



## The Effects of Supervisor's Organizational Embodiment and Organizational Identification on the LMX-Creativity Relationship

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**Abstract:** *At the intersection between psychology and human resources management, this study is conducted to attain two objectives. First, it aims at investigating the indirect relationship of leader-member exchange (LMX) relationships and creativity via organizational identification. Second, differences in LMX-creativity relationship via organizational identification are explored from a trajectory that highlights the moderating role of supervisor's organizational embodiment. This study adopts a time-lagged data collection design. Participants, enrolled in the sample, are 411 subordinates, who are attached with 142 supervisors from Pakistan. Mediating role of organizational identification (OI) between LMX and creativity was confirmed by results. Results also confirmed the moderating effect of the supervisor's organizational embodiment (SOE) on the indirect relationship between LMX and creativity via organizational identification.*

**Keywords:** LMX, creativity, organizational identification, supervisor's organizational embodiment.

## Introduction

Creativity comprises original, practical, and novel thinking ability of employees. Creative employees are mandatory for any organization to achieve a competitive advantage in a dynamic business environment (Subramanian, Rahe, Nagadevara, & Jayachandran, 2016). Recent work on creativity emphasizes the need to analyze the role of underlying paths of interpersonal relationship between leader and follower to produce creative work (Newman, Herman, Schwarz, & Nielsen, 2018). Researchers have pointed out that work-related exchange relationships serve as a significant predictor of creative problem-solving ability (Kahrobaei & Mortazavi, 2016). However, it is pertinent to mention here that a dearth of systematic theoretical foundation for creativity in social networking is still there and requires further attention (Cattani & Ferriani, 2008). LMX deals with social networking ties between leader and followers across an organization's social landscape. This social network comprises the incremental and dyadic relationships in teams, departments, and organizations as a whole (Z. Wang, Xu, Liu, & Jiang, 2015; X.-H. Wang, Fang, Qureshi, & Janssen, 2015). Essentially, the theory is centered on the dyadic relationships between boss and subordinate, which determine the quality of organizational outcomes.

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Earlier meta-analyses had focused on LMX results supporting a positive relationship between leadership, co-workers, and creativity (Hammond, Neff, Farr, Schwall, & Zhao, 2011; Liu, Zhang, Liao, Hao, & Mao, 2016). However, there is a dearth of studies on LMX and creativity included in these meta-analyses coming from Western contexts. It is because there is a scarcity of literature available on LMX-creativity relationships (Ahmed, Khairuzzaman Wan Ismail, & Mohamad Amin, 2014). Volmer, Spurk, and Niessen (2012) have noted that LMX-creativity relationships are not consistent across studies (Volmer et al., 2012). Liao, Liu, and Loi (2010) found similar concerns in Chinese culture investigating LMX and creativity relationships via self-efficacy. Inconsistencies in LMX and creativity relationships call for further investigation of the path using time-lagged data collection and supervisor-rated outcomes to identify other possible moderators and mediators (Loi, Chan, & Lam, 2014; Zhao, Kessel, & Kratzer, 2014).

One possible path is to explore the role of organizational identification, because of the cognitive evaluation of the informational clues available in LMX relationships (Epitropaki & Martin, 2015). Most dominant, recent, and accepted conception of organizational identification comes from the literature on social identity theory (SIT). According to SIT, human beings have a tendency to simplify the social world through the construction of self-concept and comparison with others about their social existence. Consequently, this cognitive evaluation leads to categorizing them in the social landscape. Positive attraction, bonding, linkages, and categorization help to identify with a particular group or organization (Ashforth, Harrison, & Corley, 2008). Sense, feeling, and perception of distinctiveness in relational and comparative existence compose identity. SIT speaks about subordinates self-concept about the social entity to a combined role in the organization. The perception of oneness and belongingness with the organization refers to organizational identification. This perception lies in the informational cues evaluated through human cognitions. The cognitive processing of these informational cues plays a vital role in a follower's organizational identification (Trepte & Loy, 2017), which further leads to the creativity of the follower (Mumford, Medeiros, & Partlow, 2012).

SIT support the notion that subordinates assess and categorize their insider status in the social scene. This assessment allows subordinates to identify with an organization. An employee's identification with his or her organization produces creative work involvement (Liu et al., 2016). The indirect path from LMX to outcomes can explain inconsistencies in the LMX-creativity relationship. However, the mediating role of organizational identification in the LMX-creativity relationship has not received due attention in the literature. Researchers have emphasized the need to explore mediating mechanisms using SIT (Epitropaki & Martin, 2015; Loi et al., 2014). The inconclusive LMX-Outcome findings across countries reduce the generalizability (Rockstuhl, Dulebohn, Ang, & Shore, 2012). There is a need to cross-fertilize of LMX and SIT as this can unlock novel avenues in scientific literature. SIT literature supports the possibility of organizational identification as a mediating mechanism for LMX-outcome relationship (Epitropaki & Martin, 2015). Scarce literature on organizational identification as a mediator between LMX-outcomes with limitations of self-reported follower outcomes requires further investigation using behavioral supervisor-rated outcomes and better research design (Loi et al., 2014).

Another possible explanatory mechanism would be the followers different perceptions of

their supervisors, which lead to different levels of organizational identification. Dominant literature treats supervisors as representatives of organizations (Eisenberger et al., 2010). However, subordinates may sometimes not take relationships with their supervisors on behalf of organization. The relationship-oriented cultures, where relationships between supervisor and subordinate go beyond a working relationship, have a vital implication for LMX-outcomes findings (X.-a. Zhang, Li, & Harris, 2015). In case of low SOE and high LMX, there are chances that subordinates feel attached with the supervisor but not with organization. Here, low identification with the organization may reduce positive outcomes such as creativity (Eisenberger et al., 2010). The role of the SOE is important in the indirect path of LMX and outcome relationships via organizational identification. SOE is relatively under researched construct in organizational behavior literature that deals with the subordinates perceptions about supervisors shared characteristics with the organization (Eisenberger et al., 2014). Therefore, this paper focuses on the role of SOE on LMX-creativity relationship through organizational identification.

## Literature Review and Hypothesis Development

### Leader-Member Exchange and Creativity

LMX theory is based on social exchange relationships between supervisor and subordinate include social and economic exchanges (Shoss, Eisenberger, Restubog, & Zagenczyk, 2013). Based on SIT, informational cues of LMX like attention, support, trust, and consideration of supervisor (X. Zhang et al., 2018) for a subordinate plays a role of “sense-giving”. “Sense-giving” through cognitive evaluation (Ashforth et al., 2008) of LMX cues like attention, support, trust, and consideration of supervisor ignites “Sense-making” and “sense-breaking” which generates a feeling of oneness. Perception of attachment with organization leads to felt obligations and sense of reciprocity (Trepte & Loy, 2017). The sense of felt obligations and reciprocity increases follower’s focus and attention given to the work challenges. Isolation and loneliness lead to negative attitudes and behaviors. More focused approach gives more creative and innovative ways of solving problems. This process of social identification helps boosting followers creativity.

The research has provided with an empirical support for relationship direct path between LMX and subordinate creativity and creative work involvement. In recent meta-analyses (Newman et al., 2018), there has been a positive association between LMX relationships and creativity. Some researchers have found no significant association between LMX and creative idea generation (Hammond et al., 2011). However, we argue based on SIT that more the social identification process is stronger and the process of self-categorization as in-group member produces more original, practical, and proactive approach from followers in a collectivist culture with more relationship orientation (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012).

*Hypothesis 1: The quality of LMX and creativity are positively related.*

## LMX and Organizational Identification

The basis of LMX relationships includes high-quality interpersonal skills, increased consideration, attention, support, affiliation, feedback, and satisfaction with exchange relationships (Volmer et al., 2012). Increased LMX in the form of formal and informal communication increases chances of career development and advancement due to greater support, attention, and appreciation of the leader. Moreover, increased consideration, trust, attention, and feedback enhance the prestige of the individual. According to SIT, individuals evaluate these cues from increased exchange relationships with from cognitive perspective. When individuals evaluate these informational cues through cognitive processing, they categorize themselves as a member of the group or an organization relative to other group or organizational members (Treppe & Loy, 2017). These classifications and categorizations result from cognitive evaluation and appraisals based on affiliation and attachment. The reason for attachment and affect can vary individual to individual and context to context. Research has focused on the employee's social roles and affiliations as causes of cognitive evaluation and perception of identification (Thibaut, 2017). An employee with a sense of being an in-group member can perform a social role in the welfare of the organization. This may help him identify with the fate of the organization. Due to increased LMX, an individual perceives increased chances of social prestige and career advancement. Therefore, chances of organizational identification from employees increase (Schwarz, 2017). Psychological attachment creates a perception of congruence with organizational values and a sense of belongingness, and oneness with the supervisor and the organization. Literature often discusses organizational identification as a perception of congruence in employee and organization's values. It is the perception of an employee about recognizing him with an organization and seeing himself identical with the organization due to attachment, affect, and relationships (Ashforth & Mael, 1989; Mael & Ashforth, 1992; Pratt, 1998). Organizational identification includes a feeling of prestige and positive emotions when identified with an organization. Due to psychological attachment and affiliation, and increased prestige, an individual may act in the interest of the organization as deeds and behaviors (Schwarz, 2017).

*Hypothesis 2: The quality of LMX and organizational identification are positively related.*

## Organizational Identification and Creativity

SIT relates individual's self-concept about an organization to a collective role in the organization. Identification includes a feeling of solidarity and belongingness, attraction, and loyalty with an organization, alignment, and acceptance of shared goals (Treppe & Loy, 2017). Individuals who have a sense of favorable position in a group or organization identify themselves with the group or organization. This creates a sense of oneness with group or organization and therefore, these individuals are more likely to contribute towards organizational expectations (Haslam, Van Knippenberg, Platow, & Ellemers, 2014; Niu, Yuan, Qian, & Liu, 2018). SIT suggest that perceptions of oneness create a feeling of shared fate, obligation, and urge to reciprocate in organizational favor. Cognitive evaluation of

situational cues leads to experiences of belongingness with organization create employees inclination to reciprocate through more focused, attentive, and rigorous effort on a job to meet shared goals and objectives (Thibaut, 2017). Feelings of obligation and identification compel employees to be creative using multiple ways of handling a problem at work (Ilies, Nahrgang, & Morgeson, 2007). Therefore, organizational identification is more likely to produce creativity in their job assignments (Kark & Carmeli, 2009).

*Hypothesis 3: Organizational identification and creativity are positively related.*

## Mediating Role of Organizational Identification

SIT suggests “sense-making” through cognitive evaluation of informational cues available in increased interaction between supervisor and the subordinate creates a sense of belongingness with an organization (Ashforth et al., 2008). Increased interactions between supervisor and subordinate create experiences of organizational identification due to the supportive work environment and social climate in an organization. Employees perceive themselves having a common fate, goal, and objectives of organization. Identification with organizational invokes employees to work for organizational goals and objectives to reciprocate and fulfill psychological obligations. Identification with an organization is essential for encouragement and more inclination towards work involvement for creativity and innovation (Kark & Carmeli, 2009). SIT suggest that high-quality interactions between supervisor and subordinate help employees to identify themselves with the organization and create feelings of obligation that make the employee more attentive, focused, and obliged to be more creative (Ilies et al., 2007). The better urge for task accomplishment may include using multiple ways of handling problems at work. Therefore, authors expect a significant positive effect of high-quality LMX on creativity through organizational identification.

*Hypothesis 4: Organizational identification mediates the effect of the quality of LMX on creativity.*

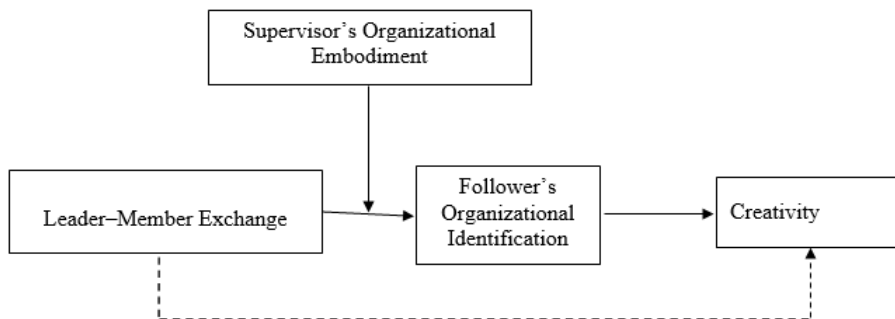
## Conditional Effects of Supervisor’s Organizational Embodiment

According to SIT, employee identifies with a social unit because of cognitive processing of informational cues of in interpersonal relationships (Brown, 2006). Employees evaluate relationships with supervisor based on SOE. SOE increases as much as a supervisor shares characteristics with an organization. Here, an employee may perceive attention, compliments, treatments, encouragements, praises, interactions, goals assigned, and respect from the supervisor as organizational representative (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). If employees perceive supervisor as organizational representative, they perceive a sense of oneness and belongingness with an organization (Ashforth et al., 2008). SIT suggest that high-quality interactions between supervisor and subordinate work as a “sense giving” to and help employees feel close and attached with the supervisor. But if subordinate does not make sense of interactions (sense making) with supervisor perceiving him as a organizational representative, this may not create feelings

oneness and belongingness with an organization. Lack of identification with an organization (self-categorization as an outsider) may diminish the feelings of obligation that make the employee more attentive, focused and obliged to be more creative (Ilies et al., 2007). Therefore, the intensity of attention, consideration, and focus from supervisor increases identification only when an individual treats supervisory interactions on organizational behalf. Creative work involvement is possible only when an individual perceives that self and organization have common fate (Kark & Carmeli, 2009). Therefore, a relationship between SOE affects the cognitive evaluation of informational cues from high quality of LMX interactions. High SOE combined with LMX produces more organizational identification, which generates increased follower's creativity.

*Hypothesis 5: SOE moderates the effect of the quality of LMX on creativity via organizational identification such that creativity is high when SOE is high.*

**Figure 1**  
Theoretical Framework



## Methodology

### Sample

We collected data (using personal and professional contacts) from twenty relatively large scale (2000 to 5000 workers) public and private manufacturing organizations (including defense, cement, electric appliances manufacturing organization) from Pakistan i.e. a collectivist country. Data collection from different departments like personnel, mechanical, electrical, despatch, and research department ensured the relevance, variance, and normality of data (Schyns & Wolfram, 2008). Literature recommended sample size of about 400 for a population of one million (Sekaran & Bougie, 2016), however previous research on LMX sufficed a sample above 200 (Chen, Wen, Peng, & Liu, 2016). We approached the approximate 700 white collar participants using convenient sampling, self-administration and time-lagged data collection (3 weeks) method (Ansari, Bui Bui, & Aafaqi, 2007). Fifty-eight percent of participants completed the questionnaires in all respects producing a final sample size of 411 (subordinates i.e unit of analysis). We targeted white-collar employees

due to greater access to managerial resources (related due to LMX influence) and greater English comprehension (Abbas, Raja, Darr, & Bouckennooghe, 2014).

## **Descriptive Statistics**

Composition of the sample (411 subordinates who were attached to 142 supervisors) showed that no supervisor had tenure of less than one-year, 20 years old and 68.3% of the supervisors were graduate or more. 28.6% total supervisors were related to public sector. Subordinates demographics showed no respondent was less than twenty years, only 13.1% had less than one-year tenure and the majority of subordinate were the graduate or more (61%). 21.7 % of supervisors from public sector. It is clear that respondents are literate, experienced, middle-aged, and mature ones to provide impartial feedback.

## **Procedure/Data Collection Method**

We ensured confidentiality and voluntary participation of respondents by attaching a cover letter with the questionnaire booklet. LMX literature focuses on multi-phase, multi-source, and time-lagged design is desired to minimize common method bias issues (Loi et al., 2014). Participants completed the questionnaires in three phases to avoid common method variance problems (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Participants of study completed questionnaires in three phases with a 3-week time lag to avoid common method variance (i.e. Phase 1: LMX SOE and demographics including gender, age, education, and tenure; Phase 2: OI; Phase 3: creativity). Demographics helped to match responses of different phases. We used supervisor-rated measure for creativity to avoid spurious and inflated rating (Podsakoff et al., 2003). Finally, we assured (using a screening question) that each subordinate had worked under the same so that the supervisor can better report subordinate performance.

## **Instruments**

We coded all variables (excluding LMX that has its own coding) on a Likert scale with anchors: 1 = strongly disagree; 2= disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree.

For LMX Quality, we adopted a seven items subordinate rated measure of LMX (Paglis & Green, 2002) with Cronbach alpha reliability of 0.81. Sample items comprise “I usually know where I stand with my supervisor. I usually know how satisfied he/she is with what I do” and “I would characterize my working relationship with my supervisor as extremely effective.” CFA (single latent factor) showed a superb fit (CMIN/DF = 2.57, IFI = .94, TLI=0.9, CFI = .94; RMSEA<0.08). The alpha reliability of LMX scale is .81.

For Supervisor’s Organizational Embodiment, we used nine items subordinate rated scale by Eisenberger et al. (2010) to measure SOE with Cronbach alpha reliability of 0.929. Sample items comprise “When my supervisor is pleased with my work, I feel that my organization is pleased”, and “When my supervisor compliments me, it is the same as my organization complimenting me”. CFA for SOE loaded onto a single latent factor revealed



moderate fit (TLI=0.82, NFI= 0.90, CFI = .90, GFI =.83, IFI = .90, RMSEA<0.08;  $\chi^2 = 29$ , df = 20).

For Organizational Identification, we employed six-item subordinate rated measure of Mael and Ashforth (1992) to measure organizational identification with Cronbach alpha reliability of 0.829. Sample items contain “When someone criticizes my organization, it feels like a personal insult,” and “I am very interested in what others think about my organization.” CFA (Second Order) of organizational identification (as latent construct) showed with an outstanding fit (TLI=0.95; CFI = .98, IFI = .98, NFI= 0.97, GFI =.98, RMSEA<0.08;  $\chi^2 = 22.949$ ).

For Creativity, we measured creativity using the supervisor-rated measure used by (Oldham & Cummings, 1996). This scale comprises three items and has Cronbach alpha reliability of 0.94. Sample items included in creativity measures are “This person’s work is adaptive and practical” and “This person’s work is creative.”

## Confirmatory Factor Analysis

Confirmatory factor analysis of 4-factor model comprises LMX, SOE, organizational identification, and creativity. Results of confirmatory factor analysis confirmed an excellent fit (CFI=0.929; TLI=0.904, IFI=0.93, RMSEA<0.08; CMIN/DF=3.513) that is satisfactory for theoretically new models (Küster & Vila, 2011; Yang, Wong, Lai, & Ntoko, 2009).

## Controls

We compared each of demographic (sex, age, education, tenure and organizational sector with criterion variable using one-way ANOVA for significance. This is because may have significant effects on organizational identification and creativity (R. Lee & Wilbur, 1985; Loi, Mao, & Ngo, 2009; Paglis & Green, 2002). Results revealed significance differences for organizational identification with supervisor’s qualification (F=15.202, p<.01), subordinates age (F=3.785, p<0.05), subordinates qualification (F=21.302, p<.001), and subordinates organizational sector (F=30.501, p<.001). Results revealed significance differences for creativity with supervisor’s qualification (F=15.203, p<.01), supervisor’s tenure (F=10.475, p<.01), subordinates age (F=3.061, p<0.05), and subordinates qualification (F=7.139, p<.01). Therefore, we controlled these variables for respective outcomes.

## Results

### Validity and Reliability Analysis

Results for item-wise reliability confirmed no need to delete any item from any scale because it did not increase reliability. The reliability analysis suggested no changes in standardized scales reliability of all the scales is above 0.70. We performed EFA using the Principal Component with Varimax rotation and used Kaiser-Meyer-Olkin’s measure score and significance of Bartlett’s test of Sphericity to confirm the validity of each scale. We decided



to retain all items from analysis due to the satisfactory factor analysis scores (Factor loadings>0.4; Kaiser-Meyer-Olkin > 0.50,  $p<0.01$ ) (Yong & Pearce, 2013).

## Means, Standard Deviations, and Correlation Analysis

Table 1 comprises results for correlation analysis including mean, standard deviations, reliabilities and correlation coefficients.

**Table 1**  
Results for Correlation Analysis

	Mean	SD	1	2	3	4
LMX	3.910	0.520	-0.810			
SOE	3.660	0.760	0.368**	-0.930		
OI	3.950	0.610	0.494**	0.228**	-0.830	
Cr	3.850	0.990	0.066	0.124**	0.228**	-0.940

Note. \*  $p<0.05$ , \*\*  $p<0.01$ ; Reliabilities in parentheses  
Controls = (Supervisor: Education, Tenure;  
Subordinate: Age, Gender, Education, Tenure,  
Organizational Sector)

## Leader-Member Exchange, SOE, Organizational Identification, And Creativity

We tested main effects for Hypothesis 1, 2, and 3 using linear regression analysis in two steps. In the first step, we entered controls, followed by the independent variable. Table 2 shows that the quality of LMX and organizational identification has significant positive relationship with creativity. These results support Hypothesis 1, and 2. Next, organizational identification has a significant positive relationship with creativity. This provides support for Hypothesis 3. Table 2 shows the results for main effects:

**Table 2**  
Linear Regression Results for Main Effects

Predictors		OI		Cr	
		$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
Step 1	Intercept	4.473**	0.074**	4.939**	0.101**
	Controls				
Step 2	Intercept	2.123**	0.275**	4.173**	0.007*
	Controls				
	LMX	0.614**		0.170*	
Step 1	Intercept			4.939**	0.101**
	Controls				
Step 2	Intercept			3.515**	0.028**
	Controls				
	OI			0.286**	

Note. \*  $p<0.05$ , \*\*  $p<0.01$   
Controls = (Supervisor: Education, Tenure; Subordinate: Age,  
Gender, Education, Tenure, Organizational Sector)

## Mediating Role of Organizational Identification

According to the hypothesis 4 of the study, organizational identification mediates the effect of the quality of LMX on creativity. The results of mediation analysis using PROCESS 2.4

(model 4) revealed significant indirect effect of organizational identification between LMX-creativity relationship because as point estimates range did not include zero (ULCI=0.0384, LLCI=0.3181, CI 95%, Bootstrap= 10,000 samples). Furthermore, Sobel Test is also significant (Estimate=0.17,  $p < 0.05$ ). Therefore, hypothesis 4 is supported. Detailed results are shown in table 3.

## Conditional Effects of SOE

According to the hypothesis 5 of the study, SOE moderates the relationship of LMX on creativity through organizational identification. The results of moderated mediation analysis using PROCESS 2.4 (model 7) showed significant conditional indirect effect of SOE on LMX-creativity relationship via organizational identification because effect increases from low (effect=0.12, CI 95%, Bootstrap= 10,000 samples) to high (0.18, CI 95%, Bootstrap= 10,000 samples) level of SOE. Results are significant (point estimate range did not include

**Table 3**  
Results of Mediation Analysis

Variables	Outcome	R2	F Value	p	Coefficient	SE	t	LLCI	ULCI
Constant	OI	0.3509	27.1639	0.000	2.3040**	0.3386	6.8045	1.6384	2.9696
LMX					0.6060**	0.0483	12.536	0.511	0.701
Constant	Creativity	0.1311	6.7202	0.000	3.4767**	0.6777	5.1298	2.1443	4.8091
OI					0.2845**	0.0945	3.0094	0.0987	0.4703
LMX					-0.0011	0.1081	-0.0099	-0.2135	0.2114
<b>Direct effect: LMX to Creativity</b>									
LMX	Creativity				-0.0011	0.1081	-0.0099	-0.2135	0.2114
<b>Indirect effect: LMX to Creativity</b>									
LMX	Creativity				0.1724**	0.0709		0.0384	0.3181
<b>Results of Sobel Test</b>									
LMX	Creativity				0.1724**	0.0591	z=2.9175		

Note.  $p < .05$ ,  $n = 411$ , Bootstrap (10,000 Samples)

Controls = (Supervisor: Education, Tenure; Subordinate: Age, Gender, Education, Tenure, Organizational Sector)

**Table 4**  
Results of Moderated Mediation Analysis

Variables	Outcome	R2	F Value	p	Coefficient	SE	t	LLCI	ULCI	
Constant	OI	0.3711	23.6065	0.000	4.4218**	0.7912	5.5888	2.8664	5.9772	
LMX						-0.0284	0.2026	-0.1401	-0.4267	0.3699
SOE						-0.5192**	0.1956	-2.6538	-0.9038	-0.1346
SOE*LMX						0.1546**	0.0508	3.0445	0.0548	0.2544
Constant	Creativity	0.1311	6.7202	0.000	3.4767**	0.6777	5.1298	2.1443	4.8091	
OI						0.2845**	0.0945	3.0094	0.0987	0.4703
LMX						-0.0011	0.1081	-0.0099	-0.2135	0.2114
LMX to Creativity: Direct Effects										
LMX	Creativity				-0.0011	0.1081	-0.0099	-0.2135	0.2114	
LMX to Creativity: Conditional Indirect Effects										
	Mediator	SOE	Effect	Boot SE	Boot LLCI	Boot ULCI				
	OI	2.904	0.1196	0.0555	0.0288	0.253				
	OI	3.6686	0.1532	0.0634	0.0331	0.2852				
	OI	4.4331	0.1869	0.0754	0.0399	0.3395				

Note: \* Values for quantitative moderators are the mean and plus/minus one SD from mean.

$p < .05$ ,  $n = 411$ , Bootstrap (10,000 Samples)

Controls = (Supervisor: Education, Tenure; Subordinate: Age, Gender, Education, Tenure, Organizational Sector)

zero) for both low (LLCI = 0.0288, ULCI = 0.2530) and high (LLCI = 0.0399, ULCI = 0.3395) level of SOE. Hence, hypothesis 5 is supported. Table 4 shows the detailed results for conditional indirect effects of SOE.

## Discussion

LMX theory has offered possible antecedents (predictors) for positive organizational outcomes since its inception (Dulebohn et al., 2012). The Combination of LMX theory and SIT provides a new avenue of research for management studies (Epitropaki & Martin, 2015). This research paper uses the cross-fertilization of LMX and SIT to extend generalizeability of LMX-creativity relationships (Ashforth et al., 2008). We investigated the mediating function of organizational identification between LMX and creativity. Previous research has investigated leadership and organizational identification as possible antecedents of creativity (Ilies et al., 2007; Loi et al., 2009). Our research goes beyond the examination of direct relationships and is perhaps the first ever effort to analyze contingent effect of a SOE on LMX and creativity via OI.

Our findings provide empirical support for theoretical arguments based on SIT for the direct path between the quality of LMX and subordinate creativity. Results reinforce the cognitive processing and self categorization perspectives explained by SIT to make sense out of LMX cues to produce creative performance (Ashforth et al., 2008). This study confirms the ideas of LMX and SIT, that individuals cognitively process cues from improvements to “exchange relationships” and classify themselves as a part of the organization (Ashforth & Mael, 1989; Tajfel, 2010a, 2010b). Identification with the values of an organization will create identification with the organization itself (Mael & Ashforth, 1992; Pratt, 1998). Being a member of the organization creates a feeling of prestige and honor in social groups (Cheney & Tompkins, 1987; Sluss & Ashforth, 2007). Just like previous work, we identified relationships between LMX and organizational identification. Our results have confirmed previous work demonstrating that a feeling of belonging to an organization can make employees more focused, attentive, and creative (Ilies et al., 2007; Kark & Carmeli, 2009). Only a small portion of the variance in creativity is explained by organizational identification. This suggests many variables in this relationship remains unexplored.

Our result identifying a mediating role of organizational identification between the quality of LMX and creativity is consistent with the ideas found in LMX and social identity theories. Building upon a combination of the LMX and SIT theories our results confirmed that informational cues gained with increased interactions between supervisors and subordinates create a sense of belongingness with an organization and assist with “sense-making” (Ashforth et al., 2008). When employees perceived they had a shared destiny with organization, they performed better due to the fulfillment of a psychological obligation (Haslam et al., 2014). Consistent with SIT, increased quality of LMX and a supportive organizational climate created a perception of oneness with the organization. When employees felt a sense of belongingness they were more focused, attentive, and creative.

The conditional indirect effects of SOE seen are consistent with previous theories and

answer the call for research in this area (Epitropaki & Martin, 2015). Combination of SIT and LMX confirmed that only when subordinates treat supervisors as organizational representatives, “sense-making” out of LMX cues (e.g. supportive social climate, attachment with the supervisor) produces attachment with the organization (Loi et al., 2014).

## Theoretical and Practical Implications

First, the present research attends the call for cross-fertilizing LMX and SIT (Epitropaki & Martin, 2015). The mediating role of organizational identification for LMX-creativity relationship is rightly reaffirmed using SIT (Loi et al., 2014). Second, the paper addressed the relatively ignored mediating function of organizational identification for LMX-creativity relationship. This study attended the recent call about the need of exploring the quality of LMX and outcome relationships using time-lagged designs. This research inquiry adopted the time-lagged design for the first time to investigate LMX-creativity relationship via OI. Third, the moderating effect of SOE on LMX-creativity relationship via organizational identification was completely missing. This filled this gap and confirmed that SOE moderates the indirect relationship of LMX and creativity via OI. Last, we collected data from a relationship-oriented culture to address the concern raised by a few to replicate, validate, and extend the generalizability of LMX findings across cultures (Rockstuhl et al., 2012).

Present scientific inquiry extended the scope of SIT to LMX-creativity relationship with the mediating role of organizational identification and moderating role of SOE. This study added significant proof in Pakistani literature i.e. a developing country (K. Lee, Scandura, & Sharif, 2014). Confirmation of differences in the mediated relationship due to LMX-creativity via organizational identification created new research dimensions in LMX research. Particularly, it opened practical utilities for supervisors in relationship-oriented contexts (Kongsompong et al., 2008). Supervisors can adapt their relationships with subordinates in a way that their actions are treated as organizational directions. Top management and human resource managers can benefit from findings in a way to recruit those who can adapt themselves to organizational norms and values. Moreover, personality and person-organization fit can also make organizational representatives to achieve their long-term goals and objectives.

In summary, the present study outcome validates LMX and creativity are related through OI. This suggests the managers should give cues of increased LMX and their common characteristics with the organization. “Sense-giving” can help to achieve followers creative work involvement. Intentionally varying the level of relationships with followers, on the basis of tasks assigned, help managers to produce more adaptive, practical, and creative workforce. Confirmation of the moderating role of SOE suggested that personnel department to train managers so that they can adapt to organizational norms and requirements along with the efforts of recruiting creative workforce on the basis of actor-context interactions.

## Limitations

The dyadic relationship under LMX conceptualized in this study to some extent fails to address the formal circumstances determining the dyadic relationship. Specifically, only trust, affection, mutual respect, and obligations do not guide the relationship but also the contractual law. Our conception of LMX also fails to address the role of family ties present in family-owned businesses as present in many Pakistani private firms. It, therefore, narrows the scope of the research and is a limitation. The present study used a single behavioral outcome, further research can be done to confirm the findings and extend it to other supervisor rated behavioral outcomes ([Epitropaki & Martin, 2015](#); [Loi et al., 2014](#)). Second, we used in this study time-lagged design in the current study; this may not guarantee the causal directions of the relationships. Future, researchers should replicate the findings using longitudinal research designs. Last, non-response bias may be an issue because we did not analyze the reasons behind low response rate using an empirical analysis, which reduces the validity of the findings ([Keeter, 2018](#)).

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