

The Mediating Role of Leader-Member Exchange in the Relationship between Transformational Leadership and Job performance

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Abstract:

Over the past decades, the theory of transformational leadership (TFL) has become one of the most leadership theories that gained the attention of researchers and practitioners. The purpose of this study is to examine the direct impact of transformational leadership and leader-member exchange (LMX) on job performance, and to examine the mediating role of LMX on the relationship between TFL and job performance. Data was obtained from sample of 467 subordinates and their supervisors. The study depends on hierarchical multiple regression analysis. The results revealed that positive impact of TFL and LMX on job performance, and showed that LMX partially mediated the relationship between TFL and job performance.

Keywords: transformational leadership, leader-member exchange, job performance, in-role performance, extra-role performance

1. Introduction:

Over the past decades, transformational leadership (TFL) theory has become one of the most leadership theories that have captured scholars' attentions (Pastor & Mayo, 2006). Burns, (1978) introduced the concept of transforming leadership for the first time in his book "leadership". TFL theory seeks to explain the extraordinary effects that certain leaders have on their followers (Bass, 1985). Burns, (1978) showed that TFL is viewed as a continuous process which intends to raise the ethical and motivational levels of both leader and followers. Thus, Burns emphasized the ethical dimension of leadership, which has not been infused in any previous leadership theories. In line with Burns' view, Bass, (1985) defined TFL in terms of how the leader affects his/her followers, who tend to trust, admire and respect their leader.

TFL theory hypothesized that leaders who engage in transformational behavior stimulate and motivate their followers to perform beyond expectations (Yukl, 1999). Leaders make these changes in their followers by demonstrating transformational behavior; which tends to transform morale, values, and ideals (Yukl, 1999). Bass, (1985) suggested three ways in which leaders transform the behavior of their followers: increasing their awareness of task significance; getting them to focus on organizational; and activating their higher-order needs.

Bass and Avolio (1990) have identified four dimensions of TFL: idealized influence which means leader's behavior tend to arouse followers' emotions and identify with the leader; inspirational motivation which means leader's behavior tend to motivate and inspire his followers; individualized consideration which means leader's behavior concern for his followers; and intellectual stimulation which refers to leader's behavior that increase followers' awareness and help them to challenge assumptions and take risks.

On the other hand, Job performance considered one of the most famous ways of increasing organizational effectiveness (Singh, 2000). Therefore, increasing job performance is considered one of the most important topics in organizational research (Kahya, 2009). Campbell (1990) defined job performance as employees' behavior in workplace which contributes to organizational goals. According to this definition, job performance encompasses two aspects: in-role performance and extra-role performance. In-role performance is a job specific behavior, including core job responsibilities that are directly linked to technically oriented activities in an organization (Aryee, Chen, & Budhwar, 2004). Extra-role performance is a voluntary behavior in nature and that are directed towards specific individuals or work group or the organization as a whole, to achieve certain benefits to the organization (Van-Dyne, Kamdar, & Joireman, 2008).



Wang, Law, Hackett, Wang, & Chen, (2005) noted that empirical studies on TFL linked TFL to a variety of affective, cognitive, and behavioural outcomes. The empirical studies showed that TFL realized positive impact on job satisfaction (Fisk & Friesen, 2012), organizational commitment, followers' trust in his/her leader (Podsakoff, MacKenzie, Moorman, & Fetter, 1990), followers' creativity (Gumusluoglu & Ilsev, 2009), organizational citizenship behavior (Asgari, Silong, Ahmad, & Abu-Sama, 2008), employee performance (Ghafoor, Qureshi, Khan, & Hijazi, 2011), and extra-role performance (Ritz, Giauque, Varone, &Anderfuhren, 2009). These finding represent a basis for developing the following hypotheses:

H1: TFL will be positively related to in-role performance.

H2: TFL will be positively related to extra-role performance.

Wang et al. (2005) reported that transformational leaders' behavior linked to a variety of affective, cognitive, and behavioural outcomes. Furthermore, they have reviewed several studies on leader-member exchange (LMX) and found that those studies have focused on social exchange quality in dyad. The core of LMX theory was developed by Graen (1976). LMX was the first theory that recognized that leaders differentiate between their followers, and they don't use the same leadership style with all of them (Van-Dyne, Kamdar, & Joireman, 2008). Graen (1976) defined LMX as interpersonal exchange relationships between the leader and each follower.

According to LMX theory, leader-follower relationship may be of a high or low quality (Graen & Uhl-Bien, 1995). In high quality of LMX, the leader and member will exchange mutual trust, support, loyalty professional respect, work contribution and understanding (Keup, 2000). Therefore, followers gain numerous benefits including increased effectiveness of communication, access to the leader support, trust, approval, consideration, autonomy, and favourable job assignments (Graen & Uhl-Bien, 1995). According to social exchange theory, followers are more likely to exchange these benefits with their leaders and organizations (Liden, Sparrowe, & Wayne, 1997).

Empirical studies demonstrated that high quality of LMX realized positive associated with organizational commitment (Ansari, Lee, & Aafaqi, 2007), job satisfaction (Fisk & Friesen, 2012), organizational citizenship behavior (Asgari et al., 2008), creative behavior (Basu & Green, 1997), and employee performance (Erdogan & Enders, 2007). These findings reinforce Graen & Uhl-Bien (1995) conclusion that organizations have a lot to gain when leaders create high-quality relationships with their followers. Based on these findings the following hypotheses can be stated:

H3: LMX will be positively related to in-role performance.

H4: LMX will be positively related to extra-role performance.

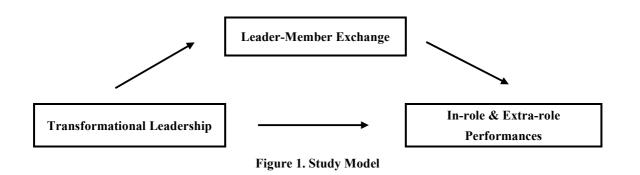
Recently, there has been a research trend to use LMX quality as a mediator between leadership styles and workplace outcomes (Avolio, Walumbwa, & Weber, 2009). Fisk & Friesen (2012) reported evidence from an empirical study which suggests that the outcomes of TFL result from the dyadic relationship between subordinate and his/her leader. Previous studies in this area suggested that LMX mediate the relationship between TFL and task performance (Howell & Hall-Merenda, 1999), organizational citizenship behavior (Wang et al., 2005), creative behavior (Basu & Green, 1997). Those findings can be used as a basis for developing the following hypotheses:

H5: LMX will mediate the relationship between TFL and in-role performance.

H6: LMX will mediate the relationship between TFL and extra-role performance.

Within the above context, the purpose of this article is to test the following model, as shown in figure (1).





2. Methodology:

This section will be exposed to the study sample and its specifications, as well as instruments that will used to measure study variables and statistical methods that will used to test study model.

2.1 Sample:

Sample data were gathered from subordinates and their supervisors from 20 small factories located in New-Damietta industrial zone in Egypt. These factories represent various sectors which include: furniture, marble, metal, paper, and plastic industries. Of the 800 distributed questionnaires, 544 questionnaires were returned. A number of questionnaires were excluded due to some missing data. The final sample size was 467 supervisor-subordinate matched responses thereby reducing the response rate to 58 percent. The study sample was classified according to the respondent's gender into: 71.5 percent of male and 28.5 percent of female; according to respondent's tenure into: percent 22.7 less than or equal 5 years, 38.5 more than 5 years and less than or equal 10 years, and 38.8 more than 10 years tenure; and according to respondent's level of education into: percent 38.8 less than college degree, 55.5 college degree, and 5.8 more than college degree. These demographic variables were inserted in regression models as control variables.

2.2 Measures:

TFL dimensions were measured using a 16-items measurement scale, adopted from Bass and Avolio (1997). Each dimension of TFL was measured using 4-items covering the various aspects of that dimension. To assess TFL dimensions, respondents of subordinates were asked to indicate the extent to which their leaders' engage in behavior of each dimension. Statements such as "Talks to us about his/her most important values and beliefs" were used to measure idealized influence, "Sets high standards" to measure inspirational motivation, "Treats each of us as individuals with different needs, abilities and aspirations" to measure individualized consideration, and "Re-examines critical assumption to questions whether they are appropriate" to measure intellectual stimulation.

LMX was measured using a 7-items measurement scale developed by Scandura and Graen (1984). To assess LMX, respondents of subordinates were asked to indicate the level of quality of their exchange relationships with their supervisors. Statements such as "My working relationship with my supervisor is extremely effective", were used to assess the quality of LMX.

Job performance was measured using a 16-item measurement scale, which was used by Lynch et al., (1999). Nine items of this scale were used to measure in-role performance and seven items to measure extra-role performance. Supervisors were asked to assess in-role performance and extra-role performance of their subordinates. Statements such as "This employee meets formal requirements of the job" were used to assess in-role performance, and "This employee volunteers for things that are not required" to assess extra-role performance.



2.3 Analysis methods:

Cronbach's alpha was used to test validity of study instruments. Then, the study used mean, standard deviation, and correlation coefficient to descriptive sample data. The study also depends on hierarchical multiple regression analysis to test hypotheses from 1 to 4. As well as, the study was used Baron and Kenny approach to test the mediating role. According to Baron and Kenny (1986), the three regression models are employed to evaluate the mediating role of LMX. The first regression model is used to investigate the effect of TFL as independent variable on the LMX as a mediator variable. The second regression model is used to investigate the effect of TFL on job performance as dependant variable. Then, to test the mediating role of LMX, in the third regression model LMX was inserted in the second regression model. In the third regression model, if the effect of TFL on job performance becomes insignificant, this will indicate to complete mediation, but if effect becomes weaker, this will indicate to partial mediation.

3. Analysis:

Table 1 summarize results of descriptive analysis of study variables; means, standard deviation, and correlation matrix. Table 1 also indicated to the results of Cronbach's alpha test, which demonstrated that alpha coefficients of study variables exceeded the critical value 0.7 (Nunnally, 1978). The results of correlation analysis indicated to TFL dimensions realized positive relationship with LMX and the two dimensions of job performance.

Table 1. Means, standard deviations, reliabilities, and correlations matrix of study variables

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Variables	M	SD	α	(1)	(2)	(3)	(4)	(5)	(6)
1.Idealized influence	3.87	0.67	0.80						
2.Inspirational motivation	3.60	0.77	0.89	0.88**					
3.Individualized consideration	3.81	0.73	0.81	0.38**	0.44**				
4.Intellectual stimulation	3.65	1.11	0.95	0.17*	0.20**	0.72**			
5.Leader-member exchange	3.66	0.69	0.83	0.19*	0.27**	0.55**	0.41**		
6.In-role performance	3.64	0.81	0.91	0.32**	0.43**	0.60**	0.32**	0.84**	
7.Extra-roleperformance	4.48	0.42	0.72	0.55**	0.49**	0.53**	0.59**	0.26**	0.41**

^{*} $\rho < 0.05$, ** $\rho < 0.01$

4. Results:

The results as reported in table 2 showed the significance of the regression model of TFL on in-role performance (F=50.71, ρ <0.001; R² = 0.43), and confirmed the significant effects for the four dimensions of TFL: Idealized influence (β =0.27, ρ <0.001), inspirational (β =0.43, ρ <0.001), individualized consideration (β =0.64, ρ <0.001), and intellectual stimulation (β =0.16, ρ <0.01) on in-role performance. Based on these results, the hypothesis 1 is accepted. The results also showed the significant of the regression model of TFL on extra-role performance (F=83.90, ρ <0.001; R²=0.55), and confirmed the significant effects for the two dimensions of TFL: Idealized influence (β =0.56, ρ <0.001), and individualized consideration (β =0.54, ρ <0.001) on extra-role performance. Based on these results, the hypothesis 2 is partially accepted.



Table 2. The effects of transformational leadership on job performance

Variables	In-role performance	Extra-role performance	
variables	ß (sig.)	β (sig.)	
Idealized influence	0.27***	0.56***	
Inspirational motivation	0.43***	0.08	
Individualized consideration	0.64***	0.54***	
Intellectual stimulation	0.16**	0.03	
F (Sig.)	50.71***	83.90***	
R^2	0.43	0.55	

^{*} $\rho < 0.05$, ** $\rho < 0.01$, *** $\rho < 0.001$

The results reported in table 3 showed the significant of regression model of LMX on in-role performance (F=285.92, ρ <0.001; R²=0.71), and confirmed the significant effects for LMX (β =0.84, ρ <0.001) on in-role performance. Based on these results, the hypothesis 3 is accepted. The results also indicated to the significant of regression model of LMX on extra-role performance (F=11.42, ρ <0.001; R²=0.08), and confirmed the significant effects for LMX (β =0.84, ρ <0.001) on extra-role performance. Thus, the hypothesis 4 is accepted.

Table 3. The effects of leader-member exchange on job performance

Variables	In-role performance	Extra-role performance		
	β (sig.)	ß (sig.)		
Leader-member exchange	0.84***	0.26***		
F (Sig.)	285.92***	11.42***		
R^2	0.71	0.08		

^{*} ρ < 0.05, ** ρ < 0.01, *** ρ < 0.001

According to Baron and Kenny (1986), a three-equation regression model is employed to evaluate the mediating role of variable. The first regression model is used to investigate the effect of TFL on the LMX. The second regression model is used to investigate the effect of TFL on job performance. The third regression model is used to investigate the effect of TFL on job performance after inserted LMX in the second regression model. In the third regression model, if the effect of TFL on job performance becomes insignificant, this will indicate to complete mediation, but if effect becomes weaker, this will indicate to partial mediation.

The results, as reported in table 4, showed that significant of the first regression model of TFL on LMX (F=31.30, ρ <0.001; R²=0.31), and confirmed the significant effects for the three dimensions of TFL: idealized influence (β =0.22, ρ <0.01), inspirational motivation (β =0.24, ρ <0.01), and individualized consideration (β =0.50, ρ <0.001) on LMX. The results indicated also to significant of the second regression model of TFL on in-role performance. After inserted LMX in the second model, the results of third model demonstrated that: β of idealized influence reduced from 0.27 to 0.11, ρ changed from ρ <0.001 to ρ <0.05; β of inspirational motivation reduced from 0.43 to 0.26, ρ <0.001; and β of individualized consideration reduced from 0.64 to 0.28, ρ <0.001. These results indicated to LMX partially mediated the relationship among these dimensions of TFL and in-role performance. Based on these results, the hypothesis 5 is partially accepted. By inserting LMX in the regression model of TFL on extra-role performance, the results indicated to β of idealized influence reduced from 0.56 to 0.33, ρ <0.001, and β of individualized consideration reduced from 0.54 to 0.40, ρ <0.001. These results indicated to LMX partially mediated the relationship among these dimensions of TFL and extra-role performance. Based on these results, the hypothesis 6 is partially accepted.



Table 4. A test of the mediating role of leader-member exchange in relationship between transformational leadership and job performance

Variables -	LMX	in-role per	formance	extra-role performance		
	ß (sig.) of first model	β (sig.) of second model	ß (sig.) of third model	β (sig.) of second model	ß (sig.) of third model	
Idealized influence	0.22**	0.27***	0.11*	0.56***	0.33***	
Inspirational motivation	0.24**	0.43***	0.26***	0.08	0.07	
Individualized consideration	0.50***	0.64***	0.28***	0.54***	0.40***	
Intellectual stimulation	0.05	0.16**	0.20**	0.03	0.01	
F (Sig.)	31.30***	50.71***	213.12***	83.90***	84.64***	
R^2	0.31	0.43	0.79	0.55	0.56	

^{*} $\rho < 0.05$, ** $\rho < 0.01$, *** $\rho < 0.001$

5. Discussion:

The results of study indicated to significant positive impact of TFL on both in-role and extra-role performances. Transformational leader can motivate followers through display behavior such as enhancing followers' confidence, express high level of expectations and optimism about the followers' abilities. Thus, transformational leader gets followers to realize levels of performance beyond expectations (Organ, Podsakoff, & MacKenzie, 2006). Therefore, the positive effects of TFL on job performance can interpret in light of TFL theory.

Results also demonstrated positive impact of TFL on LMX. Leader' behavior effects on perception' process of followers. Transformational leader' behavior tend to arouse followers emotions and identify with the leader. Therefore, when leader display transformational behavior, he can enhance followers' perception about the quality of their relationship with him (LMX). Therefore, the positive effects of TFL on LMX can interpret in light of TFL theory.

Results also demonstrated positive impact of LMX on job performance. In high quality of LMX, leader exchange with followers trust, support, loyalty, professional respect, work contribution and understanding (Liden & Maslyn, 1998; Keup, 2000). Therefore, this result can interpret by social exchange theory.

TFL theory hypothesizes that the leader who displays transformational behavior is able to modify followers' values and norms, and reinforce personal changes (Jung & Avolio, 2000). Therefore, the positive outcomes of transformational leadership are more likely happen because of internal state or perception. This is the main reason to study the mediating role of LMX in the relationship between TFL and job performance.

The results showed that LMX quality was partially mediated the relationship between TFL and both in-role and extra-role performances. This result can interpret partially the positive outcomes of TFL on job performance and demonstrate that there are many variables account for the relationship between TFL and job performance. Therefore, the study can interpret the partially role of LMX in light of leader-state-member relationships rather than leader-member relationship.

Graen and Uhl-Bien (1995) suggested that the agreement degree between the leader and member reports should be used as an index of the LMX quality. Therefore, the first limitation of this study is that it measures LMX quality from subordinate's perspective only. Another limitation is related to the type of organizations from which sample employees were selected as those organizations were predominantly small size factories. Finally, this study represents a cross sectional investigations as responses were gathered from respondents at a particular point of time. Results showed that the relationship between TFL and job performance was intervened by multiple mediating variables. Therefore, this study suggests that the effect of TFL on job performance may happen throw multiple



variables such as psychological empowerment and/or job engagement in addition to LMX, which may be future researches.

6. Conclusion

The study of leadership styles is gained much importance to determine employees' behavior at work place. The study results indicated to the following: positive impact of TFL on in-role performance, extra-role performance, and LMX; positive impact of LMX on both in-role and extra-role performances; LMX partially mediated the relationship between TFL and both in-role and extra-role performances. Therefore, the effect of TFL on job performance can be partially interpreted by the quality level of LMX. The study results can be interpreted in the light of TFL, LMX, and social exchange theories. Therefore, the study recommends managers to transform their followers throw display behavior such as enhancing followers' confidence, express high level of expectations, optimism about the followers' abilities, and build good relationships with their followers. These practices will back to the organization in shape of positive outcomes.

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