

# 雙重層次轉換型領導、主管與部屬交 關係與群體凝聚力對員工服務績效之 影響

## Examining the Effects of Dual-level Transformational Leadership, LMX, and Group Cohesiveness on Employee Service Performance

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**摘要：**本研究指出，雙重層次之轉換型領導，分別透過主管與部屬交換關係以及群體凝聚力對員工服務績效產生影響。為避免共同方法變異，本研究取樣自台中地區一間大型商業銀行，共計回收計 23 間分行，共組成有效的 228 組主管-成員對偶樣本資料。本研究發現，雙重層次之轉換型領導對於員工服務績效均有顯著性之影響。其中，個人層次之轉換型領導透過主管與部屬交換關係對員工服務績效產生影響。群體層次之轉換型領導透過群體凝聚力對員工服務績效產生影響。此外，本研究亦指出，群體凝聚力對於主管與部屬交換關係以及員工服務績效之間具有顯著正向干擾效果。本研究最後，亦提出理論與實務上之管理意涵以及未來研究方向。

**關鍵字：**雙重層次轉換型領導；主管與部屬交換關係；群體凝聚力；線性層級模式分析

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**Abstract:** In this study, we propose a multi-level theoretical framework within which we identify transformational leadership at dual levels as the primary source of the positive influence on employee service performance through the mechanism of leader-member exchange (LMX) and group cohesiveness. Data are obtained from 23 branches of a large commercial bank in central Taiwan, with the samples collected from both managers and employees forming 228 manager-employee dyads, and thereby avoiding common method variance. Our results reveal that both levels of transformational leadership and LMX have significantly positive effects on employee service performance, with LMX also playing a mediating role between individual-focused transformational leadership and service performance. Group-focused transformational leadership affects employee service performance through group cohesiveness. Interestingly, group cohesiveness is found to be an important moderator which also enhances the relationship between LMX and service performance. Our study includes a discussion of the theoretical and practical implications of our findings.

**Keywords:** Dual-level Transformational leadership; Leader-member exchange; Group cohesiveness; Hierarchical linear modeling.

## 1. Introduction

Excellent customer service has become one of the most important strategic aims for organizations to achieve competitive advantages (Hitt, Ireland and Hoskisson, 2009); this is particularly the case for firms within the service industry, of which banks are a typical example. Given the severity of modern day global economic challenges, improving service performance has become critical to survival within this particular industry. While Amazon is an exemplary on-line retailing company of providing superior customer service, Charles Schwab is an ace of customer service in the banking industry (McGregor, 2009). Since superior experience of customer service comes from direct interactions of employees, such as bank tellers, with customers, we provide a theoretical framework to discuss the organizational and individual factors that might influence employee service

performance.

Since excellent service performance is crucial for a firm to gain competitive advantages, we identify transformational leadership as a critical factor in the motivation of superior service performance delivery amongst employees. There are four distinct dimensions to transformational leadership, comprising of charismatic leadership, inspirational motivation, intellectual stimulation and individualized considerations (Bass, 1985; Bass and Avolio, 1990). Leaders described as *transformational* will invariably concentrate their efforts on developing a vision and on persistence with regard to long-term goals, inspiring followers to pursue this vision and mobilizing the available resources to achieve such persistence.

There have been calls for a theoretical integration of the transformational leadership and LMX literatures (Gerstner and Day, 1997; Graen and Uhl-Bien, 1995). In this study, we attempted such integration. Wang, Law, Hackett, Wang and Chen (2005) argued that the nature and quality of relationships between leader and follower are fundamental to linking leader behavior to follower response. Recent studies have revealed that employees have a need not only for meaningful tasks at work, but also for meaningful relationships (Grant, 2008). Thus, the assumption has been that transformational leadership behaviors influence follower service performance through the quality of the leader-follower relationship. In line with this reasoning, we developed and tested a model in which LMX mediates the relationship between transformational leadership behavior and employee service performance.

A multi-level approach has long been advocated by organizational scholars as the means of unveiling the richness and dynamics of social behavior across different organizational levels (Hitt, Beamish, Jackson and Mathieu, 2007). Several studies over recent years have advocated a combination of both individual-focused and group-focused transformational leadership research along with the cross-level effects of contextual variables (Graen and Uhl-Bien, 1995; Liao and Chuang, 2007). However, there appears to be a handful of studies in which both individual-focused and group-focused transformational leadership perspectives on organizational outcomes are considered along with the cross-level influences of transformational leadership.

We set out in this study to respond to this gap in the literature by examining the extent to which the individual service performance is influenced by group-focused transformational leadership through group cohesiveness, as well as the extent to which their service performance is influenced by individual-focused transformational leadership through LMX. We also examine the relationship between service performance and LMX, alongside the moderating role of group cohesiveness. We then go on to discuss dual levels of transformational leadership and LMX, and further discuss the moderating role of group cohesiveness.

## **2. Theory Development and Hypotheses**

### **2.1. Transformational Leadership and LMX**

Transformational leadership theory has been the most influential leadership theory for decades (Judge and Piccolo, 2004). Abundant academic accumulations have been done. There are two major contrasting transformational leadership research streams amongst them, namely, leader-based and relationship-based approach (Graen and Uhl-Bien, 1995). Leader-based research examines a leader's behaviors have direct and significant effects on organizational performance outcomes related to followers, which is exemplified by most of the transformational leadership literature (Bass, 1985). Relationship-based research focuses on dyadic social ties between leader and follower that improve organizational outcomes. This approach is best exemplified by leadership-member exchange (LMX) theory (Graen and Uhl-Bien, 1995).

Past transformational leadership studies attempted to explain individual and organizational outcomes by identifying leader's specific behaviors (Cheng and Farh, 2001; Podsakoff, Mackenzie and Bommer, 1996). There have been calls for a theoretical integration of the transformational leadership and LMX theory (e.g., Gestner and Day, 1997; Graen and Uhl-Bien, 1995). To our best knowledge, only a handful studies have included both transformational leadership and LMX; however, only Wang *et al.*(2005) showed how transformational leadership and LMX are related to each other and to organizational citizenship behavior/task

performance. Wang *et al.*(2005) argued that a transformational leader mobilize social exchange relationships, stimulating subordinates to surpass self-interests. More specifically, they provided solid results suggesting that the employee organizational citizenship behavior/task performance associated with transformational leadership result from the LMX between subordinates and leader.

Wang *et al.*(2005) denoted that transformational leaders foster the formation of high quality relationships with subordinates; while in a social exchange process, subordinates echo the leader by producing high-level commitments to organizational goals. Reporting structural equation analyses of data from multiple organizations located in a major city in northern China, Wang *et al.* (2005) wrote that transformational leadership predicts LMX and further influences organizational citizenship behavior/task performance. These results suggest that a leader's charisma and individualized consideration both have dyad-level influences which cause subordinates to reverberate in ways (such as extra role behaviors) that further strengthen relational ties with the leader.

Prior studies advocate a mix of leader-based and relationship-based transformational leadership research (Graen and Uhl-Bien, 1995; Podsakoff and MacKenzie, 1995). To advance this line of research, in the current study we aim to largely extend Wang *et al.*'s(2005) research to bank service industry and shows that leader- and relationship-based transformational leadership both exists. We further corroborate the mediating role of LMX between individual-focused transformational leadership and employee service performance and identify positive effects of individual-focused transformational leadership on employee service performance.

## **2.2. Individual- and Group-Focused Transformational Leadership**

Transformational leadership theories have long been accused of ignoring the group process (Nielsen and Daniels, 2011), so some researchers have attempted to conceptualize transformational leadership as a group-level construct (e.g., Liao and Chuang, 2007; Wang and Howell, 2010; Wu, Tsui, and Kinicki, 2010). They argued that transformational leadership behaviors are directed at the whole group

and, hence, result in a shared value and belief amongst followers. Thus, group-level transformational leadership has been linked to group variables (e.g., group identification and collective efficacy) and performance variables (Bass, Avolio, Jung and Berson, 2003; Schaubroeck, Lam and Cha, 2007; Wu *et al.*, 2010). However, two issues pertaining to this stream of research warrant further examination.

First, past transformational leadership studies have typically focused on either the individual or the group level exclusively (Menges, Walter, Vogel and Bruch, 2011). They do not investigate the effects of transformational leadership on organizational outcomes at both levels concurrently, mainly because traditional multilevel methodology has not advanced to analyze the impact of transformational leadership at multiple levels (Lin, 2005). In this current study, our multilevel methodology developed by Raudenbush, Bryk, Cheong and Congdon(2004) corroborates to examine the effects of transformational leadership at dual levels of analysis, which is widely adopted by recent studies (e.g., Liao and Chuang, 2007). To clarify this issue, we proposed a multiple-level transformational leadership model that divides transformational leadership into the individual-focused level and the group-focused level. Liao and Chuang (2007) have argued that individual-focused transformational leadership focus on individual followers' needs and are expected to build strong ties between leader and follower. The group-focused transformational leadership refers to the overall pattern of leadership behavior, emphasizing the identity of the group and link the self-concept of followers to the shared values and beliefs of the group. They also refer to the group-focused transformational leadership may have a cross-level, top-down effects on individual employee performance. In this study, we include both levels of transformational leadership as predictors to employee service performance.

Second, transformational leadership studies needs to consider the joint effects of individual- and group-level factors on organizational outcomes, which is consistent with the contextual model (Liao and Chuang, 2007). Scott and Walker (1995) also called for further investigation on the moderation effects of contextual variables. Since groups are considered to be an effective solution for

organizations under severe competitions (Gilson and Shalley, 2004), this study echoes the research void in taking group cohesiveness as a moderation variable. Group cohesiveness is an important contextual factor affects employee performance (George and Bettenhausen, 1990; Van Dyne, Cummings and Parks, 1995) and warrant further examinations (Kidwell, Mossholder and Bennett, 1997). It attracts and glues group members together to voluntarily participate group activities (Shaw, 1981).

To answer these calls, in this study, we integrate both individual- and group-focused transformational leadership and examine the extent to which the transformational leadership created at the group level influences the employee service performance. In addition, we will examine the moderating role of group cohesiveness, a group-level phenomenon that members are attracted to the group to remain and actively participate in group activities, in the relationship between LMX and service performance (Geroge and Bettenhausen, 1990).

In the following section, we first test a hierarchical linear regression model that positions LMX as a mediator between individual-focused transformational leadership and employee service performance at individual level. At group level, we propose to test group cohesiveness as mediator between group-focused transformational leadership and employee service performance and as moderator between LMX and individual service performance.

### **2.3. Transformational Leadership and Employee Service Performance**

Previous transformational leadership studies have focused primarily on leader behavior (Wang *et al.*, 2005). Leadership theorists primarily use self-concept theory as the means to explain the ways in which leadership behavior can ultimately transform the behavior of followers (Shamir, House and Arthur, 1993). Self-concept theory is the ways in which we see ourselves and our relationships with others are formed through our various interactions within the working environment (Shamir *et al.*, 1993). Self-concept theory explains the change of follower behavior in two ways. First of which is through social identification. Followers identify themselves as members of an honorable group,

whilst leaders will invariably use meaningful symbols, slogans, rites and rituals in order to strengthen the collective identity of the followers (Shamir, Zakay, Breinin and Popper, 1998).

The second way is transformational leadership behavior change the behavior of followers through the internalization of corporate values. Since followers are attracted by the vision, ideas and beliefs of a leader, they regard their work as an inseparable part of the work of the whole group (Deluga, 1994); they are proud of their membership within the group, and will normally generate high-level commitment towards it. Such high-level commitment further establishes the followers' conception of 'self', whilst also increasing self-efficacy (Shamir *et al.*, 1993). The two transformational processes refer to the ways in which the values and beliefs espoused by the leader can reinforce the conception of self amongst followers, with such followers internalizing the vision and values of their leader through their identification with the leader's organizational goals (Shamir *et al.*, 1993).

When the need for provision of superior service performance is communicated as an important component of company's vision, and one which is advocated and communicated by the leader as an important organizational goal, the members of the organization are likely to pursue it with vigor (MacKenzie, Podsakoff and Rich, 2001). When transformational leaders internalize the vision, values and beliefs into employees, they will be motivated to engage in high-level commitment, contribute to their work, and strengthen their efforts to pursue overall service performance (Liao and Chuang, 2007). We therefore hypothesize that:

***H1: Individual-focused transformational leadership is positively related to employee service performance.***

Group-focused transformational leadership, created by transformational leaders, is norms which come to be collectively shared, and which ultimately take on institutional status; this underpins the overall pattern of transformational leadership as it exists in groups (Kitts and Chiang, 2008, Liao and Chuang, 2007). The norms that are formed amongst group members can be regarded as taken-for-granted organizational routines (Aldrich and Fiol, 1994) and behavior

scripts (Nooteboom, 1996). These norms can facilitate both task fulfillment (Scott, 2001) and conformity amongst group members (Tagger and Ellis, 2007).

There are two important elements for transformational leaders to construct organizational norms: cognitive legitimacy and social/political approval (Aldrich and Fiol, 1994). First, cognitive legitimacy involves the adoption symbolic language and rhetoric, both of which have intention-framing purposes, aiming at transforming the beliefs of employees. Such techniques involve the use of words like 'us', as opposed to 'me'; that is, transformational leaders attempt to re-infuse new or radical ideas into socially accepted and approved conventional ideas to transform the values and beliefs of their followers (Fiol, Harris and House, 1999).

Second, social/political approval refers to the techniques to construct ways of communications within an organization in order to earn leader's recognition. It often takes the form of storytelling (Barry and Elmes, 1997). Transformational leaders often use stories to set external criteria which are then, in turn, accepted and internalized by group members (Aldrich and Fiol, 1994); that is, stories are used as metaphors and analogies to frame the real intentions of the transformational leader in order to familiarize the group members with formerly unfamiliar external criteria (Lounsbury and Glynn, 2001).

Transformational leaders often use both cognitive legitimacy and social/political approval to build shared organizational norms amongst group members; however, it is noted in prior studies that the creation of the overall patterns of transformational leadership behavior requires a process of interaction between group members ( e.g., Bettenhausen and Murrighan, 1991; Liao and Chuang, 2007). Once these organizational norms become accepted by any single group member, the processes of discussion and communication will determine whether all other group members will ultimately accept these same norms (Luria, 2008).

Organizational norms glue group members through sense-making process (Weick, 1995). Sense-making process indicates that communication amongst group members draws various confusing cues together within multiple environments and ultimately drive group members to proceed to a collective interpretation process. As a result, these diverse environments will gradually

become understandable to all group members as an organized system (Weick, 1995; Weick, Sutcliffe and Obstfeld, 2005).

To summarize the discussion so far, we note that transformational leadership behavior gives rise to organizational norms shared amongst all group members; these norms (which are essentially institutions), can shape the behavior of group members. However, powerful actors, such as transformational leaders, are needed to construct the shared norms (Schriesheim, 1980; Weick *et al.*, 2005). Following the necessary process of behavior adaptation, through the recognition of the cognitive structures and the operation of the sense-making process, group members will finally come to accept these as taken-for-granted norms (Weick *et al.*, 2005).

The above summary describes a process of transference from individual transformational leadership behavior to shared collective norms amongst group members, norms which can be regarded as an ambient stimulus, which pervades the organizational atmosphere and which is used to facilitate the process of task enforcement (Hackman, 1992; Liao and Chuang, 2007). Norms bond group members together through their shared obligations within the working environment (Liao and Chuang, 2007); that is, these norms affect service performance through a bi-directional process. Thus, we hypothesize:

***H2: Group-focused transformational leadership is positively related to employee service performance.***

## **2.4. The Mediating Role of Group Cohesiveness**

The mediating role of group cohesiveness in the relationship between group-focused transformational leadership and employee service performance is premised on the notion that high-level group cohesiveness reflects an affective bonding accompanied by mutual dependence amongst group members (Mudrack, 1989). Such a relationship develops from a predominantly transactional exchange into a social exchange as mutual trust and respect, which is developed by transformational leader and internalized by employees as shared organizational norms and lead to higher identification with the uniqueness of leader value (Wech *et al.*, 1998). Group cohesiveness thereby leads to higher commitment to

organizational goals (Dutton, Dukerich and Harquail, 1994).

We argue that group-focused transformational leadership builds and nourishes high-quality group cohesiveness. Shared organizational norms developed by leader can align or re-align beliefs of group members, and reinforcing their beliefs, self-efficacy, and task motivation (Conger and Kanungo, 1987; Shamir *et al.*, 1993). Dvir and coauthors (2002) suggested that social bonding amongst group members mediate the effects of transformational leadership behaviors on follower performance. Mutual dependence among group members suggests high levels of interpersonal attractions and attachments (Wech *et al.*, 1998) and in turn leads to higher service performance. We therefore hypothesize:

***H3: Group cohesiveness mediates the relationship between group-focused transformational leadership and employee service performance.***

## **2.5. The Mediating Role of LMX**

As discussed earlier, transformational leaders tend to invoke the social and personal identification processes in their employees. We further reason that a close leader-member exchange relationship will emerge from these processes in which trust and respect are likely developed. The theory of LMX (Graen and Uhl-Bien, 1995) highlights the importance of leader-member relationship in motivating employee performance. Relationship building involves mutual learning and accommodation. Transformational leaders tend to establish a high-quality social exchange relationship with their subordinates (Wang *et al.*, 2005) because their vision, inspiration, motivation, and individualized consideration are likely to induce subordinates' endorsement of their values and goals, which are more of social rather than economic in nature. Consequently, a relational contract may be formed between the leader and the subordinate (Rousseau, 1995). This relational contract escalates through a reciprocating process such that the better the social exchange relationship, the better the performance the subordinates will exhibit (Liden, Sparrowe and Wayne, 1997).

When personal identification with the leader is internalized by followers, mutual trust, respect, and loyalty are earned between the two parties. In the context

of a service organization where the value of superior customer service is strongly promoted subordinates are likely to exhibit superior performance to ensure the maintenance of their high quality relationship with the leader, and to reciprocate the trust the leader has in them (Wang *et al.*, 2005) by transferring it to establishing a meaningful relationship with customers. Stated alternatively, achieving superior service performance can be considered as a form of LMX currency circulated within the social exchange relationships that exist between leaders and followers, as well as a way of showing reciprocity and obligations (Wang *et al.*, 2005). Therefore, we hypothesize:

***H4: Leader-member exchange mediates the relationship between individual-focused transformational leadership and employee service performance.***

## **2.6. Cross-Level Moderation Effects of Group Cohesiveness**

Cohesiveness is generally defined as the resultant of all forces acting on all the members to remain in the group (Cartwright, 1968). Group cohesiveness is one of the essential concepts for understanding group dynamics (Zander, 1979). Theorists identify group cohesiveness as group spirit, interpersonal attraction, sense of belongingness (Mudrack, 1989), and the desire to stay in a group (Evans and Dion, 1992). In the current study, group cohesiveness is concentrated on social cohesion, which would be a proper concept for examining the moderating effect in the person-context framework study (Shin and Park, 2009).

Group cohesiveness exercises moderating effects on employee service performance in two ways. First, social control theory (Hirschi and Stark, 1969; Shin and Park, 2009) focus on restraining or controlling factors that are broken inside personalities. The theory demonstrates that individual behavior can be restrained and focused to a certain degree if they belong to groups which have strong ties. In business situations, personal characteristics could be restrained and concentrated when group member belong to cohesive groups. Employees in cohesive group would be influenced by other members due to strong social ties; consequently, group cohesiveness would strengthen the LMX-service

performance relationship.

Second, social capital theory. The term social capital is described as an investment in social relations with expected returns in the marketplace (Lin, 2001). Putnam (1993) also suggested that social capital would facilitate cooperation and increase mutual dependence in groups. It was assumed that members in highly-cohesive groups are willing to share their resource and cooperate with others due to mutual trust, respect, and obligations (Graen and Uhl-Bien, 1995); thus, group cohesiveness helps their members to achieve better performance. Group performance will increase in such situations; hence, group cohesiveness would be a moderator in the LMX-service performance relationship.

Higher levels of group cohesiveness strengthen interactions, communication and mutual dependence among group members, whilst also enhancing the willingness amongst employees to provide superior customer services. Group cohesiveness is thus regarded as a moderator between LMX and employee service performance. We therefore hypothesize that:

***H5: Group cohesiveness acts as a moderator between LMX and employee service performance; the greater the level of group cohesiveness, the stronger the positive relationship between LMX and employee service performance.***

### **3. Methods**

#### **3.1. Participants and Procedures**

The research setting in this study was 23 branches of Taiwan Cooperative Bank (TCB) in central Taiwan area. The bank, former Taiwan Industrial Bank in Japanese colonial period, was established in 1945 by Taiwan provincial government's integrating credit unions, farmers' associations, and fisherman's associations. By the end of 2010, the capitalization stood at 1.4 billion USD. In recent years however, with the increasing competition from diverse financial institutions, the bank has undergone significant changes and has shifted their financial services from corporate banking to personal banking and wealth

management services. As a result, the bank has put paramount emphasis on customer service quality. For example, it has made great efforts in training its personal financial consultants internally and in strengthening customer relationship management externally. Each branch was regarded as a separate group because performance evaluation was branch-based in the bank. The research setting matches strong sample relevance (Sackett and Larson, 1990).

To avoid the common method bias (Podsakoff, Mackenzie, Lee and Podsakoff, 2003), we followed Scott and Bruce (1994) and divided the questionnaire into two parts: a manager questionnaire in which employee and group service performance were evaluated, and an employee questionnaire, in which their perception of transformational leadership and LMX were measured. Data collection procedure was as follows.

Firstly, we contacted branch managers through telephone calls and e-mails, and invited them to distribute questionnaires. We dispatched questionnaires on a one-branch-one-package basis. Each package contained one copy of the manager questionnaire and 12 copies of the employee questionnaire. The manager was asked to evaluate up to 12 subordinates in the branch. One-manager-each-branch basis is used, 23 managers responded, and none of them out of the same branch. The criteria of selecting respondents were bank clerks who have direct contacts with customers. Judging from the scale of each bank, most first-line employees were chosen. A number code was used for each subordinate so that we could match the manager's evaluation data with that of the subordinate. The employees were not made aware that their managers were evaluating them. To ensure anonymity, no names were required in any part of the questionnaire and they were informed that all responses would be kept confidential. Finally, two phone reminders were sent: one after three weeks and the other after four weeks. To encourage participation, every participant was sent a little souvenir as a gesture of appreciation.

With the bank's senior manager support, we obtained a high response rate: 85%. Our final usable sample comprised of 228 respondents from 23 branches of the commercial bank; the demographic characteristics of our study sample were as follows. The average group size in this study was ten persons (S.D. = 2.20),

which was well above the minimum criterion of three (Carron and Spink, 1993). Most of the study participants were female (65.4 percent), with a mean age of 40.64 (S.D. = 8.12) and mean organization tenure of 75.75 months (S.D. = 52.35).

## **3.2. Measures**

### **3.2.1. Service Performance**

Service performance is assessed in this study using the Liao and Chuang (2004) employee service performance scale, with minor modifications being made in order to accommodate our measures. Each of the managers was asked to rate the service performance of twelve employees based upon a seven-item scale. Examples of the statements included are “being friendly and helpful to customers” and “asking good questions and listening to find out what a customer wants”, with the response options ranging from 1 (strongly disagree) to 6 (strongly agree). The Cronbach’s  $\alpha$  (reliability) for this scale was .92.

### **3.2.2. Individual-Focused Transformational Leadership**

This study adopts the Bass and Avolio (1990) ‘multi-factor leadership’ questionnaire (MLQ-form 5R) as the measure of transformational leadership, using the Chinese version with minor revisions made for considerations of relevance. The measure of transformational leadership comprises of four dimensions, ‘idealized influence’, ‘inspirational motivation’, ‘intellectual stimulation’ and ‘individualized considerations’, with a six-item scale being used for each dimension. The transformational leadership scale in this study therefore comprises of 24 items, and includes statements such as “talks to us about his/her most important values and beliefs” and “spends time teaching and coaching me”, with the response options ranging from 1 (strongly disagree) to 6 (strongly agree). The Cronbach’s  $\alpha$  for this scale was .97.

### **3.3.3. Group Transformational Leadership**

The measures of group transformational leadership, which involve the shared unit construct (Kozlowski and Klein, 2000) or the direct consensus model (Chan,

1998), were aggregated from the transformational leadership measures. Prior to aggregation, the consensus indices, such as  $r_{wg}$  (James, Demaree, and Wolf, 1984), ICC(1) and ICC(2), were employed to justify the aggregation process. The  $r_{wg}$  score was .86, indicating that it was reasonable to apply a cross-level analysis; the ICC(1) score was .40, which is higher than the benchmark suggested by Cohen (1988); and the ICC(2) score reached .94, which is also higher than the benchmark suggested by Klein and Kozlowski (2000).

#### **3.3.4. Leader-member Exchange**

LMX is assessed in this study using the Graen and Uhl-Bien (1995) LMX scale; this is a seven-item scale (LMX-7), which includes questions such as “how well does your leader understand your job problems and needs?” and “how well does your leader recognize your potential?”; the response options ranged from 1 (strongly disagree) to 6 (strongly agree), and the Cronbach’s  $\alpha$  for this scale was .93.

#### **3.3.5. Group Cohesiveness**

Group cohesiveness is a referent-shift consensus construct (Chan, 1998; Kozlowski and Klein, 2000). This is measured in the present study using the Dobbins and Zaccaro (1986) eight-item scale, which includes statements such as “the members of my group get along well together” and “there is little dissention in the group”, with the response options ranging from 1 (strongly disagree) to 6 (strongly agree). The Cronbach’s  $\alpha$  for this scale was .92.

The lower-level (individual) evaluations obtained in this study were based upon prior consensus to either form, or shift to, a new construct, which was distinct from a construct originally derived at individual level (Chan, 1998). However, prior to such cross-level analysis, there is a need to check the presence of group-level effects (Bliese, 2000). The  $r_{wg}$  score for group cohesiveness in the present study was 0.71, whilst the ICC(1) score was .29 and the ICC(2) score was .80. Since all of these values are consistent with the acceptable range of values suggested within the extant literature, these are applied as the measures of group cohesiveness in the present study.

### 3.3.6. Control Variables

Controls are provided in this study for age, gender (0 = female; 1 = male), tenure within the organization (months) and tenure with the current supervisor (months). The last two controls, organizational tenure and tenure with current supervisor, were calculated in order to avoid any potential confounding effects on the dependent variables (Kamdar and Van Dyne, 2007).

## 4. Results

The means, standard deviations and variable correlations for the study sample are presented in Table 1, from which we can see that most of the correlations are within .00 to .55; the correlations between the variables are therefore acceptable.

**Table 1**  
**Means, Standard Deviations, and Correlations**

Variables	Mean	SD	1	2	3	4	5
<b>Individual-level variables</b>							
1.Age	40.64	8.12					
2. Organization tenure	75.75	52.35	.77**				
3.Tenure with current supervisor	50.95	47.57	.46**	.55**			
4.LMX	4.71	.80	-.04	-.08	.07		
5.Employee Service performance	4.50	.72	-.02	.02	-.01	.36**	
6.Individual-focused transformational leadership	4.38	.83	-.22**	-.21**	-.10	.29**	.30**
<b>Group-level variables</b>							
1.Group cohesiveness	4.64	.43					
2.Group-focused transformational leadership	4.37	.57	.90**				

\*\*  $p < .01$ , \*  $p < .05$  (two-tailed)

### 4.1. Confirmatory Factor Analyses

We conducted a set of confirmatory factor analyses (CFAs) to determine if our multi-item variables (i.e., Transformational leadership, LMX, and Group Cohesiveness) were distinct from each other. The analysis revealed that the

proposed three-factor model displayed an acceptable fit ( $\chi^2 = 1282.05$ ,  $df = 699$ ,  $p < .001$ , RMSEA = .08, CFI = .94, NNFI = .93). The fit statistics for the hypothesized model were significantly better than a two-factor model (grouping TFL and LMX) ( $\chi^2 = 1676.42$ ,  $df = 701$ ,  $p < .001$ , RMSEA = .11, CFI = .93, NNFI = .92,  $\Delta\chi^2 = 394.37$ ,  $df = 2$ ,  $p < .001$ ) or a one-factor model ( $\chi^2 = 2014.62$ ,  $df = 702$ ,  $p < .001$ , RMSEA = .13, CFI = .92, NNFI = .91,  $\Delta\chi^2 = 338.2$ ,  $df = 1$ ,  $p < .001$ ).

## **4.2. Hierarchical linear modeling analysis**

'Hierarchical linear modeling' (HLM) analysis (Raudenbush, Bryk, Cheong and Congdon, 2004) is adopted in this study to test our hypothesized relationships, with controls also being included for the employees' age, gender, organization tenure and tenure with the current supervisor. Model 1 of Table 2 tests for the effects of both individual- and group-focused transformational leadership, with the results revealing the significant predictive ability of group transformational leadership with regard to service performance ( $\gamma = .34$ ,  $p < .5$ ); although less so, the effect of individual-focused transformational leadership is also found to be significant ( $\gamma = .13$ ,  $p < .01$ ). Support is therefore provided for both **H1** and **H2**.

The test results for the mediation effect of group cohesiveness between group-focused transformational leadership and service performance are presented in Model 1 and 2 of Table 2. This test follows the three-stage process proposed by Baron and Kenny (1986). In the first stage, group-focused transformational leadership must be shown to have a significantly positive correlation with service performance; this result is already assured by the test of Hypothesis 1. In the second stage, group-focused transformational leadership must be found to have a significantly positive association with group cohesiveness; this relationship is tested in the present study using ordinary least square (OLS) analysis, essentially because this is seen as an appropriate way of assessing this effect at group level (Liao and Chuang, 2007). Our results reveal that group transformational leadership is indeed found to have such a positive association with group cohesiveness ( $\beta = .67$ , adjusted  $R^2 = .78$ ).

**Table 2**  
**Hierarchical Linear Modeling Results**

Variables		Employee Service Performance				LMX
		Model 1	Model 2	Model 3	Model 4	(Model 5)
<b>Intercept</b>	$\gamma_{00}$	4.55***	4.55***	4.51***	4.50***	4.74***
<b>Individual-level variables</b>						
Age	$\gamma_{10}$	.00	.00	-.00	-.00	.01
Gender	$\gamma_{20}$	-.11*	-.11*	-.09	-.11	-.08
Organization tenure	$\gamma_{30}$	.00	.00	.00	.00	-.00*
Tenure with current supervisor	$\gamma_{40}$	-.00*	-.00*	-.00**	-.00**	.00*
LMX	$\gamma_{50}$			.27**	.28**	
Individual-focused transformational leadership	$\gamma_{60}$	.13**	.14**	.10 <sup>†</sup>	.10 <sup>†</sup>	.13*
<b>Group-level variables</b>						
Group cohesiveness	$\gamma_{01}$		.61**	.39*	1.71	.65***
Group-focused transformational leadership	$\gamma_{02}$	.34*	-.05	-.06	1.13	-.10
Group cohesiveness × Group-focused transformational leadership	$\gamma_{03}$				-5.33	
<b>Cross-level interaction variables</b>						
Group cohesiveness × LMX	$\gamma_{51}$				.28*	
$\hat{\sigma}^2$		.36	.35	.32	.33	.74
$\hat{\tau}_{00}$		.09**	.09***	.05	.05	.09
$\hat{\tau}_{55}$				.00	.00	
$\hat{\tau}_{66}$				.07*	.05*	.12
Model Deviance		476.00	475.25	462.22	454.57	554.04

<sup>a</sup>n = 228 at individual level; n=23 at group level

\*\*\* p < .001, \*\* p < .01, \* p < .05, † p < .1

<sup>b</sup>in all models, level 1 variables were group-mean centered, except Gender

<sup>c</sup>Deviance is the measurement of model fit. The smaller, the better the model fits.

Given the high correlation found between group transformational leadership and group cohesiveness, as shown in Table 1, we considered it necessary in this study to carry out an additional test for potential multicollinearity (Hair, Anderson, Tatham and Black, 2006); however, the results of this test show that the variance inflation factor has a low degree of multicollinearity (VIF = 1).

Both group-focused transformational leadership and group cohesiveness are included within the third stage of the mediation effect test. The results, as shown in Model 2 of Table 2, reveal that group cohesiveness has significant predictive

ability with regard to service performance ( $\gamma = .61, p < .01$ ), thereby providing support for **H3**.

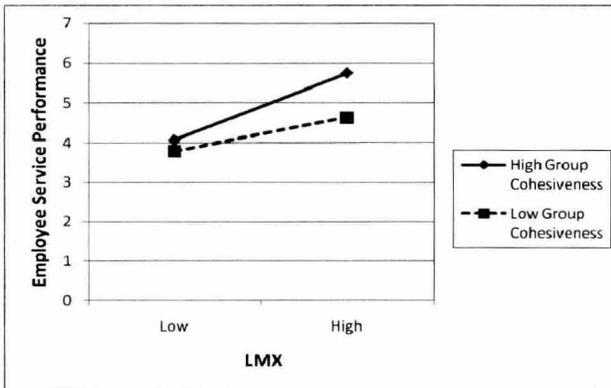
A similar approach is followed to test the mediation effect of LMX between individual-focused transformational leadership and service performance. We also follow the three-stage process proposed by Baron and Kenny (1986). In the first stage, presented in Model 1 of Table 2, individual-focused transformational leadership is found to have significant predictive ability with regard to service performance ( $\gamma = .13, p < .01$ ), whilst in the second stage, presented in Model 5 of Table 2, individual-focused transformational leadership is also found to be positively associated with LMX ( $\gamma = .13, p < .05$ ).

In the third stage, presented in Model 3 of Table 2, both individual-focused transformational leadership and LMX are included, with the results revealing an overall reduction in the effect of individual-focused transformational leadership on service performance ( $\gamma = .10, p < .1$ ); since this provides partial support for the mediating role of LMX between individual-focused transformational leadership and service performance, partial support is also provided for **H4**.

Further tests are undertaken in this study of the cross-level moderation effects, with the results of the tests between LMX and service performance being presented in Model 4 of Table 2. In order to avoid any potentially spurious cross-level moderation effects, we follow Hofmann and Gavin (1998) and Liao and Chuang (2007) to control for the interactions between groups (by including the product terms of both group cohesiveness and group transformational leadership). The results reveal that the interaction effect is significant ( $\gamma = .28, p < .05$ ).

We then follow the suggestion of Aiken and West (1991) to graphically observe the interaction effect; this is illustrated in Figure 1, which shows that when group cohesiveness is low, the influence of LMX on service performance is weak and slope is flat ( $\beta = .14, p < .10$ ). Conversely, when group cohesiveness is high, the influence of LMX on service performance is stronger and slope becomes steeper ( $\beta = .26, p < .001$ ); that is, with high group cohesiveness, the effect of LMX is enhanced and there is a corresponding increase in service performance. These results provide support for **H5**.

**Figure 1**  
**The Interaction Effect of LMX and Group Cohesiveness on Employee Service**



## 5. Discussion

Three notable findings arise from the present study, each contributing to the extant literature on employee service performance and transformational leadership. Firstly, both individual- and group-focused transformational leadership are found to have significantly positive effects on employee service performance. Secondly, group-focused transformational leadership is found to exist in the form of shared organizational norms which directly affect employee service performance through group cohesiveness; individual-focused transformational leadership is found to be translated into employee service performance through the LMX relationship. Thirdly, the mediating role of group cohesiveness is found to strengthen the relationship between LMX and employee service performance.

Whilst significant evidence presented in the prior studies show that transformational leadership inspires organizational citizenship behavior amongst employees, as well as task performance (Podsakoff *et al.*, 1996; Wang *et al.*, 2005). The present study extends Wang *et al.*, (2005) to service industry settings and shows that leader- and relationship-based transformational leadership both exists.

This study corroborates the mediating effects of LMX between individual-focused transformational leadership-employee service performance relationship and identifies positive effects of individual-focused transformational leadership on employee service performance.

As noted earlier, within the extant literature of transformational leadership, various studies call for examination of the multi-level effects of the transformational leadership behavior on organizational outcomes (Liao and Chung, 2007; Wang and Howell, 2010). Our study excels prior studies by showing that group-focused transformational leadership and group cohesiveness are not only meaningful constructs showing positive effects on employee service performance, group cohesiveness also plays a moderation role in the relationship between LMX and superior employee service performance.

By demonstrating the influence of group-focused transformational leadership on the individual service performance, this current study provides a first step towards the development of a more comprehensive model capable of effectively identifying the underlying mechanisms of such influences. For example, our findings suggest that group-focused transformational leadership can promote superior employee service performance by creating a cohesive atmosphere within the group as a whole; this could conceivably facilitate a more cooperative desire amongst the group members to engage in the greater sharing of information and knowledge.

Our finding of the LMX effects in translating into service performance indicates a reciprocal process when employees are inspired by leader's vision, motivation and individualized considerations. Furthermore, our findings that group cohesiveness plays a moderating role in the LMX-employee service performance relationship which thereby suggests that it has the effect of strengthening this relationship adds yet another valuable piece to the theoretical puzzle of the way in which individual-focused transformational leadership influences employee service performance whilst also providing suggestions with regard to the circumstances under which the positive effects of LMX might be augmented. The cross-level effect of group cohesiveness adds complexity to the phenomenon of such cohesiveness at the individual level, thereby providing a

more comprehensive illustration and understanding of the dynamics relating to the ways in which individual- and group-level factors interact to influence the emergence of important employee outcomes.

Certain methodical merits of the present study should be noted. Firstly, in response to the call for more multi-level research, we adopt hierarchical linear regression analyses to examine both group cohesiveness and the cross-level effects of transformational leadership, at both group and individual levels. Secondly, in order to avoid the potential effects of common method variance, as recommended by Podsakoff *et al.* (2003), the data used in this study are obtained from many different sources.

### **5.1. Managerial Implications**

The findings of this study have potentially valuable implications for general management practice. Firstly, in addition to showing respect for subordinates and inspiring them to achieve their full potential, effective leaders must also be capable of forming good-quality social exchange relationships with them. If they are to succeed in building up such relationships, transformational leaders will need to be able to sketch out the organizational vision for their subordinates and to provide them with an effective link with their own conception of self through personalized role assignments.

As a result of such tasks and relationships, followers can obtain their perceived equity within the organization (Dienesch and Liden, 1986), and can then go on to further identify with the vision and values of their transformational leader. Thus, mutual exchange relationships are established, characterized by trust, loyalty and commitment, a form of social currency circulated in these social exchanges, within which subordinates feel some obligation to reciprocate through enhanced performance (Wang *et al.*, 2005).

Secondly, since leaders cannot stay in their position forever, they have to create shared organizational norms that will provide consistent and effective cohesion within the organization. When building such organizational norms and beliefs, leaders can use techniques involving symbolic language and rhetoric to transform the beliefs of subordinates, such as referring to 'us' instead of 'me.'

Leaders also use other techniques, such as story telling, to avoid social political approval and to introduce external criteria into the processes and procedures that already exist within the organization; these can also help group members to accept and internalize these norms and beliefs.

Thirdly, group cohesiveness is an atmosphere which is shared by all group members, within which there is increased knowledge sharing and cooperation amongst the members, which ultimately strengthens the LMX-employee service performance relationship. A high level of cohesiveness enhances the willingness of employees to leverage resources in order to develop a strong commitment to their job. Many different activities can be used to improve this cohesion, such as annual business group travel programs, cross-cultural training experiences for employees or corporate adventure team-building programs (Tsai and Chi, 2008).

We contribute to the literature on transformational leadership and employee service performance by examining the mediating role of group cohesiveness and the leader-member exchange relationship using cross-sectional, multi-sourced, multi-level data. Our study extends both the theoretical and empirical literature on leadership by demonstrating the existence and effects of group transformational leadership constructs, and by proposing and testing a model which supports the integration of transformational leadership literature and social exchange theory.

## **5.2. Limitations and Suggestions for Future Research**

We conclude with a few limitations and suggestions for future research. Firstly, to control for undesirable environmental factors, such as industry or organizational structure, our sample was obtained from 23 branches of a large commercial bank. The choice of research settings is essential for examining theoretical framework. Since Taiwanese banks are facing the pressure for increasing corporate performance after the enforcement of government's financial liberalization policy, they are engaged in service quality improvement actions. As a result, this sample bank is most suited for our study and is also a limitation. The constructs such as transformational leadership, LMX, and group cohesiveness are now important characteristics in banking service industry. However, there may be other factors, such as antecedents, mediators and moderators, which can potentially influence

service performance, but which are not included in the present study; therefore, future studies should attempt to explore these.

Secondly, no information was collected in the present study on psychological process variables; therefore, future studies should aim to examine these in an attempt to further explain the ways in which transformational leadership inspires employees to provide superior service performance. Thirdly, our evaluation of service performance reflects a managerial perspective, whereas it is suggested that such performance evaluations should also be obtained directly from customers (Liao and Chuang, 2007).

The study by Liao and Chuang (2007), which focused on a franchised hair salon in Taiwan, involved a sample of customers who were regular visitors to the salon; thus, this made them very accessible. This study used a managerial perspective essentially because bank customers do not attend on a regular basis; this makes access to them very costly. Nevertheless, future studies should make some attempt to collect data on service performance from the perspective of bank customers.

Finally, although the data collected for this study comprised of information obtained from multiple sources, it was still undertaken using a cross-sectional design; this clearly limits our ability to identify any causal influences. Future studies may elect to adopt a longitudinal design in order to examine the ways in which the relationship dynamics between transformational leadership, leader-member exchange and group cohesiveness change over time, and to try to trace their causal links.

In conclusion, the present study contributes to the literature on transformational leadership and employee service performance by examining the mediating role of leader-member exchange relationship using multisource, multi-level data in a cross-sectional design. In addition, the study extends the leadership literature both theoretically and empirically by demonstrating the existence of the group-focused transformational leadership and by proposing and testing a model that supports the cross-level mediation/moderation effects of group cohesiveness on employee service performance.

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