

# THE RELATIONSHIP BETWEEN LEADER-MEMBER EXCHANGE DIFFERENTIATION AND TEAM PERFORMANCE: COOPERATIVE COMMUNICATION AS MEDIATOR

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## ABSTRACT

*The objective of this paper is to propose a conceptual model that explains the psychological process of how leader-member exchange (LMX) differentiation influences team performance. Based on theories of LMX and social information processing, it is argued that several important mechanisms underpin the relationship between LMX differentiation and team performance. Therefore, the researchers suggest that the team process mechanism such as cooperative communication serves as a psychological process to influence LMX differentiation and team performance relationship. The conceptual significance and how it affects the relationship is discussed in this paper. The proposed model increases the understanding of the role of cooperative communication in the relationship between LMX differentiation and team performance. The findings of this study will also help minimize the negative effect of LMX differentiation, and may ultimately lead to better team performance.*

**Keywords:** team performance, LMX differentiation, cooperative communication

## 1.0 INTRODUCTION

At the present time, teams are assumed to be dominant for performance in many organizations (Katzenbach & Smith, 1993; Rico, Alcover de la Hera, & Taberner, 2011; Ross, Jones, & Adams, 2008, Zhang, Ullrich, & van Dick, 2015). Teamwork can contribute in many ways such as in knowledge, skills, and experiences which lead to quick, easy and innovative responses to problems and challenges (Meneghel, Salanova, & Martínez, 2016; Rico et al., 2011). Therefore, it can be argued that effective team functioning is one of the major determinants of organizational success.

With rising interest in highlighting the purpose of study teams for organizational performance, and understanding the significance of different leader-member exchanges (LMX) for team processes and outcomes have become increasingly important because LMX relationships operate on a social network boundary that influences other exchange relationships within work teams (Liden, Erdogan, Wayne, & Sparrowe, 2006; Tse & Dasborough, 2008; Sui, Wang, Kirkman, & Li, 2015; Tse, Ashkanasy, & Dasborough, 2012). The study of LMX has proven to be a rich leadership approach over the past several decades (Anand, Hu, Liden, & Vidhyarthi, 2011; Graen & Uhl-Bien, 1995, Hu & Liden, 2013). LMX is an alternative approach to understanding a leaders' influence by focusing on dyadic or paired relationship between leaders and each of their subordinates (Dansereau, Graen, & Haga, 1975). The LMX model suggests that leaders do not use the same style or set of behaviours uniformly across all members. Instead, a unique relationship exchange develops with each employee that remains relatively stable over time. These exchanges range from low to high quality. Employees with high-quality exchanges have been referred to as the "in-group" and those with low-quality exchanges as the "out-group." When the relationship between a leader and a subordinate is of high quality (rather than low-quality), the subordinate will receive better performance evaluations (Graek, Novak, & Sommerkamp, 1982), more promotions (Wakabayashi, Graen, Graen, & Graen, 1998) more mutual trust, liking, respect and reciprocal influence (Dansereau, Graen, & Haga, 1975), better objective performance (Klein, & Kim, 1998), less turnover (Graen, Liden, & Hoel, 1982)), and a number of beneficial consequences for both themselves and the organization (Graen, 1976; Graen, & Cashman, 1975). Although these results are compelling, LMX research has largely overlooked group-level differentiation in LMX relationships, which are naturally embedded in the phenomenon of LMX (Ma & Qu, 2010). House and Aditya (1997) noted that the majority of LMX studies have tended to look only at the relationships between high-quality LMX relationships and employee work outcomes from an individual perspective (Gerstner & Day, 1997; Tse, 2014). Therefore, research examining LMX differentiation within work teams has not been thoroughly investigated (Ma & Qu, 2010; Tse, 2014; Vidhyarthi et al., 2010).

According to Cashman, Dansereau, Graen and Haga (1976), some members are implicitly placed on paths to termination and others on paths to organizational assimilation through the development of LMX. When a leader orients different members on different pathways, the leader is differentiating the treatment of these members and defining relationships with them as in-groups or out-groups. Furthermore, work groups also could differ in the degree to which the quality of the in-group and the out-group relationship varies within the group. Thus, by definition, LMX differentiation refers to the degree of within-team variability in the quality of LMX relationships between a leader and members within a work team (Erdogan & Liden, 2002). Past research has revealed that employees are conscious of their relative standing in a set of differentiated LMX relationships in their work team (Henderson, Wayne, Shore, Bommer, & Tetrick, 2008; Tse et al., 2012; Vidhyarthi, Liden, Anand, Erdogan, & Ghosh, 2010).

Past studies argued that LMX differentiation within the group has an impact on team performance. Past leadership empirical findings proved that the different relationships between the leader and members of the team either help or hurt team performance (Anand, Hu, Liden, & Vidhyarthi, 2011). Some scholars suggested that the differentiation relationships between the leader and the members help team performance and motivate individual effort (Choi, 2013;

Halevy, Chou, & Galinsky, 2011; Liden & Green, 1980), while others found them to be distressing cohesiveness among team members (Hooper & Martin, 2008; Northouse, 2010; Scandura, 1999; Wu, Tsui, & Kinicki, 2010). Therefore, LMX differentiation research still remains limited; its empirical proof is unclear with respect to whether LMX differentiation supports or hurts team performance, and very little is known about when LMX differentiation increases group performance (Anand et al., 2011).

Besides, the goal of this study was to propose a mediation model to account for the relationship between LMX differentiation and team performance. Specifically, we proposed a mechanism that was theoretically significant and which was conceptualized as a psychological process mediating LMX differentiation-team performance. Deriving it from the social information processing (SIP) theory (Salancik & Pfeffer, 1978), we proposed cooperative communication as a key mechanism that can transmit the effect of LMX differentiation on team performance. Cooperative communication refers to members' message exchange behaviours and actions planned to ease the joint achievement of teamwork goals (Lee, 1997; 2001). Cooperative communication behaviour also includes exchanging information, showing a willingness to share thoughts and ideas, giving encouragement, stating worries about others, expressing interest in other members, showing responsiveness to each other, expressing mutual support and sensitivity, and compromising and negotiating to reach agreement for group goals (Chen, Tjosvold, & Liu, 2006). Lee (1997) argued that the one potential influence for cooperative communication between group members is the quality of leader-member exchange (LMX) between superiors and subordinates. The cooperative behaviour among organizational members plays an important role in contributing organizational effectiveness and social relationships. This also was supported by Bakar et al. (2010) and Chen and Klimoski (2003) who specified that relationship exchange between the supervisor and the subordinate had predicted cooperative communication. Scholars (e.g. Sherony & Green, 2002; Sias, 2005) asserted that cooperative communication is a powerful mechanism that can either hinder or facilitate team effectiveness.

Considering that cooperative communication may then help understand whether the degree of LMX differentiation will influence the way team members perform, we extended our perspective on the yet to be confirmed relationship between LMX differentiation and team performance. Hence, this study will contribute to the leadership literature based on LMX differentiation as a group-level construct. In addition, examining the mediator factor which is the cooperative communication will help to understand why and when LMX differentiation supports or hurts team performance.

## **2.0 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1 Concept of team performance**

Team performance typically reflects the behaviours within the teams's allocated goal accomplishment and is considered a fundamental dimension of team effectiveness (Mathieu et al., 2008; Morgeson et al., 2010). Teamwork is created to perform tasks within their contexts. Effective teamwork produces output that at least meets requirements (Hackman, 1987). The team is not considered effective if those receiving its products do not consider them acceptable. The example of team outputs are quantity, quality, speed and customer satisfaction. These are

important indicators of how the team is doing relative to its purpose (Sundstrom, De Meuse, & Futrell, 1990).

## **2.2 Concept of LMX differentiation**

LMX refers to the quality of the leader and member relationship based on trust, respect, and obligations (Graen & Uhl-Bien, 1995). However, the notion of LMX has established that leaders develop different LMX relationships among their followers (Erdogan & Bauer, 2010). This is a practice referred to as LMX differentiation (Liden et al., 2006). By definition, it is popularly accepted that LMX differentiation is a group-level construct (Liden et al., 2006; Boies & Howell, 2006; Stewart & Johnson, 2009; Naidoo et al., 2011), which refers to the degree to which members working with a same leader differ in terms of LMX relationship quality with their leader (Ma & Qu, 2010). Some researchers who had studied it at the individual level, conceptualized it as the amount of variability in LMX relationships perceived by team members (Hooper & Martim, 2008). However, within our study on LMX differentiation, we argue that it occurs at the group-level because it captures the degree to which leader-member relationships within a work group differs (Ma & Qu, 2010).

## **2.3 Concept of cooperative communication**

Cooperation means acting together to accomplish some goals in a coordinated manner (Argyle, 1991). The author also noted that cooperation in work or relationships could not occur at all without communication and social interaction. Thus, cooperative communication in teamwork refers to members' message exchange behaviours and actions planned to ease the joint achievement of teamwork goals (Lee, 1997; 2001). Individual members' cooperative communication behaviours include exchanging information, showing a willingness to share thoughts and ideas, giving encouragement, stating worries about others, expressing interest in other members, exhibiting responsiveness to each other, manifesting mutual support and sensitivity, and compromising and negotiating to reach agreement for group goals (Chen, Tjosvold, & Liu, 2006; Tjosvold, Johnson, & Johnson, 1984).

## **2.4 LMX Differentiation and Team Performance**

There are some debates on the theoretical basis and empirical findings on LMX differentiation and team performance (Anand et al., 2011). The inconsistent findings found from previous research, for example, Choi (2013) and Halevy et al. (2011) initiated that LMX differentiation supports team performance because it will motivate individual efforts, whereas Northouse (2010) and Wu et al. (2010) found it distresses cohesiveness among team members and thus will impact on team performance. Moreover, there is a research which indicates that LMX differentiation has no relationships with team performance (Le Blanc & Gonzalez-Roma, 2012), but the same relationships are significant only when boundary conditions such as the team mean of LMX are taken into consideration. Thus, research exploring the nature of relationship between LMX differentiation and team outcomes is more complex than previous researches.

However, Choi (2013) argued that LMX differentiation will influence team performance. Based on the role-making process model by Graen and Scandura (1987), leaders assign and routinize different roles with different team members. When team members work together as a team, not all members make the same contributions to group outputs (Bauer & Green, 1996). In order to accomplish goals and objectives more efficiently, leaders must coordinate different team

members' contributions (Henderson, Liden, Glibkowski, & Chaudry, 2009) and thus they will use their limited time and resources in the most effective way. As indicated by Choi (2013) and Liden et al. (2006), it is likely that leaders want to invest their limited time and resources selectively by delegating some tasks to dependable group members to maximize group outcomes. Therefore, the leader usually initiates the relationships with group members by assigning roles to them based on his/her perceptions and expectations of each member's dependability (Graen & Scandura, 1987). This role-making process establishes role differentiation within a group, which has been suggested to increase team performance (Slater, 1965; Stogdill, 1959). In other words, the group leader develops different LMX relationships with group members in an attempt to differentiate group members' roles depending on their capabilities. Consequently, this will help the leader to coordinate group members' contributions in the most effective ways (Dansereau, Graen, & Haga, 1975; Liden et al., 2006). For this reason, previous researchers had suggested the benefit of role differentiation in increasing group performance (Baumeister et al., 2016; Druskat & Kayes, 2000; Humphrey, Hollenbeck, Meyer, & Ilgen, 2007; Hyatt & Ruddy, 1997). Even though an extreme differentiation would be detrimental to some low LMX members (Yukl & Van Fleet, 1992), at least for a leader, differentiation is not avoidable when managing group members. This is because "organizational effectiveness may be dependent upon internal selection processes and competition for promotions in which the differentiation process plays a crucial role" (Sparrowe & Liden, 1997, p. 545). In relation to this, Brass (1995) noted that if a leader attempts to develop generalized reciprocity (i.e. a high quality of LMX) with all the members, the leader may have to overinvest time and resources. Thus, as indicated by the role theory, there are clear arguments to expect that group effectiveness will be enhanced when leaders differentiate the group members (Liden et al., 2006).

In the context of the individual level, high-LMX (in-group) members will produce better performance compared to low-LMX (out-group) members. However, at the group level, the differentiation of LMX among members in a team consequently impacts team performance. Therefore, the degree of within-team LMX differentiation is present in a vast majority of work teams and has been noted as playing a crucial function in shaping team processes and outcomes (Boies & Howell, 2006; Henderson et al., 2009; Le Blanc & Gonzalez-Roma, 2012). When a leader differentiates, the varied levels of LMX relationships operating within the work team are likely to influence the way members react to other members to achieve team performance (Le Blanc & Gonzalez-Roma, 2012; Liden et al., 2006). Thus, based on the previous argument, the researchers argue that LMX differentiation is likely to have significant influence on team performance.

Proposition 1: LMX differentiation has significant influence on team performance.

## **2.5 LMX Differentiation and Cooperative Communication**

As stated earlier, a leader develops different LMX relationships with subordinates within the work teams (Dansereau et al., 1975). The different qualities of LMX relationships also represent differences in psychological status because high-LMX members feel "special" and are more likely to receive traditional resources and benefits than low-LMX members in their work team (Tse et al., 2012). Low-LMX members may experience feelings of inferiority and neglect because they are unable to enjoy the resources and benefits compared to high-LMX members in the same work team (Tse et al., 2012). Thus, high and low degrees of LMX differentiation

provide team members with a point of reference to understand their relative status within the work team. A set of differences has implications for the quality of cooperative communication between the members in a team.

In respect of this, the balance theory (Heider, 1958) is useful to explain LMX differentiation which may influence cooperative communication. The basis of the balance theory in the LMX context between the social relationship triad of the leader, subordinate and team members needs to be of equal balance so that all parties feel comfortable about their relationships with one another. The theory implies that if two individual team members experience a different relationship with their leader, then they are more likely to form a bad relationship with each other. Sherony and Green (2002) supported Heider's balance theory by demonstrating that the nature of the relationship between two co-workers is negatively affected when they have different perceptions of their LMX relationships with the same leader.

In addition, Tse (2014) argued that low-LMX members are unlikely to develop a high level of cooperative communication with high-LMX members because they experience a different quality of LMX relationship with the same leader. When the differentiation is high, team members are less likely to get along well because low-LMX members are often ignored or neglected in receiving resources and benefits from their leader (Erdogan & Bauer, 2010; Liden et al., 2006). Therefore, low-LMX members' perceptions of LMX differentiation are seen as unfair, and will produce experiences of negative emotions such as envy, disgust or anger toward their leader and high-LMX members (Anand, Vidyarthi, Liden, & Rousseau, 2010; Tse, Dasborough, & Ashkanasy, 2008). Hence, low-LMX members are unlikely to provide instrumental support in the form of exchanging information and offering constructive feedback, as well as psychological support in the form of listening to problems and showing concern to other high-LMX members (Tse & Dasborough, 2008).

However, Lepine and Van Dyne (2001) argued that differences in individuals can affect cooperative behaviour in teamwork such that stronger individuals are likely to employ stronger influences. The leader of a work group naturally has the trustworthy advantage of shaping group cooperative behaviour. Nevertheless, not all leaders are equal in influencing; those with stronger LMX relationships tend to encourage cooperative communication that leads to an effective team (Bakar & Sheer, 2013; Lee, 1997). Based on their arguments, individual members also tend to choose high-LMX members as social models to learn from and observe. For example, high-LMX members may be more proactive in providing instrumental support to other members by offering them important information and necessary assistance on how they can perform better. On this basis, we proposed that LMX differentiation has significant influence on cooperative communication.

Proposition 2: LMX differentiation has significant influence on cooperative communication.

## **2.6 Cooperative Communication and Team Performance**

According to Liu, Keller, and Shih (2011), communication becomes an important social context in which team members support information exchange, knowledge-sharing and interpersonal learning within the work teams. For example, individuals tend to choose who are closer to them as social models to observe and learn from, which can help contribute to their role definition and formation of attitudes and behaviour associated with team performance (Ford & Seers, 2006;

Liao, Liu, & Loi, 2010). Team members also may be more proactive in providing instrumental support to other members by sharing ideas, exchanging information and offering assistance on how they can perform better. This helps other members to understand the effective skills and strategies for managing the different tasks and the challenges of work situations as part of the process for achieving team performance (Liao et al., 2010; Tse, 2014).

Besides, based on Karl Weick's (1969) theory of organizing, communication is the crucial edging force of all activities in a work group. Task-oriented cooperative communication then, is the dynamic connecting network of goal-oriented group behaviour. Researchers (Sherony & Green, 2002; Sias, 2005) stressed that cooperative communication is a powerful mechanism that can either hinder or facilitate team effectiveness. Bakar & Sheer (2013) found that perceived cooperative communication, such as information exchange, opinion-sharing, and agreement-seeking among group members, directly influenced cohesion and group outcome behaviour. We therefore, anticipated that cooperative communication is likely to significantly influence team performance.

Proposition 3: Cooperative communication has significant influence on team performance.

## **2.7 The Mediating Role of Cooperative Communication**

Researchers (Bakar, Dilbeck, & McCroske, 2010; Sherony & Green, 2002; Sias, 2005) declared that cooperative communication is a powerful mechanism that can either impede or facilitate team performance. This was also supported by findings from Bakar and Sheers (2013) that found that cooperative communication mediates interpersonal exchange relationships and group cohesion. Furthermore, Hackman (1975) views communication as playing a mediating role in team performance. The authors also stated that LMX differentiation indirectly increases team performance by contributing to overall cooperative communication. For example, high-LMX members and low-LMX members find it difficult to work together when LMX differentiation is high, because they may perceive each other as competitors for resources and supervisory recognition which then damages their willingness to accomplish team goals. In contrast, when LMX differentiation is low, team members feel good working together because they perceive each other as companions for information exchange, seeking feedback and knowledge-sharing that in turn enhance their commitment toward achieving team objectives. Although no empirical evidence is yet available to directly support the mediating role of cooperative communication in the LMX differentiation-team performance relationship, the above discussion and examples regarding P2 and P3 propose that the degree of within-team variation of LMX relationships influences cooperative communication among members, and thus, may determine the overall team performance.

Conversely, underpinned by the Social Information Processing (SIP) theory (Salancik & Pfeffer, 1978), social context influences individuals' conscious expectations regarding their attitudes and behaviours working in teams. The exchange within cooperative communication between team members can be perceived as social contexts in which team members attempt to understand social cues, and to determine the extent to which behaviour is expected for team effectiveness (Tse et al., 2005). We argue that the social cues may originate from the unique characteristics of cooperative communication and the behaviour of other members within the

same work team. Recent research has also suggested that team settings provide full opportunities for team members to learn and observe different work attitudes and behaviour from each other through their interactions (Liao et al., 2010; Seers, 1989; Tse & Dasborough, 2008). This suggests that the SIP theory underpins cooperative communication as a mediator of LMX differentiation-team performance relationships. Hence, we proposed that that cooperative communication is a strong mediator in the relationship between LMX differentiations on team performance.

Proposition 4: Cooperative communication mediates the relationship between LMX differentiation and team performance.

Therefore, based on the review of literature, the following research framework was proposed in as Figure 1 below:

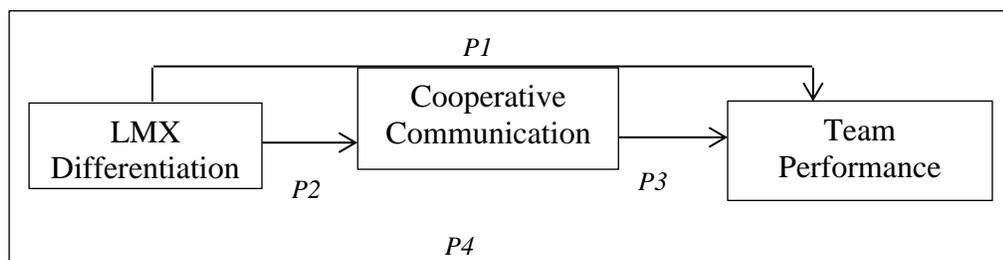


Figure 1. Proposed conceptual framework.

### 3.0 DISCUSSIONS

Based on the review of past research and related theories, the researchers were able to have a better understanding of a suitable model that can be used to examine the factors' effect on team performance. In the proposed model, we anticipated that LMX differentiation and cooperative communication would have significant relationships with team performance. This was in line with previous studies by Anand et al. (2011) and Tse (2014) which showed that LMX differentiation and cooperative communication are significantly related to team performance. Furthermore, cooperative communication was expected to have a mediating effect of LMX differentiation and team performance. This finding was supported by Bakar and Sheer (2013) who found that cooperative communication plays a mediating role in team cohesion. Likewise, the SIP theory would help to explain the role of cooperative communication as a mediator of the LMX differentiation-team performance. Accordingly, in order to test and validate this proposed model, an experimental study needed to be conducted and this study was carried out by the present researchers.

#### 3.1 Theoretical and practical contributions

The study attempts to make several theoretical and practical contributions. This study will contribute to the team and leadership literature by examining how leaders differentiate team members in order to increase team performance. Even though the theoretical and practical bases

of LMX differentiation are explicit in the literature, current LMX research is not yet clear about LMX differentiation and team performance relationship (Le Blanc & Gonzales-Roma, 2012; Tse, 2014; Liden et al., 2006). Examination of the mediator (cooperative communication) will be a key mechanism between LMX differentiation and team performance. The researchers theorized that the indirect effect of LMX differentiation on team performance is stronger when team members have high levels of cooperative communication. This theorizing is important because in team work members tend to share information and knowledge, and care for each other. This will lead to improving their performance even in within-team variations of LMX. This suggests that cooperative communication plays an important role in transmitting the effect of LMX differentiation on team performance. It has been noted that team members always rely on the quality of their relationships with their leader and team members in order to complete their assigned duties and achieve organizational goals.

### **3.2 Limitations and future directions**

Similar to other studies, this study also has some limitations. This study focussed on theorizing cooperative communication as a key variable in the LMX differentiation-team performance relationship and believes cooperative communication is the only mechanism that could influence the relationship. Future research can consider comparing and contrasting the relative importance of potential mediators such as team coordination, team potency, or team conflict in order to advance our understanding of the precise mechanism that explains well the relationship between LMX differentiation and team performance.

### **4.0 CONCLUSIONS**

In conclusion, this study developed understanding on how and when LMX differentiation is related to team performance. Our proposed model suggests that a team process mechanism such as cooperative communication serves as a psychological process to influence LMX differentiation and team performance relationship.

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