

The Interactive Effect of Leader-Member Exchange and Perceived Organizational Support on Employee Adaptive Performance

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Examining the role of intra-organizational social exchanges in influencing adaptive performance, the authors hypothesized that leader-member exchange (LMX) quality and organizational support have an interactive effect on employee adaptive performance. We surveyed 175 private sector workers and found that subordinate perceptions of LMX were positively related to supervisor-rated adaptive performance among workers reporting average and high but not low levels of organizational support. Results add to the LMX literature by showing that the LMX-outcome relationship may depend on context, provide support for the divergent validity of POS and LMX, and raise important questions for future social exchange research.

The changing nature of work, brought on by rapid shifts in technology (Hesketh & Neal, 1999), increased dependence on contingent workers (Hulin & Glomb, 1999), the rising use of self-managed and semi-autonomous teams (Kozlowski, Gully, Nason, & Smith, 1999), and a transition from hierarchal, job-based to reciprocal, employee-based management (Lord & Smith, 1999), have led to the need for an increasingly adaptive workforce (Campbell, 1999). The clear cut titles and responsibilities that once defined the roles of individuals in an organization are becoming more fluid, ambiguous, and boundary spanning (Howard, 1995; Ilgen, 1994), leading some authors to conclude that the concept of a “job” is likely to one day become obsolete (e.g., Bridges, 1994). Recognizing the increasing turbulence within and around organizations and the subsequent need for employees to react to change, researchers have introduced the concept of adaptive performance (Campbell, 1999; Pulakos, Arad, Donovan, & Plamondon, 2000). Clearly, competence in effectively adapting one’s behaviors to meet changing organizational needs is of interest to managers and is an important area requiring further study (Campbell, 1999).

LePine, Colquitt, and Erez (2000) posited that organizations have three options for managing employees in rapidly changing environments. They suggested that as the knowledge, skills, and capabilities of employees become increasingly vulnerable to obsolescence, the firm may choose to replace outdated employees, retrain their current employees, or attempt to hire employees who are more capable and willing to work in dynamic environments. They concluded that the first two options are impractical

and that identifying individual differences in adaptive behaviors is of more practical utility to organizations and theorists. We suggest a fourth option, which is identifying environmental aspects within the organization that affect the capability and willingness of current employees to engage in adaptive behaviors.

As employee behavior occurs within the fluid social system that is a working organization, the employee's perceptions of the social exchanges in which they are engaged at work are key aspects of their work environment. Two such exchanges, with the proximate leader and with the organization as a whole, may have a strong influence on the individual's willingness and capability to engage in adaptive behaviors. Accordingly, the purpose of the present study is to investigate the effect of subordinate perceptions of leader-member exchange quality and perceived organizational support on their effectiveness in engaging in adaptive behaviors.

LITERATURE REVIEW

Research on adaptive performance has focused almost exclusively on defining the construct and investigating individual differences in employees. Work by Pulakos and her colleagues (2000, 2002; Ilgen & Pulakos, 1999) has centered on defining adaptive performance and resulted in the establishment of an eight-dimension taxonomy of adaptive behaviors modeled after the taxonomy of task performance provided by Campbell et al. (1993). However, the adaptive performance literature suffers from lack of conceptual clarity as a consensus on its definition remains to be reached. Other scholars (Johnson, 2001; Griffin & Hesketh, 2003) have criticized Pulakos' approach to construct development as atheoretical. Griffin and Hesketh (2003) suggested that Pulakos' taxonomy was overly narrow and unnecessarily excluded potential areas where adaptation might be organizationally relevant, whereas Johnson (2001) suggested that six of the dimensions posited by Pulakos are more accurately classified as task or contextual performance dimensions. Johnson's conclusion was that adaptive performance was most likely related to the Pulakos dimensions of dealing effectively with unpredictable and changing work situations and learning new work tasks, technologies, and procedures. These two dimensions are also more representative of the adaptive performance concept developed by other authors (e.g., Campbell, 1999; Hesketh & Neal, 1999).

We define adaptive performance as contributing effectively to organizational outcomes under conditions of change, by independently seeking out the new knowledge, skills, and capabilities and appropriately modifying workplace behaviors. We emphasize four characteristics of our definition that integrate and clarify previous descriptions of adaptive performance. First, the current definition of adaptive performance is general enough to incorporate previously posited organizational change variables and potential future threats to organizational stability. One potential problem with Pulakos' (2000) taxonomy of adaptive performance is that it is too specific as to what organizational cues adaptive behaviors are directed towards (e.g., cultural adaptation and interpersonal adaptation). The current definition only requires response to environmental change, not to specific types of change.

Second, much of the literature on adaptive performance refers simply to performance on ill-defined or complex tasks (LePine, et al., 2000). However, these are characteristics of the task, and there is no theoretical distinction between performance on these types of tasks and core task performance. Specifically, adaptive performance requires proactive or reactionary change in the behavior, not simply a complex or ambiguous initial task. Performance on novel and ill-defined tasks is by definition task-focused, not change-focused, and is therefore not adaptive in nature.

Third, our definition depicts a distinction from the literature on training. Some authors use the term adaptive performance to refer to post-training work behavior changes (Chen, Thomas, & Wallace, 2005). Changing behavior as a result of a designed intervention is not the same as independently adapting to a changing context. There is a fruitful literature in the training domain examining the antecedents, consequences, and boundary conditions required for successful transfer of knowledge and effective behavioral modification. However, adaptive performance refers to employee initiated behavioral change in reaction to environmental cues, rather than organization directed change such as training. It may,

however, be possible to train employees to be more adaptive (Joung, Hesketh, & Neal, 2006), though this question is certainly beyond the scope of the current study.

Finally, the current definition incorporates employee actions as both learning and behavior, consistent with Campbell's (1993) view of performance as both cognitive and corporeal behavior. It is likely that not all employees have the autonomy to independently adapt their work behavior; we therefore believe that activities such as making suggestions for improving the work process or learning in response to environmental change are also adaptive.

The majority of research on adaptive behavior in the workplace has focused on individual differences that make some employees more able to respond effectively to situations requiring adaptability than their peers. Unfortunately, this research has yielded contrary findings. General mental ability has been the only consistent predictor of adaptive performance, yielding a positive relationship in two studies (Pulakos et al, 2002; LePine et al, 2000). Research on conscientiousness and adaptive performance has come to mixed conclusions with authors finding positive relationships (Pulakos et al, 2002), negative relationships (LePine et al, 2000), and null relationships (Griffin & Hesketh, 2003). A positive relationship was found between openness to experience and adaptive behavior in one study (LePine et al., 2000) but not in others (Pulakos et al., 2002; Griffin & Hesketh, 2003). General self-efficacy has not been found to be related to adaptive performance (Pulakos et al., 2002) and neither has self-efficacy to adapt (Griffin & Hesketh, 2003). Other individual differences have only been investigated by one study or not reported to date. These results suggest that thus far research has not yielded any definitive or prescriptive conclusions about the role of individual differences in workplace adaptation. Instead, we turn our attention to contextual factors.

THEORY AND HYPOTHESIS

Adaptive performance, like all employee behavior, occurs within the sociopolitical entity that is an operating organization; therefore, it is likely that the quality of the social exchanges in which the employee is involved within the organization influence his/her capability and willingness to adapt behavior. Social exchange theory (SET; Homans, 1958; Gouldner, 1960; Blau, 1964) states that individuals are involved with other individuals and organizations in a series of reciprocal behavioral interactions upon which they are able to establish relationships of trust, thus enabling more predictable future interactions. In a review of SET, Cropanzano and Mitchell (2005) noted that the two dominant social exchanges within organizations are leader-member exchange (LMX) and perceived organizational support (POS). LMX (Graen & Schiemann, 1978) is the social exchange that takes place between an individual and his/her immediate supervisor. Supervisors provide employees with increasing levels of support, recognition, and resources, whereas employees return superior performance and increasing levels of self-management, until a mutual, trust-based relationship is developed. POS (Eisenberger, Huntington, Hutchison, & Sowa, 1986) is the social exchange between an individual and the organization that employs them. Individuals develop trust-based commitment to the organization to the extent that they perceive that it provides them with opportunities for self-growth and advancement and justly distributes resources and rewards.

We make an assumption that adaptive behaviors involve both increased effort and risk on the part of the adapting employee. Employees who have developed proficiency in the current way of doing things are increasing the risk of failure by trying something new, for which their proficiency level may be low or unknown. These employees must also increase effort beyond that called for by their formal job descriptions in order to acquire the requisite knowledge, skills, and capabilities to effectively engage in the new behavior. We believe that the social exchanges captured by LMX and POS provide employees with valuable resources, such as information, support, and stored social capital, as well as long-term employment orientation, thereby influencing capability and willingness to behave adaptively.

High quality LMX relationships are characterized as partnerships involving high degrees of trust, respect, and mutual influence (Graen & Uhl-Bien, 1995). These relationships evolve over time, with early stages involving the transactional exchange of rewards for task performance, and moving toward a

partnership where status, information, and emotional bonding are exchanged. The high levels of trust gained from a high-quality LMX are likely to act as a buffer to the potential risk of failure inherent in adapting. Previous performance has led to high levels of trust, which can be stored as social capital and used in the event of a potential failure. Hence, employees in high-quality exchange relationships have established that they are good performers and that the supervisor can count on them. The employees can then expect that if they are to fail, it will be seen as an anomaly in relation to their prior performance, and they will be given the benefit of the doubt (Graen & Uhl-Bien, 1995). Further, as these employees feel obligations to their supervisor to contribute beyond the transactional requirements of their job, they are likely to be more proactive in their attempts to recognize opportunities for increasing their contribution (Maslyn & Uhl-Bien, 2001). Empirical studies have supported this idea by demonstrating that employees in high-quality exchanges contribute beyond increasing their task performance (Ilies, Nahrang, & Morgeson, 2007). Finally, these employees are thought to have better access to information than employees in low-quality exchanges (Graen & Uhl-Bien, 1995), and as a result are likely better able to recognize environmental cues requiring behavioral adaptation.

Conversely, employees in lesser developed LMX relationships have no such social capital stored, do not have access to extra information, and cannot afford the strain on their leader-member relationship that could be caused by failure. Therefore, they will be more risk averse and less likely to attempt adaptive behaviors, focusing instead on what is required to maintain their transactional obligations.

Hypothesis 1. Member-reported LMX quality is positively related to supervisory ratings of employee adaptive performance.

As important as the resources provided by the exchange relationship with the immediate supervisor may be in an employee's capability and willingness to adapt, we believe that employee perceptions of organizational support may be an underlying determinant of their willingness to adapt. A meta-analytic review demonstrated that POS is strongly related to affective (emotional) and calculative (rational) commitment, as well as the desire to stay with the organization (Rhoades & Eisenberger, 2002). POS has been found to be positively related to innovation on behalf of the organization without the expectation of reward (Eisenberger, Fasolo, and Davis-LaMastro, 1990) and organizational spontaneity (Eisenberger, Armeli, Rexwinkle, Lynch, and Rhoades, 2001), which was operationalized as offering constructive suggestions and gaining knowledge and skills beneficial to the organization. Taken together, these relationships demonstrate that POS leads to a long-term orientation in employees where they exhibit increased commitment to, and desire to remain with, the organization and as such strive to ensure the survival and prosperity of the organization. We believe that this long-term orientation acts as an underlying motivational force driving willingness to engage in adaptive behaviors.

It is important to note that several studies have examined POS and LMX as simultaneous independent variables (Colquitt, et al., 2013; Anand, Vidyarthi, Liden, and Rousseau, 2010; Dulac, Coyle-Shapiro, Henderson, and Wayne, 2008); however, we are aware of no studies examining the interactive effect. A significant body of work exists establishing the divergent validity of POS and LMX, as well as demonstrating that the two constructs display unique relationships with outcomes (Settoon, Bennett, & Liden, 1996; Wayne, Shore, & Liden, 1997). In general, studies have shown that POS is more predictive of psychological outcomes, such as affective commitment and intention to quit, whereas LMX is more predictive of behavioral outcomes, including favor doing for the supervisor, citizenship behaviors, and task performance. We believe that the positive psychological outcomes of POS are represented as a long-term employment orientation, which manifests itself as a motivational force in the employee to ensure the survival and prosperity of the organization. Conversely, when POS is low, there is no long-term employment orientation or concern for the continued well-being of the organization. While high-quality LMX enables an employee to effectively engage in adaptive performance, POS provides the necessary motivational context for that ability to be enacted. Since intent precedes behavior, POS is a necessary condition for employees in high-quality exchanges to be motivated to engage in adaptive behaviors.

Hypothesis 2. POS moderates the relationship between member-reported LMX and supervisory ratings of employee adaptive performance, such that the relationship is stronger among workers experiencing high than low POS.

METHOD

Procedure and Sample

All 310 employees of a distribution services organization were invited to participate in the study. They were divided into small groups and each group was asked to report to a training room according to a pre-set schedule. Upon arrival, the employees were informed about the study, provided a chance to ask questions, and given the opportunity to participate in the study by completing a questionnaire. Workers reporting to specific supervisors performed essentially identical roles requiring sorting, packaging, shipping, and/or lifting. A total of 175 employees volunteered to participate, completed the survey, and had supervisors who rated them.

During the same week, all 19 of the organization's first-line supervisors (of whom 15 were female) were asked to complete performance ratings of their subordinates; of these, 16 (84%) supervisors returned completed performance rating forms. The average supervisory span of control was 11.75. Of the 175 employees, 78% were female and 22% were male.

Measures

Subordinates completed Likert-type scaled questionnaires for POS and LMX. In addition, employees provided self-reports of their gender, age, and tenure. Age and gender were collected because these two variables have been shown to influence raters' perceptions of employees' ability to adapt their behavior (DeArmond, et al., 2006). Further, as exchange relationships develop over time through a series of interactions, employee tenure could potentially confound the hypothesized relationships. Supervisors provided scaled ratings of employee adaptive performance using a seven item measure designed for the current study.

LMX

We measured LMX using the seven item measure (LMX-7) provided by Scandura, Graen and Novak (1986). The word "manager" replaced "supervisor." Items (e.g., "My manager understands my problems and needs") were responded to on a 7-point scale (1 = strongly disagree to 7 = strongly agree). *POS*. We measured POS with the nine-item short-form version of the Survey of Perceptions of Organizational Support (Eisenberger et al., 1990). Items (e.g., "Even if I did the best job possible, the organization would fail to notice"; reverse coded) were presented on a 5-point scale (1 = strongly disagree to 5 = strongly agree).

Adaptive Performance

We measured adaptive performance using seven items designed to reflect the current definition of adaptive performance. A pilot study was conducted to assess the discriminant validity of the measure. A survey containing our adaptive performance items, as well as Williams and Anderson's (1991) measures of in-role performance (IR) and organizationally- and individually-directed citizenship behaviors (OCBO and OCBI, respectively), was distributed to 282 undergraduate business students at a large, urban commuter university in the southern United States. We presented the items on a 5-point scale (1 = strongly disagree to 5 = strongly agree). Participants were asked to rate the performance of a peer from their workplace. We eliminated responses from individuals who did not return complete data and individuals who were not working, leaving a final sample of 232 ratings. Fifty-five percent of raters were male, and were on average 22.5 years of age, worked 26.5 hours per week, and interacted with the rated peer for 18.3 hours during an average work week.

The internal consistency of the adaptive performance measure was high ($\alpha = .93$). We determined that the four constructs could be combined into five conceptually plausible factor solutions. We compared

each of these factor models using structural equation modeling software to perform a confirmatory factor analysis (Bryne, 2001). A four-factor solution, with adaptive performance, IR, OCBO, and OCBI loading on distinct factors, fit the data better than the four competing factor structures (see Table 1). Additional evidence for the distinction of adaptive performance and OCBO, the most conceptually similar construct, is provided by comparing the two three-factor solutions. A model with two forms of citizenship combined into a single factor fit the data better than the model combining adaptive performance and OCBO. These results provide strong evidence that raters are able to distinguish between adaptive and other forms of performance in a work context.

TABLE 1
RESULTS OF CONFIRMATORY FACTOR ANALYSIS

| Solution | Factors* | χ^2 | df | χ^2/df | CFI | TLI | RMSEA | RMSEA Confidence Interval |
|--------------|--------------------|----------|-----|-------------|------|------|-------|---------------------------------|
| Four Factor | AP, IR, OCBO, OCBI | 673.87 | 344 | 1.96 | .889 | .869 | .070 | .062 .078 |
| Three Factor | AP, IR, OCBO/OCBI | 729.87 | 347 | 2.10 | .871 | .849 | .075 | .068 .083 |
| Three Factor | AP/OCBO, IR, OCBI | 750.34 | 347 | 2.16 | .864 | .841 | .077 | .070 .085 |
| Two Factor | AP/OCBO/OCBI, IR | 878.34 | 349 | 2.52 | .822 | .793 | .088 | .081 .096 |
| One Factor | AP/IR/OCBO/OCBI | 1101.04 | 350 | 3.15 | .747 | .707 | .105 | .098 .112 |

Notes: All χ^2 values are significant at $p < .001$. CFI = comparative fit index. TLI = Tucker-Lewis coefficient. RMSEA = root-mean-square error of approximation. AP = adaptive performance. IR = in-role performance. OCBO = organizationally directed citizenship behavior. OCBI = individually directed citizenship behavior.

* A comma indicates distinct factors, a / indicates combination into a single factor.

The adaptive performance measure from the pilot study was then distributed as part of the main study. Principle components factor analysis was used to confirm that a single underlying factor explained supervisors' evaluations of subordinate adaptive performance, accounting for 75% of the variance in responses. Further, only one factor had an eigenvalue greater than one (5.20), a commonly accepted cutoff (Kaiser, 1960), and the second highest eigenvalue did not approach one (.60).

Using classical test theory principles, our adaptive performance measure appears to be psychometrically sound. We found the anticipated factor structure and achieved a high level of internal consistency ($\alpha = .94$). However, researchers have recently begun advocating the use of item-response theory (IRT) to evaluate the psychometric properties of measures (Reise, Ainsworth, & Haviland, 2005; Scherbaum, Finlinson, Barden, & Tamanini, 2006). IRT is a collection of model-based approaches to understanding the relationships between an underlying construct, item characteristics, and individual response patterns (Drasgow & Hulin, 1990) and is particularly suited for establishing the psychometric properties of measures (Reise et al., 2005). IRT analysis involves the generation of slope and threshold parameters from item response functions (IRF), which form S-shaped curves. The IRF is a mathematic representation of the probability of a respondent with a particular level of a latent trait endorsing a response. Item parameters are given in the form of a slope parameter (a) and threshold parameters (b) for n-1 response categories, assuming the use of a scaled questionnaire. Item slopes, or item discrimination parameters, are the slope of the IRF at the inflection point, or threshold. Generally, slopes greater than one are considered "strong" (c.f. Hill et al., 2007; Fraley, Waller, & Brennan, 2000; Gray-Little, Williams, & Hancock, 1997). Threshold parameters are the distance from the mean in z-scored standard deviations at which an individual would have a 50-percent likelihood of endorsing that response category. Using the slope and threshold parameters researchers can use IRT to determine how well the items and scale discriminate across varying levels of the latent construct.

A specific IRT method, the graded model (Samejima, 1969), is ideally suited for scaled responses to a unidimensional measure, as is the case with our adaptive performance measure. Table 2 displays the slope

and threshold parameters for the 7-item adaptive performance measure used in the current study. All slopes were well above one and items were capturing “information” across a broad range of the latent construct. There was no evidence suggesting that modification of the scale by adding, removing, or altering any items was necessary.

TABLE 2
RESULTS OF IRT ANALYSIS^{A,B}

| Item | a | b1 | b2 | b3 | b4 |
|--|------|-------|-------|-----|------|
| Adapts readily to changing rules or requirements | 3.39 | -1.96 | -1.04 | .39 | 1.41 |
| Strives to learn new processes | 5.41 | -1.52 | -.74 | .38 | 1.27 |
| Seeks development through self-teaching | 3.54 | -1.63 | -.76 | .53 | 1.50 |
| Is eager to learn new systems or procedures | 4.79 | -1.89 | -.68 | .37 | 1.26 |
| Finds creative and effective solutions to problems | 2.49 | -1.89 | -.79 | .84 | 1.76 |
| Uses critical thinking skills to analyze problems | 2.70 | -2.08 | -.75 | .74 | 1.66 |
| Is open to new ways of doing things | 2.82 | -1.88 | -1.10 | .55 | 1.53 |

a. Marginal reliability = 0.9446

b. Values derived using Samejima’s (1969) Graded Model with MultiLog (Thissen, 1991)

RESULTS

Means, standard deviations, correlations and reliabilities are reported in Table 3. Tenure was not significantly correlated with LMX ($r = -.006$, *ns*), however it did reach statistical significance in each subsequent regression model and was therefore retained in the final model. However, employee gender ($r = .06$, *ns*) and age ($r = .03$, *ns*) were not significantly correlated with supervisor ratings of adaptive performance, and were removed from regression analyses.

TABLE 3
MEANS, STANDARD DEVIATIONS, AND INTERCORRELATIONS AMONG VARIABLES^A

| Variables | M | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|------------------------|-------|-------|------|-----|------|--------|------|------|
| 1 Age | 32.31 | 10.45 | — | | | | | |
| 2 Gender ^b | 1.78 | .41 | .05 | — | | | | |
| 3 Tenure | 4.03 | 4.63 | .57 | .11 | — | | | |
| 4 LMX | 4.49 | 1.27 | .02 | .05 | -.01 | -.92 | | |
| 5 POS | 3.30 | .85 | -.01 | .02 | -.05 | .56*** | -.92 | |
| 6 Adaptive Performance | 3.18 | .86 | .03 | .07 | .17* | .24*** | .15* | -.94 |

a. $n = 175$. Alpha internal consistency reliability coefficients appear in the diagonal in parentheses

b. Gender was coded as 1 = male and 2 = female

* $p < .05$, ** $p < .01$, *** $p < .001$

We used hierarchical linear modeling (HLM) (Raudenbush & Bryk, 2002) to test all hypotheses. Prior to the analyses, we examined variance components for adaptive performance, LMX, and POS. Group membership explained a significant amount of variance in adaptive performance ($\tau^2 = .14$, $p < .05$), but did not explain significant variance in ratings of LMX or POS ratings ($\tau^2 = .21$, $.05$, $p = ns$ respectively). We grand-mean centered independent variables to aid in interpretation of the coefficients (Hofmann & Gavin, 1998). Results are presented in Table 4.

To test our hypotheses, we estimated two models with random intercepts. In Model 1, we investigated the effects of tenure, POS and LMX on adaptive performance. Both tenure and LMX were significantly related to adaptive performance, whereas POS was not. Consistent with our first hypothesis, the results

suggest that employees who perceive high-quality exchange relationships with their supervisors are reported to have higher levels of adaptive performance.

Consistent with our second hypothesis that POS would moderate the relationship between LMX and adaptive performance, the addition of the interaction term to the equation yielded a significant increase in R-square ($\Delta R^2 = .05, p < .01$). R-square was calculated using the proportional reduction in the level-one variance component as suggested by Hofmann (1997). Our results (variance explained) are at the high end of those typically found for interactions in non-experimental studies (Champoux & Peters, 1987; Chaplin, 1991).

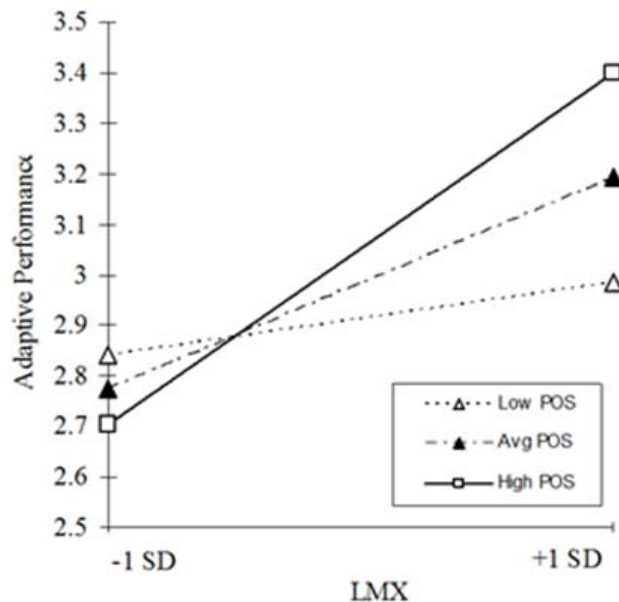
TABLE 4
RESULTS OF MODERATED HIERARCHICAL LINEAR MODELING

| Variables | Model 1 | | | Model 2 | | |
|----------------------------------|----------|-----|--------|----------|-----|--------|
| | Estimate | SE | t | Estimate | SE | t |
| Organizational Tenure | .04 | .01 | 2.91** | .03 | .01 | 2.75** |
| Leader-Member Exchange | .13 | .06 | 2.26* | -.31 | .16 | -1.91 |
| Perceived Organizational Support | .01 | .08 | .16 | -.55 | .21 | -2.60* |
| POS x LMX | | | | .14 | .05 | 2.89** |
| R ² | | | | | | |
| | | | | | | |
| ΔR^2 | | | | | | |
| | | | | | | |

* $p < .05$, ** $p < .01$.

Figure 1 illustrates the differential effects of LMX on adaptive performance under varying conditions of POS. Consistent with Hypothesis 2, assessment of the simple slopes revealed that LMX was positively related to adaptive performance among workers reporting average ($t = 2.78, p < .01$) and high ($t = 3.59, p < .01$) but not low ($t = 0.03, ns$) levels of organizational support.

FIGURE 1
MODERATING EFFECT OF POS ON THE LMX - ADAPTIVE PERFORMANCE RELATIONSHIP



DISCUSSION

We sought to examine the role of employee social exchanges on adaptive performance within a field setting. We looked at quality of the LMX and the amount of organizational support perceived by the employee as indicators of the employees' willingness to engage in the extra effort, as well as to assume the risk, involved in independently adapting their work performance. Taken together, the results provide strong support for our hypothesis that the LMX plays an important role in employee adaptation. Leaders provide important resources required by employees to be effective in a dynamic environment. Further, results of our moderation test provide evidence that POS is a necessary condition for adaptive performance to occur. Employees who feel that the organization is committed to them and concerned with their wellbeing are more likely to develop a long-term orientation toward the organization and to proactively adapt their behavior to contribute to the organization's future success. After the organization has developed a strong reciprocal exchange relationship with the employee, the first line manager becomes crucial in determining the capability of the employee to effectively engage in adaptive behaviors.

Theoretical Contributions

Our study offers four contributions to theory on adaptive performance and social exchange within organizations. First, we found that the organizational environment is an important factor in employee adaptive behavior effectiveness. This provides initial evidence that adaptive performance is contingent on factors other than individual differences among employees. We hope that the results presented here promote increased attention in the adaptive performance literature on situational and environmental factors in employee adaptation.

Second, we provide a theoretical distinction between adaptive performance and other forms of task and contextual performance that have been referred to as adaptive in previous studies. In doing so, we have provided a more precise and pragmatic definition of adaptive performance, which should present increased utility to researchers of employee performance.

Third, our study provides additional evidence regarding the interactive relationship between POS and LMX on employee outcomes. In developing our argument, we suggested that LMX was more influential on the ability to gain the information, support, and encouragement necessary to successfully engage in adaptive behaviors, while POS was a necessary condition for the motivation to engage in adaptive behaviors. As a result, our study enhances the theoretical understanding of differential outcomes of POS and LMX.

Finally, our research may inform the leadership literature. Contemporary reviews of the leadership domain have concluded that one of the most important questions remaining for leadership scholars is "*Under what conditions does leadership matter?*" (Hackman & Wageman, 2007; House & Aditya, 1997) or more specifically, what environmental factors influence the leadership-outcome relationship? Our study addresses this question by showing that while LMX is important in adaptive performance; this relationship is only existent in environments perceived as supportive. In short, effective leadership behavior (i.e. forming high-quality relationships) can be neutralized (Kerr and Jermier, 1978) by an unsupportive environment.

Practical Implications

Our study may also have practical value to managers of employees. As we noted earlier, many researchers have stated that the business environment is becoming increasingly dynamic, and organizations are experiencing multiple types of change at a more rapid rate. This yielded a conclusion that organizations will increasingly need employees who are effective at adaptive performance (Ilgen & Pulakos, 1999; Campbell, 1999). However, researchers have also noted that the typical employment relationship has undergone substantial changes in the last few decades, coining the new employment contract as a "market-based employment relationship" (Cappelli, 1999). This exchange is characterized as a shift from the traditional mutual commitment employment model to one with reduced internal career

opportunities and reduced job security (Said, Le Louarn, & Tremblay, 2007). One does not have to look hard at the business press to see that layoffs, reductions in benefits, and shifting of jobs overseas are now common cost cutting strategies in corporations. These strategies are likely the reaction to many of the same dynamic aspects that are requiring firms to become more adaptive. However, our research provides some evidence that harming employees' perceptions of organizational support may make firms less able to adapt and harm their ability to compete in a rapidly changing environment.

The recent trend toward less committed employment relationships is especially troubling in light of the inconsistent findings regarding individual differences in adaptive performance. Academics and practitioners are in agreement regarding the importance of employee adaptability; however there remains little empirically driven evidence on prescriptive solutions for identifying, selecting, or training adaptability. Alternatively, creating an organizational environment that facilitates adaptive behavior offers a practical solution. There are multiple anecdotal examples of success stories of firms in highly turbulent industries increasing levels employee support to attract and retain high quality employees. Google, Cisco, and Starbucks are each perennial entrants in Fortune's *Best Companies to Work for*. Each one faces an extremely dynamic environment, fierce competition for human capital, and thrives based on their ability to adapt. We encourage managers looking at cost effective human capital solutions to consider the long-term costs and benefits associated with their decisions, including how it may affect the organization's ability to respond to change.

Limitations

The present study is not without limitations, two of which may be the use of a cross-sectional design and a possibly unrepresentative organizational sample. Our use of a cross-sectional design does not allow us to make the claim that adaptive performance is caused by POS or LMX, as we can only demonstrate that they are correlated. However, given the assumptions of LMX and POS literatures, may not be problematic. Each of these relationships is thought to be an ongoing social exchange relationship, of which employee behavior is a form of social currency which is exchanged for support from the leader and/or organization. Therefore, the process is likely cyclical and causality may be less relevant as either exchange partner can initiate, terminate, enhance, or retract the exchange. Stated differently, adaptive performance and support are inputs of the respective exchange partners, meant to satisfy that partner's requirement to reciprocate a previous exchange, and thereby creating a new requirement for reciprocation. If the assumptions of cyclic reciprocity are valid, then causality is bidirectional and the cross-sectional design of our study adequately captures the relationships as they are presented in our hypotheses.

Our second limitation is the use of a distribution services organization. Employees in this type of organization likely have very systematic jobs and opportunities for adaptation are probably less prevalent than in organizations operating in environments that are more turbulent. Therefore, we expect that the significant effects found in the present study may be amplified in organizations with higher requirements for employee adaptive behavior. Future researchers might investigate the role of job and industry type on the relationships reported in this study. Additionally, the studied organization has a well-established hierarchy, and the power distance between a supervisor and a subordinate is clearly delineated. Supervisors in the investigated firm had considerable control over valuable tangible and non-tangible resources required by the employees. We invite future researchers to generalize our findings to organizations with more autonomous employees, and employees who do non-routine work (e.g., research, product development, sales). Further, we believe that the strong psychometric properties of our adaptive performance measure mitigate some of the potential sample bias in our study. We used IRT analysis, which does not rely on population characteristics to define the underlying construct, to assess our measure of adaptive performance. The IRT analysis showed that our measure is able to capture large amounts of information about employee adaptive performance across a broad range of the underlying latent construct. Therefore, even if our sample was highly unrepresentative, we would have likely found null relationships (no support for our hypotheses), rather than serendipitous positive findings.

Directions for Future Research

Adaptive performance is a construct in its infancy, and only a handful of empirical studies have investigated the construct. We suggest that further research would likely benefit from increasing the validity of the construct by showing that it is distinct from task and citizenship performance dimensions. In order for adaptive research to become a fruitful and helpful area for the development of theory that has valuable implications for managers, it should be demonstrated that adaptive performance is indeed a distinct performance dimension.

The mechanisms by which we proposed that POS and LMX influenced adaptive performance offer another important research area. We assumed that adapting work behavior involves risk and additional effort on the part of the employee and that strong exchange relationships buffer the employee from this risk and increase willingness to exert extra effort. However, we did not formally test these mechanisms. We suggest that future research investigate these mechanisms. We believe that motivation theory, for example goal setting, may provide some clarification regarding the mechanisms posited in this study.

We also suggest continued research on the role of individual differences in adaptive behaviors. The incongruent findings of previous studies lead us to believe that key moderators within the organization affect the relationships between personal characteristics, such as general mental ability and conscientiousness, and employee behaviors. Adaptive behaviors may be more prone to these moderating effects because of the necessity to exert effort beyond what is required to maintain the employment contract and the sensitivity of employees to the risk inherent in change. Organizational culture, leadership, and justice theories may be key areas that will allow researchers to investigate the individual's role in behaving adaptively.

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