

## The important role of leader-member exchange in the relationship between cognitive and affective trust and leader effectiveness

A. Mustika & C.D. Riantoputra

*Faculty of Psychology, Universitas Indonesia, Depok, Indonesia*

**ABSTRACT:** Studies on leader effectiveness nowadays focus on the relationship between leaders and subordinates. One of the key variables in this relationship is trust. Previous research shows that, both cognitive and affective trusts may impact leader effectiveness directly or mediated through Leader-Member Exchange (LMX). This current research aims to test the probability of these two potentials in two different organizational settings (government companies and private companies). The data were gathered from 100 employees from government companies and 131 employees from private companies. The analysis reveals that (a) cognitive trust and affective trust are positively associated with leader effectiveness, in both government companies and private companies; (b) LMX is positively associated with leader effectiveness in private companies, but it has no relationship in public companies; and (c) LMX fully mediates the relationship between cognitive trust and leader effectiveness in private companies, but only partially mediates the relationship between affective trust and leader effectiveness in private companies. The study shows that there are different quality relationships between leaders and subordinates in government companies and private companies, which will affect leader effectiveness. Theoretical and practical implications will be discussed.

### 1 INTRODUCTION

A leader must be able to steer his/her group in order to achieve organizational goals. Leader effectiveness can be measured from behavior and performance (DeGroot, Aime, Johnson, & Kluemper, 2011). Leader effectiveness as a behavior is the evaluation of members to the behavior of the group supervisor in accordance with the performance of the group, while the leader effectiveness as a performance or result (outcome) is the objective measurements of the leader. Previous research discusses more about internal factors as determinants of leader effectiveness, such as gender (Paustian-Underdahl, Walker, & Woerh, 2014) and traits (Hoffman, Woehr, Maldagen-Youngjohn, & Lyons, 2011). There has been research on the external factors of leader effectiveness, for example about constructive organization culture styles (the culture that improves employee satisfaction and achievement) (Kwantes & Boglorsky, 2007).

The focus of this study lies in the assessment of the effectiveness of a leader in the behavioral performance, and about the quality of the relationship between leaders and subordinates (Hannah, Sumant, Lester, & Cavarretta, 2014). The factor that influences leader effectiveness is trust. Trust is the confidence in the goodwill and competence of others and the expectation that others will reciprocate with honest efforts that are consistent with agreements, if one cooperates (Casimir, Waldman, Bartram, & Yang, 2006). McAllister (1995) distinguishes trusts into two parts: cognitive trust and affective trust. Affect-based trust refers to the emotional bond between individuals that are grounded upon the expressions of genuine care and concern for the welfare of other parties. Cognitive trust refers to the trust based on performance-relevant cognitions such as competence, responsibility, reliability, and dependability (McAllister, 1995).

Cognitive trust and affective trust can directly influence leader effectiveness by improving job performance and job satisfaction. Research shows that trust can affect leader effectiveness directly (Gillespie & Mann, 2004; Yang, 2009), but trust can cause leader effectiveness by mediating leader-member exchange (LMX) (Chen, Lam, & Zong, 2012). LMX is the exchange relationship between subordinates and supervisors (Eisenberger, Shoss, Karagonlar, Gonzales-morales, Wickham, & Buffardi, 2014). LMX theory suggests that leaders do not use the same style in dealing with all subordinates, but develop a different type of relationship or exchange with each subordinate (Liden & Maslyn, 1998). LMX occurs if there is trust between leaders and subordinates, and LMX can directly impact leader effectiveness because LMX will increase work performance.

Based on the explanations above, this study asks, “Are cognitive trust and affective trust directly related to leader effectiveness, or is the relationship mediated through LMX?”

This research is going to focus on two different organizations, government companies and private companies, which are different, both in terms of the culture and the nature of the jobs. Previous research shows that the type of organizations influences the attitude of leaders towards their subordinates (Petrick & Quinn, 2000). However, another research by Hoffman *et al.* (2011) demonstrate that the type of organizations—business and government—does not have significant differences between their leaders and employees. Our interest is to compare government and private companies in conjunction with leader effectiveness to see the quality of relationships between leaders and subordinates.

## 1.1 Trust

McAllister (1995) explains the concept of trust as interpersonal trust. Interpersonal trust is the extent to which a person believes in other people’s trust, and is willing to act upon the words, actions, and decisions of other people. Gillespie & Mann (2004) wrote that trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another. Employees’ trust in their supervisor will affect work engagement (Chunghtai *et al.* 2015), whereas cognitive trust will increase the learning organization, and affective trust will increase the knowledge sharing and social networks (Swift & Hwang, 2013).

Trust, in the end, increases the subordinates’ work performances. Trust in the supervisors improves teamwork, which will then improve the performance of employees (Cho & Poister, 2014). Cognitive trust affects cognitive task performance and job satisfaction, and affective trust in the supervisor affects helping behavior (Yang, 2009). Cognitive trust makes someone think he/she believes in the leader because of the ability of the leader, and results are reflected in performance. Affective trust brings positive emotions in doing the job, so that the emergent behavior is a behavior that comes from within the individuals’ inherent desires.

Hypothesis 1. There is a positive relationship between cognitive trust and leader effectiveness.

Hypothesis 2. There is a positive relationship between affective trust and leader effectiveness.

## 1.2 LMX

Leader-Member Exchange (LMX) is derived from the Social Exchange Theory, which says that exchange relationships occur between at least two people, in the form of activities, both visible and invisible (Homans, 1958). The term “LMX” was formerly known as the Vertical Dyad Linkage (VDL) theory. VDL is a reciprocal relationship between superiors and subordinates, which occurs in the dyads. Dyads are two parts that interact to constitute a unity. The LMX theory states that leaders do not treat each subordinate in the same way and the quality of the LMX can range from low to high, depending on the treatment related to work, attitude, and behavior of the subordinates (Rocksthul *et al.*, 2012). The LMX is a relationship-based leadership, where these relationships can occur at the level of “in-group”

or “out-group” (Graen & Uhl-Bien, 1995). Subordinates with high quality relationships (at the level of in-group) receive a number of advantages compared to a subordinate with lower quality relationships (level out-group). The advantages gained include the increase of communication, levels of emotional support, and wider access (Dienesch & Liden, 1986; Graen & Scandura, 1987).

The LMX affects the followers’ task performance (Chan & Mak’s, 2012), improves job performance, lowers turnover intention (Bauer *et al.*, 2006), and improves job satisfaction, and organizational commitment (Lee, Teng, & Chen, 2015). The research by Hassan, *et al.* (2013) examines that the LMX positively influences the subordinates’ perception of leader effectiveness. The interaction between leaders and subordinates makes subordinates perceive that their supervisors are able to lead effectively. The LMX also affects job satisfaction and outcomes of the effectiveness of other leaders. The research meta-analysis finds that the LMX affects outcomes, including task performance, job performance, Organizational Citizenship Behavior (OCB), distributive justice, interactional justice, job satisfaction, affective and normative commitment, and turnover intention (Deulebohn *et al.*, 2012; Rockstuhl *et al.*, 2012). If the LMX intertwines, both purposes of the group will be quickly achieved.

Hypothesis 3. There is a positive relationship between the Leader-Member Exchange (LMX) with leader effectiveness.

### 1.3 LMX as a mediator

Trust, both cognitive trust and affective trust, improves the relationship between leaders and subordinates. The LMX theory states that the leaders influence their followers through unique ways, such as having trust between two individuals (Vidyarthi, 2014). The LMX will occur after the confidence or belief of others is obtained through the process of cognition and affection. Dirks & Ferrin (2002) in their study wrote that affective and cognitive trusts are positively correlated with the formation of the LMX relationships. The process of cognition and affection that exists will make subordinates feel that their supervisor is able to perform his/her duties as a good leader. Subordinates who trust their leaders will increase their LMX relationship. Deulebohn *et al.* (2012) in their study wrote that there is a relationship between the confidence of subordinates and their leaders (trust) with the LMX. Affective trust increases emotional feelings that serve to strengthen the relationship between superiors and subordinates, and cognitive trust will make an individual improve his/her work performance in order to bring the relationship between superiors and subordinates even closer.

Some research assumes that trust influences the effectiveness of leaders through mediators. One of the potential mediators is the LMX. Chen *et al.* (2012) suggests that trust affects the LMX, and the LMX mediates trust in supervisors with work performance. Subordinates who have both cognitive and affective trust towards their leaders will help their leaders to become good leaders, as well as leaders feeling closer with subordinates. This reflects an exchange relationship between leaders and subordinates. The relationship between affective trust and cognitive trust and leader effectiveness can happen directly or indirectly through the LMX. Thus, there is an indication that the relationship between cognitive trust and affective trust with leader effectiveness is partially mediated by the LMX.

Hypothesis 4. The LMX partially mediates cognitive trust relationships with leader effectiveness.

Hypothesis 5. The LMX partially mediates affective trust relationships with leader effectiveness.

## 2 METHODS

### 2.1 Subject

The data were retrieved from government companies in Jakarta and private companies in Bali. We used dyadic or pairing participants in this research, which are leaders and their

subordinates (two levels under the leader). The leaders in this study consisted of the director, section chief, manager or equivalent in government companies and the companies of private industry, whereas the subordinate participants included staff and supervisors. Two hundred and thirty one pairs responded to the survey, with 100 pairs from government companies (response rate 58.82%) and 131 pairs from private companies (response rate 76.16%).

## 2.2 Measures

### 2.2.1 Leader effectiveness

Fifteen items were adapted from DeGroot et al. (2011). An example item includes: "The leader of my direct leader gives ideas to solve problems". Each item was scored on a six-point Likert-type scale. The alpha for the 15 items-scale was 0.95.

### 2.2.2 LMX

The LMX was measured using a LMX7 scale compiled by Scandura and Graen (1984). An example item on this scale was "The leader of my direct leader shows how satisfied he/she is with my performances". In this study, the researchers adapted the LMX7 to transform the answer choices into a 6-point Likert-type scale. The alpha coefficient was 0.83.

### 2.2.3 Trust

The measurement of affective and cognitive trust in this study used affective-based trust scales and cognitive-based trust scales from McAllister (1995). The affective trust scale consisted of five items, and an example item was "I and the leader of my direct leader, can both freely share our ideas, feelings, and hopes", and the cognitive trust scale consisted of six items, with a sample "I can rely on the leader of my direct leader not to make my job more difficult by careless work". This scale was measured using a 6-point Likert scale. The alpha coefficient was 0.79 (affective trust) and 0.83 (cognitive trust).

### 2.2.4 Control variables

The demographic variables, such as leaders' gender, age, education, tenure, leading period, and interaction with subordinates were controlled in this study to assess the relationship between focal variables more rigorously.

## 3 RESULTS

### 3.1 Descriptive statistics and variable correlations

The results of the correlation test (Pearson correlation) in a government office indicated that there is a positive relationship between the dependent variable, which is leader effectiveness, and the independent variables, which are cognitive trust ( $r = 0.733$ ,  $p < 0.05$ ), affective trust ( $r = 0.689$ ,  $p < 0.05$ ), and LMX ( $r = 0.718$ ,  $p < 0.05$ ). The results of the correlation test in private companies indicated that there is a positive relationship between the dependent variable, which is leader effectiveness, and the independent variables, which are cognitive trust ( $r = 0.690$ ,  $p < 0.05$ ), affective trust ( $r = 0.668$ ,  $p < 0.05$ ), and LMX ( $r = 0.690$ ,  $p < 0.05$ ). Such correlations indicated that the higher the cognitive trust, affective trust, and LMX are, the higher the leader effectiveness is.

### 3.2 Hypothesis test

We used four stages of multiple linear regressions to analyze the data. According to Baron and Kenny (1986), to examine the relationship of each independent variable with the dependent variable and the mediator, four stages of multiple regressions should be used. The steps include: (a) the relationship between the independent variables and the mediator variable, (b) the relationship between the independent variables and the dependent variable, (c) the

Table 1. Descriptive statistics and correlations in government companies.

Variable	Mean	SD	Correlation																	
			1	2	3	4	5	6	7	8	9	10								
Gender	-	-	1																	
Leader's age	6.58	1.156	-0.113	1																
Leader's education	5.81	0.647	-0.002	0.068	1															
Leader's tenure	6.45	1.192	0.032	0.175	-0.124	1														
Leader's leading period	8.23	16.081	-0.033	0.192	0.145	0.094	1													
Number of interaction	351	9.081	-0.020	-0.071	0.011	0.035	-0.001	1												
Cognitive trust	4.66	0.726	0.054	-0.069	-0.026	-0.187	-0.103	0.175	1											
Affective trust	4.68	0.690	0.104	-0.069	0.007	-0.142	-0.151	0.206*	0.750**	1										
LMX	4.55	0.664	0.114	-0.128	-0.051	-0.185	-0.319**	0.109	0.818**	0.831**	1									
Leader effectiveness	4.85	0.688	0.072	-0.056	-0.090	-0.104	-0.099	0.102	0.733**	0.689**	0.718**	1								

LMX = Leader-Member Exchange \*p < 0.05 \*\*p < 0.001.

Table 2. Descriptive statistics and correlations in private companies.

Variable	Mean	SD	Correlation																	
			1	2	3	4	5	6	7	8	9	10								
Gender	–	–	1																	
Leader's age	4.84	1.508	0.271**	1																
Leader's education	3.50	1.628	-0.099	-0.208*	1															
Leader's tenure	4.79	2.045	0.199*	0.625**	-0.160	1														
Leader's leading period	5.19	1.314	0.290**	0.594**	-0.048	0.347**	1													
Number of interaction	8.79	21.607	0.115	-0.032	-0.023	0.024	0.077	1												
Cognitive trust	4.85	0.678	-0.069	-0.026	0.164	-0.018	-0.036	-0.036	1											
Affective trust	4.95	0.680	-0.008	-0.063	0.095	0.004	-0.018	-0.032	0.811**	1										
LMX	4.86	0.709	-0.099	-0.056	0.024	0.012	-0.051	-0.012	0.881**	0.856**	1									
Leader effectiveness	5.11	0.704	0.117	0.001	0.112	0.003	0.006	-0.156	0.664**	0.668**	0.690**	1								

LMX = Leader-Member Exchange \*p < 0.05 \*\*p < 0.00.

Table 3. Regression results for testing mediation.

Factor and statistic	Government			Private		
	LMX	Leader effectiveness		LMX	Leader effectiveness	
		Step 1	Step 2		Step 1	Step 2
<i>Cognitive trust</i>	0.440*	0.493*	0.395*	0.564*	0.357*	0.187
<i>Affective trust</i>	0.498*	0.320*	0.210*	0.414*	0.379*	0.250*
LMX			0.220			0.311*
F	168.292	67.390	46.491	325.155	61.622	43.445
R <sup>2</sup>	0.777	0.582	0.592	0.836	0.491	0.506
R adjust	0.772	0.573	0.580	0.833	0.483	0.495

LMX = Leader-Member Exchange \*p < 0.05.

relationship between the mediator variable with the dependent variable, and (d) the correlation between the independent variables and the dependent variable. These steps test whether the relationships are significant. If the results show that the relationships are not significant, it is said to be fully mediated, but if the relationships are still significant, it is said to be partially mediated.

Table 3 shows cognitive trust has a significantly positive relationship with leader effectiveness in government companies ( $\beta = 0.493$ ;  $p < 0.05$ ) and private companies ( $\beta = 0.357$ ;  $p < 0.05$ ) (H1 is supported). Furthermore, from Table 3, affective trust has a significantly positive relationship with leader effectiveness in government companies ( $\beta = 0.320$ ;  $p < 0.05$ ) and private companies ( $\beta = 0.379$ ;  $p < 0.05$ ) (H2 is supported).

Table 3 shows different results for the relationship between the LMX and the leader effectiveness in government companies and private companies. The result shows that LMX and leader effectiveness are significantly positive in government companies ( $\beta = 0.220$ ;  $p > 0.05$ ), but not in private companies ( $\beta = 0.311$ ;  $p < 0.05$ ). These results suggest that H3 for government companies is rejected, whereas H3 for private companies is supported. It explains that in the government companies, the LMX does not mediate the relationship between leader effectiveness and cognitive trust, as well as affective trust. Thus, the H4 and H5 in government companies are not supported.

Furthermore, Table 3 shows that in private companies the relationship between cognitive trust and leader effectiveness is no longer significant ( $\beta = 0.187$ ;  $p > 0.05$ ), when the LMX appears as the mediator variable. This means that cognitive trust will affect leader effectiveness only through the LMX, so the LMX fully mediates the relationship between those variables (H4 is supported). The next results from Table 3 regarding private companies show that the relationship between affective trust and leader effectiveness is still significant but the score of significance changes ( $\beta = 0.250$ ;  $p < 0.05$ ) because of the LMX. This means that the LMX partially mediates the relationship between affective trust and leader effectiveness in private companies (H5 is supported).

#### 4 DISCUSSION

From the results, the LMX mediates the relationship between cognitive and affective trust with leader effectiveness in private companies, but not in government companies. This research contributes to see the different qualities of relationship between leaders and subordinates in government and private companies. Government companies and private companies are different in function and nature. From the function of the organization, government companies are public oriented (Cummings & Worley, 2009). They are more administrative and have almost no competition among other government companies, so it is possible for the leaders to maintain distance from their subordinates. On the other hand, private companies, from the function of the organization, are profit oriented (Cumming & Worley, 2009). They

have many competitors, so, to advance their organizations, leaders need a lot of support from their subordinates.

Government companies, according to the nature of the organization by Mintzberg (1980), can be classified as bureaucratic. A company with a bureaucratic nature is characterized by rigid organizations, workers with their respective specialties, and tendencies to have similar work tasks that follow position description. The relationship between leaders and subordinates in the bureaucratic type is not very visible, because in doing their jobs, employees in the companies have their designated specializations and do not need to do work not included in their job descriptions. On the flip side, the nature of private companies by Mintzberg (1980) is organic. In organic organizations, it is usually possible to interchange the positions, develop employees through trainings, and handle other workers' job descriptions. In private organizations, employees are given the opportunity to develop themselves and be close to their leaders. The leaders in private organizations have close relations with their subordinates because they cannot work without their subordinates. Based on this research, further research should aim to understand the characteristics of each institution, both government and private. Profiles and characteristics are needed to understand the culture and values that are applied.

This research also contributes in knowing whether the LMX fully mediates the relationship between cognitive trust and leader effectiveness in private companies. The LMX occurs when there is trust between supervisors and subordinates (Vidyarthi *et al.*, 2014). Dirks & Ferrin (2002) stated that cognitive trust is positively related to the LMX. Subordinates who believe in their leaders because of work and professionalism will improve the quality of relationships between leaders and subordinates, so that the process of the LMX becomes more pronounced. Cognitive trust improves the relations between leaders and subordinates, along with improving work performance. The relationship between leaders and subordinates improves performance and job satisfaction, which are the outcomes of leader effectiveness. As described by Chen *et al.* (2012), the LMX plays a role as a mediator between the relationship of trust and performance. Trust will cause the quality of the relationship between leaders and subordinates to increase and the LMX will improve the quality of performance and job satisfaction. Thus, cognitive trust in relation to leader effectiveness requires a mediator such as the LMX.

Nonetheless, a limitation in this research is the potential to have common method bias (Podsakoff *et al.*, 2012). This refers to the correlation coefficients between constructs, which happen when the participants make 'implicit theories' about the relation between the dependent and independent variables when answering the questions. Psychological separation method (Podsakoff *et al.*, 2003) was used to try to overcome this limitation, meaning that when gathering the data we separated the booklet of the independent variables and the dependent variable. Therefore, it is expected that the participants answered the questions without making any 'implicit theories'.

## 5 CONCLUSION

From this study we can conclude that the LMX mediates the relationship between cognitive and affective trust and leader effectiveness in private companies, but not in government companies. In private companies, the LMX fully mediates the relationship between cognitive trust and leader effectiveness, while the LMX only partially mediates the relationship between affective trust and leader effectiveness.

## REFERENCES

- 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, 1173–1182.



- Chan, S.C.H. & Mak, W. (2012) Benevolent Leadership and Follower Performance: The Mediating Role of Leader-Member Exchange (LMX). *Asia Pacific Journal of Management*. 29, 285–301. doi: 10.1007/s10490-011-9275-3.
- Chen, Z., Lam, W. & An Zhong, J. (2012) Effects of Perceptions on LMX and Work Performance: Effects of Supervisors' Perception of Subordinates' Emotional Intelligence And Subordinates' Perception of Trust in The Supervisor On LMX and, Consequently, Performance. *Asia Pacific Journal of Management*. 29, 597–616. doi: 10.1007/s10490-010-9210-z.
- Cho, Y.J. & Poister, T.H. (2014) Managerial Practices, Trust in Leadership and Performance: Case of Georgia Department of Transportation. *Public Personnel Management*. 43(2), 179–196. doi: 10.1177/009102601452316.
- Cummings, T.G. & Worley, C.G. (2009) *Organization Development & Change*. 9th edition. Canada, South-western.
- Cycyota, C.S. & Harison, D.A. (2006) What (Not) to Expect when Surveying Executives A Meta-Analysis of Top Manager Response Rates and Techniques Over Time. *Organizational Research Methods*. 9 (2), 133–160, doi: 10.1177/1094428105280770.
- DeGroot, T., Aime, F., Jhonson, S.G. & Kluemper, D. (2011) Does Talking The Talk Help Walking The Walk? An Examination of The Effect of Vocal Attractiveness in Leader Effectiveness. *The Leadership Quarterly*. 22, 680–689. doi:10.1016/j.leaqua.2011.05.008.
- Dienesch, R.M. & Liden, R.C. (1986) Leader-Member Exchange Model of Leadership: A Critique a Further Development. *The Academy of Management Review*. 11(3), 618–634.
- Eisenberger, R., Shoss, M.K., Karagonlat, G., Gonzalez-Morales, M.G., Wickham, R.E. & Buffardi, L.C. (2014) The Supervisor POS-LMX-Subordinate POS Chain: Moderation by Reciprocation Warmness and Supervisor's Organizational Embodiment. *Journal of Organizational Behavior*. 35, 635–656.
- Ferrin, D.L. & Dirk, K.T. (2002) Trust in Leadership: Meta-Analytic Findings and Implications for Research and Practice. *Journal of Applied Psychology*. 87 (4), 611. doi: 10.1037/0021-9010.87.4.611.
- Field, A. (2009) *Discovering Statistics Using SPSS*. 3rd edition. London, Sage Publications Ltd.
- Gillespie, N.A. & Mann, L. (2004) Transformational Leadership and Shared Values: The Building Block of Trust. *Journal of Managerial Psychology*. 19 (6), 588–607. doi: 10.1108/02683940410551507.
- Graen, G.B. & Uhl-Bien, M. (1995) Relationship-Based Approach to Leadership: Development of Leader-Member Exchange (LMX) Theory of Leadership Over 25 Years: Applying a Multi-Level Multi-Domain Perspective. *Leadership Quarterly*.
- Hannah, S.T., Sumanth, J.J., Lester, P. & Cavaretta, F. (2014) Debunking The False Dichotomy of Leadership Idealism and Pragmatism: Critical Evaluation and Support of Newer Genre Leadership Theories. *Journal of Organizational Behavior*. 35, 598–621. doi: 10.1002/job.1931.
- Hassan, S., Masud, R., Yukl, G. & Prussia, G.E. (2013) Ethical and Empowering Leadership and Leader Effectiveness. *Journal of Managerial Psychology*. 28 (2), 133–146. doi: 10.1108/02683941311300252.
- Hoffman, B.J., Woehr, D.J., Maldagen-Youngjohn, R. & Lyons, B.D. (2011) Great Man or Great Myth? A Quantitative Review of The Relationship Between Individual Differences and Leader Effectiveness. *Journal of Occupational and Organizational Psychology*. 84, 347–381. doi:10.1348/096317909X485207.
- Lee, A.P., Teng, H.Y. & Chen, C-Y. (2015) Workplace Relationship Quality and Employee Job Outcomes in Hotel Firms. *Journal of Human Resources in Hospitality and Tourism*. 14 (4), 398–422.
- McAllister, D.J. (1995) Affect and Cognition Based Trust as Foundations for Interpersonal Cooperation in Organization. *Academy of Management Journal*. 38 (1), 24–59.
- Mintzberg, H. (1980) Structure in 5's: A Synthesis of The Research on Organization Design. *Management Science*. 25 (3), 322–341.
- Paustian-Underdahl, S.C., Walker, L.S. & Woehr, D.J. (2014) Gender and Perception of Leadership Effectiveness: A Meta-Analysis of Contextual Moderators. *Journal of Applied Psychology*. 99 (6), 1129–1145. doi: 10.1037/a0036751.
- Podsakoff, P.M., MacKenzie, S.B. & Podsakoff, N.P. (2012) Sources of Method Bias in Social Sciences Research and Recommendations on How to Control It. *Annual Review of Psychology*. 63, 539–569.
- Podsakoff, P.M. & Podsakoff, N.P. (2003) Common Method Bias in Behavioral Research: A Critical Review of The Literature and Recommendation Remedies. *Journal of Applied Psychology*. 88 (5), 879–903. doi: 10.1037/0021-9010.88.5.879.
- Rockstuhl, T., Dulebohn, J.H., Ang, S. & Shore, L.M. (2012) Leader-Member Exchange and Culture: A Meta-Analysis of Correlates of LMX Across 23 Countries. *Journal of Applied Psychology*. 97 (6), 1097–1130. doi: 10.1037/a0029978.
- Scandura, T.A. & Graen, G.B. (1984) Moderating Effects of Initial Leader-Member Exchange Status on Effects of a Leadership Intervention. *Journal of Applied Psychology*. 69 (3), 428–436.

- Strang, S.E. & Kuhnert, K.W. (2009) Personality and Leadership Developmental Level as Predictors of Leader Performance. *The Leadership Quarterly*. 20, 421–433.
- Swift, P.E. & Hwang, A. (2013) The Impact of Affective and Cognitive Trust on Knowledge Sharing and Organizational Learning. *The Learning Organization*. 20 (1), 20–37, doi: 10.1108/09696471311288500.
- Vidyarathi, P.R., Erdogan, B., Berrin, S., Liden, R.C. & Chaudhry, A. (2014) One Member, Two Leaders: Extending Leader–Member Exchange Theory to a Dual Leadership Context. *Journal of Applied Psychology*. 99 (3), 468–483. doi: 10.1037/a0035466.
- Yang, J., Mossholder, K.W. & Peng, T.K. (2009) Supervisory procedural justice: The mediating roles of cognitive and affective trust. *The Leadership Quarterly*. 20 (2), 143–154.