

## **Relationship of Leadership Styles and Employee Creativity: A Mediating Role of Creative Self-efficacy and Moderating Role of Organizational Climate**

Sajid Rahman Khattak  
Abottabad University of Science and Technology, Pakistan  
Email: sajidk99@yahoo.com

Saima Batool (Corresponding author)  
Department of Management Sciences, Qurtuba University of Science and Information  
Technology, Peshawar, Pakistan  
Email: dr.saimabatool90@yahoo.com

Maqsood Haider  
Department of Management Sciences, FATA University, Kohat, Pakistan  
Email: dr.haider@fu.edu.pk

### **Abstract**

The aim of the current study is to explore the relationship between leadership styles and employee creativity through a mediating role of creative self-efficacy and moderating role of organizational climate. The sample of the current study consists of 400 managers from commercial banking sector of Pakistan. To test the relationship multiple regression analysis was applied. Before applying multiple regressions all the assumptions of multiple regression were checked and found it satisfactory. Validity and reliability of the research instrument was also checked. The study found that transformational leadership style was positively and significantly related with employee creativity, while transactional leadership style was negatively related with employee creativity. Furthermore, creative self-efficacy mediates the relationship between leadership styles and employee creativity. Also, organizational climate and its dimensions namely intrinsic recognition, support & impartiality (ISI) and cohesion were positively and significantly related with employee creativity, while organizational climate dimension namely pressure was negatively associated with employee creativity.

**Keywords:** leadership styles, employee creativity, creative self-efficacy, organizational climate

### **1. Introduction**

#### *1.1. Background of the Study*

To accomplish competitive advantage, it is essential for an organization to enhance employee creativity. Different researchers believe that leadership enriches employees' creativity. As employee creativity plays a significant role in work outcomes, researchers described employees' creativity in detail but have not paid much attention to its effect.

Creativity has a great significance in the sustainable development of an organization and it also influences job performance of the employees. Hence, it is important to determine both the antecedents and consequences of employee creativity (Gong *et al.*, 2009).

### *1.2 Problem Statement/ Research Gap*

Retrospective views on creativity have shown the relationship between transformational leadership style and employee creativity, but not a single study has been conducted to find out the relationship between transactional leadership style and employee creativity (Yield & Ozcan, 2014; Ghafoor *et al.*, 2012; Gong *et al.*, 2009). Also, the focus of the current study is to confirm the mediating effect of creative self-efficacy on the relationship of transactional and transformational leadership styles on employee creativity. Therefore, the focus of this study is to fill the gap by linking transactional leadership style with employee creativity in the banking sector of Pakistan. Similarly focusing solely on the banking sector gives insight into how leadership styles can enhance employee creativity in this particular type of organization.

### *1.3 Research Questions*

What is the effect of transactional leadership style and transformational leadership style on employee creativity?

How does creative self-efficacy mediate the relationship of transactional leadership style and transformational leadership style with employee creativity?

To what extent does organizational climate moderate the relationship between transformational leadership style and employee creativity?

### *1.4 Research Objectives*

- To identify the relationship between leadership styles and employee creativity.
- To find out whether creative self-efficacy mediate the significant relationship between leadership styles and employee creativity.
- To verify the moderating role of organizational climate on the relationship between transformational leadership style and employee creativity.

### *1.5 Significance of the Study*

Banking organization of Pakistan exerts a strong influence on the economy, particularly in existing environment of competitive global markets. Considerable evidence indicates that employee creativity can fundamentally contribute to organizational innovation, effectiveness, and survival. The main contribution of this research is to answer and explore a highly ignored link between transactional leadership style and employee creativity. In Pakistan, this area of research is relatively new, and to the researcher knowledge, no such study was found to link leadership styles and employee creativity. This study is helpful for managers to know about the most preferred leadership style, to improve creativity in their organization. It is also helpful for employees to further improve their knowledge and creative skills, and in turn increase their competence. This study will contribute to the creativity theory and leadership theory.

## 2. Literature Review and Hypotheses Development

Amabile, (1998) define creativity as the “production of novel and useful ideas”. Employees play a significant role in the innovation, effectiveness and survival of the organization. Creative employees are result oriented and they put forward meaningful ideas relating to procedures, services and products of the organization. The required level of creativity and importance of creativity differ in different organizations. This difference is due to the positions and responsibilities of the managers or employees; however, most managers accept the possibility of employee to be creative at different level.

Different research studies have been conducted to investigate the creative behaviors of employees in organizations and the procedures and processes as how to enhance them. Diverse factors are responsible for the enhancement of creativity such as climate and interaction with group members. Effective leadership is also a key factor to flourish employee creativity. Leader’s role is of great importance in organization, it inspires and motivates employees of all levels. Motivation of employees facilitates knowledge transfer into result oriented activities.

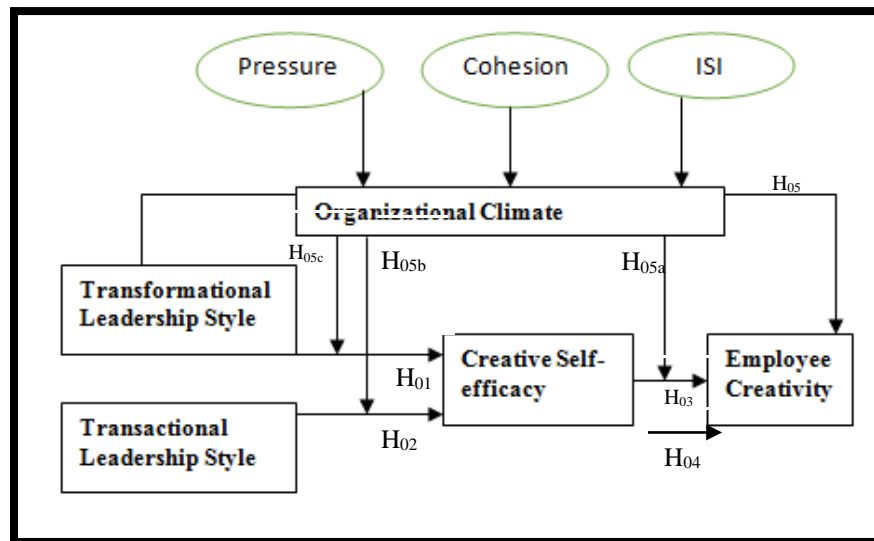
Herrmann, and Felfe (2014) asserts that Transformational leadership is assumed to enhance employees’ creativity. Results showed that transformational leadership led to higher levels of creativity than transactional leadership. However, results of meta-analytic research on the relations between transformational leadership and creativity are the opposite (Jung, 2001).

Multiple studies seem to share their preference for the full range leadership theory (Bass, 1985). This theory analyses different leadership styles such as transformational leadership, transactional leadership, and laissez faire leadership styles. This theory identified that transformational leadership has association with creativity. This leadership style elicit performance beyond expectations by facilitating creative thinking, instilling pride, providing inspiration, and communicating personal respect (Avolio & Bass, 1995). Researchers also found a positive effect of transformational leadership style on employees’ creative behavior (Tierney & Farmer, 2002; Gong *et al.*, 2012). While transactional leadership style is associated with setting goals, providing feedback, describing desired outcomes, and exchanging rewards and recognition for accomplishing specified goals, it emphasizes on the in-role performance of the subordinates. These leaders are authoritative in nature. Researchers found that authoritarian leaders negatively impact group creativity (Dedahanov, et al., 2016). They suggested that authoritarian leadership style impacts on creativity and transformational leadership facilitates creativity. Previous research reported that leadership behavior influences employee creativity (Bosiok and Serbia, 2013). We believe that the relationship between leadership style and employee creativity is mediated by Creative self-efficacy. When the leader is concerned with the needs and feelings of employees, there will be an increase in employees’ creativity, (Cummings and Oldham, 1997). By contrast, when leaders do not involve employees in decision making, and closely monitor and control employee behavior, the creative performance of individuals is more likely to decrease (Deci et al., 1989).

Ghosh, K. (2015), examined the impact of leadership on employee creativity and workplace innovative orientation moderated by the creativity climate of the organization.

The author found that leadership is a primary factor that facilitates creativity. The author also proposed that individual creativity and leadership can be increased in the risk-taking-supported culture. It was suggested in previous studies that high congruence between a creative person and culture may result in high level of innovative performance (Amabile, 2000). Gupta and Singh (2015) empirically established the positive relationship between leadership and creative behaviors. Therefore, it can be reasonably deduced that introducing the dimension of leadership to the popularly studied variables in the area of employee creativity and Creative self-efficacy should generate interesting and useful findings both from the academic and professional point of view. In alignment with this logic, this study has explored empirically a hypothesized model of leadership, employee creativity, creativity climate and self-efficacy in the Pakistani context.

George and Zhou (2001) found that when leaders provided a supportive atmosphere for creativity, and positive mood was high, even negative mood had a strong positive relationship with employee creativity. They explained that Positive moods contribute to creativity at work when there are supportive leaders and a general creativity climate. Supervisory support discriminates between high- and low-creativity projects (Amabile *et al.*, 1996). Considering the arguments and previous studies, following research model and hypotheses have been formulated:



**Figure 1: Proposed Research Model**

- **H<sub>1</sub>:** Transformational leadership is significantly related to employees' creativity
- **H<sub>2</sub>:** Transactional leadership is significantly related to employees' creativity
- **H<sub>3</sub>:** Creative self-efficacy mediates the significant relationship between transformational leadership's style and employees' creativity
- **H<sub>4</sub>:** Creative self-efficacy mediates the significant relationship between transactional leadership's style and employees' creativity

- **H<sub>5</sub>**: The relationship between transformational leadership and employees' creativity is moderated by organizational climate.
- **H<sub>5a</sub>**: The relationship between transformational leadership and employees' creativity is moderated by ISI.
- **H<sub>5b</sub>**: The relationship between transformational leadership and employees' creativity is moderated by cohesion.
- **H<sub>5c</sub>**: The relationship between transformational leadership and employees' creativity is moderated by pressure.

### **3. Research Methodology**

#### *3.1 Population of the Study*

To empirically test the hypotheses of the study, the researcher collected data through questionnaires. Population of the study consists of all level of managers including branch managers, operational managers, business development managers, HR managers, marketing managers, and account & finance managers of banking sector of Pakistan. The sampling frame consists of two public sector banks, two private sector banks, and two international banks. Public sector banks include National Bank of Pakistan (NBP) and Bank of Punjab (BOP). Private sector banks include Askari Bank and Allied Bank. International banks include Bank Al-Falah and Standard Chartered Bank. Branches of all these selected banks operated in three big cities of Pakistan, namely Islamabad, Rawalpindi, and Peshawar were taken. These banks were selected for the purpose to know that in which types of organizations i.e. public, private, and international banks, managers have different leadership styles and its impact on the level of creativity at that organization. Survey questionnaires were planned to administer to the research sample and the respondents have been all level of managers of the commercial banking sector of Pakistan.

#### *3.2 Sampling Technique and Sampling Size*

The study used stratified sampling technique. Through stratified sampling technique the study finally selected 400 managers of all level from the selected banks located in Rawalpindi, Islamabad, and Peshawar. Overall population of the study comprised 97 managers from NBP and 35 managers from BOP. Thus, a total of 132 managers were selected from the public-sector banks. Likewise, 86 managers were selected from Askari bank and 123 managers from Allied bank. Thus, a total of 209 managers were selected from the private sector banks. Proportion to the overall population of the study included 38 managers from Bank Al- Falah and 21 from Standard Chartered bank. A total of 59 managers were selected from international banks. A total of 400 questionnaires were distributed among the selected sample. A total of 365 questionnaires were received back with a response rate of 91.25%. Fifteen questionnaires were found incomplete and have a percentage of 3.75%. Finally, 350 questionnaires were selected for regression analysis having a percentage of 87.5%.

#### *3.3 Data Sources and Data Collection Methods*

Data is collected from all level of managers of banking sector of Pakistan. The primary source of data is individual managers working in the banking sector. Data regarding the study variables was collected through questionnaire. Data was collected through a

structured, close ended questionnaire with a five point Likert scale ranging from 1 “strongly disagree” to 5 “strongly Agree” for all the selected variables, except from leadership questionnaire. In leadership questionnaire, the respondents were asked to select from 0 “not at all” to 4 “frequently if not always”. The first part of the questionnaire includes demographic details of the participants like their age, gender, qualification, organization, number of officers, department, and designation and then link these demographic characteristics of managers to their perceptions about creativity.

### 3.4 Research Design

The purpose of the current study is hypothesis testing. Research design of the current study is non-experimental and non-contrived. In other words, this study is non-contrived and non-experimental in nature. This study is explanatory in nature. The study follows deductive approach. This study is also cross sectional in nature because data is collected once from all managers of the selected banks. Finally, the researcher also check the reliability and validity of the study questionnaire.

## 4. Results and Findings

### 4.1 Reliability of the Research Instrument

**Table 1: Cronbach’s Alpha of Variables**

S. No.	Variables	Cronbach’s Alpha	Number of Items
1	Employee Creativity	0.88	6
2	Organizational Climate	0.78	10
3	Creative Self-efficacy	0.88	6
4	Leadership Styles	0.79	17
5	Overall Model	0.93	39

The above table shows the values of Cronbach’s alpha of the study variables. The last column of the table also represents the number of items of each instrument. As shown from the above table, the value of Cronbach’s alpha is greater than 0.6 for all items, so all items used in the study are highly reliable, and are in acceptable range, because researchers like George & Malery (2003), and Kimberlin, & Winterstein, (2008) stated that if the value of Cronbach’s alpha is less than 0.5 is considered unacceptable, while the value of Cronbach’s alpha greater than 0.5 is acceptable, and greater than 0.8 is highly acceptable and a good one. Thus, the values of Cronbach’s alpha of all the items of the current study are in acceptable range and place in the excellent categories. Therefore, the instrument used to collect data has a good internal consistency. The overall value of variables is 0.93 that is considered satisfactory for social sciences research instrument.

**Table 2: Durbin-Watson Statistics of Variables**

<b>Independent Variable(s)</b>	<b>Dependent Variable</b>	<b>Durbin Watson Stat</b>
<b>LSTS</b>	EC	1.81
<b>LSTR</b>	EC	1.82
<b>LSTS, LSTR</b>	EC	1.90

The above table shows the values of Durbin – Watson statistic of all variables of the study. It is evident from the table that all values of Durbin – Watson lies in the acceptable range of 1.50 – 2.50. So, there is no issue of autocorrelation in the data or residual of responses. Also, different respondents’ residuals are mutually independent.

**Table 3: Multicollinearity Statistics of Variables**

<b>Collinearity Statistic</b>		
<b>Independent Variable (s)</b>	<b>Tolerance</b>	<b>VIF</b>
<b>Transformational Leadership Style</b>	0.968	1.033
<b>Transactional Leadership Style</b>	0.976	1.086

The above table shows multicollinearity statistics of variables. The general rule of thumb regarding acceptable range for tolerance value is from 0.10 to 1.00. Closer the value of tolerance to 1.00 indicates the better one. If the tolerance value between variables is equal to 1.00 represent zero multicollinearity between variables but it may not possible because there exists some relationship or association between variables. Similarly, the acceptable values of VIF ranging from 1.00 to 10. Also, the value of VIF closer to 1 represent less multicollinearity problems. Indeed, these values are reciprocal of each other. In case of social sciences research the acceptable value of tolerance equal to or greater than 0.2, and the acceptable value of VIF equal to or less than 5.0 (Gujarati, 2012; Saunders, *et al.*, 2011). The table shows that all values of VIF is greater than 1.20, and all values of tolerance is greater than 0.8, thus we can say that the data of current study have no issue of multicollinearity. Therefore, the current study also fulfils multicollinearity assumption of multiple regression.

Finally, data should be normally distributed for simple and multiple linear regression models (Gujarati, 2012; Gujarati & Porter, 2011). Different views are there regarding data normality for linear regression models. Gujarati (2012) stated that residuals are supposed to be approximately normally distributed, even though if not all variables is normally distributed. Different statistics including Normal P – P Plot, Histogram, Skewness, and Kurtosis are used to check the normality of the data. Hair *et al.*,(2006) stated that a sample size of 200 or greater decrease the detrimental effect of Kurtosis and Skewness. The values of Skewness and Kurtosis is very important in case where the sample size is 50 or less. They also concluded that values ranging of + (-) 1.96 and + (-) 2.85 are most commonly used statistical values for skewness and kurtosis. The data of the current study is normally distributed based on the above stated criterion.

**Table 4: Skewness and Kurtosis Statistics of Variables**

Normality Statistics							
Variables	N			Skewness			Kurtosis
	Statistic	Statistic	Std. Error	Skewness Value	Statistic	Std Error	Kurtosis Value
<b>LSTF</b>	350	0.14	0.13	1.08	-0.11	0.26	-0.42
<b>LSTR</b>	350	0.28	0.13	2.15	-0.05	0.26	-0.19
<b>EC</b>	350	-0.24	0.13	-1.85	-0.61	0.26	-2.35

The above table shows skewness and kurtosis statistics of all variables of the study. Based on the references cited above, it is clear from the above table, that the data of skewness and kurtosis are in the acceptable range, thus data is normally distributed. Hence, normality assumption of simple and multiple linear regressions is fulfilled by the current study.

#### 4.2 Descriptive Statistics

**Table 5: Descriptive Statistics of Variables**

	N	Minimum	Maximum	Mean	Std. Deviation
<b>EC</b>	350	15	29	22.51	5.194
<b>LATF</b>	350	30	46	38.12	4.777
<b>LSTR</b>	350	15	24	19.00	2.722
<b>Valid N (Listwise)</b>	350				

The above table shows the descriptive statistics of the study variables. The minimum, maximum, mean, and standard deviation values for all variables including employee creativity, transformational leadership style, and transactional leadership style are reported in the table. The total number of observations is also given in the first column of the table.

The table below represents correlation matrix of the study variables. It is evident from the table, that transformational leadership style is highly and positively correlated with employee creativity while transactional leadership style is negatively correlated with employee creativity (-0.330). Thus, there is a strong association between independent variables and dependent variable. Previous studies like Gong et al., (2009), Lee & Tan, (2012), and Yildiz & Ozcan, (2014) also found a strong link between leadership styles and employee creativity. One possible reason for such a result is that transformational leader motivate their employees to bring novel and innovative ideas and encourage their employees at every stage of bringing new and unique solutions to the problems, thus promote creativity and innovation in the organization and thus improve overall performance of the employees as well as organization. It is also confirmed from the



correlation matrix that there is no issue of multicollinearity among independent variables; hence, it is also proved by VIF and Tolerance values reported earlier.

**Table 6: Correlation Coefficients**

		EC	LSTF	LSTR	
<b>EC</b>	Pearson Correlation	1			
	N	350			
	Sig. (2-tailed)	.000	.000		
<b>LSTF</b>	Pearson Correlation	.774**	1		
	Sig. (2-tailed)	.000	.000	.000	
	Pearson Correlation	-.330**	-.325**	1	
	Sig. (2-tailed)	.000	.000	.004	.614

4.3 Empirical Hypotheses Testing of the Study

**Table 7: Model Summary**

Model	R	R Square	Adjusted R	Std. Error of the Square	Durbin Watson Estimate
1	.873 <sup>a</sup>	.762	.760	2.547	1.818

Predictors: (Constant), LSTR, LSTF      Dependent Variable: EC

The model summary of our independent variables namely transactional leadership style (LSTR) and transformational leadership style (LSTF) are reported in the above table. The values of R, R<sup>2</sup>, Adjusted R<sup>2</sup>, and Durbin – Watson are shown in the table. The value of R is not considered here because the value of R is increases with including each additional variable in the model. The most prominent value to be reported as the value of R<sup>2</sup>. As shown in the table, the value of R<sup>2</sup> is 0.762, which indicate that all predictor variables explain 76.2 percent of the variance in our dependent variable EC. Thus, it is confirmed from the above table that a strong association was there between leadership styles and employee creativity. Previous studies also support this relationship as stated above. The last column of the table report Durbin – Watson value. Here the value of Durbin – Watson is 1.818, which lies in the acceptable range of 1.5 to 2.5 as suggested by various researchers. Hence, it is also confirmed that there is no issue of autocorrelation in the data.

**Table 8: ANOVA**

	Model	Sum of Squares	df	Mean Square	F	Sig.
<b>1</b>	Regression	7176.244	4	1794.061	276.662	.000
	Residual	2237.210	345	6.485		
	Total	9413.454	349			

Predictors: (Constant), LSTR, LSTF      Dependent Variable: EC

The above table shows ANOVA statistics of our predictor variables and predicted variable EC. ANOVA statistic tells about model fitness. The most important value in the above table is F – stat value. As shown from the table, the value of F – stat is 276.662. Thus, the overall regression model of our study is fit. The F – stat value is the result of residual mean square and regression mean square value. In this case the residual mean square value is 6.485 and regression mean square value is 1794.662, which significantly contribute to the F – stat value and thus the overall model is fit as shown in the table 8.

**Table 9: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-24.150	2.596		-9.301	.000
LSTF	.340	.046	.313	7.373	.000
LSTR	-.340	.055	-.178	-6.221	.000

Dependent Variable: EC

The above table represents the regression coefficients of independent variables, namely LSTF, and LSTR with dependent variable EC. The coefficient of LSTF is positive 0.340, and its t – value is 7.373, which is statistically significant at 95% confidence interval or 0.05 level of confidence. However, the coefficient of LSTR is negative -0.340, and its t – value is -6.221, which is statistically significant at 95% confidence interval or 0.05 level of confidence. Hence, it is confirmed from multiple regression model that LSTF and LSTR are significantly related with employee creativity. Thus, the first two hypotheses of our study are accepted. Sirkwoo (2015) also found that transformational leadership enhances responsive creativity and contributory creativity. Herrmann and Felfe (2013) also found that transformational leadership has strong relationship with creativity than transactional leadership. One plausible explanation for this as that transformational leader encourage their employees to bring changes and solve problem in a new way which ultimately effect creativity. On the other hand, transactional leader mainly focus on day to day operation. Such leaders discarded innovative ideas which negatively affect creativity.

*4.4 Relationship between LSTF and EC with Mediator CSE*

**Table 10: Model Summary**

R	R-sq	MSE	F	df1	df2	p
<b>.7166</b>	.5136	5.099	367.533	1.00	348.00	.000

Outcome: CSE

The above table reports model summary of the relationship between predictor variable LSTF and dependent variable CSE. As shown from the table, the value of R<sup>2</sup> is 0.5136,

which shows that predictor variable LSTF explains 51.36% of the variance in the predicted variable CSE. The F-stat value is 367.533, which tells about the model fitness. The p value is significant i.e.  $p < 0.05$ , which means that our model is fit.

**Table 12: Coefficients**

Model	Coeff	SE	t-Value	p-Value	LLCI	ULCI
Constant	6.170	.9721	6.347	.000	4.258	8.082
LSTF	.4850	.025	19.168	.000	.4353	.5348

Outcome: CSE

The above table shows regression coefficients of the predictor and predicted variables. It is evident from the table, that LSTF is positively and significantly related with CSE ( $B = 0.4850$ ,  $p < 0.05$ ). B is the unstandardized regression coefficient which indicate that 0.4850 change in dependent variable will occur due to a unit change in predictor variable. So, the first requirement for mediation analysis is fulfil as suggested by Baron & Kenny (1986).

*4.5 Relationship between Independent Variable and Dependent Variable*

**Table 13: Model Summary**

R	R-sq	MSE	F	df1	df2	p
.7438	.5532	12.085	430.932	1.00	348.00	.000

Outcome: EC

The above table shows the values of R,  $R^2$ , F, and P. The value of  $R^2$  is 0.5957, which shows that predictor variable LSTF explains 59.57% of the variance in dependent variable EC. The F-stat value tells about model fitness. Here the F value is 430.932. This high value of F indicates that our model is fit. It is also confirmed by p – value. The significant p – value indicate that our model is fit.

**Table 14: Coefficients**

Model	Coeff.	se	t	p	LLCI	ULCI
Constant	-8.312	1.496	-5.554	.000	-11.255	-5.369
LSTF	.8086	.039	20.758	.000	.7320	.8852

Outcome: EC

The above table shows regression coefficients of predictor and predicted variables. It is evident from the table, that LSTF is positively and significantly related with EC ( $B = 0.8086$ ,  $p < 0.05$ ). So, the second requirement for mediation analysis is fulfil as suggested by Baron & Kenny (1986).

4.6 Relationship of Independent and Mediating Variables with Dependent Variable

**Table 15: Model Summary**

R	R-Sq	MSE	F	df1	df2	p
<b>.9404</b>	.8844	3.137	1326.834	2.00	347.00	.000

Outcome: EC

The above table reports model summary of the predictor variables and predicted variable. As shown from the table, the value of  $R^2$  is 0.8844, which shows that the predictors LSTF and CSE explain 88.44 percent of the variance in predicted variable EC. The F value tells about model fitness. Here the higher F value shows that our model is fit and it is also confirmed by p value because p value is significant at 95 percent confidence interval.

**Table 16: Coefficients**

Model	Coeff	SE	t-Value	p-Value	LLCI	ULCI
<b>Constant</b>	-16.490	.8054	-20.475	.000	-18.074	-14.906
<b>CSE</b>	1.325	.042	31.521	.000	1.242	1.408
<b>LSTF</b>	.1658	.028	5.826	.000	.109	.222

Outcome: EC

The above table shows regression coefficients of independent variables and dependent variable. As shown from the table, the relationship between LSTF and EC is significant at 95 percent confidence interval in the presence of mediator CSE. So, it is found that CSE partially mediates the relationship between LSTF and EC. The direct effect of LSTF on EC is 0.1658. The total effect of LSTF and CSE on EC is 0.8086. The indirect effect of LSTF on EC through mediating variable CSE is 0.6428.

Based on the above results our hypothesis  $H_3$  is accepted. We also confirmed the mediating effect of CSE by conducting Sobel test. The table below represents the results of Sobel test. In this case the effect size is 0.6428, which is statistically greater than zero with 0.05 level of confidence. Also, the significant p value indicates that CSE mediate the relationship between LSTF and EC. Here the p value is significant i.e.  $p < 0.05$ , thus it is confirmed that CSE mediate the relationship between LSTF and EC. However, the effect of CSE on the relationship between these variables does not change the existing relationship between these variables, so CSE partially mediate the relationship between LSTF and EC. One plausible explanation as that creative self-efficacy is the individual belief that he or she can produce something novel. Thus, one's own belief on himself or herself will positively motivate employees to bring some novel ideas or products which positively affect individual as well as organizational creativity.

**Table 17: Sobel Test**

Effect	SE	z	p
<b>.6428</b>	.0393	16.372	.0000

*4.7 Relationship between LSTR and EC with Mediator CSE*

4.7.1 Relationship between Independent Variable and Mediating Variable by Taking Mediating Variable as a Dependent Variable

**Table 18: Model Summary**

R	R-Sq	MSE	F-value	df1	df2	p-value
<b>.2740</b>	.0751	9.697	28.2375	1.00	348.00	.000

Outcome: CSE

The above table reports model summary of the relationship between predictor variable LSTR and predicted variable CSE. As shown from the table, the value of R<sup>2</sup> is 0.0751, which shows that predictor variable LSTR explains 7.51% of the variance in predicted variable CSE. The F-stat value is 28.2375, which tells about model fitness. Also, significant p value indicates that our model is fit.

**Table 19: Coefficients**

Model	Co-eff	SE	t-value	p-value	LLCI	ULCI
<b>Constant</b>	30.843	1.175	26.240	.000	28.531	33.154
<b>LSTR</b>	-.3255	.061	-5.313	.000	.4459	-.2050

Outcome: CSE

The above table shows regression coefficients of the predictor and predicted variables. It is evident from the table, that LSTR is negatively and significantly related with CSE (B = -0.3255, p < 0.05). So, the first requirement for mediation analysis is fulfilled as suggested by Baron & Kenny (1986).

*4.8 Relationship between Independent Variable and Dependent Variable*

**Table 20: Model Summary**

R	R-Sq	MSE	F-value	df1	df2	p-value
<b>.3297</b>	.1087	24.109	42.447	1.00	348.00	.000

Outcome: EC

The above table shows the values of R, R<sup>2</sup>, F, and P. The value of R<sup>2</sup> is 0.1087, which shows that predictor variable LSTR explains 10.87% of the variance in dependent variable EC. The F-stat value tells about model fitness. Here the F value is 42.447. This value of F indicates that our model is fit. It is also confirmed by p – value. A significant p – value indicate that our model is fit.

**Table 21: Coefficients**

Model	Coeff	SE	t-value	p-value	LLCI	ULCI
<b>Constant</b>	34.464	1.853	18.596	.000	30.819	38.109
<b>LSTR</b>	-.6292	.096	-6.515	.000	-.8191	-.4393

Outcome: EC

The above table shows regression coefficients of the predictor and predicted variables. It is evident from the table, that LSTR is negatively and significantly related with EC (B = -0.6292,  $p < 0.05$ ). So, the second requirement for mediation analysis is fulfilled as suggested by Baron & Kenny (1986).

*4.9 Relationship of Independent and Mediating Variables with Dependent Variable*

**Table 22: Model Summary**

R	R-Sq	MSE	F-value	df1	df2	p-value
<b>.9375</b>	.8789	3.284	1259.488	2.00	347.00	.000

Outcome: EC

The above table reports model summary of the predictor variables and predicted variable. As shown in the table, the value of  $R^2$  is 0.8789, which shows that the predictors LSTR and CSE explains 87.89 percent of the variance in the predicted variable EC. The F value tells about the model fitness. Here the higher F value shows that our model is fit and it is also confirmed by p value, because p value is significant at 95 percent confidence interval.

**Table 23: Coefficients**

Model	Coeff	SE	t-value	p-value	LLCI	ULCI
<b>Constant</b>	-10.743	1.180	-9.100	.000	-13.065	-8.421
<b>CSE</b>	1.465	.031	46.983	.000	1.404	1.527
<b>LSTR</b>	-.1521	.037	-4.104	.000	-.225	-.079

Outcome: EC

The above table shows regression coefficients of independent variables and dependent variable. As shown from the table, the relationship between LSTR and EC is significant at 95 percent confidence interval with the presence of mediator CSE. So, it is found that CSE partially mediates the relationship between LSTR and EC. The total effect of LSTR on EC is -0.6292. The direct effect of LSTR on EC is -0.1521. The indirect effect of LSTR on EC through mediation CSE is -0.4771.

Based on the above results one of the current study hypothesis  $H_4$  is accepted. We also confirmed the mediating effect of CSE by conducting Sobel test. The table below reports the results of Sobel test. In this case the effect size is -0.4771, which is statistically

greater than zero at 0.05 level of confidence. Also, the significant p value indicates that the mediating effect is found between variable. Here the p value is significant ( $p < 0.05$ ), thus, we say that CSE mediate the relationship between LSTR and EC. However, the effect does not change the relationship between LSTR and EC that is why we say that CSE partially mediate the relationship between LSTR and EC.

**Table 24: Sobel Test**

Effect	SE	Z statistic	p-value
<b>-.4771</b>	.0904	-5.279	.0000

*4.10 The Effect of Moderation Organizational Climate*

In this section, we check the moderating effect of organizational climate and its dimensions namely ISI, Cohesion, and Pressure on the relationship between LSTF and EC. The moderator explains “when” the predictor variable and predicted variable are related. Moderation applied an interaction effect, where introducing moderator will change the direction or magnitude of the relationship between two variables.

4.10.1. Relationship between LSTF and EC with Moderator ISI

**Table 25: Model Summary**

R	R-Sq	MSE	F -value	df1	df2	p-value
<b>.9</b>	.9	3.4	1200.9	3.00	346.00	.000

Outcome: EC

The above table represents the value of R, R<sup>2</sup>, F, and p values. The R<sup>2</sup> value is 0.90, illustrating that independent variable explain 90 percent variance in the dependent variable. The F value indicates the fitness of the model. Generally, the value of F greater than 10 show that the model is fit but there is no such agreement regarding the standard value of F. If p value is less than 0.05 it indicates fitness of the model.

**Table 26: Coefficients**

Model	Coeff	SE	t-value	p-value	LLCI	ULCI
<b>Constant</b>	23.00	.2	151.10	.000	22.7	23.3
<b>OCISI</b>	1.20	.0	23.3	.000	1.1	1.3
<b>LSTF</b>	.4	.0	13.5	.000	.3	.40
<b>Int_1</b>	-.1	.0	-5.7	.000	-.1	.00

The results (Table 17b) shows the relationship between LSTF and EC with moderating variable OCISI. The last row of the table shows the interaction effect of moderating variable. As shown in the table, OCISI is significant and positively related with EC (B = 1.20,  $p < 0.05$ ). Also, LSTF have a positive and significant relationship with EC (B = 0.4,  $p < 0.05$ ). The most important point to be noted here is the p value of interaction term. If

the p value of interaction term (int\_1) is significant then we say that the moderator moderates the relationship between independent variable and dependent variable. The p value of interaction term is significant with 95 percent confidence interval. Thus, organizational climate dimension namely OCISI moderates the relationship between LSTF and EC. Thus, one of the current study hypothesis H<sub>5a</sub> is accepted.

4.10.2. Relationship between LSTF and EC with Moderator Cohesion

**Table 27: Model Summary**

<b>R</b>	<b>R-Sq</b>	<b>MSE</b>	<b>F-value</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
.9	.9	3.7	1307.6	3.00	346.00	.000

Outcome: EC

The table reported above represents the value of R, R<sup>2</sup>, F, and p values. As shown from the table, the R<sup>2</sup> value is 0.90, which shows that independent variable explains 90 percent variance in our dependent variable. The F value tells about model fitness. If p value is less than 0.05, we say that our model is fit. In this case the p value is 0.000, so we say that our model is fit.

**Table 28: Coefficients**

<b>Model</b>	<b>Coeff</b>	<b>SE</b>	<b>t-value</b>	<b>p-value</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Constant</b>	23.2	.2	136.2	.000	22.8	23.5
<b>OCCH</b>	1.6	.1	20.8	.000	1.5	1.8
<b>LSTF</b>	.3	.0	7.3	.000	.2	.3
<b>Int_1</b>	-.1	.0	-7.0	.000	-.1	-.1

The above table shows the relationship between LSTF and EC with moderating variable OCCH. The last row of the table shows the interaction effect of moderating variable. As shown in the table, organizational climate dimension namely cohesion (OCCH) is positively and significantly related with EC (B = 1.6, p < 0.05). Also, LSTF have a positive and significant relationship with EC (B = 0.3, p < 0.05). The most important point to be noted here is the p value of interaction term. If the p value of interaction term (int\_1) is significant then we say that the moderator moderate the relationship between independent variable and dependent variable. As shown from the above table, the p value of interaction term is significant with 95 percent confidence interval. Thus, organizational climate dimension namely OCCH moderate the relationship between LSTF and EC. Thus, one of our study hypothesis H<sub>5b</sub> is accepted.



4.10.3. Relationship between LSTF and EC with Moderator Pressure

**Table 29: Model Summary**

<b>R</b>	<b>R-Sq</b>	<b>MSE</b>	<b>F -value</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
<b>.8</b>	<b>.7</b>	<b>7.6</b>	<b>967.1</b>	<b>3.00</b>	<b>346.00</b>	<b>.000</b>

Outcome: EC

The table reported above represents the value of R, R<sup>2</sup>, F, and p values. As shown from the table, the R<sup>2</sup> value is 0.70, which shows that independent variables explain 70 percent variance in our dependent variable. The F value tells about model fitness. In this case the p value is 0.000, so we say that our model is fit.

**Table 30: Coefficients**

<b>Model</b>	<b>Coeff</b>	<b>SE</b>	<b>t-value</b>	<b>p-value</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Constant</b>	22.6	.2	100.8	.000	22.1	23.0
<b>OCPR</b>	-1.6	.2	-9.9	.000	-1.9	-1.3
<b>LSTF</b>	.6	.0	13.2	.000	.5	.7
<b>Int_1</b>	.0	.0	.8	.4	.0	.1

The above table shows the relationship between LSTF and EC with moderating variable OCPR. The last row of the table shows the interaction effect of moderating variable. As shown in the table, organizational climate dimension namely pressure (OCPR) is negatively and significantly related with EC (B = -1.6, p < 0.05). It means that when transformational leaders increase pressure (heavy work load) on their subordinates will ultimately lead to decrease creative power of their subordinates. However, LSTF have a positive and significant relationship with EC (B = 0.6, p < 0.05). The most important point to be noted here is the p value of interaction term. If the p value of interaction term (int\_1) is significant than we say that the moderator moderates the relationship between independent variable and dependent variable. As shown from the above table, the p value of interaction term is insignificant with 95 percent confidence interval (p > 0.05). Thus, organizational climate dimension namely OCPR did not moderate the relationship between LSTF and EC. Thus, one of our study hypothesis H<sub>5c</sub> is rejected.

4.10.4. Relationship between LSTF and EC with Moderator Organizational Climate

**Table 31: Model Summary**

<b>R</b>	<b>R-Sq</b>	<b>MSE</b>	<b>F-value</b>	<b>df1</b>	<b>df2</b>	<b>p-value</b>
<b>1.0</b>	<b>.9</b>	<b>2.1</b>	<b>1664.8</b>	<b>3.00</b>	<b>346.00</b>	<b>.000</b>

Outcome: EC

The table reported above represents the value of R, R<sup>2</sup>, F, and p values. As shown from the table, the R<sup>2</sup> value is 0.90, which shows that independent variables explain 90 percent variance in our dependent variable. The F value tells about model fitness.

**Table 32: Coefficients**

<b>Model</b>	<b>Coeff</b>	<b>SE</b>	<b>t-value</b>	<b>p-value</b>	<b>LLCI</b>	<b>ULCI</b>
<b>Constant</b>	22.7	.1	212.2	.000	22.4	22.9
<b>OC</b>	.9	.0	47.9	.000	.9	1.0
<b>LSTF</b>	.1	.0	5.9	.000	.1	.2
<b>Int_1</b>	.0	.0	-2.1	.000	.0	.0

The above table shows the relationship between LSTF and EC with moderating variable OC. The last row of the table shows the interaction effect of moderating variable. As shown in the table, organizational climate (OC) is positively and significantly related with EC ( $p < 0.05$ ). Also, LSTF have a positive and significant relationship with EC ( $p < 0.05$ ). The most important point to be noted here is the p value of interaction term. If the p value of interaction term (int\_1) is significant than we say that the moderator moderate the relationship between independent variable and dependent variable. As shown from the above table, the p value of interaction term is significant i.e.  $p < 0.05$ , with 95 percent confidence interval. Thus, organizational climate moderate the relationship between LSTF and EC. Thus, one of the study hypothesis ( $H_5$ ) is accepted. Jafri *et al.*, (2016) also used organizational climate as a moderator and found that organizational climate moderate the relationship between emotional intelligence and employee creativity.

## **5. Conclusion and Future Research Directions**

### *5.1 Conclusion*

The purpose of this study is to identify the relationship of transformational leadership style and transactional leadership style with employee creativity through mediating role of creative self-efficacy and moderating role of organizational climate in the banking industry of Pakistan.

Based on the results of multiple regression analysis, it is concluded that transformational leadership style has positive and significant relationship with employee creativity while transactional leadership style has negative significant relationship with employee creativity. Managers of commercial banks exhibit transformational leadership style in order to enhance creativity in the organization and do not exhibit transactional leadership style because it diminishes employee creativity in the banking organization of Pakistan. The beta coefficients of the independent variable transformational leadership is found positive and statistically significant at 95 percent confidence interval or 0.05 level of confidence, while the beta coefficient of transactional leadership is negative but statistically significant at 95 percent confidence interval or 0.05 level of confidence. The results of the current study are in line with historical research findings in the field of strategic human resource management. Transactional leadership is the least influencing variable because it explains only 10 percent of the dependent variable. The overall research findings are in line with previous research findings. In short, we conclude that

transformational leadership is likely to enhance individual creativity over time and within a field setting that allows for genuine and repeated leader-subordinate interactions.

For mediation and moderation analysis a software developed by Andrew F. Hayes called "PROCESS" is used. The mediating variable of the study creative self-efficacy partially mediates the relationship of transformational leadership style and transactional leadership style with employee creativity. To confirm mediational effect of the variable Sobel test is conducted. The results of Sobel test show that creative self-efficacy influence the relationships of transformational leadership and transactional leadership with employee creativity. The moderator ISI positively and significantly moderates the relationship between transformational leadership and employee creativity. The moderator Cohesion positively and significantly moderates the relationship between transformational leadership and employee creativity. The moderator Pressure has negative and insignificant effect on the relationship between transformational leadership and employee creativity. Overall organizational climate moderates the relationship between transformational leadership and employee creativity. Based on the results of the study in hand it is concluded that managers should apply transformational leadership style for the purpose to improve employee as well as organizational creativity. Similarly, managers should not practice transactional leadership style because such practices adversely affect creativity. Managers should create such environment which is supportive for creativity.

### *5.2 Managerial Implications*

It has been found that employee creativity is likely to benefit organizations, reinforcing the practical value of research examining the antecedents of employee creativity. This implies that managers can reap the benefits of employee creativity by selecting for, or developing creative individuals. Of course, we do not yet know whether the relationship between creativity and performance hold up in more routine, lower-discretion jobs (e.g., assembly line jobs) than the one studied here (i.e., management level). Our findings also suggest that organizations select for, and develop, a learning orientation, particularly for jobs that place a premium on creativity. Although Redmond *et al.* (1993) experimental study alluded to this idea in the absence of empirical support, but Gong *et al.* (2009) and the current study support this argument, particularly in context of corporate setting. Managers need to be mindful that selecting employees based on their learning orientation alone will not guarantee creativity. It is building the creative self-efficacy of their employees that will provide the facilitating conditions for the learning orientation to take hold and bring forth creativity. Managers should build creative self-efficacy of their employees that will provide the facilitating conditions for the learning orientation to take hold and bring forth creativity. Managers can be instrumental here in terms of providing an environment that stimulates and nourishes creative self-efficacy, though, for example, applying transformational leadership principles.

Several managerial behaviors are likely to foster favorable conditions for the development of creative self-efficacy. First, managers should serve as creative role models and verbally persuade employees that they too can be creative. Second, managers may personally demonstrate, and instruct their employees on, creativity-relevant skills. This activity should be accompanied by provision of hands-on opportunities to apply these skills. Third, managers should have arranged training, seminars, and workshops regarding creative skills improvement. These strategies should enhance employees'

observational and enactive mastery, thereby building their creative self-efficacy and creativity. Forth, by offering support and encouragement managers can alleviate employee fear and anxiety that may arise from the uncertainty of creative endeavors. This support also should boost employees' creative self-efficacy and creativity. Fifth, managers should promote learning and performance orientations in their organizations for the purpose to make their employees knowledgeable and competent. Such types of endeavors will enable employees to bring new ideas. Six, managers should not facilitate or apply authoritative type of leadership because it's ruined creativity. Lastly, managers should facilitate such type of climate where new ideas are encouraged and appreciated.

### 5.3 Future Research Directions

The major weakness of this study is that it did not measure the effect of laissez faire leadership style on employee creativity because the full range theory of leadership includes transformational leadership, transactional leadership and laissez faire leadership style, so in future researchers may study the effect of laissez faire leadership style on employee creativity to further nourish the relationship between leadership styles and employee creativity. Second, the current study investigates the influence of transformational leadership style and transactional leadership style on employee creativity but did not considered their dimensions because researchers believe that one of the dimension of transformational leadership namely intellectual stimulation mainly deal on how to nourish followers innovative and creative ability. In future, research may study the effect of both transformational leadership style dimensions including idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration and transactional leadership style dimensions including rewards and recognitions and management by exception on employee creativity to better understand the relationship and to know which dimension strongly effect this relationship. Third, this study was conducted in banking sector of Pakistan. In future, researcher may select other business organizations especially telecom sector and software houses because these organizations solely compete on product innovation and creativity. Forth, we tested our hypotheses using managerial level employees in banking sector. Future research should replicate this research in other organizations and job categories. Because the theoretical ideas can be broadly applied to creativity and may expect similar results. Finally, our study was conducted in Pakistan. Future research may replicate the study in other cultures.

## REFERENCES

- Amabile, T. M. (1996). *Creativity in Context: Update to the Social Psychology of Creativity*, Westview Press, Boulder, CO.
- Amabile, T. M. (1998). *How to kill creativity*, Boston, MA: Harvard Business School Publishing.
- Amabile, T. (2000), Stimulate creativity by fueling passion, *The Blackwell Handbook of Principles of Organizational Behavior*, Blackwell Publishing, Oxford, 331-341.

- Avolio, B. J., & Bass, B. M. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The Leadership Quarterly*, 6(2), 199-218.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182
- Bass, B. M. (1984). *Transformational leadership and performance beyond expectations*. Division of Research, Harvard Business School.
- Bosiok, D. and Serbia, S. N. (2013). Leadership styles and creativity, *Online Journal of Applied Knowledge Management*, 1 (2), 64-77.
- Cummings, A. and Oldham, G. R. (1997). Enhancing creativity: managing work contexts for the high potential employee, *California Management Review*, 40 (1), 22-38.
- Deci, E. L., Connell, J. P. and Ryan, R. M. (1989). Self-determination in a work organization, *Journal of Applied Psychology*, 74 (4), 580-590.
- Dedahanov, A. T., Lee, D. H., Rhee, J., & Yoon, J. (2016). Entrepreneur's paternalistic leadership style and creativity: The mediating role of employee voice. *Management Decision*, 54 (9), 2310-2324.
- George, D., & Mallery, M. (2003). Using SPSS for Windows step by step: a simple guide and reference. *Boston, MA: Allyn y Bacon*.
- George, J. M. and Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: an interactional approach, *Journal of Applied Psychology*, 86 (3), 513-524.
- Ghafoor, A., Qureshi, T. M., Azeemi, H. R., & Hijazi, S. T. (2012). Mediating role of creative self-efficacy. *African Journal of Business Management*, 5(27), 232-243.
- Gong, Y., Huang, J. C., & Farh, J. L. (2009). Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52(4), 765-778.
- Gong, Y., Zhou, J., & Chang, S. (2012). Core knowledge employee creativity and firm performance: The moderating role of riskiness orientation, firm size, and realized absorptive capacity. *Personnel Psychology*, 66(2) 443-482.
- Gujarati, D. N. (2012). *Basic econometrics*. Tata McGraw-Hill Education, India.
- Gujarati, D. N., & Porter, D. C. (2011). *Econometria Básica-5*. McGraw Hill, Brasil.
- Gul, F. (2014). *An Empirical Analysis of Investor Behavior it Karachi Stock Exchange*. Unpublished doctoral dissertation, NUML, Islamabad, Pakistan.
- Gupta, V., & Singh, S. (2015). Leadership and creative performance behaviors in R&D laboratories: examining the mediating role of justice perceptions. *Journal of Leadership & Organizational Studies*, 22(1), 21-36.
- Hair, J. F., Tatham, R. L., Anderson, R. E., & Black, W. (2006). *Multivariate data analysis* (Vol. 6). Upper Saddle River, NJ: Pearson Prentice Hall.

- Herrmann, D., & Felfe, J. (2013). Moderators of the relationship between leadership style and employee creativity: the role of task novelty and personal initiative. *Creativity Research Journal*, 25(2), 172-181.
- Herrmann, D., & Felfe, J. (2014). Effects of leadership style, creativity technique and personal initiative on employee creativity. *British Journal of Management*, 25(2), 209-227.
- Jafri, M. H., Dem, C., & Choden, S. (2016). Emotional intelligence and employee creativity: Moderating role of proactive personality and organizational climate. *Business Perspectives and Research*, 4(1), 54-66.
- Jung, D. I. (2001). Transformational and transactional leadership and their effects on creativity in groups, *Creativity Research Journal*, 13(2), 185–195
- Kimberlin, C.L., & Winetrstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health System Pharmacy*, 65(23), 2276-2284.
- Redmond, M. R., Mumford, M. D., & Teach, R. (1993). Putting creativity to work: Effects of leader behavior on subordinate creativity. *Organizational Behavior and Human Decision Processes*, 55(1), 120-151.
- Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2011). *Research methods for business students*, 5/e. Pearson Education India.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill building approach*. John Wiley & Sons Ltd.
- Sirkwoo, J. (2015). Leading employee creativity: the relationship between leadership styles and employee creativity. *Review of General Management*, 21(1), 17-28.
- Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, 45(6), 1137-1148.
- Yıldız, M. L., & Özcan, E. D. (2014). Organizational climate as a moderator of the relationship between transformational leadership and creativity. *International Journal of Business and Management*, 2(1), 76-87.