



Leader-member exchange and attitudinal outcomes: role of procedural justice climate

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Abstract

Purpose – Building upon the “fair exchange in leadership” notion (Hollander; Scandura), the purpose of this paper was to hypothesize the mediating impact of procedural justice climate on the relationship between leader-member exchange (LMX) and two attitudinal outcomes: organizational commitment and turnover intentions.

Design/methodology/approach – A total of 224 managers voluntarily participated in the study. They represented nine multinational companies located in northern Malaysia. Data were collected by means of a structured questionnaire containing widely used scales to measure LMX (contribution, affect, loyalty, and professional respect), procedural justice climate, organizational commitment (affective, normative, and continuance), and turnover intentions. After establishing the goodness of measures, hypothesized relationships were examined using Structural Equation Modeling (SEM). While commitment and LMX were, respectively, conceptualized as 3- and 4-dimensional constructs, procedural justice climate and turnover intentions were each treated as unidimensional constructs.

Findings – Whereas hypotheses for direct effects received low-to-moderate support, the mediation hypothesis received substantial support only in the case of professional respect dimension of LMX.

Research limitations/implications – The study has obvious implications for leader-member exchange and procedural justice in organizations. Though findings are in line with those in the past research, they should be viewed with caution – given the nature of cross-sectional data.

Originality/value – Management needs to pay attention to the quality of LMX, as today’s employees look for mutual trust.

Keywords Leaders, Job satisfaction, Employee turnover, Malaysia

Paper type Research paper

Introduction

Does the quality of relationship between leader and members matter in inculcating positive employee attitudes such as commitment and intention to stay with the organization? The answer seems to be in the affirmative – given a great deal of recent research (e.g. see Ang *et al.*, 2005; Bhal and Ansari, 2007; Graen, 2006; Harris *et al.*, 2007; Krishnan, 2004; Lapierre *et al.*, 2006; Lee, 2005; Lee and Ansari, 2005; Sparrowe

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et al., 2006) in the fields of organizational behavior, leadership, and industrial/organizational psychology. However, what is not clearly known is the mechanism that operates between leader-member exchanges (LMX) and attitudinal outcomes such as commitment and turnover intentions (Scandura, 1999). This paper addressed this question by combining the critical mediating role of procedural justice climate (i.e. the perceived fairness of the company policies and procedures used to determine outcomes) in the LMX-attitudinal outcomes relationship.

A review of the literature (Gerstner and Day, 1997; Graen, 2006; Graen *et al.*, 2006; Hackett *et al.*, 2003; Liden *et al.*, 1997; Schriesheim *et al.*, 1999) indicates that LMX significantly relates to a number of attitudinal outcomes. While a great deal of research has studied the link between LMX and commitment, surprisingly less research has examined the relationship between LMX and turnover intentions (Liden *et al.*, 1997). The rationale behind all these studies has been that employees having positive work attitudes are better performers and are less likely to leave their job or organization than those who have negative or less positive attitudes (Porter *et al.*, 1974). However, relatively little is known about the relationship between LMX and procedural justice climate. Also, it is not known as to what mechanism operates between LMX and attitudinal outcomes – commitment and turnover intentions (Scandura, 1999). Therefore, the fundamental objective of the present research is to conduct a test of a process model of LMX, procedural justice climate, and employee work attitudes.

The present study is a follow-up to the research on LMX, justice climate, and attitudinal work outcomes and contributes to the existing leadership literature in four ways. First, based on the existing literature, the present study examines a possible antecedent (mediator) – procedural justice climate – of attitudinal outcomes, borrowed from organizational justice and organizational climate literature. This antecedent represents an assessment by the individual employees about the overall fairness of their work environment. Second, this study is a follow up on the research of attitudinal outcomes by examining the mediating effect of procedural justice climate on the relationship between LMX and two attitudinal outcomes (organizational commitment and turnover intentions). Third, most previous studies have treated LMX and organizational commitment as unidimensional constructs. This study conceptualizes them as multi-dimensional constructs. Given the multi-dimensionality of the constructs, it contrasts the differential impact of LMX. Fourth, most studies on LMX, procedural justice, organizational commitment, and turnover intentions have been conducted in the West. This study adds to the literature by testing a mediation model in the Malaysian context. It would be interesting to examine LMX theory in the Malaysian context, because this context is unique in the sense that it is high on power distance and high on collectivism (Hofstede, 1991) and high on humane orientation (Gupta *et al.*, 2002).

Theoretical background and development of hypotheses

LMX and attitudinal outcomes

The LMX theory states that leaders develop different kinds of relationship with different subordinates within work groups and therefore they exhibit different styles of leadership (Dansereau *et al.*, 1975; Graen and Cashman, 1975; Graen *et al.*, 1982; Graen and Scandura, 1987; Scandura and Graen, 1984). Past research (e.g. Dansereau *et al.*, 1975; Graen and Cashman, 1975) indicates that approximately 90 percent of all work

units are differentiated in terms of the quality of exchange relationships represented. The exchange relationships are characterized by mutual trust, respect, liking, and reciprocal influence (Dansereau *et al.*, 1975). These relationships become increasingly vital for organizations to learn how to build mutual subordinates-supervisor interpersonal trust and support relations in order to achieve greater commitment from the subordinates.

The quality of LMX relationship has been considered fundamental to employee attitudes and behavior (Jablin, 1979; Napier and Ferris, 1993). In this study, LMX is presumed to be an important antecedent of perceived procedural justice climate, which in turn would act as an antecedent of attitudinal outcomes. Past research has shown that LMX has significant relationships with many important outcomes. For instance, it is positively related to several work outcomes such as organizational commitment, satisfaction with supervision, supervisory ratings of job performance, satisfaction with work, content-specific citizenship, safety commitment and accidents, and frequency of promotions (Ang *et al.*, 2005; Bhal and Ansari, 2007; Graen *et al.*, 1982; Hofmann *et al.*, 2003; Pellegrini and Scandura, 2006; Schriesheim *et al.*, 1999). Specifically, LMX positively relates to organizational commitment (Kee *et al.*, 2004; Duchon *et al.*, 1986; Kinicki and Vecchio, 1994; Settoon *et al.*, 1996; Wayne *et al.*, 1997), and negatively relates to turnover intentions (Ansari *et al.*, 2000; Harris *et al.*, 2005; Vecchio and Gobel, 1984; Wayne *et al.*, 1997).

However, in most of the studies cited above, LMX and organizational commitment have been treated as unidimensional constructs. As with other approaches to leadership research, recent empirical studies suggest that exchange relationship between leader and members has to be multidimensional (Bhal and Ansari, 1996; Dienesch and Liden, 1986; Liden and Maslyn, 1998; Liden *et al.*, 1997). A multidimensional perspective may help understanding the relationship between various exchange qualities and various attitudinal outcomes. Given this argument, the present study treats LMX as a 4-dimensional construct: affect (the mutual affection members of the dyad have for each other based on interpersonal attraction); loyalty (the expression of public support); contribution (perception of the current level of work-oriented activity each member of the dyad puts forth); and professional respect (perception of the degree to which each member of the dyad has built a reputation of work-related activity) (Liden and Maslyn, 1998).

Liden and colleagues (Liden and Maslyn, 1998; Liden *et al.*, 1997) suggest that the effect of one LMX dimension can be distinguished from another dimension. It has been argued that contribution currency of LMX is work-related exchange that should relate more strongly to such outcomes as job performance than to attitudinal outcomes. On the other hand, affect, respect, and loyalty (which are based on interpersonal attraction, professional respect, and faithfulness) should correlate more strongly with attitude-related outcomes such as satisfaction, commitment, and turnover intentions than with job performance.

The Malaysian society (organizations) has been characterized as hierarchical – that is high on power distance (Hofstede, 1991). GLOBE studies (Gupta *et al.*, 2002) have found Malaysia at the top among the Southern Asia cluster on humane orientation (i.e. the degree to which a collective encourages and rewards individuals for being fair, generous, altruistic, caring, and kind to others). More recently, it has been found that Malaysians have strong preference for maintaining hierarchical relationships

(Abdullah, 1996; Ansari *et al.*, 2004). In high power distance cultures such as Malaysia, subordinates have the tendency to yield to superior authority and respect hierarchical relationships, and they expect their leaders to be paternalistic (Farh and Cheng, 2000). In other words, leading in Malaysia is leading hierarchical relationships (Ansari *et al.*, 2004; Kennedy, 2002). Similarly, maintaining harmonious relationship is important in a collectivist society (Triandis, 1994). Based on these evidence, it is anticipated that two currencies of LMX – affect and professional respect – that fit well in the cultural rubrics of Malaysia will have greater impact on attitudinal outcomes.

As with LMX, the present study treats organizational commitment as a 3-dimensional construct: affective (emotional attachment to, identification with, and involvement in the organization), continuance (perceived costs associated with leaving the organization), and normative (perceived obligation to remain in the organization) (Meyer and Allen, 1991; Meyer *et al.*, 1993; Meyer *et al.*, 2001). In a recent meta-analytic review, Meyer *et al.* (2001) have found that the three components of commitment are related yet distinguishable from one another on organizationally-relevant and employee-relevant outcomes. It has been found that affective and normative commitment are generally related to positive antecedents and outcomes, whereas continuous commitment is negatively or unrelated to those antecedents and outcomes (Meyer *et al.*, 2001). Thus treating LMX and organizational commitment as multidimensional constructs and turnover intentions as a unidimensional construct, the following hypotheses were offered for empirical verifications:

- H1a.* LMX has a positive relationship with organizational commitment. Specifically, relative to other dimensions (contribution and loyalty), affect and professional respect dimensions of LMX have stronger impact on affective and normative commitment than on continuance commitment.
- H1b.* LMX has a negative relationship with turnover intentions. Specifically, relative to other dimensions (contribution and loyalty), affect and professional respect dimensions of LMX have stronger negative impact on turnover intentions.

Procedural justice climate and attitudinal outcomes

Initially, researchers have conceptualized fairness (justice) in terms of two broad categories: procedural justice (the fairness of the policies and procedures used to determine outcomes) and distributive justice (the fairness of the outcomes). In general, distributive justice may be a more important predictor of personal outcomes such as pay satisfaction, whereas procedural justice may have strong impact on attitudes such as organizational commitment and trust in management (Folger and Konovsky, 1989; Lind and Tyler, 1988; McFarlin and Sweeney, 1992). Research conducted over the past two decades indicates that fairness of organizational policies and procedures significantly affects individual behavior at work (Leventhal *et al.*, 1980; Thibaut and Walker, 1975). Individuals are more concerned with procedural justice (i.e. the fairness of the decision-making procedures) than with distributive justice (Greenberg, 1986, 1990; Lind and Tyler, 1988; Sheppard *et al.*, 1992).

Past research has treated procedural justice both as the individual- and the group-level phenomena (Lind and Tyler, 1988). The individual-level phenomenon is based on the “self-interest” or “instrumental” model that suggests, “which is fair is that

which benefits the individual” (Naumann and Bennett, 2000, p. 881). In contrast, the group-level phenomenon is based on the “relational model” that suggests that groups specify norms concerning fairness (Tyler and Lind, 1992). Group membership is a powerful aspect of social life because the group offers more than material rewards. Individuals are strongly affected by identification with groups – even when that identification is based on minimal common circumstances (Brewer and Kramer, 1986). Thus, this conceptualization links procedural justice to its social context. While the self-interest model has received adequate attention in the organizational literature and recognized the importance of relational model (Lind *et al.*, 1998), researchers seem to have begun conceptualizing procedural justice as a climate construct (Mossholder *et al.*, 1998; Naumann and Bennett, 2000).

According to Schneider *et al.* (2000, p. 22), “the sense people make of the patterns of experiences and behaviors they have, or other parties to the situation have, constitutes the climate of the situation.” It follows that individuals observe their other group members and form an overall impression about how procedures experienced by the other group members influence them (James and Cropanzano, 1990). Thus, procedural justice climate has been conceptualized as “distinct group-level cognition about how a work group as a whole is treated” (Naumann and Bennett, 2000, p. 882). Past research (e.g. Schneider *et al.*, 2000) indicates that many different climates may exist in a single organization, such as climate for service, climate for safety, and climate for innovation. Given this conceptualization, it is argued that the climate for procedural justice might exist as well (Naumann and Bennett, 2000).

According to Tyler and Lind (1992), procedural fairness might be used as the basis by which employees establish longer relationships with their employers, enhancing their loyalty toward the organization. Following Lind and Tyler’s (1988) self-interest model, several studies have been conducted to support the notion that perceptions of procedural justice positively correlate with organizational commitment (Kee *et al.*, 2004; Folger and Konovsky, 1989; Martin and Bennett, 1996; Masterson *et al.*, 2000; McFarlin and Sweeney, 1992; Sweeney and McFarlin, 1993) and negatively correlate with withdrawal cognitions (Ansari *et al.*, 2000; Dailey and Kirk, 1992; Masterson *et al.*, 2000). However, no empirical studies seem to be available in the organizational behavior or leadership literature based on Lind and Tyler’s (1988) group-value model linking procedural justice climate with employee attitudes. It is argued that leaders base their relationships with their subordinates on exchange relationships. Subordinates should be more committed when they perceive outcomes to be administered under fair procedures. Thus, based on the studies following self-interest model and the theoretical arguments, the following hypotheses were stated:

H2a. Procedural justice climate has a positive relationship with organizational commitment. The relationship is stronger with affective and normative commitment than with continuance commitment.

H2b. Procedural justice climate has a negative relationship with turnover intentions.

LMX and procedural justice climate

Leader-member exchange (LMX) has been shown to be associated with perceptions of organizational climate. For example, Kozolowski and Doherty (1989) found a strong

positive relationship between LMX and positive climate. Dunegan *et al.* (1992) also reported a similar relationship. In order to test if procedural justice climate mediates the relationship between LMX and attitudinal outcomes, it is essential to show that LMX correlates with procedural justice climate (Baron and Kenny, 1986). Based on Hollander's (1978) notion of "fair exchange in leadership," Scandura (1999) recommends that LMX be studied in the organizational justice perspective. According to her, previous research findings concerning the relationship between LMX and organizational outcomes are equivocal. The discrepancies in empirical studies may be attributed to the neglect of the moderator or mediating role of other potential variables, such as organizational fairness. The fact that little is known about the relationship between LMX and justice is qualified in the statement that "the role that justice plays . . . in paradigms of leadership . . . has only recently begun to receive research attention" (Pillai *et al.*, 1999, p. 763). However, a few studies (e.g. Alexander and Ruderman, 1987; Manogran *et al.*, 1994) do indicate that LMX is positively related to procedural and interactional justice. In line with these studies, it was hypothesized:

- H3. LMX has a positive relationship with procedural justice climate. Specifically, relative to other dimensions (contribution and loyalty), affect and professional respect dimensions of LMX have stronger relationships with procedural justice climate.

Procedural justice climate as a mediator of LMX-attitudinal outcomes relationships

As mentioned earlier, individuals form an overall judgment about the procedures experienced by the group members that affect them – based on their day-to-day exchanges between them and their supervisor. Stated differently, the perception of the quality of interpersonal relationships leads to group-level cognition. In turn, this cognition (or procedural justice climate) triggers individuals to be committed or not committed, and to stay or quit the organization. In brief, it is predicted that LMX leads to the cognition of procedural justice climate that in turn leads to attitudinal outcomes – organizational commitment and turnover intentions.

Vecchio *et al.* (1986) recommended that LMX-turnover relationship should not be abandoned but should be examined more closely by searching for mediators or moderators of this process. In addition, Scandura (1999) strongly felt that search for mediator (e.g. organizational justice) must continue to understand the relationship between LMX and various organizational outcomes. Nevertheless, no research seems to have systematically examined the impact of procedural justice climate on the LMX-attitudinal outcomes relationships. However, the present research takes the stand that, at the early level of supervisor-subordinate exchange relationship, LMX should mediate the procedural justice-attitudes relationships. On the other hand, once the LMX relationship is crystallized, the behaviors of supervisors should have an impact on the fairness perceptions of subordinates. In fact, there has been a long-standing hint in the literature (Podsakoff *et al.*, 1990) that the nature of the dyadic relationship between supervisors and their subordinates may have effects on subordinates' perceptions of fairness. Specifically, Podsakoff *et al.* noted that those subordinates who are members of a leader's IN-Group will perceive their leaders as treating them more fairly, and will be more trusting of their leaders than members of the OUT-Group, because the leader gives them greater job latitude, support of the subordinate's actions, and confidence in and consideration for the subordinate (Dansereau *et al.*, 1975). This

notion was empirically tested in a study by Tepper (2000). It was found that procedural justice did mediate the impact of abusive supervision on work outcomes. Thus, the absence of empirical studies on this subject precludes any specific predictions. Yet the following general hypotheses are offered for empirical verifications:

- H4a.* Procedural justice climate mediates the positive relationship between LMX and organizational commitment.
- H4b.* Procedural justice climate mediates the negative relationship between LMX and turnover intentions.

Method

Participants and procedure

Nine large multinational companies located in northern Malaysia were selected for this study. The study was deliberately conducted in multinationals in order to control for extraneous factors (such as sector and size). The selected companies were diverse in terms of production process and they were primarily dealing in semiconductor, medical products, and automobile components. The second author distributed survey questionnaires to 440 managers. But, only 224 voluntarily responded to the survey (i.e. a response rate of 50.91 percent). Their biographical details were as follows. A large majority of them (62.5 percent) held lower-level management position and were in the age range of 25 to 35 years ($M = 29.62$; $SD = 5.18$). As regards their ethnicity, 77.68 percent were Chinese, 13.84 percent were Malay, and 7.14 percent were Indian. Over half of them were male (54.5 percent), their average organizational tenure was 3.71 years ($SD = 3.11$ years), and they had been with their current immediate supervisor (i.e. LMX-Tenure) for an average of 2.38 years ($SD = 1.82$ years).

Measures

A four-section questionnaire was administered, including a personally signed letter stating the purpose of the study and an assurance of complete anonymity of individual responses. Except for personal demographic data (e.g. age, sex, job level, organizational tenure, etc.), all other measures employed a 7-point (1 = strongly disagree; 7 = strongly agree) scale.

Leader-member exchange (LMX). A 12-item LMX-MDM scale (Liden and Maslyn, 1998) was used to assess the quality of exchange between the participating managers and their immediate supervisor. The scale consisted of four subscales – contribution, loyalty, affect, and professional respect. Each subscale was composed of three items. Sample items included: “I am willing to apply extra efforts beyond those normally required, to meet my supervisor’s work goals” (LMX-Contribution); “I am impressed with my supervisor’s knowledge of his/her job” (LMX-Respect); “I like my supervisor very much as a person” (LMX-Affect); “My supervisor would defend me to others in the organization if I make an honest mistake” (LMX-Loyalty). The LMX-MDM was chosen, because it has broader domain coverage and better reflects the subordinate’s evaluation of the relational characteristics and qualities of the supervisor-subordinate relationship than do other unidimensional measures of LMX (Wang *et al.*, 2005).

A confirmatory factor analysis (CFA) with AMOS 5.0 was conducted to test the four-dimensional structure of LMX-MDM. The goodness-of-fit of a four-factor model was tested in comparison with a competing one-factor model. The CFA was based on

using raw data as input and maximum likelihood estimation. The analysis showed that the four-factor model fitted the data reasonably well ($\chi^2 = 124.41$, $df = 48$; GFI = 0.91; IFI = 0.96; CFI = 0.96; NFI = 0.94). The competing one-factor measurement model did not fit the data ($\chi^2 = 421.22$, $df = 54$; GFI = 0.75; IFI = 0.86; CFI = 0.82; NFI = 0.80). The coefficients alpha for the LMX dimensions ranged between 0.80 and 0.92 (see Table I). As expected, the LMX subscales were intercorrelated – r -values ranged between 0.55 and 0.74, with an average r of 0.64. Although there was an overlap of 41 percent among the four subscales of LMX, non-overlapping variances were still substantial.

Procedural justice climate. A 9-item scale (Naumann and Bennett, 2000) was employed to assess the construct of procedural justice climate. Naumann and Bennett adapted these items from Moorman (1991) to reflect a work group preference. A sample item is, “In this organization, consistent rules and procedures are used to make decisions about things that affect our group.” The goodness-of-fit statistics confirmed the unidimensionality of the scale ($\chi^2 = 79.98$, $df = 20$; GFI = 0.92; IFI = 0.92; CFI = 0.93; NFI = 0.89). The coefficient alpha of 0.86 in this study (see Table I) was comparable to that of 0.90, an alpha value reported by Naumann and Bennett (2000).

Organizational commitment. Meyer and Allen’s (1991) 18-item scale was adopted to assess the three components of organizational commitment: affective, continuance, and normative. Each component consisted of six items. Sample items included: “I do not feel a strong sense of belonging to my organization” (Affective Commitment; reverse coded item); “This organization deserves my loyalty” (Normative Commitment); “I feel that I have too few options to consider leaving this organization” (Continuance Commitment). Several rounds of CFA were performed to test whether the three-factor model fit the data. The CFA results (with 13 items) showed that the fit indices fell within an acceptable range ($\chi^2 = 170.20$, $df = 62$; GFI = 0.89; IFI = 0.93; CFI = 0.93; NFI = 0.89). The competing one-factor (with 18 items) measurement model did not fit the data ($\chi^2 = 881.96$, $df = 119$; GFI = 0.63; IFI = 0.66; CFI = 0.66; NFI = 0.63). Coefficients alpha for the three factors – Normative Commitment (4 items), Affective Commitment (3 items), and Continuance Commitment (6 items), respectively, were 0.84, 0.90, and 0.82. The three components were inter-correlated (see Table I), as expected.

Turnover intentions. Because measuring actual turnover is rather difficult, many studies rely on turnover intentions. It has been shown that these intentions are strongly correlated with actual turnover (Hulin, 1991). The present study employed a 5-item scale (Wayne *et al.*, 1997) to assess turnover intentions. A sample item is, “I often think of quitting my job at this organization.” The goodness-of-fit statistics were quite adequate in favor of the unidimensionality of measurement ($\chi^2 = 8.25$, $df = 5$; GFI = 0.99; IFI = 0.99; CFI = 0.99; NFI = 0.98). The estimated coefficient alpha was 0.88.

Data analyses

A two-step procedure (Anderson and Gerbing, 1988; Medsker *et al.*, 1994) was employed to test the study hypotheses. In the first step, the distinctiveness of the self-report measures used in the study was tested. In the second step, a structural model was analyzed that specified the nature of the hypothesized relationships among the constructs. Four fit indices (as used above for estimating measurement models) were chosen to assess the fit of structural models: the goodness-of-fit index (GFI),

Table I.
Descriptive statistics,
coefficients alpha, and
zero-order correlations

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. LMX-Respect	4.68	1.30	.92									
2. LMX-Loyalty	4.32	1.19	.67**	.84**								
3. LMX-Affect	4.54	1.23	.74**	.71**	.91							
4. LMX-Contribution	4.97	1.09	.55**	.55**	.64**	.80						
5. Procedural Justice Climate	4.55	0.86	.52**	.46**	.45**	.32**	.86					
6. Affective Commitment	4.82	1.39	.51**	.46**	.52**	.42**	.51**	.89				
7. Normative Commitment	4.17	1.18	.51**	.45**	.55**	.51**	.54**	.60**	.84			
8. Continuance Commitment	4.38	1.06	.32**	.32**	.22**	.32**	.38**	.18**	.38**	.82		
9. Turnover Intentions	3.21	1.37	-.53**	-.46**	-.56**	-.48**	-.46**	-.72**	-.62**	-.28**	.88	
10. LMX-Tenure	2.38	1.82	.03	.12	.05	.10	.06	-.04	.13*	.08	.00	.51

Notes: *n* = 224; **p* < 0.05; ***p* < 0.01; decimals are omitted from intercorrelations and alpha; diagonal entries in italic indicate coefficients alpha; SIM = single-item measure

Results

To verify the distinctiveness of the measures, a CFA including all the variables was conducted. The CFA was conducted at the dimension level. That is, four dimensions of LMX were treated as its indicators, three components of commitment as its indicators. However, turnover intentions and procedural justice climate were each treated as it is. Thus, the analysis included nine variables. It was assumed that if method bias is not present in the data, then the two-factor model (LMX and Justice Climate as one factor and commitment and turnover intentions as another factor) would provide a better fit than a one-factor model to the data. The CFA analysis clearly indicated the superiority of two-factor model ($\chi^2 = 101.37$, $df = 27$; GFI = 0.92; IFI = 0.93; CFI = 0.93; NFI = 0.91) to one-general factor model ($\chi^2 = 168.64$, $df = 27$; GFI = 0.84; IFI = 0.87; CFI = 0.86; NFI = 0.84). This fact may be treated as evidence of discriminant validity of the measures as well as partial evidence against common method bias (Podsakoff *et al.*, 2003). In conclusion, results of the CFA, reliability estimates (coefficients alpha ranging from 0.80 to 0.92), and measurement model analyses indicate that the measures have sound psychometric properties.

Before testing the hypothesized relationships, the study examined the relationship of salient demographic variables presumed to be related to work outcomes. The demographic variables such as gender, age, organizational tenure, and LMX-Tenure (Meyer *et al.*, 2001), and types of organization were correlated with attitudinal outcomes. The analysis indicated that all variables – with an exception of LMX-Tenure – were unrelated to attitudinal outcomes. LMX-Tenure was positively correlated ($p < 0.05$) with only normative commitment (see Table I). Thus, in all subsequent analyses, the effect of LMX-Tenure was controlled. Also, given the fact that LMX dimensions were interrelated, they were treated as co-varying in structural equations. The initial model (M_1) suggested that procedural justice climate fully mediated the relationships between LMX and attitudinal outcomes ($H1$ through $H4$). However, to test this hypothesis, it was essential to consider several alternative models. Specifically, against the baseline model M_1 , four alternative models (M_2 to M_5) were nested that required the addition of four sets of construct relationships. In M_2 , a direct path from LMX to organizational commitment was added to M_1 . M_3 was identical to M_1 , other than the addition of a direct path from LMX to turnover intentions. M_4 too was identical to M_1 except that two direct paths from LMX to organizational commitment and turnover intentions were added. Finally, M_5 included an additional path from procedural justice climate to turnover intentions. M_1 is therefore nested in M_2 , M_3 , M_4 , and M_5 . A comparison of structural models is contained in Table II and the parameter estimates for structural relationships (unstandardized and standardized) are reported in Table III. Salient SEM results are summarized in Figure 1.

As shown in Table II, significant changes in the χ^2 values ($p < 0.01$) were associated with all alternative models. However, none of the alternative models and baseline model fit the data any better than the last nested model (M_5). Taken together, Tables II and III indicated that the study hypotheses received only partial to moderate support from the data. A summary of various results appears below.

Models	χ^2	df	$\Delta\chi^2$	GFI	IFI	CFI	NFI
M ₁ LMX → PJC → OC → TI (baseline model)	169.30	20	–	0.85	0.86	0.86	0.84
M ₂ LMX → PJC → OC → TI, and LMX → OC	80.68	14	88.62	0.93	0.94	0.94	0.93
M ₃ LMX → PJC → OC → TI, and LMX → TI	156.76	16	12.54	0.86	0.87	0.87	0.85
M ₄ LMX → PJC → OC → TI, and LMX → OC & TI	81.42	18	97.88	0.94	0.94	0.94	0.93
M ₅ LMX → PJC → OC → TI, and LMX → OC & TI, PJC → TI	50.46	11	118.84	0.96	0.95	0.96	0.96

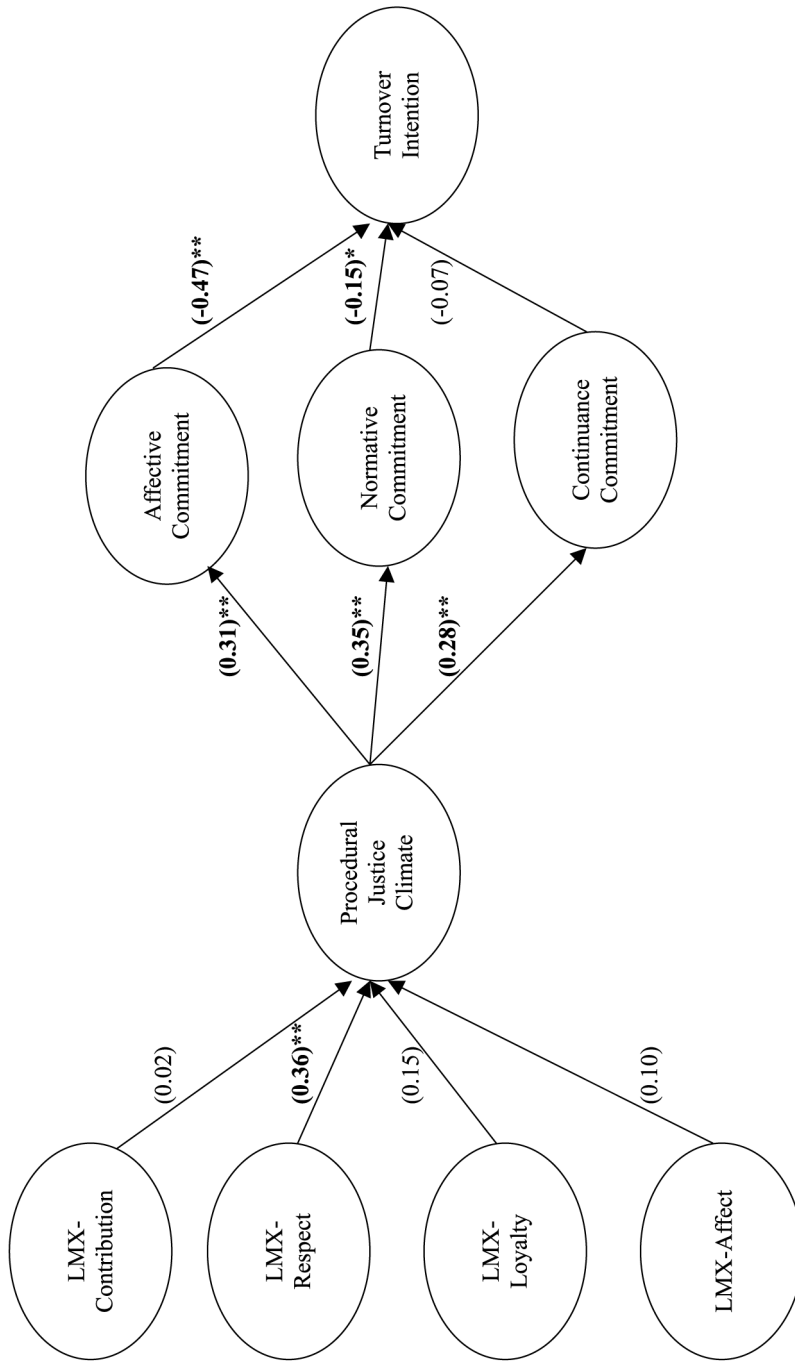
Table II.
Comparison of structural models

Notes: LMX = Leader-Member Exchange; LMX-C = LMX-Contribution; LMX-R = LMX-Respect; LMX-L = LMX-Loyalty; LMX-A = LMX-Affect; PJC = Procedural Justice Climate; OC = Organizational Commitment; TI = Turnover Intentions

Structural relationships	Unstandardized parameter estimates	Standardized parameter estimates
LMX-Contribution → Procedural Justice Climate	–0.02	–0.02
LMX-Respect → Procedural Justice Climate	0.24**	0.36
LMX-Loyalty → Procedural Justice Climate	0.11	0.15
LMX-Affect → Procedural Justice Climate	0.07	0.10
LMX-Contribution → Affective Commitment	0.15	0.12
LMX-Respect → Affective Commitment	0.12	0.12
LMX-Loyalty → Affective Commitment	0.04	0.04
LMX-Affect → Affective Commitment	0.22*	0.20
LMX-Contribution → Normative Commitment	0.27**	0.25
LMX-Respect → Normative Commitment	0.04	0.04
LMX-Loyalty → Normative Commitment	–0.01	–0.01
LMX-Affect → Normative Commitment	0.21*	0.22
LMX-Contribution → Continuance Commitment	0.23**	0.23
LMX-Respect → Continuance Commitment	0.12	0.15
LMX-Loyalty → Continuance Commitment	0.15	0.17
LMX-Affect → Continuance Commitment	–0.25**	–0.29
LMX-Contribution → Turnover Intentions	–0.10	–0.09
LMX-Respect → Turnover Intentions	–0.03	–0.04
LMX-Loyalty → Turnover Intentions	0.08	0.08
LMX-Affect → Turnover Intentions	–0.14	–0.15
Procedural Justice Climate → Affective Commitment	0.50**	0.31
Procedural Justice Climate → Normative Commitment	0.47**	0.35
Procedural Justice Climate → Continuance Commitment	0.35**	0.28
Procedural Justice Climate → Turnover Intentions	–0.10	–0.07
Affective Commitment → Turnover Intentions	–0.39**	–0.47
Normative Commitment → Turnover Intentions	–0.15*	–0.15
Continuance Commitment → Turnover Intentions	–0.08	–0.07

Table III.
Parameter estimates for the hypothesized model

Notes: * $p < 0.05$; ** $p < 0.01$; $\chi^2_{(18)} = 50.46$; GFI = 0.96; NFI = 0.95; IFI = 0.96; CFI = 0.96



Note: * $p < 0.05$; ** $p < 0.01$

Figure 1.
Hypothesized model of
LMX-attitudinal outcomes
process

First, LMX-Affect was found to be related to all components of organizational commitment, but the impact was negative for continuance commitment. On the other hand, LMX-Contribution was related to all but affective commitment. Surprisingly, none of the LMX currencies appeared to be related to turnover intentions. Thus *H1* received partial support from the data.

Second, procedural justice climate was found to be related to all components of commitment but unrelated to turnover intentions. However, the impact on continuance commitment was significantly less than affective and normative commitment. Thus, *H2* receives substantial support from the data.

Third, LMX-Respect was the only dimension of LMX that was found to be related to procedural justice climate. Thus, *H3* receives only partial support from the data.

Fourth, the mediation hypothesis (i.e. *H4*) receives partial support from the data. It is evident (see Figure 1) that it is only the respect currency of LMX that appeared to be related to procedural justice climate that was in turn related to all components of commitment. Finally, the analysis reveals that affective commitment and normative commitment mediate the relationship between procedural justice climate and turnover intentions.

Discussion

While a great deal of research is available to examine the link between LMX and organizational commitment, relatively fewer research has examined the relationship between LMX and turnover intentions (Liden *et al.*, 1997). According to Scandura (1999), inconsistency in the published literature concerning the LMX-organizational outcomes relationships could be attributed to the neglect of one or more moderator or mediator variables in the study design. Drawing upon Hollander's (1978) "fair exchange in leadership," she directed the researchers to consider the role of potential moderators and mediators (such as organizational justice) in studying the relationship of LMX with various organizational outcomes. Thus, following this call, it was hypothesized that one possible mechanism that could operate between LMX and attitudinal outcomes would be procedural justice climate. Specifically, the initial support was provided for a part of Cropanzano, Rupp, Mohler and Schminke's (2001) explanation for the general flow of relationship among justice, social exchange, and employee attitudes: "In the beginning the relationship is established through organizational justice. Later the existing relationships biases perceptions of the other partner's behavior" (p. 62).

Overall, the stated research hypotheses received partial to moderate support from the data. First, relative to other LMX currencies, LMX-Affect appeared to have the strongest impact on all three components of organizational commitment. But, none of the LMX currencies was related to turnover intentions (*H1a* and *H1b*). Second, procedural justice climate had a strong positive impact on all three components of commitment and a negative impact on turnover intentions (*H2a* and *H2b*). Third, while the other three LMX currencies had no impact, LMX-Respect did have a strong positive effect on procedural justice climate (*H3*). Fourth, procedural justice climate mediated the impact of LMX-Respect on the three components of organizational commitment (*H4a* and *H4b*). The revised alternate model (M_3) also suggested that affective and normative commitment acted as a mediator of the relationship between procedural justice climate and turnover intentions.

The above findings clearly suggest that affect and professional respect (i.e. interpersonal attraction, faithfulness, and respect) currencies of LMX is critical to attitude-related outcomes in the Malaysian context. This might be possible because the Malaysian culture is characterized as a collectivist society (Hofstede, 1991) with strong preference for hierarchical relationships (Abdullah, 1996; Ansari *et al.*, 2004). However, that does not undermine the salience of the other currencies of LMX. As was mentioned earlier, contribution currency of LMX might be crucial to organizationally-relevant outcomes such as job performance (Liden and Maslyn, 1998; Liden *et al.*, 1997).

Future research should address the limitations of the present research. First, the present data are correlational in nature. As such no tall claim can be made about causality, nor can reverse causality be discounted. There is a strong possibility that committed workers are the ones who perceive their organizational procedures as fair. Alternatively, LMX might mediate the procedural justice-attitudinal outcome relationships (Pillai *et al.*, 1999). Thus, future field experimental research should systematically manipulate the antecedent and mediator variables – LMX and procedural justice climate – and observe their impact on organizational commitment and turnover intentions. Only then can a definite causality be claimed. A second limitation of this study is that the sample was skewed toward Chinese (77.68 percent) and people who were young ($M = 29.62$; $SD = 5.18$) and had not worked in the company for a long duration ($M = 3.71$; $SD = 3.11$). Future research should employ participants from diverse ethnic background and who had on average a longer time of employment with a company. Thirdly, the present data are cross-sectional. Since LMX and procedural justice climate both are developmental in nature, only future longitudinal investigations can uncover the stage at which employees develop organizational commitment or withdrawal cognition. Fourthly, the measurement of all variables was based on self-report that may limit the external validity of the findings owing to common method variance. Following the recommendation of Podsakoff *et al.* (2003), a *post hoc* factor analysis of the salient constructs was undertaken. A “general” factor did not emerge, thus providing evidence against common method variance in this research. A final limitation of the present research is limited statistical power owing to the geographical coverage and relatively small sample from manufacturing sectors only. Future research should extend the research sites with a large sample. Yet, the relatively strong effects that have been observed seem to provide evidence for the process model of leader-member exchange.

All data limitation aside, the present research does have some obvious implications for theory, practice, and research. From a theoretical standpoint, the present research added a new perspective of looking at LMX research. First, identifying procedural justice climate as a mediator should be considered an extension of LMX research. Future research should focus on additional dimensions of justice (interpersonal and informational) as mediator to examine the predictive strength of various LMX currencies on organizationally-relevant and employee-relevant outcomes. Second, although procedural justice climate was conceptualized as a group-level phenomenon, the analysis was performed at the individual level. Future research should focus on the group-level of analysis – controlling for procedural justice at the individual level (Naumann and Bennett, 2000).

Practically, the present findings show that if the quality of exchange (in terms of affect and professional respect) between the leader and members is good, the

subordinates are likely to develop positive procedural justice climate that in turn will inculcate organizational commitment and reduce withdrawal cognition. In other words, the results show that professional respect dimension of LMX through procedural justice climate could promote positive attitudes among the employees. Thus, it has become increasingly vital for modern organizations to learn how to build mutual leader-member interpersonal trust and support in order to achieve maximum business results. In brief, managers need to recognize the importance of developing high exchange quality with their subordinates, which will lead to positive climate – thus leading to favorable attitudes. In addition, the present study indicates that justice climate can meaningfully influence affective and normative commitment – thus discouraging turnover intentions.

In conclusion, management needs to pay attention to the quality of LMX, as today's employees look for mutual trust. Recognizing employees potential through quality of exchange relationships might be useful to promote procedural justice climate, that will strengthen the level of commitment in the organization. Stated differently, managers need to maintain positive perceptions of fairness at reasonably high levels in order to facilitate positive justice climate, which in turn would lead to increased employee commitment and decreased turnover intentions. Fairness is a perceptual phenomenon and judgments of fairness are relative. "A critical point in all such judgments is perceptions . . . we act on our own perceptions, and must deal with the perceptions of the people with whom we interact" (Sheppard *et al.* 1992, p. 12).

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