

# Leader-Member Exchange & Perceived Organizational Justice – An Empirical Investigation

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*This study explored the relationship between the dimensions of two social exchange mechanisms of quality of leader-member exchange (LMX) and perceived organizational justice. Comprehensive multi-dimensional measures of organizational justice perception and quality of leader-member exchange relationship were used for the study. In line with recent and more elaborate measures of organizational justice, the LMX was also operationalized as dyadic and general environment of quality of leader-member exchange. The study was a web based survey of 266 Indian working executives from diverse set of industries. The generalizability of comprehensive measures of multi-dimensional LMX and organizational justice was supported in the Indian context.*

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## **Introduction**

Over the years, considerable interest has been devoted to examining organizational justice. In spite of “fair treatment” being associated with favourable work attitudes and higher job performance, practical progress in justice literature has been limited by conceptual ambiguities on the structure of fairness perceptions (Cropanzano et al. 2002). Similarly, quality of leader-member exchange literature suggests that LMX quality is related to whether subordinates are satisfied as productive members of the organization (Erdogan 2002, Gerstner & Day 1997). Most of the earlier conceptualizations has however treated LMX as a uni-dimensional construct (Bhal, Gulati & Ansari 2008). In a uni-dimensional measurement, possibility of including simultaneously different combinations of aspects of workplace like task focus and social interaction as in “role theory” (Bales 1958) or for that matter, material and non-material rewards like advice, workflow, and friendship as in “social exchange theory” is less. Particularly LMX scales have been criticized for their reliance on narrow samples (Dienesch & Liden 1986) and the need

for these to be validated with different samples and organizations has been stressed (e.g. Liden & Maslyn 1998). The first objective therefore of this study is to assess the generalizability of multidimensional measures of Liden and Maslyn's (1998) LMX-MDM scale and Colquitt's (2001) "organizational justice" scale with the Indian sample. These two scales on both the constructs by far seem to be the most updated in terms of coverage of different facets of the two constructs.

As the overall quality of supervisor-subordinate exchange is likely to have implications for perceptions of fairness (Erdogan 2002) relationship between these are explored as second objective. Justice dimensions however have been found to relate differently with different attitudinal and outcome measures. It is therefore possible that the dimensions show independent behaviour (it has been found to be the case in "justice" literature); therefore relationship involving the sub-dimensions of the two needs to be tested. The present study therefore is likely to add incrementally to the knowhow of the two constructs. In recent years, many studies have tested the relationship between some of the dimensions or in general between the two constructs, but we did not come across any study which has tested the relationship between the sub-dimensions of the two comprehensive measures.

### **Organizational Justice**

Initially works on justice research focused on decision outcomes, termed as *distributive justice* (Adams 1965, Deutsch 1975, Homans 1961, Leventhal 1976). It

pertains to consistency of outcomes with implicit norms for allocation, such as equity or equality. This was followed by works on the justice of the processes that lead to decision outcomes, termed as *procedural justice* (Leventhal 1980, Leventhal, Karuza & Fry 1980, Thibaut & Walker 1975). This in turn was followed by the introduction of *interactional justice*, defined as the interpersonal treatment people receive as procedures are enacted (Bies & Moag 1986). It emphasizes on the importance of truthfulness, respect, propriety and justification as fairness criteria of interpersonal communication. In practice these four criteria have been researched along two dimensions: explanations and sensitivity (e.g. Greenberg 1990).

Particularly in the Indian context, even most of the recently published studies have concentrated on three dimensional structure of justice (e.g., Aggarwal-Gupta & Kumar 2010, Bhal & Gulati 2006, 2007, Aryee, Budhwar & Chen 2002). Therefore, testing for and finding support or otherwise for the four dimensional operationalization of justice is likely to lead to further development of organizational justice literature in Indian context.

*Research Question 1: Does Colquitt's (2001) four dimensional measure of organizational justice empirically hold true for Indian sample?*

### **Quality of Leader-Member Exchange**

Traditionally, LMX has been treated as a global or uni-dimensional construct that represents a measure of the general

quality of the exchange relationship between a supervisor and a subordinate (Graen & Scandura 1987). Dienesch and Liden (1986) argued that there is no clear theoretical or empirical justification for the traditional conceptualization of LMX as a uni-dimensional construct (also see Bhal & Gulati 2006). Rather, these researchers maintained that the theoretical underpinnings of LMX theory (e.g. role theory, social exchange theory) are more consistent with a multidimensional perspective. Liden and Maslyn (1998) based on a call by Dienesch and Liden (1986), developed a multidimensional scale (the LMX-MDM) designed to measure subordinate LMX perceptions including four different exchange 'currencies': perceived contribution to the exchange (contribution), expressions of public support (loyalty), mutual affection (affect), and professional respect.

Specifically in the Indian context, studies have not yet capitalized on recent advances on LMX theory. Typical lines of research in Indian context are by Bhal and Ansari (1996) and Bhal and Gulati (2006, 2007). Exception is by Van Dyne, Kamdar and Joireman (2008). Even Van Dyne et al. (2008) study does not consider the differential effects of sub-dimensions. Going a step further from Liden & Maslyn's (1998) model, we have operationalized LMX as perception of LMX at dyadic level and at general level in the organization, more in line with logic of justice directed at two levels. A detailed discussion on the same is not in the scope of this work. The proposed factor structure for LMX therefore is that of two levels of latent factors, dimension of

dyadic exchange perceptions consisting of affect and loyalty dimension and dimension of general exchange perception consisting of perceived contribution and professional respect dimension.

*Research Question 2:* Do Liden & Maslyn's (1998) as well as modified version of their four dimensional measure of quality of LMX empirically hold true for Indian sample?

LMX quality may influence perceived procedural justice as organizational processes (e.g. performance appraisal) occur within the context of an ongoing relationship between the leader and the member. High LMX employees tend to perceive higher decision influence in general (Scandura, Graen & Novak 1986) on account of better dynamics in terms of trust, respect, affect, and openness with the supervisors. Those high in perceived LMX quality therefore may feel that they have more control over procedures because of their exchange quality (Erdogan 2002). Therefore, LMX may be thought of as an antecedent of procedural justice perceptions (Erdogan 2002).

**In high-quality relationships, leaders are less likely to behave in an authoritarian manner and use their formal authority.**

LMX quality is also likely to influence interactional justice perceptions. In high-quality relationships, leaders are less likely to behave in an authoritarian manner and use their formal authority (Fairhurst & Chandler 1989). As a re-

sult, if overall exchange quality is high, subordinates may feel that they are being treated fairly and respectfully during the organizational processes because the supervisors may behave more sensitively. LMX quality is likely to increase the expectations of employees from their supervisors. They for example, expect to hear the news regarding decisions affecting them directly from their leaders (Mansour-Cole & Scott 1998). Therefore, high LMX employees may be more sensitive to their rating level and in turn to the notion of distributive justice as low ratings may disturb them more than low LMX employees (Erdogan 2002).

However justice dimensions have been found to relate differently with different attitudinal and outcome measures. For example, interactional justice has been found to affect individual level or agent variables (e.g. leader-member exchange perceptions, satisfaction with supervisor, and supervisor ratings of performance) more than procedural justice. In contrast, procedural justice has a greater effect on a system variable (e.g. trust in management) (Moye, Masterson & Bartol 1997). Similarly, distributive justice predicts less variation in performance and broader organizational perceptions (Konovsky & Cropanzano 1991, Robbins, Summers & Miller 2000, Sweeney & McFarlin 1993). Also, the two dimensions of interactional justice have been shown to have effects independent of one another (e.g. Bies, Shapiro & Cummings 1988, Greenberg, 1993, 1994, Shapiro, Buttner & Barry 1994). Therefore it is expected that the

four dimensions of justice will relate differently to different phenomena.

*Research Question 3:* Do the different dimensions of Liden & Maslyn's (1998) measure of quality of LMX empirically relate similarly to the dimensions of justice perception?

### Sample & Procedure

A convenience sample of working people was used through a web based survey. A total of 1000 e-mail based requests for completing the survey were sent to the targets. The purpose of the study along with the approximate time needed to complete the survey was communicated in the introduction. The respondents were requested in bold letters to take the survey only when they had some spare time in their hands. A total of 275 respondents filled in the items on quality of LMX and justice perception. Out of this, a total of 266 completed responses were considered for analysis.

### Measures

*Leader Member Exchange:* Liden & Maslyn's (1998) measure of multidimensional LMX has been considered to measure leader-member exchange quality. Dimensions of affect, loyalty, contribution and professional respect included a total of 12 items. The items of contribution and professional respect dimensions were modified to reflect the generalized perception of LMX quality and not dyadic. Therefore this study included both interpersonal and organizational level perceived quality of exchange mea-

Table 1: Means, Standard Deviations, and Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Age <sup>a</sup>														
2 Gender <sup>b</sup>	-.04													
3 Marital Status <sup>c</sup>	.47**	.1												
4 Education Level <sup>d</sup>	.10	.05	.05											
5 Tenure <sup>e</sup>	.66**	.01	.30**	-.01										
6 Total Work Experience	.89**	-.05	.45**	.03	.77**									
7 Affect LMX	.17**	-.14*	.00	-.03	.19**	.20**	(.92)							
8 Loyalty LMX	.14*	-.14*	.06	-.02	.15*	.20**	.67**	(.87)						
9 Contribution LMX	.06	-.01	-.00	-.07	.01	.07	.17**	.19**	(.84)					
10 Respect LMX	.01	-.12*	-.1	.05	-.06	-.01	.33**	.36**	.49**	(.78)				
11 PJ	.01	-.05	-.04	-.13*	.05	.12	.41**	.38*	.31**	.39**	(.88)			
12 DJ	.14*	-.05	-.02	-.08	.04	.16**	.33**	.30**	.22**	.31**	.65**	(.96)		
13 IJ	.09	-.02	.04	.06	.03	.13*	.39**	.40**	.17**	.32**	.42**	.34**	(.93)	
14 Infojust	.05	-.01	-.04	-.04	-.01	.07	.44**	.42**	.25**	.33**	.69**	.53**	.61**	(.90)
15 M	27.92	1.23	1.27	3.59	31.77	54.14	9.82	9.94	10.18	10.83	20.54	11.79	16.01	15.88
16 S.D.	5.13	.42	.44	.64	40.70	57.54	3.45	3.22	2.97	2.49	6.93	5.46	4.40	5.87

Note: N = 266 The Cronbach's alpha internal consistency reliability estimates are on the diagonals.

a. Age: 1 = below 25; 2 = 25 to below 30; 3 = 30 and above.

b. Gender: 1 = male; 2 = female.

c. Marital Status: 1 = single; 2 = married.

d. Education: 1 = intermediate and below; 2 = 3 years bachelors; 3 = 4 years bachelors; 4 = post graduate; 5 = Ph. D.

e. Tenure & Total Work Ex. : 1 = less than a year; 2 = less than two years; 3 = less than three years; 4 = less than 4 years; 5 = 4 years or more

\*p < .05. \*\*p < .01.

tures. Only subordinates' responses were collected.

*Justice Perception:* This study measured justice perception based on Colquitt (2001) scale. Based on earlier seminal works, Colquitt (2001) developed a 20 item scale of organizational justice. The measure contained 7 items on procedural justice, 4 items on distributive justice, 4 items on interpersonal justice, and 5 items on informational justice.

*Demographics:* Demographic variables of age, gender, education level, tenure, and total work-experience have been considered as control variables for the purpose of this study.

### **Descriptive Statistics & Correlations of Variables**

Table 1 presents the means, standard deviations, and zero-order correlations of all key variables. All the dimensions of LMX are significantly and positively correlated among themselves. Similar is the case for the dimensions of justice. Additionally the dimensions of two constructs are also significantly and positively correlated.

### **Discriminant Validity**

We began by conducting a series of CFAs using AMOS 18.0 to examine the distinctiveness of the multi-item variables for LMX and Justice in our model. For LMX model, the distinctiveness of the four suggested constructs was tested by contrasting a nested model in which factors of affect and loyalty loaded onto in-

terpersonal LMX dimensions while factors of contribution and professional respect loaded onto General LMX dimension; the two higher order dimensions in turn loading on latent factor of LMX against four, three, two and one factor alternative models. The overall model's chi-square, the GFI (Jöreskog & Sörbom 1984), the CFI (Bentler 1990), the TLI (Tucker & Lewis 1973), and the RMSEA (Browne & Cudeck 1993) were used to assess model fit. As shown in Table 2, the fit indexes revealed that the hypothesized model fit the data well,  $\chi^2/DF = 1.746$ ,  $p < .01$  (GFI = .952, NFI = .958, CFI = .981, TLI = .975, RMSEA = .053), and considerably better than the alternative models. The 4 factor alternative model was constructed by each dimension of affect, loyalty, contribution and respect coming from a latent LMX factor. The 3 factor model was constructed by including items of affect and loyalty dimensions directly on a single factor and items of contribution and respect dimensions on two separate dimensions leading to a three dimensional structure. The 2 factor model was constructed by including items of affect and loyalty dimensions directly on a single factor and items of contribution and respect dimensions directly on another single factor. The one factor model included all items of four factors directly on a single factor. The fit indexes of the alternate models established the superiority of hypothesized model. Even the four factor model had satisfactory indices on most of the fit measures. Overall, the comparative test for dimensions of LMX lent support to Liden and Maslyn's (1998) and proposed structure.

**Table 2 Model Fit Statistics of Comparative Models of Leader-Member Exchange Quality (LMX)**

Sl. No.	Model	CMIN/DF <sup>a</sup>	GFI <sup>b</sup>	NFI <sup>c</sup>	TLI <sup>d</sup>	CFI <sup>e</sup>	RMSEA <sup>f</sup>
1.	LMX 4 Factors Model - Nested (Hypothesized)	1.746	.952	.958	.975	.981	.053
2.	LMX 4 Factors Model	2.663	.928	.934	.944	.958	.079
3.	LMX 3 Factors Model	5.112	.871	.840	.862	.893	.125
4.	LMX 2 Factors Model	9.196	.750	.759	.724	.778	.176
5.	LMX 1 Factor Model	16.746	.594	.554	.470	.566	.244

Note: a. CMIN/DF = Chi-square per degree of freedom  
 b. GFI = Goodness of Fit Index  
 c. NFI = Normed Fit Index  
 d. TLI = Tucker-Lewis Index  
 e. CFI = Comparative Fit Index  
 f. RMSEA = Root Mean Square Error of Approximation

**Table 3 Model Fit Statistics of Comparative Models of Justice**

Sl. No.	Model	CMIN/DF <sup>a</sup>	GFI <sup>b</sup>	NFI <sup>c</sup>	TLI <sup>d</sup>	CFI <sup>e</sup>	RMSEA <sup>f</sup>
1.	Justice 4 factor Model - Nested (Hypothesized)	2.304	.875	.916	.944	.951	.070
2.	Justice 3 factors Model	5.613	.795	.662	.800	.824	.132
3.	Justice 2 factors Model	7.733	.715	.615	.708	.741	.159
4.	Justice 1 factor Model	12.187	.483	.547	.516	.567	.205

Note: a. CMIN/DF = Chi-square per degree of freedom  
 b. GFI = Goodness of Fit Index  
 c. NFI = Normed Fit Index  
 d. TLI = Tucker-Lewis Index  
 e. CFI = Comparative Fit Index  
 f. RMSEA = Root Mean Square Error of Approximation

**The comparative test for dimensions of “Justice” lent support to Colquitt’s (2001) proposed structure.**

Similarly for “Justice” model, the hypothesized four factor model was contrasted against competing models. As shown in the Table 3, the fit indexes revealed that the hypothesized model fit the data well,  $\chi^2/DF = 2.304$ ,  $p < .01$  (GFI = .875, NFI = .916, CFI = .951,

TLI = .944, RMSEA = .070), and considerably better than the alternative models. The 3 factor alternative model was constructed by putting items of interpersonal justice and informational justice onto a single factor and distributive and procedural justice as two separate factors. The 2 factor model was constructed by including items of procedural, interpersonal, and informational justice as one dimension and distributive justice as another dimension. The one factor model included all items of

four factors directly on a single factor. The fit indexes of the alternate models established the superiority of hypothesized model. Overall, the comparative

test for dimensions of “Justice” lent support to Colquitt’s (2001) proposed structure.

**Table 4 Regression Analyses of Justice Dimensions on Dimensions of Exchange Quality**

	Procedural Justice		Distributive Justice		Interactional Justice		Informational Justice	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Control Variables								
Age	.03	.05	.11	.12	-.04	-.04	.05	.07
Gender	-.03	.05	-.03	.03	.01	.09	.01	.09
Marital Status	-.06	-.04	-.02	.00	-.00	.00	-.06	-.05
Educational Level	-.13**	-.13**	-.12*	-.12**	.06	.06	-.05	-.05
Tenure	-.07	-.10	-.18**	-.21***	-.13*	-.16**	-.12*	-.16**
Total Work Experience	.08	.04	-.00	-.03	.21**	.20***	.04	.02
Independent Variables								
Affect		.25***		.23***		.23***		.30***
Loyalty		.12		.08		.18**		.16**
Contribution		.13**		.10		-.01		.11*
Professional Respect		.21***		.17**		.19***		.13**
$R^2$	.03	.29	.04	.22	.03	.25	.02	.29
$F$	1.13	10.44	1.88	7.03	1.33	8.51	0.66	10.30
“ $R^2$ ”	.03	.26***	.04*	.17***	.03	.22***	.02	.27***
“ $F$ ”	1.13	23.45	1.88	14.18	1.33	18.73	0.66	24.41

Note: \* $p < .1$ , \*\* $p < .05$ , \*\*\* $p < .01$ .

To test our third research question, we conducted a two-step hierarchical multiple regression analysis. First, the control variables were entered into the regression equation followed by dimensions of LMX in the second step. Table 4 presents results of the hierarchical regression analyses. Regarding relationship of procedural justice with dimensions of LMX, affect ( $\hat{\alpha} = .25, p < .01$ , Model 2), contribution ( $\hat{\alpha} = .13, p < .05$ , Model 2), and professional respect ( $\hat{\alpha} = .21, p < .01$ , Model 2) dimensions are

significantly and positively related with procedural justice. Affect ( $\hat{\alpha} = .23, p < .01$ , Model 4) and professional respect ( $\hat{\alpha} = .17, p < .05$ , Model 4) dimensions are significantly and positively related to distributive justice. The relationships of interactional and informational justice dimensions of interpersonal justice with the dimensions of LMX were tested separately. Affect ( $\hat{\alpha} = .23, p < .01$ , Model 6), loyalty ( $\hat{\alpha} = .18, p < .05$ , Model 6), and professional respect ( $\hat{\alpha} = .19, p < .01$ , Model 6) dimensions are

significantly and positively related to interactional justice. Affect ( $\hat{\alpha} = .30, p < .01$ , Model 8), loyalty ( $\hat{\alpha} = .16, p < .05$ , Model 8), contribution ( $\hat{\alpha} = .11, p < .1$ , Model 8) and professional respect ( $\hat{\alpha} = .13, p < .05$ , Model 8) dimensions are significantly and positively related to informational justice. Thus in response to research question 3, the results of the study show that the individual dimensions of LMX are differently related with individual dimensions of justice.

**Individual dimensions of LMX are differently related with individual dimensions of justice.**

## **Discussion**

This study tested the factor structures of four dimensional nested constructs of LMX and “justice”. Comparative models for both the structures found support from the data. The dimensions of LMX were found to relate differently with the individual dimensions of justice. Procedural justice did not relate significantly with loyalty dimension. Distributive justice as has been the case in general in literature was expected to relate less with the dimensions of LMX too. Perhaps for the same reason, the four dimensions cumulatively could explain only 17% of variance in distributive justice, the lowest figure among the four dimensions of justice (the figures are 26%, 22%, and 27% for procedural justice, interactional justice, and informational justice respectively) explained by four dimensions of LMX. It however related significantly with affect and professional respect dimensions of LMX. Inter-

actional justice did not relate significantly with contribution dimension (the relationship was practically non-existent and surprisingly in negative direction). Informational justice related significantly with all the four justice dimensions; the relationship with contribution dimension however was small.

Contribution dimension of LMX did not relate significantly with distributive and interactional justice. The result was all the more surprising given earlier finding in the Indian context wherein “perceived contribution” was related with interactional justice (Bhal 2005). Perhaps it is on account of slight ambiguity in the structure of interpersonal justice, as its position (issues of overlap with procedural justice dimension) has been on slightly shaky empirical foundation and the expected weak relationship in general with distributive justice that the two results were non-significant. In addition, Loyalty dimension of LMX had non-significant relationship with procedural and distributive justice. Loyalty dimension is more in line with individual support from the supervisor whereas affect dimension talks of liking, perceived contribution in terms of one’s contribution to task related activities, and professional respect in terms of knowledge and skill on tasks. As procedural and distributive justice pertain to aspects of system whereas comparatively interactional and informational justice perceptions talk more in terms of interpersonal justice, it is likely that with changes in perception of support, there may be change in perceived interpersonal justice but system level justice perception may be insensitive to such changes.

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### **Implications for Research**

In the last couple of years, increasing number of empirical studies involving both LMX and justice has been undertaken. Some of them have been in the Indian context too (e.g., Bhal 2005, 2006, 2007). However, we did not come across any study which tested the differential effects of dimensions of LMX on different dimensions of justice. Particularly, we did not come across any study which included in its design as comprehensive a model of factor structures of the two constructs as in this study. The differential results for different dimensions point towards the need to consider individual dimensions in interpretation of results in studies. Researchers therefore, need to move beyond the more simplistic usage of one-dimensional scales. In the use of multi-dimensional scale, researchers also need to take into consideration the nuances of individual dimensions apart from concluding outcomes from the aggregated results of multi-dimensional constructs.

### **Implications for Practice**

As a leader generally has limited time and energy at his/her disposal, he/she is unable to give equal attention to all followers. The satisfying tendency of the leader in terms of connecting more with a few subordinates has possibly negative consequences for organizations in terms of issues of in-group and out-group. Constructs like justice in such situations may play a pivotal role in moulding the perception of individual employees. Those members who are in out-group of leaders but have a high sense of fairness may

give more of organizationally desirable outcomes than those who perceive less sense of fairness. In the light of the same argument, it is likely to be relevant and helpful for managers to not only ensure that the members are high on perception regarding different dimensions of LMX but also perceive sense of fairness in organizational and managerial practices.

### **Limitations**

The operationalization of LMX could have been done by measuring the four dimensions each directed at both individuals and the organization instead of the two directed at individuals and two at the organization. In addition, the “measure” did not take the supervisor perspective on quality of exchange. Also, the issues of common method variance (CMV) need to be taken care of. It however needs to be noted that CMV was not a concern in this study as observed through factor structure (not reported in the text).

### **Future Scope**

More research needs to be taken to test the generalizability of the results. Not only the kind of relationship between the dimensions of the two constructs, but their interaction in the presence of personality, attitudinal, and outcome variables needs to be explored. Particularly, the unexpected result for contribution dimension not relating significantly with interactional justice needs to be clarified through further research on the same. Study of designs involving perceptions of dyadic and global LMX as well as supervisors’ and subordinates’ perceptions of

the relationship (for exception see Varma, Srinivas & Stroh 2005) needs to be explored. Organizations need to ensure that managers are trained to be sensitive to feelings of subordinates and how to make systems and processes in the organization more sensitive to sense of fairness at both system and interpersonal levels.

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