

## An Empirical Testing of A Multi-route Model on LMX - Job Satisfaction Relationship

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With more than enough empirical evidence supporting a positive relationship between Leader-Member Exchange (LMX) and job satisfaction (Gerstner et al., 1997), LMX literature suggests that a subordinate is more likely to be satisfied with a job if s/he is in good relationship with a supervisor than those who are not. However, this suggestion is not quite intuitive, because LMX captures an interpersonal relationship with a supervisor while job satisfaction reflects a job incumbent's attitude toward his or her own job. Unfortunately, the current literature provides no theoretical explanation why a good interpersonal relationship captured by LMX would lead an individual to experience a positive attitude toward his/her work.

To fill this theoretical gap, a premise that employees' job satisfaction level would be influenced by some job characteristics and role stress factors, which are in turn influenced by some supervisory activities, was specified in a multi-route model that incorporated six variables as mediators. This premise can be thought of as an application of situational constraints perspective (Peters, O'Connor, & Rudolf, 1980) to job satisfaction. This perspective suggests that situational constraints may prevent people from successfully accomplishing a task. Although the major focus of situational constraints research has been on performance (Peters & O'Connor, 1980), a series of empirical studies showed that employees who perceived high levels of constraints tended to be dissatisfied with their jobs (Jex & Gudanowski, 1992; Keenan & Newton, 1984; O'Connor, 1984; Spector, Dwyer, & Jex, 1988). While situational constraints may come from various aspects of a job, one of most likely aspects would be a supervisor (Spector, 1997: 38). Supervisors exercise a significant amount of influence on subordinates' perception of situational factors (Tetlock, Skitka, & Boettger, 1989) as well as behaviors (Tetlock, 1985). And, subordinates' satisfaction with the supervisory activities are shown to be more highly correlated with perceived situational constraints (O'Connor, Peters, Rudolf, & Pooyan, 1982) and with perceived role conflict and role ambiguity (Jackson & Schuler, 1985) than any other job satisfaction facet. Taken altogether, this literature suggests that supervisory activities entailed by a certain quality of LMX are likely to determine various job aspects, which in turn constrain or facilitate job satisfaction level.

To further elaborate this premise, the current model incorporated six variables (i.e., initiated task interdependence, supervisor feedback, autonomy, task significance, role conflict, and role ambiguity) as the mediators between LMX and job satisfaction. Initiated task interdependence and supervisory feedback were incorporated as the proxy variables of the results or outcomes of two representative supervisory activities, that is, work assignment and supervisory communication. And, autonomy, task significance,

role conflict, and role ambiguity were set as the direct antecedents of job satisfaction, drawing on the literature of job characteristics (Fried & Ferris, 1987; Hackman & Oldham, 1975; 1976; Kiggundu, 1981; 1983) and role theory (House & Rizzo, 1972; Jackson & Schuler, 1985; Katz & Kahn, 1978). With these variables, the model states that a subordinate with high quality of LMX would experience a high level of job satisfaction, possibly 1) because s/he is given more autonomy by being assigned to a job that initiates a work for other people (high initiated task interdependence), 2) because s/he is assigned to a job perceived as important and meaningful (high task significance), or 3) because s/he experiences low levels of role conflict and role ambiguity by getting more information from the supervisor.

The model was empirically tested and compared with four alternative models on a data set collected from 409 supervisor-subordinate dyads by using LISREL. In general, the result supported the premise of the current study. That is, job satisfaction level was determined by work-related factors, which were in turn affected by the quality of LMX either directly or indirectly through supervisory activities.

This result extends our knowledge by showing how and why an individual's attitudes toward his or her own work are influenced by his or her interpersonal relationship. And, such an extended knowledge provides us with more specific guidelines for how to design and administer organizational intervention programs to improve work attitudes. For example, the finding that LMX does not have a direct effect on job satisfaction suggests that being a nice boss would be necessary, but not sufficient to improve an employee's work attitudes. Not only does a supervisor need to understand what kinds of working conditions an employee would value, s/he also needs to deliver such conditions through his or her supervisory activities, such as work assignment and communication. And, these activities are carried out in directions that subordinates perceive their job autonomous and/or important and experience less role conflict and ambiguity.

Also, the finding that the effect of LMX on autonomy is fully mediated by initiated task interdependence hints at that a supervisor must take account of work structure among subordinates into his or her supervisory activities. When work is structured in a way that a job incumbent needs to depend on other people's work outcome, coworkers of the employee would communicate role-expectation that is consistent with such work structure (Bravo, Peiró, Rodriguez, & Whitely, 2003). Such role expectations may not be compatible with the role expectations communicated by a supervisor, if s/he personally granted job autonomy to a subordinate based on the quality of LMX without any corresponding change of work structure. And, the inconsistent role expectations from different sources may lead the focal person to experience role conflict.

Kew words: LMX, job satisfaction, role stress, job characteristics

## 1. Introduction

Since first proposed by Graen and his colleagues, leader-member exchange (LMX)

theory has drawn intensive research attention. Unlike traditional leadership theories, LMX theory maintains that a leader would develop differentiated relationships with different subordinates because of several

situational and personal factors posed on the leader and the members (Graen & Uhl-Bien, 1995). One of the primary research agenda of early LMX studies (e.g., Graen, Novak, & Sommerkamp, 1982; Liden & Graen, 1980; Scandura & Graen, 1984; Vecchio, Griffeth, & Hom, 1986) was to establish the construct validity of LMX by examining the relationships between LMX and various organizational effectiveness criteria. Job satisfaction was one of the popular criteria, because it can lead to employees' behaviors affecting organizational functioning and differences among organizational units in job satisfaction can be diagnostic of potential trouble spots (Spector, 1997: 2).

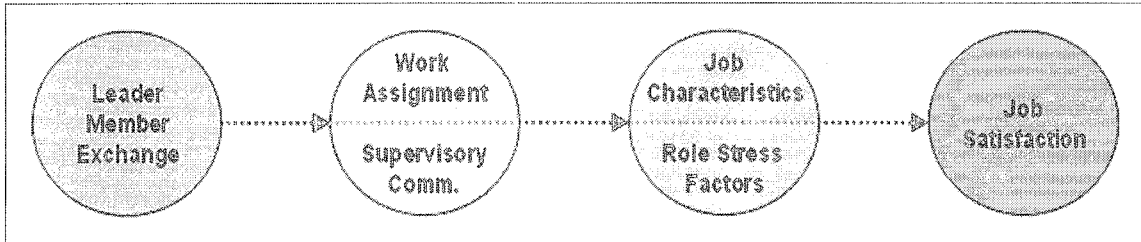
Empirical evidence supporting the relationship is not scant at all. Summarizing all evidence reported in the literature, Gerstner & Day's (1997) meta-analysis showed that LMX was significantly and positively related to job satisfaction (corrected  $r = .50$ ,  $k = 33$ ,  $N = 6,637$ ). This empirical result suggests that a job incumbent is more likely to be satisfied with a job in high quality LMX than in low quality of LMX. This evidence has been backed up by an explanation that with a high quality of LMX a supervisor may offer more of job latitude, open communication, support of the subordinate's action, and confidence in and consideration for the member (Scandura et

al., 1984), and that because such resources are likely to increase chances for getting desirable outcomes, such as better performance and consequently more pay, a high quality of LMX may affect the subordinate's entire work experience in a positive manner (Gerstner et al., 1997).

While this explanation seems to provide good reasoning for the positive relationship between a quality of LMX and some specific aspects of job satisfaction, such as supervision and pay, it does not for the relationship between LMX and satisfaction with job itself. The explanation does not clearly show how such resources as job latitude, open communication, support, confidence in and consideration for the member from a supervisor would affect a subordinate's satisfaction with a job itself, that is, an attitude toward his/her own job, in a positive manner.

This paper is prepared to address the linkage between LMX and satisfaction with a job itself by proposing and testing a multi-route model, which states that such resources offered by a supervisor would increase a subordinate's job satisfaction by affecting his/her perception on job characteristics in a positive way and reducing role stress. More specifically, the premise of the current model is that the employees' job satisfaction level would be influenced by the outcomes of a supervisor's managerial activities,

〈Figure 1〉 A Premise of the Current Study



such as work assignment and communication, which in turn determine some job characteristics and role stress factors (see Figure 1.) Development and testing of such a model would not only advance our knowledge on the subject by addressing a theoretical linkage that have missed in the current literature but also provide practitioners with more specific guidelines in administering organizational interventions for inducing positive work attitudes with respect to supervisory activities.

## II. Research Framework

Aforementioned premise can be thought of as an application of situational constraints perspective (Peters, O'Connor, & Rudolf, 1980) to job satisfaction. This perspective suggests that situational constraints may prevent people from successfully accomplishing a task. Although the major focus of situational constraints research has been on

performance (Peters & O'Connor, 1980), a series of empirical studies showed that employees who perceived high levels of constraints tended to be dissatisfied with their jobs (Jex & Gudanowski, 1992; Keenan & Newton, 1984; O'Connor, 1984; Spector, Dwyer, & Jex, 1988). While situational constraints may come from various aspects of a job, one of most likely aspects would be a supervisor (Spector, 1997: 38). Supervisors exercise a significant amount of influence on subordinates' perception of situational factors (Tetlock, Skitka, & Boettger, 1989) as well as behaviors (Tetlock, 1985). And, subordinates' satisfaction with the supervisory activities are shown to be more highly correlated with perceived situational constraints (O'Connor, Peters, Rudolf, & Pooyan, 1982) and with perceived role conflict and role ambiguity (Jackson & Schuler, 1985) than any other job satisfaction facets. Taken altogether, this literature suggests that supervisory activities entailed by a certain quality of LMX are likely to determine various job aspects, which in turn

constrain or facilitate job satisfaction level.

To further elaborate this premise, the current model incorporated six variables (i.e., initiated task interdependence, supervisor feedback, autonomy, task significance, role conflict, and role ambiguity) as the mediators between LMX and job satisfaction (see Figure 2.) Among the variables, initiated task interdependence and supervisory feedback were incorporated as the proxy variables of the results or outcomes of two representative supervisory activities, that is, work assignment and supervisory communication. While supervisors carry out a wide range of activities (e.g., planning, monitoring, rewarding, mentoring, problem solving, representing, etc.) as suggested by Mintzberg (1973; 1999) and Yukl (1989b), it is impractical to study all of these activities in one study. Therefore, it is necessary to limit the boundary of the current discussion to few categories of supervisory activities. Compared to other types of supervisory activities, work assignment and supervisory communication are considered more appropriate for the current discussion because of the following *a priori* criteria. First, the results or outcomes of the focal activities should represent supervisory roles related to a subordinate's work itself, because development of LMX is based on the characteristics of the working relationship (Graen et al., 1995). Second, the results or outcomes of

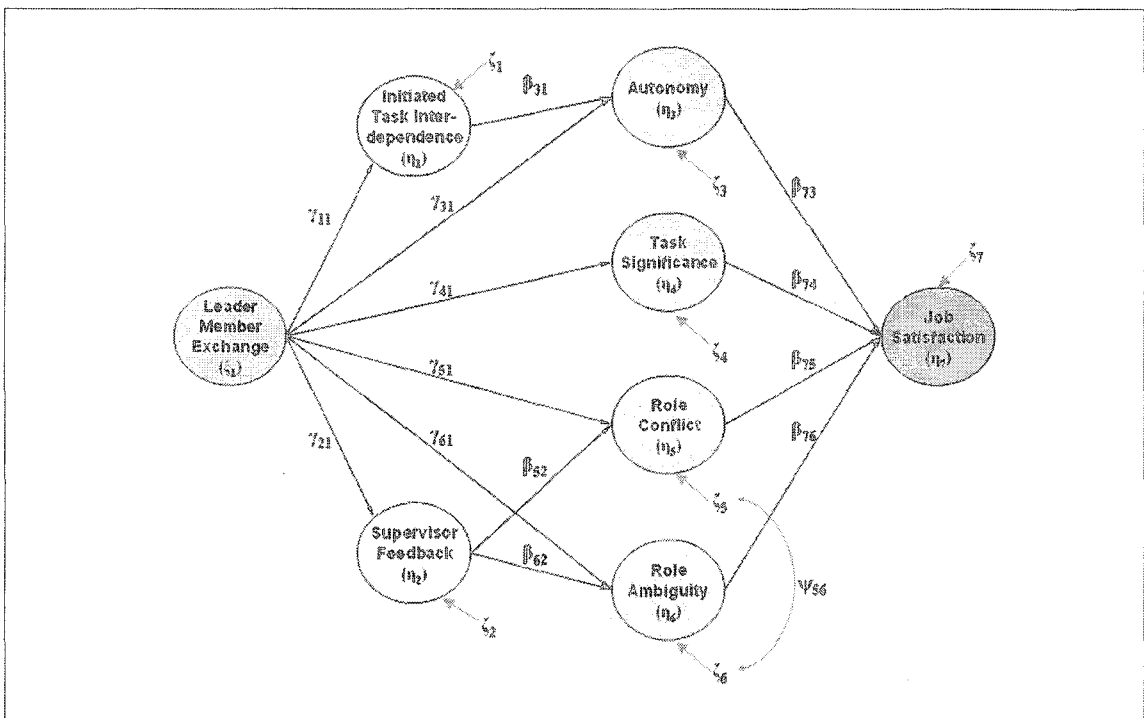
the focal supervisory activities should appropriately reflect the quality of LMX with a subordinate. Third, the results or outcomes of the focal activities should represent resources that a supervisor can offer to a subordinate. Fourth, the results or outcomes of the focal activities offered by a supervisor should be valued by a subordinate (Yukl, 1989a). Finally, the results or outcomes of the focal supervisory activities should be related not only to the quality of LMX but also to possible antecedents (e.g., job characteristics and role stress factors) of job satisfaction. While work assignment and supervisory communication seem well qualified for the foregoing criteria, this does not negate the possibility that other types of supervisory activities, such as rewarding, would be relevant to LMX and/or job satisfaction in some ways. In fact, a supervisor may use work assignment as a means of non-monetary reward for a subordinate with a high quality of LMX. However, monetary reward is less likely to be related to a subordinate's satisfaction with a job itself, while it would affect a subordinate's satisfaction with pay or supervision.

Meantime, the variables (i.e., autonomy, task significance, role conflict, and role ambiguity) set as the direct antecedents of job satisfaction were incorporated drawing on the literature of job characteristics

(Fried & Ferris, 1987; Hackman & Oldham, 1975; 1976; Kiggundu, 1981; 1983) and role theory (House & Rizzo, 1972; Jackson & Schuler, 1985; Katz & Kahn, 1978). Obviously, antecedents of job satisfaction are not limited to these variables. As Spector (1997) well summarized, a job incumbent's attitude toward a job itself can be influenced by various factors, such as job characteristics, supervision, working conditions, organizational constraints, roles stressors, working schedule, and even personality traits. However, incorporating all these

variables is far beyond what one study can digest. Therefore, a decision to select specific variables cannot but be a priori based upon reasonable "likely-relatedness" of candidate variables both to the outcomes of work assignment and supervisory communication and to job satisfaction. For example, a meta-analysis shows that skill variety more highly correlates with job satisfaction than autonomy does (Fried, 1991). Nevertheless, it is not considered in the current model because of lack of reasonable "likely-relatedness" between skill

<Figure 2> A Multi-Route Model of LMX - Job Satisfaction



Note: This model is the structural portion of the hypothesized model tested by using LISREL in the analysis section later.

variety and the outcomes of work assignment and supervisory communication. In other words, it is not easy to conjecture a reasonable explanation for how assigning a subordinate to an initiating job or providing more supervisory feedback would positively influence the subordinate's perception on the extent to which a job requires various skills to carry out a given task or job.

With these variables, the model states that a subordinate with high quality of LMX would experience a high level of job satisfaction, possibly 1) because s/he is given more autonomy by being assigned to a job that initiates a work for other people (high initiated task interdependence), 2) because s/he is assigned to a job perceived as important and meaningful (high task significance), or 3) because s/he experiences low levels of role conflict and role ambiguity by getting more information from the supervisor.

Drawing on social exchange theory (Graen & Scandura, 1987; Yukl, 1989a), situational constraint perspective (Peters et al., 1980), and role theory (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), the following section will discuss the theoretical rationale for why a quality of LMX would lead to such supervisory activities and eventually affect to subordinates' job satisfaction in detail.

### III. Hypothesis Development

#### 3.1 LMX - Autonomy

As depicted in the proposed model, one possible explanation for LMX - job satisfaction relationship can be drawn from autonomy provided by a supervisor. It is expected that a supervisor would grant more autonomy to a subordinate in high quality exchange than to those who are not. According to social exchange theory, people in an organizational context exchange not only physical materials but also psychological and emotional support and favors in their relationship (Yukl, 1989a), and that "*each party must offer something the other party sees as valuable and each party must see the exchange as reasonably equitable or fair*" (Graen et al., 1987: 182). The greater the perceived value of commodities exchanged is, the more likely the quality of the LMX relationship would be higher.

Although something being exchanged between a leader and a member can vary from more specific material resources and information to even emotional support (Graen et al., 1995), one of the key commodities offered to a subordinate by a supervisor is autonomy (Bauer & Green, 1996; Graen et al., 1987). Autonomy can be defined as the degree to which the job provides substantial freedom,

independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out (Hackman & Oldham, 1976). By performing an autonomous job, a subordinate may be able to exercise more control over his or her own performance by deciding when and how tasks are carried out (Hackman et al., 1975). With high quality of LMX, a supervisor is likely to experience a greater perception of reciprocal contribution from and affective attachment to his or her counterpart (Dienesch & Liden, 1986; Dunegan, Tierney, & Duchon, 1992; Liden & Maslyn, 1998) and willing to grant the subordinate more autonomy, because the subordinate is likely to value it (Paglis & Green, 2002).

A couple of indirect and direct empirical evidence supporting this reasoning has been reported. Liden and others (2000) reported a significant correlation between LMX and employees' self-determination at work. Paglis & Green (2002) also showed that LMX significantly influenced employee-rated job autonomy ( $p \leq .05$ ) after controlling for the effects of employee performance. Therefore,

Hypothesis 1: As the quality of LMX increases, the level of autonomy perceived by a subordinate would increase.

### 3.2 LMX - Initiated Task Interdependence - Autonomy

In the previous section, it was suggested that a supervisor would be willing to grant more autonomy to a subordinate in high quality exchange than to those in low quality exchange. Among various factors influencing the extent to which a subordinate perceives job autonomy is task interdependence, which can be defined as the degree to which one's job is interconnected to other people's jobs (Kiggundu, 1981; 1983). Kiggundu (Kiggundu, 1981; 1983) visualized two different types of task interdependence situations. In one situation, other people depend on a focal job incumbent, that is, the latter's job initiates a work process for other people (initiated task interdependence). In another situation, the focal job incumbent depends on other people to perform his or her job (received task interdependence). It is quite unlikely that an employee would experience a high level of job autonomy, if s/he is forced by job structure to depend on other people to perform his or her own work. In contrast, when working on a task that initiates other people's work process, the job incumbent does not have to wait for input from other people and the quality of performance is less likely to be constrained by the quality of others' work outcome. As

suggested in Kiggundu's (1983) study that reported a positive correlation between initiated task interdependence and autonomy ( $p \leq .05$ ), a subordinate would regard this kind of work setting as more autonomous than those in which s/he needs to depend on other people, and therefore, prefers the former to the latter. Acknowledging this, a supervisor is likely to assign a subordinate in high quality exchange to an initiating task in order to grant more autonomy. Therefore,

Hypothesis 2: Initiated task interdependence would at least partially mediate the effect of LMX on the level of autonomy perceived by a subordinate.<sup>1)</sup>

### 3.3 LMX - Task Significance

In addition to autonomy, another factor that influences a subordinate's job satisfaction level with respect to the quality of LMX would be task significance. Task significance refers to the degree to which the job has a substantial impact on the lives or work of other people, whether in the immediate organization or in the external

environment (Hackman et al., 1976).

A subordinate in high quality exchange would perceive high task significance than one in low quality exchange, because s/he is assigned by a supervisor to an important work. A theoretical reasoning for why a supervisor would assign a subordinate in high quality exchange to an important job can be distilled from situational constraint perspective (Peters et al., 1980). LMX literature suggests that a leader would develop differentiated relationships with different subordinates because of limited resources, such as time and energy (Deluga, 1998; Graen et al., 1995). It is quite likely that the same limited resources restrict a supervisor's capability not only for developing even interpersonal relationships across subordinates but also for tracking down all the work activities by him/herself. Such situational constraints would motivate a supervisor to maximize the utility of available resources (i.e., time, energy, money, etc.) through his or her supervisory activities, such as task assignment. In making decisions on the activities, the current quality of LMX would be regarded as an important criterion, because it reflects a subordinate's past performance and dependability (Bauer et al.,

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1) Although Kiggundu (1981) conceptualized initiated task interdependence and received task interdependence as separate dimensions, the current study developed a hypothesis only in terms of initiated task interdependence, because both dimensions were suggested to represent one interdependence construct (Kiggundu, 1983; Pearce & Gregersen, 1991).

1996; Dienesch et al., 1986). A supervisor is likely to perceive a lower level of risks entailed by a delegation of important tasks to a subordinate with high quality of LMX.

Although there can be a difference between a supervisor and a subordinate on the perception of what "important tasks" would be, the literature on social information processing theory suggests that it may not be significant that much. It is because cues from other people (e.g., co-worker, supervisors, customers, etc.) have powerful effect on individuals' perceptions and cognitions with respect to their roles in an organization and eventually shape their behaviors in a manner consistent with the cues that they receive from others (Thomas & Griffin, 1983). Morrison (1994) found evidence supporting this premise that to the extent that employees are exposed to similar social cues from co-workers and supervisors, the employees are likely to define their roles on the jobs in a similar way. Such perceptual assimilation is likely to be the case particularly in the case of a high quality of LMX in which open and intensive communication between the dyadic partners occurs constantly. Therefore,

Hypothesis 3: As the quality of LMX increases, the level of task significance perceived by a subordinate would increase.

### 3.4 LMX - Role Conflict/Role Ambiguity

The last but not least elements incorporated in the current study to address the LMX - job satisfaction are role conflict and role ambiguity. Role conflict is defined as the discrepant role expectations sent by members of an individual's role set; role ambiguity is defined as the lack of clear, consistent information regarding the actions required in a particular position (Kahn et al., 1964). As depicted in the model, the quality of LMX is expected to reduce the role conflict and role ambiguity, which in turn lead to a positive attitude toward a job itself.

The theoretical rationale for this speculation can be distilled from a leadership making model (Graen & Uhl-Bien, 1991; Uhl-Bien & Graen, 1993), which describes a dyadic relationship between a leader and a member as a life cycle of leadership relationship maturity phases: *stranger*, *acquaintance*, and *maturity*. The model states that as a dyad gets through these sequential phases, a quality of LMX is getting higher, and that a specific quality of LMX would be accompanied by a specific type of relationship building stage such as *role-taking*, *role-making*, and *role routinization* (Graen et al., 1987: 180-185). More specifically, a low quality of LMX is accompanied by role-taking stage in which a

supervisor typically initiates a sent role (request, demand, and assignment) and the subordinate simply reacts to it in stranger phase. In contrast, a medium quality of LMX is accompanied by role-making stage, in which both a superior and a member can initiate a sequence of role exchange and negotiate roles by exchanging more information, influence, task, support, and attention in acquaintance phase. Finally, a high quality of LMX is accompanied by role routinization stage, which produces mutual expectations that become institutionalized and widely visible and understood in maturity phase.

While these relationship building stages reflect an aspect of LMX quality by addressing how a subordinate's roles are identified and determined throughout the developmental process of LMX, the nature of each of the stages has implications for the linkage between a quality of LMX and role conflict/role ambiguity (Graen et al., 1987). It is likely that the level of role conflict perceived by a subordinate in the role-making stage would be lower than the role-taking stage. As mentioned before, in a role-taking stage, a supervisor typically sends a role and a subordinate simply reacts to it. Such an interaction is likely to leave a subordinate little leeway to avoid conflict among different roles imposed by various groups (i.e., supervisory, coworker,

and/or family members). In contrast, in the role-making stage, a role initiated and offered either by a supervisor or by a subordinate must be accepted by another party of a dyad through a negotiation process (Graen et al., 1995). This negotiation latitude allowed to a subordinate would result in more room for accommodating various roles. Once a dyad enters into the role routinization stage, a subordinate may have more room for accommodating various roles because of enhanced negotiation latitude institutionalized in the form of norms and rules with a mutual understanding on long time span of reciprocity. Meantime, the level of role ambiguity perceived by a subordinate would be lower in the role-making stage than that in the role-taking stage, because two-way communication that utilizes a wide variety of commodities (i.e., information, latitude, support, influence, etc.) in the former stage is likely to reduce the effect of whatever noise added in transmission and clarify the message sent from a supervisor to a subordinate. And, it would be getting lower in the stage of *role routinization* than in the role-making stage, because a set of roles resulted in success would be crystallized over time and seen as effective and strengthened by both dyadic parties and further institutionalized as widely visible and understood.

Since relationship building stages reflect

an aspect of the quality of LMX and are related to role stressors, as discussed to this point, it is reasonable to expect that the relationship of LMX with role stressors would resemble that of relationship building stages with role stressors. That is, as a quality of LMX increases, the levels of role conflict and of role ambiguity perceived by a subordinate are likely to be lower. The studies (Ashford & Taylor, 1990; Ashforth & Saks, 1996; House et al., 1972; Major, Kozlowski, Chao, & Gardner, 1995) that examined the relationship between interpersonal interactions and people's role perception or role stress support this expectation. For example, Ashforth & Saks (1996) showed that by clarifying the work task and supporting newcomers, supervisors reduced role stress. House & Rizzo (1972) also reported that supervisors' supportiveness negatively correlated with both role conflict ( $r = -.45, p \leq .01$ ) and role ambiguity ( $r = -.47, p \leq .01$ ). Therefore,

Hypothesis 4a: As the quality of LMX increases, the level of role conflict would decrease.

Hypothesis 4b: As the quality of LMX increases, the level of role ambiguity would decrease.

### 3.5 LMX - Supervisory Feedback - Role Conflict/Role Ambiguity

While the ways in which supervisors reduce the level of role conflict/role ambiguity experienced by subordinates may vary depending on the stage of role exchange, one of the common factors across the different stages would be supervisory communication, such as a supervisor's feedback on a subordinate's behaviors. Supervisory communication activities play a critical role in shaping subordinates' perception of role conflict and role ambiguity, because they deliver what a supervisor expects on a subordinate with respect to what to do and how to do (France, Boster, & Darrow, 2003). Role conflict occurs when compliance with role expectations embedded in one message conflicts with expectations implied by another message or messages (Katz & Kahn, 1966: 184) and role ambiguity results when expectations contained in role messages are unclear (p.73). As empirically supported in Schiemann's (1977) work, the higher the quality of a dyadic relationship is, the more likely a supervisor is willing to provide information to the dyadic partner (Graen et al., 1987; Paglis et al., 2002). As more information is offered by a supervisor on what to do and how to do, the job incumbent's knowledge on what is appropriate or not appropriate would get cry-

stallized (Kim, 2003) and eventually decrease the level of role conflict and role ambiguity perceived by the job incumbent. Walsh and others' (1980) structural modeling analysis showed that supervisor feedback accounted for a significant amount of variance in role clarity. Therefore,

Hypothesis 5a: Supervisory feedback would at least partially mediate the effect of LMX on role conflict.

Hypothesis 5b: Supervisory feedback would at least partially mediate the effect of LMX on role ambiguity.

### 3.6 Autonomy/Task Significance/Role Conflict/ Role Ambiguity - Job Satisfaction

In addition to the relationships hypothesized throughout earlier sections, the current model also specifies the paths from autonomy, task significance, role conflict, and role ambiguity to job satisfaction. Since the theoretical rationales for the relationships have been well documented in the literature on job characteristics (Fried et al., 1987; Hackman et al., 1975; 1976; Taber & Taylor, 1990), situational constraints (Jex et al., 1992; Keenan et al., 1984; O'Connor, 1984; Spector et al., 1988), and role stress factors (Abramis,

1994; House et al., 1972; Jackson et al., 1985; Koustelios & Kousteliou, 1998; Tubre & Collins, 2000; Walsh, Taber, & Beehr, 1980), it seems that presenting the bottom line of the rationales and some empirical evidence reported in the literature will serve the purpose of the current paper.

In case of autonomy and task significance, they were identified in the Job Characteristics Model (Hackman et al., 1975; 1976) as the job characteristics leading two critical psychological status (i.e., meaningfulness of work and perceived responsibility), which in turn increases job satisfaction level perceived by a job incumbent. Subsequent studies that examined these relationships generally rendered supporting evidence that autonomy and task significance are positively correlated with job satisfaction. A meta-analysis conducted by Fried & Ferris (1987) showed that the average correlation of autonomy - overall job satisfaction was .34 and that of task significance - overall job satisfaction was .26 after correcting measurement errors.

Role conflict and role ambiguity are expected to decrease the job satisfaction level. According to the literature on role stress and frustration, role stress in the form of conflict or ambiguity would increase psychological strain and anxiety by creating conditions which can impair the individual in his or her efforts to carry out assigned roles (Keenan et al., 1984; Rizzo, House, &

Lirtzman, 1970). In a meta-analysis conducted by Jackson & Schuler (1985), global job satisfaction was negatively related with role conflict and role ambiguity with mean correlations of  $-.31$  and  $-.30$  respectively. Therefore,

Hypothesis 6: As the level of autonomy increases, the level of job satisfaction would increase.

Hypothesis 7: As the level of task significance increases, the level of job satisfaction would increase.

Hypothesis 8: As the level of role conflict increases, the level of job satisfaction would decrease.

Hypothesis 9: As the level of role ambiguity increases, the level of job satisfaction would decrease.

## IV. Method

### 4.1 Data Collection

Since all the constructs incorporated in the current model are typically measured through respondents' perceptions, the issue of common method variance can be raised. When all the data for the constructs under consideration are collected from the same

source, especially in a self-report format, common method variance is likely to inflate the strength of relationships among the investigated variables (Roberts & Glick, 1981), and eventually to threaten the internal validity of a study. Although the effect of common method variance could not be eliminated completely because of the way the constructs were structured in the proposed model, LMX data were obtained from the participants' supervisors to minimize the effect. All the other information was collected from the subordinates.

### 4.2 Procedure & Sample

Supervisor - subordinate dyadic data were collected from people working for various companies in terms of the size and industry located in the southeastern United States. Voluntary participants were recruited from graduate classes of a university located in the southeastern United States. After receiving a brief explanation about the purpose of the current study and instructions, the participants filled out the subordinate questionnaire in the classroom. The participants were also given another questionnaire in a return envelope and asked to pass it to their supervisors. The questionnaire for the supervisors included detailed instructions about the study's purpose and the questionnaire itself. After

obtaining both parties' responses, they were combined into one data set by using identification numbers, which were labeled on each questionnaire and the envelope. The participants were informed of the purpose of using the numbers and assured that no individual identification was possible by using the numbers.

Through the data collection procedure, 544 subordinates and 409 supervisors participated in the survey. 55.4% of the subordinates were white and 48.1% were male. In the case of supervisors, 54.6% were white and 52.9% were male. The average ages of subordinates and supervisors were 25 ( $SD = 6.35$ ) and 40 ( $SD = 11.52$ ) respectively.

### 4.3 Measures

#### 4.3.1 LMX

Since LMX is a dyadic construct, one measurement issue is which party's perspective should be measured (Gerstner et al., 1997). In their meta-analysis, Gerstner and Day (1997) found that the strength of the relationship between LMX and other variables depended on which perspective was measured. The current study measured LMX from the supervisors' perspectives by using Bauer & Green's (1996) LMX-8 scale to avoid the aforementioned common method

variance problem.

#### 4.3.2 Initiated Task Interdependence

Initiated task interdependence was measured by using Kiggundu's scale (1983). Although a job carried out by an incumbent may consist of multiple tasks each of which interdependence varies, this scale is designed to measure the overall task interdependence perceived by a job incumbent. While the original instrument consisted of 15 initiated task interdependence items, only seven items were selected based on the factor loadings of the items reported in Kiggundu's (1983) to improve the factor structure. Participants are asked to indicate the level of overall task interdependence of their jobs for the items in a 7-point Likert style format, in which "1" means low interdependence and "7" reflects high interdependence. The reliability of the current version was slightly higher ( $\alpha = .90$ ) than that of Kiggundu's original scale ( $\alpha = .85$ ).

#### 4.3.3 Supervisor Feedback

Supervisor feedback was measured by using Castaneda and others' (1999) three item measure in the format of a standard 7-point Likert scale.

#### 4.3.4 Autonomy/Task Significance

Autonomy and Task Significance were measured by using the Job Diagnostic Survey scale (Hackman et al., 1975). Although Alda, Barr, & Brief (Aldag, Barr, & Brief, 1981) rated the internal consistency of JDS as "acceptable," a meta-analysis by Taber and Taylor (1990) revealed only moderate level of internal consistency (autonomy:  $\alpha = .69$ ,  $N = 9,873$ ; task significance:  $\alpha = .65$ ,  $N = 9,013$ ). They suggested that the internal consistency could be improved by lengthening the scales and this suggestion was echoed by other researchers (Idaszak, Bottom, & Drasgow, 1988; Kulik, Oldham, & Langner, 1988). Also, Idaszak and Drasgow's (1987) study showed that reverse-scored items lowered the internal consistency and disrupted the factor structure. Following the suggestions, the current study revised the original JDS scale for the job characteristics by replacing the original reverse-scored items with Idaszak and Drasgow's (1987) revised items, which do not have to be reverse scored, and by adding few items from the Job Characteristics Inventory (Sims, Szilagyi, & Keller, 1976). Through this modification, 8 items were prepared in a standard 7-point Likert style format with the anchors used by Hackman & Oldham (1975).

#### 4.3.5 Role Conflict/Role Ambiguity

Role conflict and role ambiguity were measured by using Rizzo and others' (1970) scale. 12 items for role conflict and 10 items for role ambiguity were prepared in a standard 7-point Likert style.

#### 4.3.6 Job Satisfaction

Job satisfaction was measured by using Price's (1977) four-item scale in 7-point Likert style. This measurement scale seems to be appropriate for the sake of the current literature, because it focuses on a job incumbent's overall satisfaction with the job (see Appendix for the measurement items).

## V. Analysis & Results

Before used for testing hypotheses, all of the measures were subject to reliability test and factor analysis to obtain an interpretable factor structure and an acceptable level of internal consistency. Although principal component analysis (PCA) is set as the default in SPSS in extracting variances from a data set, the current paper employed maximum likelihood (ML) method for factor extraction with varimax rotation because of its theoretical treatment of

indicators. According to Pedhazur & Schmelkin (1991), indicators are treated as formative (i.e., independent variables in a multiple regression analysis) in PCA, whereas they are regarded as reflective of unobserved variables (i.e., dependent variables). With such a difference, "FA is aimed at explaining common variance (i.e., variance shared by the indicators), whereas PCA is designed to extract total variance. That is, in addition to common variance, principal components extract both variance that is unique to an indicator as well as error variance (p.598)." Therefore, research methodologists, like Wolin (1982: 67) and Cattell (1965: 201), criticized an erroneous application PCA as a factor analysis procedure.

While ML is preferred to PCA because of the foregoing theoretical reason, its application requires multivariate normality. An omnibus test of multivariate normality conducted by using a macro module developed by DeCarlo (1997) based on a two-pass algorithm (Chan, Golub, & LeVeque, 1983) showed that  $\chi^2$  values calculated with Small's test were generally significant at  $\alpha = .05$  primarily due to the indicators' skewness ( $-1.16 \leq g1 \leq .99$ ). However, the  $\chi^2$  test is sensitive to departures from multivariate normality of the observed variables. Especially, as sample size increases (generally above 200), the  $\chi^2$  has a tendency to indicate a significant probability level

(Schumacker & Lomax, 1996: 125). Also, a relatively small skewness (in general  $\pm 1$ ) suggests that an application of ML based on normal theory would not make a big difference. In fact, the factor (component) structures obtained throughout the iterative procedure described below with both extraction methods were identical. That is, if an initial factor analysis showed that some measurement items loaded on an inappropriate factor or loaded on an appropriate factor but had factor loadings that were too low (i.e.,  $|\lambda| < .30$ ), they were dropped one by one to get a clearer factor structure. Then, the remaining measurement items were put into another factor analysis and examined through the same process. This process was repeated until an acceptable factor structure was obtained (factor structure table provided upon request by the author). The final set of measurement items from the process was rechecked for the internal consistency. If the internal consistency was also acceptable, then an index score for a construct was calculated by averaging the actual scores of the final set of measurement items. As shown on the diagonal of the Table 1, the internal consistency  $\alpha$ 's of all the measures are acceptable. Also, the correlations among the constructs were significant in the expected direction except the one between supervisor feedback and role conflict.

The proposed model states that the quality of LMX would affect job satisfaction through multiple routes that involve initiated task interdependence, supervisor feedback, autonomy, task significance, role conflict and role ambiguity as mediators. Although a causal step method (Baron & Kenny, 1986; Judd & Kenny, 1981) utilizing a series of hierarchical regression analyses can be applied to test each of the mediation effects, it would be quite inefficient to test the whole model. Therefore, this paper utilized structural equation modeling (SEM) technique by using LISREL (Jöreskog & Sörbom, 1996). In contrast to the causal step method that focuses on an identification of a single mediator, SEM estimates not only all path coefficients simultaneously but also the covariance

among exogenous latent variables ( $\zeta$ s) and the covariance of endogenous latent variables ( $\eta$ s) in terms of  $\Psi_{ij}$  or  $\Phi_{ij}$  as needed.

To test the hypotheses, a covariance matrix was used as input to LISREL. Following the procedures outlined by Settoon, Bennett, & Liden (1996), manifest indicators for each latent construct were created by averaging the items for each scale. The primary reason for this practice was that with an item approach an item measurement model would have 52 paths estimated with 1,178 degrees of freedom. The addition of the structural portion would result in the estimation of 13 more paths with 1,192 degrees of freedom (Rigdon, 1994). This is far beyond the LISREL's capability of determining how well the structural portion of the model holds up

<Table 1> Correlations and Descriptive Statistics<sup>a</sup>

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. LMX <sup>b</sup>	5.54	1.22	(.94) <sup>e</sup>							
2. Initiated TI <sup>c</sup>	4.38	1.56	.25**	(.90)						
3. Supervisor FB <sup>d</sup>	5.22	1.54	.61**	.28**	(.92)					
4. Autonomy	5.36	1.25	.24**	.21**	.19**	(.70)				
5. Task Sig.	5.18	1.38	.28**	.51**	.35**	.34**	(.83)			
6. Role Conflict	3.37	1.18	-.09*	.25**	.01	-.08*	.05	(.80)		
7. Role Ambiguity	2.91	0.96	-.60**	-.16**	-.46**	-.29**	-.28**	.21**	(.73)	
8. Job Satisfaction	4.72	1.32	.37**	.20**	.29**	.22**	.22**	-.24**	-.50**	(.80)

Note: \*  $p \leq .05$  (two-tailed) \*\*  $p \leq .01$  (two-tailed)

a.  $n = 409$ .

b. responses from supervisors

c. Initiated Task Interdependence

d. Supervisor Feedback

e. The figures in parentheses on the diagonal are Cronbach's  $\alpha$ .

with the current sample (Settoon, Bennett, & Liden, 1996). Because a covariance matrix was used as input, the path coefficients ( $\lambda_{jS}$ ) were set to the square root of the reliability of the measurement items and the error variance of the manifest items ( $\delta_{jS}$  and  $\epsilon_{jS}$ ) were set to the product of the variance of the average of the items by scale and the quantity one minus the reliability of the scale. Meantime, role conflict and role ambiguity were assumed to be correlated each other because they belong to the same umbrella construct, that is, role stress.

With foregoing preparation, the test of the hypothesized model produced acceptable model fit indices ( $\chi^2(6) = 12.30, p = .06$ ; RMSEA = 0.05; RMR = .04; NFI = .99; NNFI = .96; GFI = .99), which indicate that the data fit the hypothesized model well. However, these acceptable goodness-of-fit indices do not necessarily mean that all of the hypotheses are supported. Since the current model specifically hypothesized

the mediation effects of initiated task interdependence and supervisor feedback, it is necessary to specify and test some alternative models against which the proposed model should be compared to obtain more conclusive evidence for the corresponding hypotheses. Therefore, the hypothesized model was compared with a couple of alternative models by employing a nested-model comparison technique proposed by Anderson & Gerbing (1988).

As summarized in Table 2, four alternative models were tested and compared to the hypothesized model in terms of various model fit indices. The first model was tested to examine whether the quality of LMX would account for a significant amount of variance in job satisfaction in a direct way. Freeing the path of LMX - job satisfaction did not significantly reduce the  $\chi^2$ , nor was the path itself significant. In contrast, the path from LMX to autonomy was fixed in model 3 to check whether initiated task

<Table 2> Results of Model Comparisons

Model	$\chi^2$	df	RMSEA	RMR	NFI	NNFI	GFI	$\Delta\chi^2(df)$
1. Free LMX → Job Satisfaction	11.17*	5	.06	.04	.99	.96	.99	-1.13(3)
2. Hypothesized model	12.30	6	.05	.04	.99	.96	.99	
3. Fix LMX → Autonomy	12.31	7	.04	.04	.99	.97	.99	.01(1)
4. Fix SFB → Role Conflict	13.06	8	.04	.05	.99	.98	.99	.76(1)
5. Fix LMX → Role Ambiguity	84.85**	9	.14	.10	.89	.69	.95	72.55(1)**

Note: All  $\Delta\chi^2(df)$ s were the differences between the focal model and the hypothesized model.

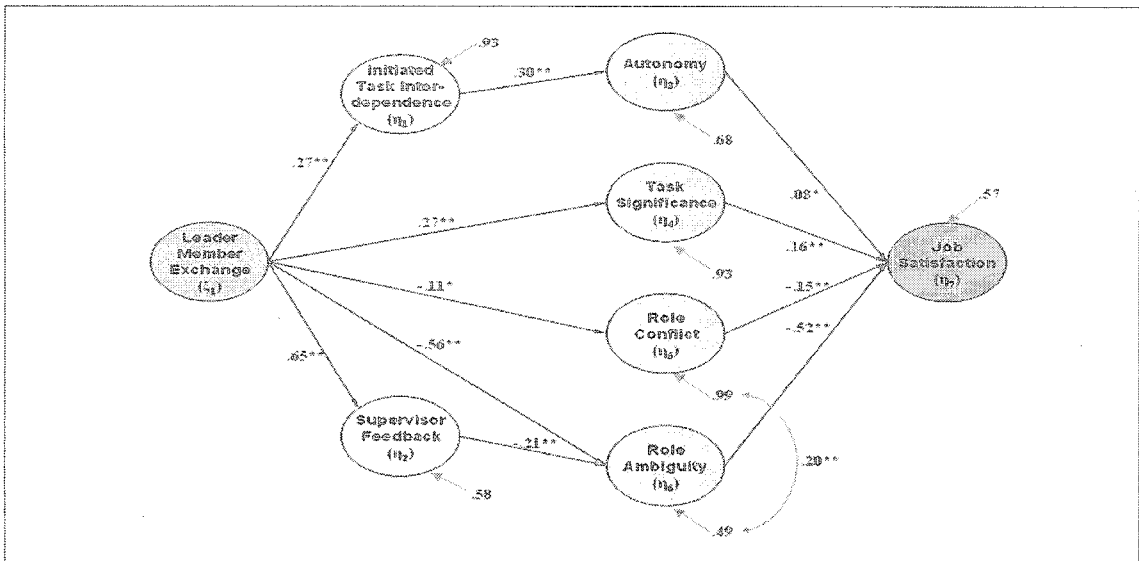
\*  $p \leq .05$  \*\*  $p \leq .01$

interdependence fully mediates the effect of LMX on autonomy. This resulted in almost no  $\chi^2$  difference. This means that the third model is preferred to the hypothesized model, because the former is more parsimonious. In addition, the fourth model, in which the path from supervisor feedback to role conflict was further fixed from model 3, was specified and tested on a post-hoc basis, because the path was constantly insignificant throughout the model 1, 2, and 3, contrary to the hypothesis 5a that supervisory feedback would at least partially mediate the effect of LMX on role conflict.  $\chi^2$  difference between the fourth model and the previous models is not

significant, which means that the fourth model is preferred to the previous models for the sake of parsimony. Finally, the fit indices of the fifth model ( $\chi^2(9)=84.95, p \leq .01$ ), in which the path of LMX - role ambiguity was fixed to check whether the quality of LMX would directly account for a significant amount of variance in role ambiguity, indicates that this model does not fit to the data as good as the fourth model does.

Comparison of fit indices of the five structural models suggests that the fourth model is preferred to the others either in terms of fit indices or for the sake of parsimony. The structural portion of the

(Figure 3) Path Diagram of the Revised Model



Note: All figures are completely standardized.

\*  $p \leq .05$  \*\*  $p \leq .01$

fourth model depicted in Figure 3 shows that all hypotheses except hypothesis 5a are supported. A significant amount of variance in job satisfaction was accounted for by each of both job characteristics (i.e., autonomy and task significance) and role stress factors (i.e., role conflict and role ambiguity). And, each of the antecedents of job satisfaction was affected by the quality of LMX either directly (i.e., task significance, role conflict, and role ambiguity) or indirectly through either initiated task interdependence or supervisor feedback. While initiated task interdependence fully mediated the effect of LMX on autonomy, supervisor feedback was turned out to be a partial mediator of LMX - role ambiguity relationship.

## VI. Summary & Discussion

In the growing body of LMX literature, the quality of LMX has frequently been suggested to be positively related to a subordinate's job satisfaction. Although more than enough empirical evidence supporting the relationship is found in the literature, it has been accumulated with no serious theoretical reasoning.

As an attempt to fill this hole in the literature, the current paper proposed a model states that the quality of leader-

member exchange would have indirect influence on job satisfaction through some job characteristics and role stress factors, which are determined by supervisory activities, such as work assignment and communication. Drawing on relevant theories and literature, a model that incorporated six variables (i.e., initiated task interdependency, supervisor feedback, autonomy, task significance, role conflict, and role ambiguity) as the mediators between LMX and job satisfaction was developed and tested on the data collected from 409 supervisor-subordinate dyads. In general, the result supported the premise of the current study. That is, the quality of LMX does not seem to have a direct effect on job satisfaction (model 1). Instead, job satisfaction level was determined by work-related factors, which were in turn affected by the quality of LMX either directly or indirectly through supervisory activities.

Empirical collaboration of the premise will extend our knowledge by showing how and why an individual's attitudes toward his or her own work are influenced by his or her interpersonal relationship. And, such an extended knowledge will provide us with more specific guidelines for how to design and administer organizational intervention programs to improve work attitudes. For example, the finding that LMX does not have a direct effect on job satisfaction

suggests that being a nice boss would be necessary, but not sufficient to improve an employee's work attitudes. Not only does a supervisor need to understand what kinds of working conditions an employee would value, s/he also needs to deliver such conditions through his or her supervisory activities, such as work assignment and communication. And, these activities are carried out in directions that subordinates feel his/her job autonomous and/or important and experience less role conflict and role ambiguity.

Also, the finding that the effect of LMX on autonomy is fully mediated by initiated task interdependence hints at that a supervisor must take account of work structure among subordinates into his or her supervisory activities. When work is structured in a way that a job incumbent needs to depend on other people's work outcome, coworkers of the employee would communicate role-expectation that is consistent with such work structure (Bravo, Peiró, Rodríguez, & Whitely, 2003). Such role expectations may not be compatible with the role expectations communicated by a supervisor, if s/he personally granted job autonomy to a subordinate based on the quality of LMX without any corresponding change of work structure. And, the inconsistent role expectations from different sources may lead the focal person to experience role conflict.

While the premise of the current study

was supported by the data, there are a couple of limitations that need to be addressed in future studies. One of them is cross-sectional nature of the current data. Although the hypotheses were developed based upon relevant theories and some indirect evidence shown in the literature, lack of a longitudinal design precludes asserting causal relationships among the variables. Therefore, the results reported here should not be taken as evidence for direct causal relationships. They show only that causal relationships are possible and require cautious interpretation. Another limitation is that an issue of common method variance can still take in place. Although the LMX data were collected from supervisors, all the other information on endogenous variables was collected from subordinates. As a result, the path coefficients of the relationships among the variables could still be exaggerated. Finally, the current LMX data were collected from supervisors, partly because the premise of the current study emphasized the outcomes of supervisory activities on the relationship of LMX - job satisfaction and partly because to avoid the issue of common method variance. However, the very same approach to data collection entailed a limitation that the measure does not reflect subordinates' point of view on the quality of LMX. As LMX is defined as a dyadic

concept, the data should be collected in a way to reflect the perception of both dyadic parties (Graen et al., 1987).

In addition to foregoing empirical limitations, some theoretical aspects that the current paper has not fully examined should be taken into account in future studies. First of all, the current model focused on work-related variables, such as job characteristics and role stress factors in addressing the effect of the current quality of LMX on job satisfaction, because the development of LMX was assumed to be based on the characteristics of the working relationship (Graen et al., 1995). However, various individual difference variables such as personality traits (Deluga, 1998; Murphy & Ensher, 1999) may interact with the work-related factors in transferring the effect of LMX on job satisfaction. Boyd & Taylor (1998) suggested that LMX can be developed based on personal characteristics as opposed to the characteristics of working relationship. If so, it is quite likely that the effect of LMX quality on job satisfaction would be subject to individual differences. For example, self-efficacy and self-esteem may have influence on a job incumbent's job satisfaction (Judge, Bono, & Locke, 2000), while these variables can be affected by the outcomes of supervisor's work assignment and/or communication. Therefore, scrutinizing possible interactions between work-related

factors and individual difference factors would be needed to further clarify the current model.

Secondarily, although the model proposed here focused on two supervisory activities (i.e., work assignment and communication), future studies may incorporate constructs reflecting other supervisory activities, such as performance appraisal and compensation. LMX literature suggests (Deluga, 1994; Graen & Cashman, 1975) that subordinates in high quality dyadic exchanges are more likely to exhibit higher levels of performance because of the additional resources they typically receive from the leader. Meantime, job satisfaction literature (Caldwell & O'Reilly, 1990; Jacob & Solomon, 1977) reported evidence that high performers are more likely to be satisfied with their jobs than are poor performers. While this literature implies the mediation effect of performance on the LMX - job satisfaction relationship, its effect size may vary depending on the type of performance dimensions, such as task performance and contextual performance. An empirical test of the mediation effect of each of these performance dimensions on LMX - job satisfaction relationship would provide practitioners with further insights on how to launch organizational intervention for positive work attitudes.

Finally, it is interesting to observe that

while the quality of LMX reduced both role conflict and role ambiguity significantly, supervisory feedback mediated the effect of LMX quality only on role ambiguity, not on role conflict. This does not necessarily mean that supervisory feedback is irrelevant to role conflict. Rather, it may suggest the relationship would not be as straightforward as hypothesized in this study. While supervisory feedback has various facets, such as frequency, direction (i.e., positive or negative), format, and purpose, the current data might tap only the frequency. If those various facets have different effects on role conflict level experienced by subordinates, then the relationship between the variables may be non-linear. Future research that incorporates such various facets of feedback is warranted.

## REFERENCE

- Abramis, D. J. (1994). Work role ambiguity, job satisfaction, and job performance: meta-analyses and review. *Psychological Reports*, 75, 1411-1433.
- Aldag, R. J., Barr, S. H., & Brief, A. P. (1981). Measurement of perceived task characteristics. *Psychological Bulletin*, 90, 425-431.
- Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411-423.
- Ashford, S. J. & Taylor, M. S. (1990). Adaptation to work transitions: An integrative approach. In G.R.Ferris & K. M. Rowland (Eds.), *Research in Personnel and Human Resources Management* (pp. 1-39). Greenwich, CT: JAI Press.
- Ashforth, B. E. & Saks, A. M. (1996). Socialization tactics: Longitudinal effects on newcomer adjustment. *Academy of Management Journal*, 39, 149-178.
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bauer, T. N. & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. *Academy of Management Journal*, 39, 1538-1567.
- Boyd, N. G. & Taylor, R. R. (1998). A developmental approach to the examination of friendship in leader-follower relationships. *Leadership Quarterly*, 9, 1-25.
- Bravo, J. M., Peiró, J. M., Rodriguez, I., & Whitely, W. T. (2003). Social antecedents of the role stress and career-enhancing strategies of newcomers to organizations: a longitudinal study. *Work & Stress*, 17, 195-217.
- Caldwell, D. F. & O'Reilly, C. A. (1990). Measuring Person-Job Fit with a Profile-Comparison Process. *Journal of Applied Psychology*, 75, 648-657.

- Castaneda, M., Kolenko, T. A., & Aldag, R. J. (1999). Self-management perceptions and practices: A structural equations analysis. *Journal of Organizational Behavior, 20*, 101-120.
- Cattell, R. B. (1965). Factor Analysis: An introduction to essentials. I. The purpose and underlying models. *Biometrics, 21*, 190-215.
- Chan, T. F., Golub, G. H., & LeVeque, R. J. (1983). Algorithms for computing the sample variance: Analysis and recommendations. *American Statistician, 37*, 242-247.
- DeCarlo, L. T. (1997). On the meaning and use of kurtosis. *Psychological Methods, 2*, 292-307.
- Deluga, R. J. (1994). Supervisor trust building, leader - member exchange and organizational citizenship behavior. *Journal of Occupational and Organizational Psychology, 67*, 315-326.
- Deluga, R. J. (1998). Leader-member exchange quality and effectiveness ratings: The role of subordinate-supervisor conscientiousness similarity. *Group & Organization Management, 23*, 189-216.
- Dienesch, R. M. & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review, 11*, 618-634.
- Dunegan, K. J., Tierney, P., & Duchon, D. (1992). Perceptions of an innovative climate: Examining the role of divisional affiliation, work group interaction, and leader/subordinate exchange. *IEEE Transactions on Engineering Management, 39*, 227-236.
- France, B. H. L., Boster, F. J., & Darrow, S. (2003). An analysis of role conflict and role ambiguity within the cancer information service's communication network. *Communication Studies, 54*, 420-37.
- Fried, Y. (1991). Meta-analytic comparison of the job diagnostic survey and job characteristics inventory as correlates of work satisfaction and performance. *Journal of Applied Psychology, 76*, 690-697.
- Fried, Y. & Ferris, G. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology, 40*, 287-322.
- Gerstner, C. R. & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: correlates and construct issues. *Journal of Applied Psychology, 82*, 827-844.
- Graen, G. B. & Cashman, J. (1975). A role-making model of leadership in formal organizations: A developmental approach. In J.G.Hunt & L. L. Larson (Eds.), *Leadership Frontiers* (pp. 143-165). Kent, OH: Kent State University Press.
- Graen, G. B. & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. In L.L. Cummings & B. M. Staw (Eds.), *Research in Organizational Behavior* (pp. 175-208).
- Graen, G. B. & Uhl-Bien, M. (1991). The transformation of professionals into self-managing and partially self-designing contributions: toward a theory of leader-making. *Journal of Management Systems, 3*, 33-48.
- Graen, G. B. & Uhl-Bien, M. (1995). Relationship-

- based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6, 219-247.
- Graen, G., Novak, M. A., & Sommerkamp, P. (1982). The effects of leader-member exchange and job design on productivity and satisfaction: Testing a dual attachment model. *Organizational Behavior & Human Decision Processes*, 30, 109-131.
- Hackman, J. R. & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60, 159-170.
- Hackman, J. R. & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16, 250-279.
- House, R. J. & Rizzo, J. R. (1972). Role conflict and ambiguity as critical variables in a model of organizational behavior. *Organizational Behavior & Human Performance*, 7, 467-505.
- Idaszak, J. R., Bottom, W. P., & Drasgow, F. (1988). A test of the measurement equivalence of the revised job diagnostic survey: Past problems and current solutions. *Journal of Applied Psychology*, 73, 647-656.
- Idaszak, J. R. & Drasgow, F. (1987). Revision of the Job Diagnostic Survey: Elimination of a measurement artifact. *Journal of Applied Psychology*, 72, 69-74.
- Jackson, S. E. & Schuler, R. S. (1985). A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings. *Organizational Behavior and Human Decision Process*, 36, 16-78.
- Jacob, R. & Solomon, T. (1977). Strategies for enhancing the prediction of job performance from job satisfaction. *Journal of Applied Psychology*, 62, 417-421.
- Jex, S. M. & Gudanowski, D. M. (1992). Efficacy beliefs and work stress: An exploratory study. *Journal of Organizational Behavior*, 13, 509-517.
- Jöreskog, K. G. & Sörbom, D. (1996). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*. Chicago, IL: Scientific Software International.
- Judd, C. M. & Kenny, D. A. (1981). Process Analysis: Estimating mediation in treatment evaluations. *Evaluation Review*, 5, 602-619.
- Judge, T., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85, 237-249.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational Stress: Studies in Role Conflict and Ambiguity*. New York, NY: Wiley.
- Katz, D. & Kahn, R. L. (1966). *The Social Psychology of Organizations*. New York, NY: Wiley.
- Katz, D. & Kahn, R. L. (1978). *The Social Psychology of Organizations*. New York: John Wiley & Sons, Inc.
- Keenan, A. & Newton, T. J. (1984). Frustration in organizations: Relationships to role stress, climate, and psychological strain.

- Journal of Occupational Psychology*, 57, 57-65.
- Kiggundu, M. N. (1981). Task interdependence and the theory of job design. *Academy of Management Review*, 6, 499-508.
- Kiggundu, M. N. (1983). Task interdependence and job design: Test of a theory. *Organizational Behavior and Human Performance*, 31, 145-172.
- Kim, S. (2003). *The Effects of Situational Factors and Perceived Accountability on Contextual Performance*. The University of Memphis.
- Koustelios, A. & Kousteliou, I. (1998). Relations among measures of job satisfaction, role conflict, and role ambiguity for a sample of... *Psychological Reports*, 82, 131-136.
- Kulik, C. T., Oldham, G. R., & Langner, P. H. (1988). Measurement of job characteristics: Comparison of the original and the revised Job Diagnostic Survey. *Journal of Applied Psychology*, 75, 462-466.
- Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology*, 85, 407-416.
- Liden, R. C. & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management Journal*, 23, 451-465.
- Liden, R. C. & Maslyn, J. M. (1998). Multidimensionality of Leader-Member Exchange: an empirical assessment through scale development. *Journal of Management*, 24, 43-72.
- Major, D. A., Kozlowski, S. W. J., Chao, G. T., & Gardner, P. D. (1995). A longitudinal investigation of newcomer expectations, early socialization outcomes, and the moderating effects of role development factors. *Journal of Applied Psychology*, 80, 418-431.
- Mintzberg, H. (1973). *The Nature of Managerial Work*. NY: New York: Harper & Row.
- Mintzberg, H. & Lampel, J. (1999). Reflecting on the strategy process. *Sloan Management Review*, 40, 21-30.
- Murphy, S. E. & Ensher, E. A. (1999). The effects of leader and subordinate characteristics in the development of leader-member exchange quality. *Journal of Applied Social Psychology*, 29, 1371-1394.
- O'Connor, E. J. (1984). Situational constraint effects on performance, affective reactions, and turnover: A field replication and extension. *Journal of Applied Psychology*, 69, 663-672.
- O'Connor, E. J., Peters, L. H., Rudolf, C. J., & Pooyan, A. (1982). Situational constraints and employee affective reactions: A partial field replication. *Group & Organization Studies*, 7, 418-428.
- Paglis, L. L. & Green, S. G. (2002). Both sides now: supervisor and subordinate perspectives on relationship quality. *Journal of Applied Social Psychology*, 32, 250-276.
- Pearce, J. & Gregersen, H. (1991). Task interdependence and extrarole behavior: A test of the mediating effects of felt responsibility. *Journal of Applied Psychology*, 76, 838-844.
- Pedhazur, E. J. & Schmelkin, L. P. (1991).

- Measurement, Design, and Analysis: An Integrated Approach*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Peters, L. H. & O'Connor, E. J. (1980). Situational constraints and work outcomes: The influences of frequently overlooked constructs. *Academy of Management Review*, 5, 391-407.
- Peters, L. H., O'Connor, E. J., & Rudolf, C. J. (1980). The behavioral and affective consequences of performance-relevant situational variables. *Organizational Behavior and Human Performance*, 25, 79-??
- Price, J. L. (1977). *The Study of Turnover*. Ames, Iowa: Iowa State University Press.
- Rigdon, E. E. (1994). Calculating degrees of freedom for a structural equation model. *Structural Equation Modeling*, 1, 274-278.
- Rizzo, J., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15, 150-163.
- Roberts, K. H. & Glick, W. (1981). The job characteristics approach to task design: A critical review. *Journal of Applied Psychology*, 66, 193-217.
- Scandura, T. A. & Graen, G. B. (1984). The moderating effects of initial leader-member exchange status on the effects of a leadership intervention. *Journal of Applied Psychology*, 69, 428-436.
- Schiemann, W. A. (1977). *The Nature and Prediction of Organizational Communication: A Review of The Literature and An Empirical Investigation*. University of Illinois, Champaign.
- Schumacker, R. E. & Lomax, R. G. (1996). *A Beginner's Guide to Structural Equation Modeling*. NJ: Mahwah: Lawrence Erlbaum Associates, Publishers.
- Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81, 219-227.
- Sims, H. P. Jr., Szilagyi, A. D., & Keller, R. T. (1976). The measurement of job characteristics. *Academy of Management Journal*, 19, 195-212.
- Spector, P. E. (1997). *Job Satisfaction: Application, Assessment, Cause, and Consequences*. Thousand Oaks, CA: Sage Publications.
- Spector, P. E., Dwyer, D. J., & Jex, S. M. (1988). Relation of job stressors to affective, health, and performance outcomes: A comparison of multiple data sources. *Journal of Applied Psychology*, 73, 11-19.
- Taber, T. D. & Taylor, E. (1990). A review and evaluation of the psychometric properties of the job diagnostic survey. *Personnel Psychology*, 43, 467-500.
- Tetlock, P. E. (1985). Accountability: A social check on the fundamental attribution error. *Social Psychology Quarterly*, 48, 227-236.
- Tetlock, P. E., Skitka, L., & Boettger, R. (1989). Social and cognitive strategies for coping with accountability: Conformity, complexity, and bolstering. *Journal of Personality and Social Psychology*, 57, 632-640.
- Tubre, T. C. & Collins, J. M. (2000). Jackson

- and Schuler (1985) revisited: A meta-analysis of the relationships between role ambiguity, role conflict, and job performance. *Journal of Management*, 26, 155-169.
- Uhl-Bien, M. & Graen, G. B. (1993). Leadership-making in self-managing professional work teams: An empirical investigation. In K.E.Clark, M. B. Clark, & D. P. Campbell (Eds.), *The Impact of Leadership* (pp. 379-387). West Orange, NJ: Leadership Library of America.
- Vecchio, R. P., Griffeth, R. W., & Hom, P. W. (1986). The predictive utility of the vertical dyad linkage approach. *Journal of Social Psychology*, 126, 617-625.
- Walsh, J. T., Taber, T. D., & Beehr, T. A. (1980). An integrated model of perceived job characteristics. *Organizational Behavior and Human Performance*, 25, 252-267.
- Wolins, L. (1982). *Research Mistakes in the Social and Behavioral Sciences*. IA: Ames: Iowa State University Press.
- Yukl, G. (1989a). *Leadership in Organization*. Englewood Cliffs, N.J.: Prentice-Hall.
- Yukl, G. (1989b). Managerial Leadership: A Review of Theory and Research. *Journal of Management*, 15, 251-289.

## Appendix

## LMX measurement items

Please indicate the degree to which you would agree on each of the following statements by using the scales.	Strongly Disagree ←							Strongly → Agree
	1	2	3	4	5	6	7	
I usually know where I stand with my subordinate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I usually know how stratified my subordinate is with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
My subordinate understands my problems and needs extremely well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
My subordinate respects my professional capability and decision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I would characterize the working relationship I have with my subordinate as extremely effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Regardless of his/her formal authority, my subordinate is inclined to use his/her power to support me at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Regardless of his/her formal authority, I can count on my subordinate to "bail me out" at his/her own expense when I really need it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I have enough confidence in my subordinate that I would defend or justify his/her decisions if he/she were not present to do so.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Note: Bauer & Green's (1996) items were revised for measuring the quality of LMX from supervisors' perspective.

## Job satisfaction measurement items

Please indicate the degree to which you would agree on each of the following statements by using the scales.	Strongly Disagree ←							Strongly → Agree
	1	2	3	4	5	6	7	
I find enjoyment in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Most days I am enthusiastic about my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I am often bored with my job. (R)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel dissatisfaction with my job. (R)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Source: Price, J.L. 1977. *The study of turnover*. Ames, Iowa: Iowa State University Press.

## 상사-부하간 관계의 질과 직무만족간의 관계에 관한 다중경로모형의 실증 분석

김승용\*

### 요 약

상사-부하간 관계의 질 (Leader-Member Exchange: LMX)에 대한 기존의 실증연구들은 LMX와 직무만족이 정(+ )의 관계를 가지는 것으로 보고함으로써 상사와 좋은 관계에 있는 부하가 자신의 직무에 대해 긍정적인 태도를 가지게 될 것이라는 것을 시사하고 있다. 그러나 LMX에 의해 측정되는 대인관계의 현상이 어떻게 개인이 자신의 직무에 가지는 태도, 즉 직무만족에 긍정적인 영향을 미칠 수 있는 것인지에 대해서는 구체적으로 논의된 바가 없다. 단지 LMX의 개념적 유용성을 실증하기 위해 직무만족과의 상관성을 제시한 초기의 실증결과들이 별도의 이론적 검증을 거치지 않은 채 반복적으로 참조되고 있을 뿐이다.

따라서 본 논문은 상사의 지휘/감독 활동변수들과 직무특성변수 및 역할관련변수들을 LMX - 직무만족간의 매개변수로 설정한 다중경로모형을 개발하였는 바, 상사는 부하직원과의 관계성에 따라 부하들에게 직무를 배분하거나 혹은 직무와 관련된 의사소통의 정도를 조절 할 가능성이 높으며 이러한 지휘/감독의 행태는 종업원이 수행하는 직무의 특성이나 종업원이 겪게되는 역할갈등 및 역할모호성에 직접적인 영향을 주어 종국적으로는 종업원의 직무만족도에 간접적인 영향을 미칠 것이라고 예측하였다. 409쌍의 상사와 부하로부터 수집된 자료를 LISREL을 이용한 공분산구조분석 기법을 통해 분석한 결과는 이러한 예측을 전반적으로 지지하는 것으로 나타났다. 이러한 분석 결과는 단순히 부하직원들과의 좋은 관계가 바로 높은 직무만족도를 가져 오지 않는다는 것을 의미하는 것으로써 이 결과가 가지는 구체적인 시사점과 한계점 및 추후의 연구 방향을 제시하였다.

주제어: 상사-부하간 관계의 질, 직무만족, 역할스트레스, 직무특성

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