers' relationships with subordinates may cause subordinates to perceive the work environment as safe. Thus, employees who feel psychologically safe may have an increased tendency to engage in creative behavior. Employees'

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creativity tendencies can enable companies/organizations to seize opportunities and solve threats (Atwater & Carmeli, 2009; Zhou & Su, 2010; Zhao et al., 2018).

Within the scope of this research, it was aimed to determine the mediating role of PS in the effect of LMX on employees' creativity. According to the findings, it has been determined that LMX increases PS. According to another finding, psychology, security and LMX positively affect IC. Finally, The effect of LMX on IC occurs through PS.

When the findings are examined in general, employees' close relationships with their leaders help them express their opinions comfortably in the work environment; when employees feel psychologically safe and express their opinions openly, their creativity increases. When employees develop positive relationships with their managers and feel safe, their tendency to engage in creative behavior increases.

The research results are compatible with the literature. For example, according to the research findings by Mao and Tian (2022), it was determined that positive relationships with employees' managers were effective in increasing the PS of employees. On the other hand, according to the research findings by Khalili (2018), employees' creativity is positively affected when LMX is at a positive level. Kirrane et al. (2019), while LMX positively affects employees' IC, employees' creativity is negatively affected in an unsafe work environment.

Based on the studies in the literature and the findings obtained as a result of this research, It is possible to state that employees with high LMX perceive the workplace as a psychologically safe environment; they can express their opinions freely, and as a result, their tendency to deliver creative work outputs increases. As an assumption of LMX theory, the quality of exchange between managers and their subordinates increases the safety level of employees (Morrow et al., 2005), and employees with high levels of safety make positive contributions to the organization (Ling et al., 2010), which is similar to the results of this research.

The research makes a modest contribution to LMX theory by testing the role of PS in the emergence of white-collar employees' IC in LMX. At the same time, the research has some limitations. The first is about how the creativity of employees who do not have high LMX develops depending on their relationships with leaders. So much so that high LMX can result in employees' creativity. However, low LMX may not result in low creativity in white-collar workers. Volmer et al. (2012) found that low LMX did not significantly affect creativity. While high LMX causes high creativity, as in the study in question, low LMX may not cause creativity to be negatively affected linearly. Therefore, the research results cannot be generalized to all levels of LMX. In addition, while LMX positively affects creativity and PS at the individual level, similar results may not be achieved in teams or departments. In a scenario where some employees in teams or departments have high LMX, the behaviors exhibited by employees with low LMX may differ (Tse et al., 2018). Employees with low levels of LMX may affect the positive safety climate in the workplace by engaging in negative behaviors. Therefore, research findings cannot be generalized at the team level.

It is possible to offer some suggestions, considering the research's limitations. The first is to determine how PS and creativity are affected in individuals and teams with low levels of LMX. On the other hand, no sectoral distinction was made in the research. Since the results of LMX may vary in different sectors, making a sectoral distinction in future research may be useful to show how LMX motivates creativity.

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