Dyadic Relationships Quality and Team-Oriented Commitment

Hassan Abu Bakar
Universiti Utara Malaysia
abhassan@uum.edu.my
Hassan Abu Bakar, Ph.D., came into academic life after 5-year career in professional management and business. His research interest revolves in leadership and dyadic communication. However, after his PhD (2007) the focus has shifted into more complex multilevel analysis in organization; analysing the direct and indirect effects of dyadic communication on organizational outcomes. His works are currently published in Journal of Intercultural Communication Research, Human Communication and Corporate Communication. His work has continuously presented in International Communication Association (ICA) Annual Conference since 2004.

Che Su Mustaffa
Universiti Utara Malaysia
Chesu402@uum.edu.my
Che Su Mustaffa, Ph.D., is an Associate Professor of Communication and Chief coordinator of Undergraduate Studies for the Humanities Field, College of Arts and Sciences at University Utara Malaysia. She joined the university in 1988. She holds a doctorate in Organizational Communication from University Utara Malaysia. Dr. Che Su's research interests emphasize the organizational communication and culture especially within Malaysian Malay culture. Recent research activities include an examination of the communication practices of Malaysian employees. Dr. Che Su has published articles in Human Communication, Intercultural Communication Studies and Corporate Communication: An International Journal, and has made several presentations at national and regional conferences.

Bahtiar Mohamad
Universiti Utara Malaysia
mbahtiar@uum.edu.my
Bahtiar Mohamad is a lecturer in Corporate Communication at the Universiti Utara Malaysia. He teaches Public Relations, Corporate Communication, Communication for Managers and Organizational Image Management, which all combine to support his hybrid profession linking communication with the management. In recent years, his publication and research interests have focused on corporate communication and public relations. He is currently pursuing his PhD at Brunel Business School, Brunel University, West London.
Abstract

Researches have documented the impact of dyadic relationships on individual behavior in workgroup. Evidently, however, little research has been pursued towards understanding the direct effects of dyadic relationships and team oriented commitment constructs at multiple levels. The purpose of this paper is to establish and interpret the appropriate level of analysis based on the correlation between leader-member exchange quality and team-oriented commitment in a Malaysian organization setting. A survey from a Malaysian organization (n = 201) is analyzed on the relationship between dyadic relationships quality and team-orientated commitment using within and between analysis (WABA). Our analysis indicates that the individual dyad relationships correlate with team-oriented commitment at the group level. Therefore, supervisor-subordinate relationships quality influence overall team-oriented commitment in a work group. The results implied that the worker’s ability to communicate mutually about relationships (LMX quality) with their immediate supervisor implicates both personal fit and work group functioning. The results extend our understanding of dyadic relationships and team-oriented commitment by identifying the specific form levels of analysis in a Malaysian organization setting.

Keywords

dyadic relationships, team-oriented commitment, LMX quality

Introduction

The importance of supervisor and their subordinates’ relationships has been highlighted in communication and management literature (Dansereau & Markham, 1987; Jablin, 1979). Within an organization for example, supervisor plays monumental role as information provider to his or her subordinates at various levels (Andrews & Kacmar, 2001; Miles, Patrick, & King, 1996; Schnake, Dumler, Cochran, & Barnett, 1990; Varona, 1996). Several studies have also examined the supervisor-subordinate relationships within the framework of leader-member exchange theory (LMX). These studies mainly focus on antecedences and longitudinal explorations of supervisor-subordinate relationships quality and organizational outcome links (Fairhurst, 2001; Fairhurst & Chandler, 1989; Lee, 1997, 2005; Lee & Jablin, 1995). Evidently, however, little research has been pursued towards understanding the direct effects of dyadic relationships and team oriented commitment constructs at multiple levels (Hui, Chiu, Yu, Cheng, & Tse, 2007).

The traditional group theory suggests the relevance of the group context in which the dyad resides as all behaviors take place within context of one or more larger systems. Parallel to this, the supervisor-subordinate relationships involve the interaction exchanges between the
leaders and his or her subordinates in within different contexts in the work group. Naturally, such dyadic activities have consequences on the members particularly a desire to maintain a membership in their respective work group. This aspect of dyadic activities and the desire to belong to a particular group and have a work group’s sense of belonging is paramount in a collective society organization such as Malaysia (Ashkanasy, 2002; Cheng, Jiang, & Riley, 2003; Kennedy, 2002). Kennedy (2002) noted that Malaysian employees placed special emphasis on a collective well-being and displayed a strong humane orientation within a work group. The worker respected hierarchical status and differences and gave priority to maintain harmony in their respective work group. In addition, Malaysian employees also preferred to have their identity with the affiliation and relationship to the group. Therefore, we posed the following research question: In a Malaysian organization context, does LMX have a direct relationship with team-oriented commitment at individual or group level of analysis?

The aim of the present study is to establish and interpret the appropriate level of analysis based on the correlation between leader-member exchange (LMX) quality and team-oriented commitment in a Malaysian organization setting. We intend to examine whether specific forms of correlation between LMX quality -team-oriented commitment could be distinguished from each other at the individual or higher level of analysis. We present results from an individual, dyad and group sample of a Malaysian organization. We relate the measures of LMX quality and team-oriented commitment from individual embedded in a specific workgroup and reflect individual relationships quality as possible antecedents to team-oriented commitment.

Our approach in the present contribution, however, was slightly different from previous studies, in that we aimed to explore the nature and possible consequences of team-oriented commitment basing on dyadic relationships quality where we tested both at individual and group level analysis. Dansereau and colleagues (1995) suggested the importance and relevance of the group context in which the dyad resides. They argued that all behaviors that take place between individuals in a dyad do affect the within context of one or more larger systems. Additionally, according to them, dyadic relationships do not develop in a vacuum, but relate to characteristics of the supervisor and the subordinate, their interactions, and the situations in which their interactions develop. Therefore, the appropriate level of analysis for examining the relationship between supervisor-subordinate relationships quality and team-oriented commitment is neither the supervisor nor subordinate alone, nor is it the group alone, but rather, the individual within the group. Dansereau describes this as the frog-pond effect (Dansereau, 1995; Dansereau, Yammarino, & Markham, 1995; Yammarino, Dansereau, & Kennedy, 2001; Yammarino & Jung, 1998). Given this discussion, it therefore seems
appropriate to specify the level for theorizing the relationship between LMX quality and team oriented commitment.

**Review of Literatures**

*Leader-Member Exchange*

In proposing this model, Graen and his colleagues (Dansereau, Graen, & Haga, 1975; Graen, Cashman, Ginsburgh, & Schiemann, 1977; Graen & Schiemann, 1978; Graen, 1976; Graen & Cashman, 1975) contested the traditional leadership approaches, which assumed an Average Leadership Style (ALS) in leader’s behavior across subordinates. They proposed that researchers always concentrate on the behaviors of leaders and subordinates within a superior-subordinate dyad. Their work suggested that leaders do not have identical relationships across their subordinates in the work group, but develop unique dyadic relationships with each subordinate because of role making behavior.

High quality LMX dyads exhibit a high degree of exchange in superior-subordinate relationships and are characterized by mutual liking, trust, respect, and reciprocal influence (Dienesch & Liden, 1986). Subordinates in these dyads are often given more information by the superior and reported greater job latitude. Lower quality LMX relationships are characterized by a more traditional “supervisor” relationships based on hierarchical differentiation and the formal rules of the employment contract (Graen & Scandura, 1987; Scandura & Graen, 1984). In terms of superior behaviors, the distinction between higher and lower quality exchange relationships is similar to that of between “leaders” and “supervisors” respectively. Leaders exercise influence without sorting to formal authority, whereas supervisors rely on the formal employment contract for their authority.

Early work on LMX provides support for the model’s theoretical propositions, including within group variance in superior behavior. Graen and Cashman (1975) also found that superior among subordinates could group superior-subordinate dyads as high, medium, or low, demonstrating differential treatment. The model also demonstrated not only within group variation leader behavior existed, but also that it was predictive of satisfaction to a greater degree than between group variations.

Dienesch and Liden (1986) expanded the model developed by Graen and his colleagues. They detailed the development process within the context of the work group as a series of steps including the initial interaction between the superior and subordinates, superior delegation of a series of task assignments and responsibilities, member behaviors and attributions of the leader’s intentions (positive or negative) concerning the task assignments, and finally the
superior’s attributions of the member’s behaviors and their subsequent responses. The context includes work group’s composition, culture and policies of the organization, and the power of the leader (Liden & Maslyn, 1998). Graen and Scandura (1987) argued that these work behaviors were paramount in the development of LMX as a uni-dimensional construct.

LMX was posited as a multi-dimensional construct when Dienesch and Liden (1986) and Liden and Malsyn (1998) identified the potential for other “currencies of exchange” outside work behaviors for superior and subordinates. This multidimensional approach to LMX has received favourable supports (Liden & Maslyn, 1993; Liden & Maslyn, 1998; Maslyn & Uhl-Bien, 2001). Currencies of exchange include affect, loyalty and/or professional respects between members, which can occur in varying amounts and combinations. Studies indicate that, supervisor and subordinates focus on different currencies of exchange from their partners. Supervisor seek more work-related currencies, and subordinates seek more socially related currency (Day & Crain, 1992; Dockery & Steiner, 1990). A work-related currency is a perceived contribution, whereas the social currencies consist of affect, loyalty and professional respect. Besides the unidimensional views, this study also adopts the multidimensional view of LMX proposed by Dienesch and Liden (1986) and Liden and Maslyn (1998).

**Team-Oriented Commitment**

The concept of commitment is one of the major factors in determining the relationship between individuals and an organization or their respective work group (Mowday, Porter, & Steers, 1979). A review of the literature suggests that there are various distinct approaches to defining commitment. Commitment has been defined as a strong desire to maintain membership in an organization (Mowday, Porter, & Steers, 1982). It has also been defined as identification with goals and values between an individual and the organization (Buchanan, 1974) or an exchange of behavior to get benefits that will be appreciated by others (Meyer & Allen, 1984). These definitions focus on the relationships that individuals have with an organization.

Mathieu and Zajac (1990) meta-analysis of organizational commitment uncovered two main issues. First, according to them, the affective involvement in organizational commitment proposed by Allen and Meyer (1990) is the most relevant as a behavioral predictor of individual in organization (Mathieu & Zajac, 1990). The instrument developed by Allen and Meyer (Allen & Meyer, 1990; Meyer & Allen, 1991) has been frequently used in organizational commitment research. Of the three components they distinguish, affective organizational commitment, that is, the extent to which people experience a sense of
identification and involvement with an organization, appears to be mostly related to various work aspects (Allen & Meyer, 1996).

A second point that emerged from Mathieu and Zajac’s (1990) meta-analysis was that focused of the commitment measures might be better suited to predict behavior than broad measures. The results of various individual studies seem to point to the conclusion that particular forms of commitment may be related to specific behavior at work (Randall, Fedor, & Longenecker, 1990; Reichers, 1985). Accordingly, in a theoretical analysis, Reichers (1985) pointed out that although the concept of commitment refers to the acceptance of the goals and values of an organization, it is important to bear in mind that organizations usually encompass many different constituencies that may have conflicting goals. To the extent when the degree of commitment is defined as willingness to dedicate oneself to particular values and goals, it seems essential to specify the nature of these values and goals in order to predict members of the organization’s behavior in their respective work group (Ellemers, Gilder, & Heuvel, 1998; Ellemers, Rijswijk, Bruins, & Gilder, 1998). As mentioned earlier, in Mathieu and Zajac (1990), meta analysis revealed that affective commitment developed by Allen and Meyer is most relevant as a behavioral predictor.

Affective commitment concept refers to an attitudinal construct rather than a calculative investment in the organization response to the extent in which the organization invests in its employees. Thus, the affective commitment can be referred to as the extent in which people experience a sense of identification and involvement with an organization. In trying to determine what makes people exert themselves at work, or how they choose to devote their energies, we argue that goal specification should be made within teamwork. This is because according to Allen and Meyer (1996), employees with strong affective commitment remain with the group because they want to. Study also shows the extent in which workers are available, take initiative or are prepared to help their coworkers in order to foster the achievement of common team goals (Ammeter, Douglas, Ferris, & Goka, 2004). Therefore, in the present investigation we examined the extent in which people felt committed to common group goals as dependent variable.

Hypotheses Development
A great deal of cross-cultural analysis has been based on the seminal work of Hofstede, in which he examined over 50 different countries searching for cultural differences and similarities. Based on his research, Hofstede has proposed five major dimensions where cultures differ: (1) Power distance, (2) Uncertainty avoidance, (3) Individualism vs. collectivism, (4) Masculinity vs. femininity and (5) Long-term vs. short-term orientation.
Many of these cultural traits are clearly relevant to the study of superior-subordinate relationships (Hofstede, 1984, 2003; Hofstede & Hofstede, 2004). Hofstede’s concepts of power distance and masculinity vs. femininity dimensions, for example, are used to identify cultural expectations of superior-subordinate dynamic. Hofstede (2003) suggested that Malaysian organizations’ culture indicates high scores for power distance and masculinity-femininity dimensions when compared to Australia, United Kingdom and United States. Additionally, Hofstede’s also illustrates Malaysian as more collectivist nature society, meaning that there is close ties among individuals and a greater tolerance for a variety of opinions. This result implies that supervisor and subordinate in Malaysia exhibit greater acceptance of autocratic and paternalistic leadership behaviors. In connection to Hofstede’s cultural dimensions, Asma and Lim (2001) and Lim (2001) examined these cultural dimensions in various private and public organizations in Malaysia and they found similar patterns with Hofstede’s work (Asma & Lim, 2001; Lim, 2001) with relative high levels of power distance and high levels of the collectivist nature within the Malaysian organizations.

Another significant, cross-cultural study, explicitly examining cultural differences and their relationship with leadership effectiveness, has also been recently released. The Global Leadership and Organizational Behavior Effectiveness (GLOBE) study (Ashkanasy, 2002; Kennedy, 2002) elaborates and expands upon Hofstede’s findings. This study is even more exhaustive, collecting data from 62 different societies over a seven-year period, and examining differences over similar cultural dimensions, including power distance. However, Kennedy (2002) argued that acceptance of power distance in Malaysia is less extreme than Hofstede’s (1984) original work and Asma’s and Lim’s (2001) and Lim’s (2001) when compared to other countries involved in the GLOBE study. Kennedy (2002) further argued that even though Malaysia can be considered as a culture with high power distance, it is balanced with strong human orientation in superior-subordinate relationship. Furthermore, effective leaders in Malaysian organizations are expected to show compassion while using more an autocratic, rather than participative style (Kennedy, 2002). However, consistent with Hofstede’s work, the GLOBE study also shows collectivist nature in Malaysian organization and this implies the preference of Malaysian employees to work as a group. For example, Malaysian employees are more likely to use coordination to integrate their work tasks, and use team workflows to deal with task uncertainty (Pearson & Entrekin, 1998; Pearson & Chong, 1997). There is also a high preference for teamwork goals rather than individual goals (Chan & Pearson, 2002) and they tend to be more idealistic in in-group performance (Karande, Rao, & Singhapakdi, 2002).
The LMX and work outcome literature suggests that subordinates who have high quality relationships with their supervisor are more likely to be satisfied with their job and committed to the organization (Brown & Peterson, 1994; Erdogan & Enders, 2007; Miller & Prichard, 1992), receive resources and support that will increase job performance (Dunegan, Duchon, & Uhl-Bien, 1992), supervisory delegation (Schriesheim, Neider, & Scandura, 1998), facilitate social desirability (Liden & Maslyn, 1998), positively impact their well being (Epitropaki & Martin, 1999) and reduce absenteeism (van Dierendonck, Le Blanc, & van Breukelen, 2002). These studies indicate that LMX have a direct impact on various work outcomes.

Within the framework of LMX on Malaysian studies, Lo et al. (2006) and Ansari et al. (2007) demonstrated the link between LMX quality and work outcomes. Both studies demonstrated a significant impact of LMX on commitment and satisfaction. LMX quality has a positive direct impact on organizational citizenship behavior and indirect positive effect of LMX on satisfaction and commitment through delegation (Ansari, Lee, & Aafaqi, 2007; Lo, Ramayah, & Hui, 2006). However, both studies did not investigate and interpret the level of analysis on the correlation of LMX and work outcomes. Perhaps, one study that applied multilevel analysis and can mirror Malaysian organization sample is a study conducted on Indonesian sample. This study indicates that aggregation data of LMX, satisfaction and commitment variables do not indicate a group or dyad level of analysis. However, in the study, the interpretation of correlation between LMX and work outcomes based on level of analysis was not conducted. However, in this study we examine the relationship between LMX, supervisory communication and group commitment. Furthermore, from the above discussion, the following are evident for Malaysian employees: (a) Collectivism in nature and they emphasize the importance of the group; (b) High power distance emphasizes the importance of the leader and his or her status and power difference in respect to the group; (c) group-based rewards emphasize the importance of group work and performance (Yammarino & Jung, 1998). Therefore, we advance the following hypotheses:

H1: Relationship between LMX quality and team-oriented commitment is group based and involves the entire group.

Method

Participants

Participants in this study are executives reporting to a specific manager in their respective work group in an organization involved in an airport management services throughout Malaysia. From the total of 874 executives, representing 175 dyads in seven teams, only 201
executives, representing 41 dyads embedded in the teams, returned the survey (23%). These seven teams represent units within two departments. Three units were from human resources department (training, hiring, salary and promotion), and 4 units were from finance department (accounting, purchasing, internal audit and procurement). Approximately 72% (n = 144) are male and 28% (n = 57) are female. This sample distribution reflects the industry norm for service sector in Malaysia. Approximately 15% (n = 30) participants have worked for the organization between three to six years, 55.2% (n = 110) worked between six to ten years and 34.8% (n = 70) worked more than ten years in this organization. Approximately 16% (n = 32) participants have worked for their current mangers for three to five years, 54% (n = 108) worked for six to eight years and 30% (n = 61) worked for nine to eleven years under their current manager.

**Procedure**

In addressing the concerns over common source variance or common ratter effects in measuring leader-member exchange, superior-subordinate communication and group commitment constructs, we follow procedures proposed by Podsakoff, MacKenzie, Lee and Podsakoff (2003). Firstly, it is achieved through obtaining an understanding of leader-member exchange constructs from subordinate perspectives via a questionnaire. Meanwhile, the team-oriented commitment constructs were obtained from manager. Secondly, we employed a time lag in obtaining data for LMX and team-oriented commitment. In doing this, two sessions of questions and answer of the constructs are conducted and the lag between the sessions is a week. These approaches are commonly applied to minimize the common source variance in cross-level studies (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). These approaches were also adopted by Ansari, et al. (2007) to minimize common method biases in Malaysian organization setting.

**Instrumentation**

The English language version of LMX by Liden and Maslyn (1998), Liden and Graen (1980), and team-oriented commitment by Meyer and Allen (1991) were used to obtain data. This follows the preference of other researchers who have also used English language questionnaires instead of other local languages on Malaysian subjects (Bochner, 1994; Furnham & Muhiudeen, 1984; Schumaker & Barraclough, 1989). The reason is that Malaysians, especially those involved in the business sector, are fluent in the English language (Lim, 2001). Details of instruments used in this study are as follows:

**LMX.** We measured perceptions of relationship quality with 7 items ($\alpha = .92$) known as LMX-7, developed by Liden and Graen (1980). In addition, we also include another version of LMX scale developed by Liden and Maslyn (1998) known as LMX-MDM ($\alpha = .94$).
Team-oriented commitment.
The managers completed the 6-items ($\alpha = .85$) assessing their subordinates’ affective commitment to the group. In doing this we include the subordinates’ name in the questionnaire accordingly to the managers to assess each of his or her subordinates’ commitment to the team. The team-oriented commitment items were selected from Meyer and Allen (1991) affective commitment scale and modified by Ellemers, et al. (1998) to assess employees’ commitment to their work group. All these items are measured and operationalized using a 5-point Likert-type ranging from strongly agree to strongly disagree.

Statistical Analysis
Because the major focus of the current study was to test multiple or cross-level of analysis in addition to assess both direct effects variables, a variety of analytical techniques were employed. Variables means, standard deviations, coefficient alpha internal consistency reliability estimates, and Pearson product-moment variable inter-correlations were first computed.

An analytic technique that can test the presence of either, both, or neither within or between group effects was warranted in the current research. Therefore, the within and between analysis (WABA) was employed in the current research. WABA, developed by Danserau, Alutto and Yammarino, (1984), assesses both variation and co-variation in variables within and between levels of analysis. Different from the traditional methodologies of correlation, which used raw score data alone, WABA tests a phenomenon’s level of analysis, and can lead to three different interfaces (Dansereau, Alutto, & Yammarino, 1984; Yammarino & Markham, 1992) using a software called DETECT. Furthermore, WABA assesses the variables and the relationships between variables based on both statistical and practical significance. In addition to this, the practical significance in WABA is geometrically based and not influenced by sample size compared to other multilevel techniques such as hierarchical linear modeling (HLM). However, the practical significance in WABA is influenced by group size (Castro, 2002).

The WABA approaches can be summarized as follows: First, the $E$ and $F$ tests performed under WABA I indicate whether the variance is either between or within groups or whether both or neither within or between group levels are the appropriate inference. Second, in WABA II, $A$, $Z$, $R$, and t-tests are used to decide at which level the covariance occurs. Lastly, the inferences from WABA I and WABA II are combined, and examination of within and between group correlation components is made using $A$ test. Based on these analyses, if the
result indicates that within group rather than between group effects are present, then the effect is within group and the importance of individuals within the context group is stressed. On the other hand, if there is variation and co-variation in both within and between groups, this indicates the phenomenon is operating at both levels. In addition to this, if the tests indicate a lack of significant on the variation and co-variation, in both within and between groups, it is considered as neither within nor between groups (Yammarino & Dansereau, 2002; Yammarino et al., 2001). Based on this analysis, the DETECT program will indicate the analysis as wholes or parts. Wholes means that individuals are viewed as belonged or intact to the group and each person is assigned one score on each variable. While parts means that individuals are viewed as process within them (interdependent), therefore each person is assigned multiple scores on each variable.

Means, standard deviations, reliabilities and correlations for all variables appear in Table 1.

Table 1 Descriptive, correlations and reliabilities

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LMX-7</td>
<td>3.96</td>
<td>.92</td>
<td>.60</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2. LMX-MDM</td>
<td>3.84</td>
<td>.94</td>
<td>.67</td>
<td>.60*</td>
<td>-</td>
</tr>
<tr>
<td>3. Team Oriented Commitment</td>
<td>3.82</td>
<td>.85</td>
<td>.76</td>
<td>.52*</td>
<td>.36*</td>
</tr>
</tbody>
</table>

* p < .01

Note: Reliabilities (Cronbach’s α) of the scales appear on the diagonal

Results

Latent composite structural equation modeling (SEM) was used to test the measurement model for confirmatory factor analysis. This approach is preferred over a principal component analysis because SEM approach allows for the estimation of measurement error (Hu & Bentler, 1999). The measurement model was tested with AMOS 5.0. Model fit was assessed with fit indices recommended by Hu and Bentler (1999). The measurement model was estimated, in which the scale indicators were loaded onto their respective variables; LMX quality (LMX-7 and LMX-MDM) and team-oriented commitment. The measurement model generated excellent fit, $\chi^2 = 120.74$, $p = .088$, CFI = .99, NFI = .99, RMSEA = .03 (CI: .00; .04). Based on our confirmatory factor analysis, we include only items which load are statistically significant ($p < .001$, see Table 2) to test our hypotheses.
Table 2 Standardized Factor Loadings for the Latent Constructs (N = 193)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LMX-7 (α = .92)</strong></td>
<td></td>
</tr>
<tr>
<td>I know how satisfied or dissatisfied my superior is with work that I have done</td>
<td>.78*</td>
</tr>
<tr>
<td>My superior understands my work problems and needs</td>
<td>.87*</td>
</tr>
<tr>
<td>My superior recognizes my potential</td>
<td>.90*</td>
</tr>
<tr>
<td>My superior personally uses his/her available power to solve problems in my work</td>
<td>.96*</td>
</tr>
<tr>
<td>My superior supports and “bails me out” at his/her expense when I really need it</td>
<td>.94*</td>
</tr>
<tr>
<td>I have confidence in my superior’s decisions such that I defend and justify them to others outside the team even if he/she is not present to do so</td>
<td>.92*</td>
</tr>
<tr>
<td>My superior has an effective work relationship with me</td>
<td>.90*</td>
</tr>
<tr>
<td><strong>LMX MDM (α = .94)</strong></td>
<td></td>
</tr>
<tr>
<td>I like my superior very much as a person</td>
<td>.82*</td>
</tr>
<tr>
<td>I think my superior is the kind of person I would like to have as a friend</td>
<td>.88*</td>
</tr>
<tr>
<td>I think my superior is a lot of fun to work with</td>
<td>.83*</td>
</tr>
<tr>
<td>I think my superior defends my work actions to a superior, even without complete knowledge of the issue in question</td>
<td>.80*</td>
</tr>
<tr>
<td>I think my superior would defend me if I were “attacked” by others</td>
<td>.80*</td>
</tr>
<tr>
<td>I think my superior would defend me to others in the organization if I made an honest mistake</td>
<td>.83*</td>
</tr>
<tr>
<td>I carry out work tasks for my superior that go beyond what is specified in my job description</td>
<td>.87*</td>
</tr>
<tr>
<td>I am willing to apply extra effort, beyond that normally required, to further the interest of the work group</td>
<td>.87*</td>
</tr>
<tr>
<td>I do not mind working my hardest for my superior</td>
<td>.86*</td>
</tr>
<tr>
<td>I am impressed with my superior’s knowledge of his/her job</td>
<td>.84*</td>
</tr>
<tr>
<td>I respect my superior’s knowledge of and competency on the job</td>
<td>.88*</td>
</tr>
<tr>
<td>I admire my superior’s professional skills</td>
<td>.90*</td>
</tr>
<tr>
<td><strong>Team-Oriented Commitment (α = .85)</strong></td>
<td></td>
</tr>
<tr>
<td>My subordinate prepared to do additional tasks, when this benefits my team.</td>
<td>.90*</td>
</tr>
<tr>
<td>My subordinate feels at home among my team member at work.</td>
<td>.88*</td>
</tr>
<tr>
<td>My subordinate tries to invest effort into a good atmosphere in my team.</td>
<td>.92*</td>
</tr>
<tr>
<td>I let my subordinate be guided by the goals of my team.</td>
<td>.75*</td>
</tr>
</tbody>
</table>
When there is social activity with my team, my subordinate usually helps to organize it.

My subordinate thinks that he/she could easily become as attached to my team.

All factor loadings are significant at \( p < .001 \)

**WABA Results**

The WABA results are presented in Tables 3 (WABA I), 4 and 5 (WABA II), and 6 (Summary and overall inferences). The decision rules for WABA I, WABA II, and overall inferences are adapted from Dansereau et al. (1984), who provided a set of guidelines for interpreting WABA findings based on the results obtained in the WABA I and WABA II.

**WABA I Results**

WABA I is performed to test whether the total deviation scores for each variable are better presented by within cell or between cell scores. As shown in Table 3, all of the relationships are tested by the practically significant E test values, while statistically significant F test values tested each variable. Our analyses suggest that the variation between groups is significantly larger than the within group variation. Therefore, each person is assigned one score on LMX and team-oriented commitment.

**Table. 3 WABA I result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Eta Correlation Between</th>
<th>E Ratio</th>
<th>F Ratio Between</th>
<th>Sig F</th>
<th>Induction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX-7</td>
<td>1.00</td>
<td>99.00*</td>
<td>99.00**</td>
<td>.00</td>
<td>Wholes</td>
</tr>
<tr>
<td>LMX-MDM</td>
<td>.72</td>
<td>.48</td>
<td>1.49*</td>
<td>1.45**</td>
<td>.00</td>
</tr>
<tr>
<td>Team-oriented Commitment</td>
<td>.80</td>
<td>.62</td>
<td>1.27*</td>
<td>1.70**</td>
<td>.00</td>
</tr>
</tbody>
</table>

* Significant by 30° tests, ** \( p \leq .01 \), Degrees of freedom are 98, 102

Note: Wholes means that the individuals in a group are viewed as homogenized, therefore, each group is assigned one score on each variable.

**WABA II Results**

WABA II permits a decision about the level of analysis that may underlie relationships among all variables taken two at a time. WABA II involves difference and magnitude test. The WABA II Difference Test results are presented in Table 4. The practical significance of the difference given by the value for A is in column three. The A-test result indicates that, between cells correlation is significantly greater than within cell correlation. Similarly, the statistical significant for the Z–test were also conducted and it shows significant difference.
between the within and between cell correlations. Based on A-test and Z-test, hypothesis advanced in this study was supported. Thus, based on WABA II Difference Test, we infer that groups-based differences lie beneath the LMX-team-oriented commitment link.

Table 4. WABA II Difference Test

<table>
<thead>
<tr>
<th>Relationship and variables</th>
<th>Correlation Between</th>
<th>A-Value</th>
<th>Z-Value</th>
<th>Induction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX-7 and Team-oriented commitment</td>
<td>.64</td>
<td>.00</td>
<td>.70*</td>
<td>5.39**</td>
</tr>
<tr>
<td>LMX-MDM and Team-oriented commitment</td>
<td>.69</td>
<td>.00</td>
<td>.76*</td>
<td>6.00**</td>
</tr>
</tbody>
</table>

* Significant by 300 tests, ** p ≤ equal .01

Note: Wholes means that the individuals in a group are viewed as homogenized, therefore, each group is assigned one score on each variable

WABA II also includes a magnitude test that provides values for the tests of the practical (R test) and statistical (t test) significance of the magnitude of the between and within cell correlations separately. Results of WABA II magnitude test are shown in Table 5. The R-test shows that R-value is by 300 tests. This result indicates that correlation values between LMX and team-oriented commitment are greater than .50 resulting in an induction of significant greater than 30 degrees at the between cells. The t-test also shows that it is statistically significant at the between cells. Therefore, based on WABA II magnitude test, hypotheses 1 was supported. This information supports our previous assumption that groups-based differences lie beneath the LMX-team-oriented commitment relationships.

Table 5. WABA II Magnitude Tests

<table>
<thead>
<tr>
<th>Variable and relationship</th>
<th>Between</th>
<th>Within</th>
<th>Induction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX-7 and Team-Oriented Commitment</td>
<td>.85*</td>
<td>.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* Significant by 300 tests, ** p ≤ equal .01
LMX-MDM and Team-oriented commitment

* Significant by 30° tests, ** p ≤ .01

Degree of freedom for T-test (Between) 1, 97, Degree of freedom for T-test (Within) 1, 101

**WABA I and II Results**

Finally, the total correlations that are based on the total deviation scores followed R and t values testing for practical and statistical significance. Results are shown in Table 6. Based on this test, hypotheses 1 was supported. Therefore, based on WABA I and WABA II total correlation and component analysis, the group conditions are based on the between eta correlation rather than within eta correlation. Thus, we conclude that groups-based differences caused the relationships between LMX and team-oriented commitment.

**Table 6. WABA I and WABA II Total Correlation and Component Analysis**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total Correlation</th>
<th>R-test</th>
<th>T-test</th>
<th>Sig-</th>
<th>Between</th>
<th>Within</th>
<th>Induction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX-7 and Team-oriented commitment</td>
<td>.42</td>
<td>.27*</td>
<td>3.88**</td>
<td>.00</td>
<td>.26</td>
<td>.00</td>
<td>Wholes</td>
</tr>
<tr>
<td>LMX-MDM and Team-oriented Commitment</td>
<td>.83</td>
<td>.65*</td>
<td>9.23**</td>
<td>.00</td>
<td>.55</td>
<td>.00</td>
<td>Wholes</td>
</tr>
</tbody>
</table>

* Significant by 30° tests, ** p ≤ .01, Degrees of freedom are 1, 199

Note: Wholes means that the individuals in a group are viewed as homogenized, therefore, each group is assigned one score on each variable.

**Discussion**

In summary, the results of all correlations tested were consistent with the theoretical model of work unit context and LMX. As predicted, the correlation between LMX and team-oriented commitment exists at the group level. Hypothesis was accepted and WABA I and WABA II tests indicated that correlation between LMX quality and team-oriented commitment are operating at the group level in Malaysian organization setting. The WABA analyses performed in this study demonstrated the importance of level of analysis for theorizing and
hypothesis testing in Malaysian organization setting. The WABA results clearly showed that all variables examined in this study had an interpretation of group effects.

Based on this study, it clearly shows that relationships between dyad do affect one or more larger systems in organizations. Our findings support the proposition by communication and management scholars that the dyadic activities within a group does affect the overall group behavior (Kacmar, Witt, Zivnuska, & Gully, 2003). Our finding shows that it seems relevant for managers to encourage his/her subordinates’ commitment to the team, as commitment to team is related to higher level of superior-subordinate relationships quality. As the WABA results show this kind of relationship to occur between groups, the emphasis should be placed on group process activities among work group members. Thus, within the group behavior (dyad) seems to have the whole group effects (Dansereau et al., 1995; Yammarino et al., 2001; Yammarino & Jung, 1998; Yammarino & Markham, 1992).

Liden, Wayne and Sparrowe (2000) study based on U.S organization setting showed that, the LMX quality and work outcomes relationships are interpreted at the individual level of analysis. In another study in North America, by Cogliser and Schriesheim (2000) showed that, the LMX quality, group cohesiveness and organizational climate exist at both individual and group level of analysis. Similarly, study by Herold, Fedor, Cladwell and Liu (2008) showed that the link between transformational leadership and organizational commitment are displayed at both individual and group level. Within the European organizations, comparable evident were found with US organizations, for example, a study by Vandenbergh, Bentein, Tremblay and Chebat (2007) in Belgium’s fast-food firm found the link between perceived supervisor support and commitment in both at individual and group level of analysis, while study by Van Yperen, Van Den Berg and Willering (1999) on superior-subordinate relationships in the Netherland’s medium-sized organization found that perceived supervisor support and organizational citizenship behavior are related both at individual and department level.

Within the Asian context, a study by Hui et al. (2007) based on Chinese organizations showed that supervisor’s behavior and employee services quality only operate at the individual level. Similarly. Another study by Liao and Chung (2007) in Taiwan organization found that transformational leadership was positively related to employee service performance at individual analysis. The current investigation however, suggests that the LMX quality and team-oriented commitment in a Malaysian organization exist at the group level.

Unfortunately, the limitation of the current study is that it is one organization and taking into account the sensitivity of WABA to team size, making inferences about the directionality of
that relationship must be made with caution: of whether high LMX quality do encourage commitment among individual in the team as a whole. However, based on the findings in this study on a Malaysian organization setting, we may conclude that the correlations between LMX quality (measured through LMX-7 and LMX-MDM) and team-oriented commitment were at the group level (interpreted as each group-differences effect).

The correlations that we uncovered involved social and work relationships (based on LMX-7 and LMX-MDM). The multilevel analysis results suggest that quality of social and work relationships subordinate received from their superior plays an important role in effecting and perhaps in affecting the commitment. One previous study suggested that only affection in superior-subordinate relationships influences subordinate satisfaction with their supervisor (Walter, Anderson, & Martin, 2005). However, neither of this investigation explicitly tested the level of analysis as we did in our study. Results of the current investigations also support the description of Malaysian respondents in Global Leadership and Organizational Behavior Effectiveness (GLOBE) study (Kennedy, 2002). In GLOBE study, it was noted that Malaysian employees prefer to work as a group rather than individually and place a high value on interpersonal communication and relationships. The results of the current investigations indicate that the commitment to team is related to higher level of superior-subordinate relationships quality.

The main strengths of this investigation are the diversity of the sample and independent source and method for the assessment of LMX and commitment. Another strength is the measurement of both social and work relationships in the examination. Few empirical investigations of LMX quality combining social and work relationships quality have been conducted, and they have tended not to include measures of competing constructs such as LMX-7 and LMX-MDM except the study by Liden and Maslyn (1998). Also rare is the simultaneous examination of antecedents and outcomes of LMX especially studies that include data collected from multiple sources, as in our study. Our investigations show that in a Malaysian organization, the relation between LMX that is measured through LMX-7 or LMX-MDM and group commitment, operates at group level.

**Limitation and Future Directions**

Perhaps the main weakness of the study is the focus of commitment. Current investigations limit to team-oriented commitment. Thus, we do not know the direction of level of analysis for LMX quality with organizational commitment or commitment to their respective superior in Malaysian organization setting. It would be desirable for future studies to combine
commitment to organization and superior. Secondly, the current investigation limited to only Malaysian participants. As mentioned earlier, current description on Malaysian participants justify the hypothesis advanced in this study where the LMX-quality and team-oriented commitment exist at the group level of analysis. Therefore, a comparison study between high and low context culture should be considered.

Finally, the results extend our understanding of LMX quality and team-oriented commitment by identifying the specific form levels of analysis. Researchers have already documented the direct effects of LMX quality on work outcome (Graen & Uhl-Bien, 1995) yet in order to continue providing knowledge useful for managers, researchers must continue their efforts to identify specific form levels of analysis on LMX quality within superior-subordinate relationship on work outcome. Of course, the results of this study should be interpreted with caution given the inherent limitations of the research design. Recent research views relationship development activities within a dyadic relationship as interdependent complex process that is grounded within a group (Liden, Wayne, & Sparrowe, 2000), and thus, a key limitation on this report is the cross-sectional nature of the data. Clearly, longitudinal research that tracks relationships development activities within and between dyad is needed. Likewise, the use of self-report methods and the homogenous sample (e.g. Malaysian and government link corporation) warrant caution. The dyad represented in this report may under-represent the actual population at large. In addition, statements of correlations based on the results of statistical techniques are useful for making inferences, but must be treated with caution given the sensitivity of WABA to group size.

References


