Antecedents and Consequences of Merit Pay Fairness for Industrial Salespeople

How do salespeople make judgments of merit pay fairness? By what mechanisms do fairness judgments influence the performance and commitment of salespeople? Using equity and social exchange theories, the authors examine these questions for industrial salespeople who work in a Fortune 500 firm and provide four key findings. First, of the three dimensions of fairness judgments, they find the interactional fairness dimension to be relatively more important than procedural or distributive fairness in influencing job outcomes of salespeople. Second, supervisory behaviors have significant influence in shaping salespeople's fairness judgments, particularly judgments of distributive and interactional fairness. Third, the results underscore the contrasting mediating role of trust in supervisor and job satisfaction. Although trust in the supervisor is important in reducing salespeople's opportunistic behaviors, the authors find job satisfaction to be important in enhancing their loyalty to the organization. Fourth, salespeople's job performance is influenced directly by extrinsic factors such as fairness of current rewards and potential for rewards. In addition, the authors outline implications for theory and practice.
tified several facets of fairness (namely, distributive, procedural, and interactional), little work has been done to examine the differential effect of these dimensions empirically in a single study (Konovsky and Pugh 1994; Kumar, Scheer, and Steenkamp 1995; Livingstone, Roberts, and Chonko 1995; Netemeyer et al. 1997; Organ 1988). Some researchers argue that the distributive dimension is most important as it relates to the magnitude of reward (e.g., Organ 1988). In contrast, in nonsales contexts, Konovsky and Pugh (1994) and others suggest that procedural fairness is more significant as it pertains to processes that determine rewards. Most studies ignore interactional fairness, that is, how salespeople are treated during the rewards process. The lack of attention to interactional fairness is notable, because issues pertaining to human dignity and respect are assuming greater importance in the workplace. Thus, current knowledge about the relative significance of distributive, procedural, and interactional fairness judgments in the context of merit pay-raise decisions is largely deficient.

Second, recent studies in social exchange research suggest that job satisfaction (Netemeyer et al. 1997) and supervisory trust (Aryee, Budhwar, and Chen 2002; Konovsky and Pugh 1994) mediate the influence of fairness dimensions on outcomes. Unfortunately, empirical studies in sales management have largely failed to study the presence and importance of such mediating processes. We were unsuccessful in finding a single study that examines different, potentially competing mediating processes. Netemeyer and colleagues (1997, p. 95) echo this gap in their observation that “sales-oriented … research … should consider several mediators simultaneously to determine which ones have stronger effects.” Addressing this gap will enable integration of processes that heretofore have been examined independently.

Third, in studies of fairness consequences, sales researchers have focused their attention primarily on social exchange concepts, such as commitment and trust. Little research exists on the effects of fairness on job performance or opportunistic behaviors of salespeople. Performance on assigned tasks and, in the context of salespeople, opportunistic behaviors (e.g., “managing” data and effort to create favorable impressions and evaluations) likely have a significant effect on the bottom line. Understanding how fairness in merit pay raises can influence such bottom-line consequences holds implications for managers and researchers alike.

Finally, in general, sales researchers have neglected the antecedents of fairness. This neglect is notable because studies of fairness consequences do not tell a complete story. They establish that fairness perceptions matter, but they provide little insight into what managers can do to promote fairness. As such, the focus on fairness consequences in prior studies is likely to be less useful in drawing managerial implications.

We aim to address the preceding gaps by (1) examining three distinct fairness dimensions, (2) exploring the mediating mechanisms that govern fairness effects by using a nomological model rooted in social exchange and equity theories, (3) examining outcomes (commitment, performance, and opportunism) that are important for organizational effectiveness, and (4) drawing on diverse literature to propose and test an initial set of fairness antecedents. Overall, inclusion of all three fairness dimensions avoids misspecification bias due to omitted constructs, and an understanding of the key, competing mediating pathways is likely to yield theoretical payoffs and more concrete managerial guidelines for enhancing fairness–outcome relationships.

Theory and Hypotheses

Merit Pay Fairness: Conceptualization and Framework

Fairness issues in organizations span several facets of work, including job design, performance evaluation, monetary rewards, and resource allocation. The focus of this study is on fairness of merit pay-raise decisions. Although the literature on pay fairness for salespeople is sparse, three points underscore the significance of research in this area. First, merit pay systems serve an instrumental function by directing the individual salesperson’s behaviors toward fulfilling organizationally mediated sales goals and toward linking rewards received to the achievement of sales goals. Second, merit pay systems facilitate greater work motivation by differentially rewarding top performers over marginal performers. Studies have shown that a discriminating pay system can increase employees’ motivation to perform by as much as 40% (Lawler 1990). Third, merit pay systems play a crucial role in retaining more “effective” salespeople. Opportunities (or lack thereof) for enhanced compensation levels influence salespeople’s decisions to quit and their commitment to the organization (Lawler 1990; Singh, Verbeke, and Rhoads 1996).

Figure 1 presents the framework we used to study the antecedents and consequences of fairness dimensions based on equity and social exchange theories. Our focus is on fairness dimensions (i.e., understanding how employees determine whether they have been treated fairly in their merit pay-raise decisions) and fairness processes (i.e., examining the nature and strength of relationships involving antecedents and consequences). We begin our discussion with fairness dimensions.

Distributive, Procedural, and Interactional Dimensions of Merit Pay Fairness

Distributive fairness involves magnitude of rewards. Salespeople gauge the reward magnitude relative to their input and then compare this ratio with reward-to-input ratios of similar employees (Livingstone, Roberts, and Chonko 1995). People perceive inequity if their reward-to-input ratios do not compare favorably with such ratios of others. However, because employees may not have complete information about the reward-to-input ratio of others, they sometimes derive distributive fairness evaluations by comparing the rewards received with their own expectations (Netemeyer et al. 1997).

Procedural fairness deals with how decisions are made. The degree of individual control over the decision process shapes employees’ views about procedural fairness (Lind and Tyler 1988). Researchers have identified two types of controls: (1) process control, or the degree of influence
afforded to employees over the procedures that supervisors use to arrive at pay raise decisions, and (2) decision control, or the amount of direct control employees have in determining pay-raise outcomes.

Finally, interactional fairness involves how decisions are communicated. As such, it focuses on the social enactment of procedures and the quality of supervisor–salesperson interaction during the pay decision process (Goodwin and Ross 1992). Often, noninstrumental values, such as dignity, respect, and social standing, are evoked in such evaluations (Folger and Konovsky 1989).

**Fairness Consequences: Direct and Mediated Pathways**

Following Katz and Kahn (1978), we focus on three organizational outcomes: attachment, performance, and opportunism. Katz and Kahn prescribe that (1) when employees enter the organization, they should be engaged with it (organizational commitment); (2) as employees, they should carry out their roles in a dependable, superior fashion (job performance); and (3) employees should not engage in activities that thwart or undermine organizational effectiveness (opportunism). As we noted previously, fairness studies have provided greater attention to the organizational commitment outcome and less attention to the other two outcomes.

Two distinct pathways, direct and mediated, have been proposed for the influence of fairness dimensions on outcomes. The direct pathway hypothesizes that distributive, procedural, and interactional fairness have a direct impact on outcomes (George 1991; Konovsky and Cropanzano 1991). Notably, the theoretical mechanism for the direct hypothesis is the notion of reciprocity in a balance theory framework. For example, Greenberg (1990) finds that employees who experience pay inequity respond with acts of deviance or opportunism to address the inequity. In contrast, fair employer actions are reciprocated with favorable employee responses, including greater performance and commitment.

The mediating pathway proposes that the influence of fairness dimensions on employee outcomes is mediated by two social exchange variables: supervisor trust and job satisfaction. Perceptions of fairness are likely to promote enhanced feelings of job satisfaction (because of the attainment of valued rewards) and trust in the supervisor (for making a good faith effort to be fair) (Konovsky and Pugh 1994;
Influence of Fairness Dimensions on Supervisor Trust and Job Satisfaction

Because trust reflects salespeople’s willingness to rely on their supervisors to protect their interests, it is a key element in the development and maintenance of social exchange relationships (Morgan and Hunt 1994). Why would salespeople trust their supervisors? Existing research indicates that an important driver of trust is employees’ perceptions of procedural fairness (Dwyer, Schurr, and Oh 1987; Flaherty and Pappas 2000; Konovsky and Pugh 1994; Lind and Tyler 1988). Konovsky and Cropanzano (1991) suggest that the use of fair procedures generates expectations of fair treatment in the long run. In turn, these expectations lead to a generalized sense of positive regard for (and trust in) the supervisor who uses fair procedures. In contrast, supervisors who have a reputation for unfair, unilateral action signal that they are only interested in their own welfare and organizational welfare. Such a negative reputation is likely to reduce employees’ trust in the supervisor (Ganesan 1994). Furthermore, when supervisors demonstrate respect for the rights and dignity of salespeople through communication and high-quality interactions, they signal that salespeople are valued members of the group (Folger and Konovsky 1989). Treatment of salespeople in a manner that reinforces their self-worth helps enhance their trust in the supervisor (Lind and Tyler 1988).

Two opposing arguments can be posited for the relationship between distributive fairness and supervisor trust. Konovsky and Pugh (1994, p. 658) suggest that “a norm of distributive fairness implies that the parties to an exchange give benefits with the expectation of receiving comparable benefits in the short run.” In other words, fair compensation is expected and therefore will not contribute to increased trust. In support of this, Konovsky and Pugh find no empirical association between distributive fairness and supervisor trust. Alternatively, taking a long-term view of salespeople’s relationship with the organization, salespeople’s distributive fairness perceptions could exhibit social exchange effects if the merit pay awards even out in the long run. We posit that the effect of distributive fairness is in line with Konovsky and Pugh’s proposition, but we note the potential for an alternative explanation.

In addition, each fairness dimension is hypothesized to have an unequivocal, positive influence on salespeople’s job satisfaction. \textit{Job satisfaction} is defined as a pleasurable or positive emotional state that results from self-appraisal of a job or job experiences (Livingstone, Roberts, and Chonko 1995). In a merit pay context, employees who experience distributive fairness are likely to exhibit greater satisfaction (Moorman 1991; Netemeyer et al. 1997). According to equity theory, the greater the discrepancy between the amount employees believe they should receive and the actual amount they receive, the greater is their tension or dissatisfaction (Lawler 1990; Livingstone, Roberts, and Chonko 1995). Moreover, job satisfaction is likely to be positively associated with the degree to which the merit pay system adheres to employees’ sense of procedural fairness (Roberson, Moye, and Locke 1999). For example, employees who perceive that procedures are unfair may entertain feelings that they would have obtained a higher merit pay under a procedure that was “fairer” and consequently might feel angry and dissatisfied (Folger 1986). Furthermore, employees’ perceptions of interactional fairness may be associated with how salespeople perceive management’s valuation of their contribution, thereby affecting job satisfaction (Moorman 1991). Although similar value judgments can be communicated through formal procedures, the quality interactions with the supervisor in pay decisions provide compelling evidence of an individual employee’s worth on the job. Thus, we hypothesize the following:

\begin{itemize}
  \item \text{H}_1: \text{The greater the procedural or interactional fairness perceptions, the greater is salespeople’s trust in the supervisor.}
  \item \text{H}_2: \text{Distributive fairness perceptions are unrelated to trust in the supervisor.}
  \item \text{H}_3: \text{The greater the distributive, procedural, or interactional fairness perceptions, the greater is employees’ job satisfaction.}
\end{itemize}

The Consequences of Supervisor Trust and Job Satisfaction

It has been hypothesized that salespeople with high levels of supervisor trust perform relatively better, evidence greater commitment, and are more restrained in opportunistic behaviors than are salespeople with low levels of supervisor trust. Specifically, in terms of job performance, a salesperson with a high level of trust in the supervisor is more likely to cooperate with the latter because of a desire to make the relationship work and to add value to it (Morgan and Hunt 1994). A way to add value is for employees to enhance their job performance, because this has the effect of enhancing the supervisor’s performance (Costa, Roe, and Tallieu 1991; Rich 1997; Tyagi 1985).

Trust in the supervisor also enhances employees’ perceptions of the value of staying in a long-term relationship with the organization, resulting in increased commitment (Moorman, Zaltman, and Deshpandé 1992). Morgan and Hunt (1994) note that employees will commit themselves to organizations that provide trustful work relationships. Likewise, McDonald (1981, p. 834) notes that “mistrust breeds mistrust and ... would also serve to decrease commitment in the relationship.” Moorman, Zaltman, and Deshpandé (1992) and Morgan and Hunt provide empirical support for this linkage.

Finally, employees often behave politically and engage in intentional acts of influence to enhance or protect their...
self-interest (Crant and Bateman 1993). Political behaviors are opportunistic and may include selectively presenting or intentionally distorting information given to supervisors and others (Ramaswami 1996). In sales settings, opportunistic behaviors arise when salespeople fail to engage in behaviors that are warranted but not measured by the performance system and/or when they engage in irrelevant behaviors because they are measured by the performance system (Jaworski and MacInnis 1989). They may also manipulate the information processed by supervisors for setting sales goals (Ramaswami, Srinivasan, and Gorton 1997), shirk from making the required number of sales calls, or fail to fulfill promises (Ganesan, Weitz, and John 1993). However, when salespeople trust their supervisors, they are more likely to believe that they can achieve better long-term rewards by reciprocating with cooperative rather than self-interested behaviors (Anderson and Narus 1990).

In contrast, we expect job satisfaction to influence commitment and opportunistic behaviors but not job performance. Specifically, regarding job performance, a strong argument can be made that a satisfied employee is also a productive employee (Organ 1977; Petty, McGee, and Cavender 1984). However, researchers have failed to find evidence of strong association between satisfaction and performance, despite the many studies that have been conducted to uncover this relationship (Brown and Peterson 1993). In a meta-analysis, Iaffaldano and Muchinsky (1985, p. 270) suggest that satisfaction and performance form only “an illusory correlation … between two variables that we logically think should interrelate … [but] in fact do not.” In a more recent meta-analysis, Judge and colleagues (2001) update previous findings and note that though the satisfaction–performance relationship is weak (correlation ~ .30), it is positive and significant. Nevertheless, given this mixed evidence, we do not hypothesize a relationship between job satisfaction and performance.

When an organization provides employees with satisfying jobs, commitment levels should increase. Existing empirical models seem to provide support for job satisfaction as an antecedent to commitment (Brown and Peterson 1993; Dailey and Kirk 1992; Johnson, Barksdale, and Boles 2001; Johnston et al. 1990; Summers and Hendrix 1991). Williams and Hazer (1986, p. 230) state that “through a process of the evaluation of costs and benefits, individual needs and desires are satisfied, and the resulting affective state becomes associated with the organization…. Commitment results from this association.” Martin and Bennett (1996) suggest that whereas job satisfaction is an affective response to specific work-related facets (e.g., pay), organizational commitment represents an affective response to the entire organization. They state (p. 85), “as individual needs are satisfied, the resulting satiated state becomes associated with the focal organization.” For salespeople, Singh, Verbeke, and Rhoads (1996) provide empirical support for this association. Likewise, if salespeople are satisfied with their jobs, they are less likely to be opportunistic out of a sense of debt, obligation, or even decency. On the basis of the preceding discussion, we hypothesize the following:

**H**\textsubscript{5}: The greater the salesperson’s job satisfaction, the greater is his or her performance and organizational commitment and the lower is the tendency to engage in opportunistic behavior.

**H**\textsubscript{6}: The greater the salesperson’s job satisfaction, the greater is his or her organizational commitment and the lower is the tendency to engage in opportunistic behavior.

**H**\textsubscript{7}: The salesperson’s job satisfaction is unrelated to his or her job performance.

### Antecedents of Distributive, Procedural, and Interactional Fairness Judgments

Previous fairness research has focused primarily on fairness consequences in an effort to explain various organizational behaviors and outcomes and has paid little attention to the antecedents of fairness perceptions. The few studies that do examine fairness antecedents have invariably grounded their work in a managerial perspective for selecting antecedent factors. We are not surprised by this, given that the study of fairness antecedents is apparently of greater interest for managerial practice than for theory-driven researchers. However, this apparent difference in focus does not pass careful scrutiny, because the study of fairness mechanisms must try to tie together its antecedents and consequences (Greenberg 1990).

Toward this end, we identify antecedent factors for each fairness dimension that (1) originate in either procedural justice or equity theory, (2) can be easily acted on by managers, and (3) have received empirical attention in the academic literature. However, there might be other managerially relevant antecedent factors that are not included in our study in order to keep the empirical model manageable and reasonable. Because our intent is to lay the foundation for theory building in the area of fairness antecedents, we provide this work as an initial attempt in this direction. As such, we draw propositions rather than hypotheses to capture the relationships involving fairness antecedents.

Before developing specific propositions, we elaborate on the broad theoretical mechanisms underlying the effects of modeled antecedents. Notably, distributive fairness perceptions will be influenced by factors that are related to supervisory evaluation of outcomes relative to inputs. With regard to inputs, employees want supervisors to use performance measures that are relevant and important to their jobs. With regard to outcomes, employees would like supervisors to maintain correspondence between their inputs (i.e., performance) and their outcomes (i.e., rewards). In addition, salespeople expect supervisors to apply standards consistently for everyone. Finally, salespeople may be concerned as much about future input–outcome relationships as they are about current ones. Thus, the supervisor’s attempt to improve future performance–reward linkages may be important.

Procedural fairness perceptions will be influenced by process factors that directly or indirectly contribute to employees’ sense of influence on the merit reward decision. The specific process factors may include (1) the presence of mechanisms that enable employees to provide their views and (2) the absence of mechanisms that signal undue influence of other employees. The first category includes factors associated with employee voice mechanisms, including participation, or the extent to which the employee has voice in
setting work goals and the means to achieve them (Goodwin and Ross 1992; Korsgaard, Schweiger, and Sapienza 1995), and improvement plan, or the extent to which the supervisor works with the employee in developing a plan to improve future outcomes or rewards. The second category includes factors that level the playing field, such as the use of appropriate performance measures (Leventhal 1980) and their consistent application across all employees (Greenberg 1986).

Interactional fairness is based not on the ability to shape outcomes but on satisfaction of noninstrumental values such as social standing, dignity, and respect. When supervisors help salespeople develop a plan to improve future performance and communicate clearly that the organization is concerned for their well-being, interactional fairness is likely enhanced. In addition, supervisors promote interactional fairness when they allow the employees to participate in setting work goals.

**Performance–reward linkage.** We argue that only when supervisors use performance information that is reliably related to outcomes will employees be favorably disposed to the distributive fairness of their outcomes. Linking pay and performance has been a cornerstone of employee compensation (Lawler 1990). However, this ideal often is not achieved, because organizational rewards may be based on several factors beyond performance, including budget availability, political behavior, seniority, supervisor–employee dependence, and other extrarole behaviors (Bartol and Martin 1989; Podsakoff and MacKenzie 1994; Turban and Jones 1988). In addition, managers may have other reasons (e.g., equality versus equity) for not linking pay to performance (Miceli 1993; Sarin and Mahajan 2001). In a study of managers, Markham (1988) finds a weak significant correlation (r = .19) between supervisor’s performance rating and the merit raise received by employees. When organizations fall short of fulfilling the core principle of linking pay to performance, distributive fairness of merit pay decisions is likely to be compromised. Thus:

**P1:** The greater the perceived linkage between job performance and pay outcomes, the greater are a salesperson’s perceptions of distributive fairness.

**Consistent/unbiased application of performance standards.** When employees observe that reasonable standards are not applied consistently across all employees, both distributive and procedural fairness judgments are likely to be affected (Bartol 1999; Kumar, Scheer, and Steenkamp 1995). In a limited budget scenario, employees know that inconsistent application of standards could upset the input–outcome relationship by providing greater allocation to some and less allocation to others. In Sashkin and William’s (1990) study, “playing favorites” was a factor employees often mentioned when asked to describe managers’ unfair actions. Moreover, when performance standards are applied inconsistently, the implication is that the process of determining pay allocations is subverted. Tyler (1989) suggests that salespeople are particular that their management creates a neutral arena (i.e., a level playing field) in which to resolve their problem or conflict. Thus:

**P2:** The greater the consistent/unbiased application of standards, the greater are a salesperson’s perceptions of (a) distributive fairness and (b) procedural fairness.

**Performance improvement plans.** Performance appraisal processes often serve two basic purposes: (1) they provide information for managerial decisions such as pay and promotion, and (2) they enable supervisors to counsel employees on ways to improve future job performance (Dubinsky and Barry 1982; Muczyk and Gable 1987). Because of the significance of the latter in improving long-term pay returns, performance improvement plans are likely to influence distributive, procedural, and interactional fairness judgments. The focus on performance improvement informs the employee that the supervisor is interested in the employee’s receiving greater future rewards, and it engenders feelings of reduced unfairness about rewards received in the current period. Furthermore, a performance improvement plan enables the supervisor to provide advance notice to the employee of future expectations (Martin and Bartol 1998) and consequently can result in greater role clarity and more favorable perceptions of procedures (Gilliland 1993; Ramaswami 1996). Finally, when using performance improvement plans, supervisors provide useful how-to information about progress toward desired outcomes (Bartol 1999). This feedback signals that supervisors are concerned about employees’ personal development and that they care enough to spend time and effort to improve employees’ performance, thus enhancing perceptions of interactional fairness. Thus:

**P3:** The greater the supervisory focus on developing plans for performance improvement, the greater are a salesperson’s perceptions of (a) distributive fairness, (b) procedural fairness, and (c) interactional fairness.

**Performance measure appropriateness.** Fundamental to a fair merit pay system is the use of credible, appropriate measures of performance (Lawler 1990). If input measures are problematic, the input–outcome ratio will likely be compromised. When employees consider measures inappropriate, the implication is that supervisors either are not evaluating certain job facets that are important for a salesperson’s success or are not using measures that capture critical job facets well (Pettitjohn, Pettitjohn, and Taylor 2000). For example, although customer orientation and satisfaction may be relevant measures of performance, organizations may focus exclusively on sales volume when making payraise decisions (Brown and Peterson 1993; Lawler 1990; Mowen et al. 1985). Another negative consequence of inappropriate measures is performance incongruence, whereby employees’ evaluations of their performance are not congruent with their supervisor’s evaluations (Ramaswami 1996), which results in lower procedural fairness perceptions. Thus:

**P4:** The more appropriate the performance measures that are used in merit pay rewards, the greater are a salesperson’s perceptions of (a) procedural fairness and (b) distributive fairness.
Participation. Recent studies have provided mounting evidence that the information generated through participatory goal-setting may provide employees with a clearer understanding of their tasks, goals, and expectations (Goodson and McGhee 1991; Sashkin and Williams 1990). As such, employees who participate in the merit-pay process improve their attitudes toward the process, making the procedures appear more fair (Cascardi, Pothress, and Hall 2000). Moreover, participation fulfills a salesperson’s desire to be heard regardless of whether the expression influences the supervisor. Voice is important to salespeople, because it signals that the supervisor values their input (Kumar, Steenkamp, and Scheer 1995). Using group affiliation arguments, Tyler (1989) suggests that because participation supports employees’ beliefs that the supervisor is interested in enhancing their sense of self-respect, participation contributes to greater perceptions of interational fairness. Thus:

P5: The greater the participation in decision making, the greater are a salesperson’s perceptions of (a) procedural fairness and (b) interational fairness.

Research Methods

Sample

We obtained data from salespeople employed by a Fortune 500 organization that uses a regional sales structure in which each salesperson reports to an area sales manager. Salespeople sell directly to large customers and use a distributor structure to reach small customers. Although salespeople are involved in account servicing, their primary responsibility is selling. The company requires an annual performance review for input into a merit-pay decision. Salespeople are also eligible for sales commission based on their relative performance in their market region. The salary component of the overall compensation is approximately 80%–90%. As such, the magnitude and fairness of annual merit raises is a significant matter. In informal interviews, it was suggested that the merit-pay raises range from 3% to 20% of the base salary; however, because of the sensitivity of the information and for reasons of confidentiality, the company refused to allow collection of quantitative pay information through the survey instrument.

At the time of the study, the organization employed 167 salespeople. All salespeople were mailed the survey instrument with a letter that guaranteed confidentiality. Given the study’s focus on merit-pay decisions, maintaining the confidentiality of the individual responses was a major issue in order to ensure participation and to obtain high-quality data. The respondents were instructed to mail the completed survey in a sealed envelope directly to the researchers.

We obtained responses from 165 salespeople; however, we could not include 11 responses because of missing values, yielding a usable response rate of 92.2%. Because of the relatively small sales force, our pretest discussions with salespeople alerted us to the concern that obtaining customary demographic data (e.g., age, years of experience, gender) might compromise respondent confidentiality. Consequently, in accord with our confidentiality agreement with the sponsoring company, we did not obtain demographic and background data. However, according to company management, the sales force was predominantly male, 30 to 45 years of age, and college educated.

Measurement of Study Variables

For all study constructs, we directly borrowed or adapted the scale items from the literature. In addition, we considered minor wording changes on the basis of comments made by the organization’s senior management. The Appendix lists the operational items we used for each construct, and Table 1 provides the univariate statistics for the constructs and the intercorrelations among them.

Fairness dimensions. We measured distributive fairness using a four-item scale that captured the degree to which employees perceive the pay outcomes they received as fair. These items are based on those of Folger and Konovsky (1989) and Greenberg (1986) and pertain to the degree to which employees believe that their pay raise is fair and provides the full amount that they deserved or expected. Procedural fairness pertains to the degree of control or influence afforded to the employee by the process the supervisor uses in arriving at the outcome decision. We measured this concept using a four-item scale that captured both process control, or the degree to which employees have the opportunity to provide input for the decision, and decision control, or the degree to which employees are able to influence the pay decision directly. Interational fairness items focus on the supervisor’s interpersonal behavior. Specific items we used included the degree to which the supervisor was sensitive to employees’ needs, considered employees’ rights, and dealt with employees in an honest and dignified manner. We drew these items from the work of Folger and Konovsky (1989) and Moorman (1991). A confirmatory factor analysis of fairness items with an a priori hypothesized three-factor model and loading structure produced acceptable fit statistics: $\chi^2 = 50.8$, degrees of freedom (d.f.) = 74, $p > .98$, comparative fit index (CFI) = 1.0, normed fit index (NFI) = .97, standardized root mean square residual (SRMR) = .042, and root mean square error of approximation (RMSEA) = 0 (90% confidence interval [CI] of .0 to .028). All estimated loadings were substantively and statistically significant (values $>.6$ and $p < .01$, respectively), indicating convergent validity. Consistent with this, we estimated the reliabilities for the distributive, procedural, and interational fairness dimensions at .89, .78, and .92, respectively. The estimated intercorrelations among the three fairness dimensions range from .50 (distributive–procedural) to .42 (distributive–interational), indicating that less than 25% variance is shared among them and thus providing initial evidence of discriminant validity. In a recent meta-analysis, Colquitt and colleagues (2001, pp. 437–38) report that the corrected intercorrelations among the fairness dimensions range from .38 to .56; moreover, they note, “our review showed that … justice [dimensions] have distinct correlates, and measuring the three separately allows for further differences among the dimensions to be examined.” Our measures of fairness dimensions yield psychometric evidence that coheres with Colquitt and colleagues’ meta-analysis.
## TABLE 1
Descriptive Statistics and Intercorrelations for the Study Constructs

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^aFour-point Likert scale.
^bFive-point Likert scale.
^cSeven-point Likert scale.
^dThree-point scale.

Notes: Correlations less than .15 are nonsignificant (p > .05).
Mediators. We measured supervisory trust using a three-item scale developed by O’Reilly and Roberts (1974) and used extensively in previous research. This scale showed a high level of internal consistency, with reliability of .88. We measured job satisfaction using a four-item scale developed by Lucas and colleagues (1987) with some modifications to enhance its contextual relevance. This scale has a reliability value of .94.

Outcomes. We used Mowday, Steers, and Porter’s (1979) nine-item organizational commitment scale. We dropped three items because of low loadings. The reliability for the six-item reduced scale is .75. We obtained sales performance evaluations from the supervisor. Because self-reported measures of performance are often subject to biases (e.g., self-presentation), supervisor evaluations are useful. The response rate from supervisors was 100%. Supervisors rated salespeople on three goals set by the organization: sales target performance, business growth, and professional growth. Supervisors also provided overall evaluations of each salesperson. The internal consistency estimate for this performance construct was .93. We measured opportunistic growth. Supervisors also provided overall evaluations of business growth and professional growth. Supervisors also provided overall evaluations of each salesperson. The internal consistency estimate for this performance construct was .93. We measured opportunistic behavior using Jaworski and MacInnis’s (1989) six-item scale. The dysfunctional actions captured in this scale include smoothing, focusing, and invalid data reporting. We dropped two items because of low construct loadings. Overall, the four-item measure has an acceptable level of reliability at .75.

Fairness antecedents. We measured linkage to rewards using a three-item scale that assesses whether employees perceive pay raises as directly linked to sales performance and how performance compares to the goals. However, we dropped one of the items, because it did not converge with the other two items. The reliability for the two-item scale was .75. We measured consistent/unbiased application of performance standards using two items that measure the extent to which the merit increases are based on organizational politicking or on the quantity and quality of work performed. We drew these two items from Tyler’s (1989) work, and their reliability was .83. We drew the three items that measure performance improvement plan from the work of Folger and Konovsky (1989). These items refer to supervisors’ efforts to improve employees’ future performance, including discussions of ways to improve performance and use of that information in developing future plans. The alpha reliability for this scale was .70. For a measure to be appropriate, it should track performance for all relevant activities of an employee’s job, be based on a thorough analysis of each activity, have a norm or standard for comparison, and be precise. We specifically developed four items to capture these aspects of measure appropriateness. The reliability for this scale was .83. Pay raises are typically determined on the basis of the extent to which an employee meets and exceeds goals. On-the-job goal determination is usually a joint decision between the employee and the supervisor and involves bargaining in a give-and-take environment. Participation refers to the employee’s involvement in the goal-setting process. We based these measures on the work of Vroom (1964) and Teas (1981); the reliability for this scale was .83.

Method of Analyses

In testing the proposed hypotheses, we used an analytical method that was sensitive to three issues: (1) confounding effects of measurement error, (2) potential for misspecification bias, and (3) test for mediation effects. In regard to measurement error, we were concerned that the presence of random error would bias the estimation of structural paths unpredictably (Bollen 1989). Although this favors the use of structural equations modeling, we were concerned about its stability and power in light of our sample size (N = 154). To strike a balance between these concerns, we used an approach based on Bagozzi and Edwards’s (1998) suggestion of partial disaggregated models. Specifically, we used two composites formed by combining the odd- and even-numbered items wherever possible as indicators for each latent construct. Bagozzi and Edwards show that partial disaggregated models are likely to have better statistical properties than approaches that use individual measures as indicators. Such models perform reasonably well, compared with fully disaggregated models, in terms of control over measurement error. As in structural equations models, the estimated coefficients reflect relationships among underlying theoretical constructs and are “adjusted” for measurement error. In addition, they provide a systematic basis for evaluating the “fit” of the hypothesized model to data (e.g., $\chi^2$ statistic, incremental fit indexes, RMSEA; Bentler 1995).

Misspecification bias can occur if some of the un hypothesized effects are significant and not included in the empirical analysis. Specifically, the proposed theoretical model includes a system of effects wherein the fairness antecedents (Level I) influence fairness evaluations (Level II), which in turn affect posited mediators (Level III), and finally the mediators influence outcomes (Level IV). Hypotheses that link Level I and Level III, for example, are not included. To examine the significance of such non hypothesized direct effects systematically without forsaking parsimony, we used the proposed model as the baseline model and tested for the significance of incremental increases in model fit due to nonhypothesized direct effects. This involved computing a change in the $\chi^2$ statistic and the corresponding change in degrees of freedom. To streamline this procedure, we used sets of effects that represented different levels in the model. For example, we included direct effects from all fairness antecedents (Level I) to job satisfaction and supervisor trust (Level III) and the change in $\chi^2$ tested with 10 degrees of freedom. We examined individual coefficients to retain the significant effects for the next step of analysis. We systematically implemented this procedure to test all potential un hypothesized effects and mitigate misspecification bias.

Finally, we were concerned about providing a test for the mediation hypotheses. Our model hypothesizes that supervisor trust and job satisfaction mediate the effect of fairness evaluations on job outcomes. To test mediation effects, we followed the procedures Baron and Kenny (1986) suggest. Specifically, we estimated a “direct” model in which we eliminated mediation variables and estimated direct effects. We then compared the direct effects with the corresponding coefficients from a model that included the mediating variables. A full mediation was indicated if (1) the “direct”
effects model produced a significant effect on a given outcome, (2) the corresponding direct effect was reduced to insignificance after inclusion of the mediating variable, and (3) the mediator had a significant effect on the focal outcome. Mediation was not indicated when the direct effect remains virtually unchanged in Step 2. Finally, partial mediation was indicated when the direct effect in Step 2 is reduced but does not become nonsignificant. In addition, given the sample size of 154 and a complex model that involved interrelationships among 13 distinct constructs, we were concerned about the power of statistical tests at the customary level of significance (.05). Consequently, we use a 10% level of significance for statistical testing.

Findings

Measurement Model Analysis

Before testing the hypothesized model, we estimated a fully disaggregated measurement model with all observed indicators to ensure that the measures corresponded only to their hypothesized constructs and evidenced acceptable reliability as well as convergent and discriminant validity. Using the confirmatory factor analysis procedures available in EQS, we estimated a measurement model that included all 51 items that we hypothesized to measure the 13 study constructs. We proposed the individual measures to load only on a single factor, in accord with conceptual definitions. This measurement model produced the following fit statistics: $\chi^2 = 1307$, d.f. = 1147, $p < .01$, NFI = .90, NNFI = .99, CFI = .99, SRMR = .062, and RMSEA (90% CI) = .032 (.021 to .039). Although the $\chi^2$ statistic is significant, the other indicators of relative and absolute fit (e.g., NFI, CFI, RMSEA) and the indicator for parsimonious fit (e.g., NNFI) unequivocally suggest that the hypothesized measurement model is a reasonably good representation of the variance-covariance matrix of study measures. The estimated parameter estimates in Table 2 reveal that the standardized factor loadings, without exception, are statistically significant (t-values > 2, $p < .05$) and substantively large (>.30). In addition, the composite reliability estimates exceed .70, and variance extracted exceeds .50, with two exceptions that involve improvement plan and commitment. Note that the composite reliability estimates differ slightly from alpha reliability estimates we provided previously; the former are based on maximum likelihood estimates. Finally, the average factor correlation is .33, indicating that, on average, less than 11% of the variance is shared among the constructs. Overall, our results suggest that the modeled constructs have reasonable psychometric properties and appear suitable for substantive analysis and interpretation.¹

Overall Fit of the Hypothesized Structural Model

Initially, we estimated the hypothesized model of Figure 1. We encountered no particular problems in estimation and achieved convergence without any boundary conditions. The estimated coefficients from this model are listed in Table 3 as “initial” coefficients. In accord with our analytical plan, we then examined the potential for misspecification bias by estimating three less restrictive models in sequential steps that systematically allowed for direct effects between non-adjacent levels of variables. After each step, we retained significant coefficients for the next step of analysis. In all, we included one path in Step 1 that involved measure appropriateness (effect on interactional fairness), four paths in Step 2 that involved distributive fairness (effect on performance and opportunistic behaviors) and participation (significant effect on satisfaction and trust), and one path in Step 3 (improvement plan $\rightarrow$ performance). The final model yielded fit statistics as follows: $\chi^2 = 276.7$, d.f. = 258, $p = .20$, NFI = .94, NNFI = 99, CFI = .99, SRMR = .051, RMSEA (90% CI) = .023 (.001 to .040), and Akaike information criterion (AIC) = −239.3 (independence AIC = 3699.2). Given the nonsignificant $\chi^2$ goodness-of-fit test and other fit indicators, it appears that the final model provides an acceptable representation of the data.

Structural Coefficients and Hypotheses Tests

Table 3 provides the estimated coefficients from the final model, and Figure 2 displays these results graphically. Overall, it appears that the final model provides a reasonable explanation for distributive and interaction fairness ($R^2 = .48$ and .58, respectively) but not procedural fairness ($R^2 = .12$). Likewise, we achieved meaningful explanation levels for performance and commitment ($R^2 = .40$ and .42, respectively) but not opportunistic behaviors ($R^2 = .17$). Finally, the explanation levels for supervisor trust and job satisfaction are also reasonable ($R^2 = .69$ and .38, respectively).

Regarding $H_1$, Table 3 reveals that interactional fairness has a strong positive effect on supervisor trust ($\beta = .46, p < .01$); however, the effect of procedural fairness is nonsignificant. Moreover, contrary to $H_2$, distributive fairness is significantly associated with supervisor trust ($\beta = .18, p < .01$). Although not posited, participation is positively associated with supervisor trust ($\beta = .34, p < .01$). Moreover, as we note in Table 3, the initial coefficient for interactional fairness is significantly higher, indicating that its effect is overestimated if the model is not respecified to account for participation.

Regarding job satisfaction, we found interactional fairness to enhance a salesperson’s job satisfaction significantly, in accord with $H_3$ ($\beta = .19, p < .05$). Neither distributive nor

¹Based on the criterion of comparing average variance extracted with the highest variance shared, two subsets of constructs involving (1) commitment, satisfaction, and improvement plan and (2) participation, interactional fairness, and trust failed to provide clear evidence of discriminant validity. To check this further, we performed exploratory factor analyses of these subsets to ensure that the measures are not confounded and that interfactor correlations are far from unity. In each case, we obtained supporting and unequivocal evidence. Specifically, the items have a dominant loading on the hypothesized factor, and cross-loadings, when present, are relatively smaller in magnitude. Moreover, interfactor correlations are all less than .65.

Merit Pay Fairness / 55
### TABLE 2

Factor Loadings and Measurement Properties of Various Constructs Used

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Compared with the mediated model, the direct effects model

\[
\text{RMSEA (90% CI)} = .06 (.047 \text{ to } .07), \quad \text{and AIC} = .001, \quad \text{NFI} = .91, \quad \text{NNFI} = .96, \quad \text{CFI} = .97, \quad \text{SRMR} = .17,
\]

influence salesperson’s performance (\( \beta = .33 \), \( p < .01 \)). As in the case of supervisor trust, the initial coefficient for interactional fairness is more than twice as great (\( \beta = .54 \) versus .19), underscoring the potential misspecification as a result of the direct effects of participation on job satisfaction.

In partial support of H4, supervisor trust significantly enhances the commitment of salespeople (\( \beta = .16, p < .05 \)) and diminishes their tendency to engage in opportunistic behaviors (\( \beta = -.52, p < .01 \)). However, the performance of salespeople is unaffected by supervisor trust. Notably, the initial estimated coefficients indicate that the influence of supervisor trust is significant (\( \beta = .50 \)); however, this effect reduces to nonsignificance (\( \beta = .13 \)) when the model is respecified to account for the direct effects of distributive fairness and performance improvement plans. Consistent with H4, salespeople’s job satisfaction positively affects their commitment (\( \beta = .57, p < .01 \)), but it fails to curb their opportunistically oriented behaviors. In addition, in accord with H5, we found that job satisfaction does not have a significant effect on performance; however, distributive fairness and improvement plan significantly and positively influence salesperson’s performance (\( \beta = .28 \) and .35, \( p < .01 \)). In addition, distributive fairness has a positive, significant effect on opportunistic behaviors (\( \beta = .29, p < .01 \)).

Finally, to test for mediation, we estimated a direct effects model that excluded the hypothesized mediating variables of supervisor trust and job satisfaction. The model yielded the following fit statistics: \( \chi^2 = 401.2, \text{d.f.} = 265, p < .001, \text{NFI} = .91, \text{NNFI} = .96, \text{CFI} = .97, \text{SRMR} = .17, \) RMSEA (90% CI) = .06 (.047 to .07), and AIC = −128.6. Compared with the mediated model, the direct effects model indicates a significant and substantive deterioration in model fit (\( \chi^2 \text{difference} = 125.2, \text{d.f.} = 7, p < .001 \)), indicating that the proposed mediators play a significant role in fairness mechanisms. In addition, for organizational commitment, a significant direct effect emerges for interactional fairness (\( \beta = .34, p < .01 \)). Because this direct effect becomes nonsignificant for the mediated model and other conditions for mediation are met (significance of interactional fairness \( \rightarrow \) job satisfaction, and job satisfaction \( \rightarrow \) commitment paths; see Table 3), we can conclude that the effect of fairness judgments on commitment is fully mediated. In contrast, for performance, significant direct effects emerge for distributive fairness and improvement plan (\( \beta = .31 \) and .38, respectively, \( p < .01 \)) that remain significant in the mediated model (see Table 3, corresponding values of .28 and .35). Furthermore, because none of the mediation conditions is satisfied, the effects of fairness judgments on job performance are unmediated. We obtained partial mediation for opportunistic behaviors, because though the direct effects of interactional and distributive fairness are significant (\( \beta = -.20 \) and .16, respectively, \( p < .05 \)), only the latter remains significant in the mediated model. Combined with the significant effects obtained in the mediated model for the interactional fairness \( \rightarrow \) trust and the trust \( \rightarrow \) opportunistic behavior paths, we can conclude that the effect of interactional fairness on opportunistic behaviors is fully mediated, but the effect of distributive fairness is not. Overall, the effect of fairness judgments on opportunistic behaviors is partially mediated.

In terms of propositions, Table 3 indicates that the antecedents significantly influence distributive fairness. Consistent with P1, the linkage to rewards is positively and significantly associated with distributive fairness (\( \beta = .25, p < .01 \)). Likewise, the distributive fairness perceived by salespeople is significantly enhanced when they view the merit pay decision-making procedures as unbiased and when supervisors work with them to develop plans for performance improvement (\( \beta = .33 \) and .20, respectively, \( p < .05 \)). These results support P2 and P3. Consistent with P4, measure appropriateness is positively associated with distributive fairness (\( \beta = .18, p < .10 \)).

In contrast, the included antecedents are less effective in accounting for the variability in procedural fairness. Of the hypothesized antecedents, the use of consistent, unbiased decision-making procedures and participation have a sig-

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**TABLE 2**

<table>
<thead>
<tr>
<th>Construct/Item</th>
<th>Loading</th>
<th>t-Value</th>
<th>Variance Extracted</th>
<th>Highest R²</th>
<th>Average R²</th>
<th>Reliability</th>
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</table>

Notes: Loading = standardized coefficient estimate by the elliptical reweighted least squares method using EQS software. The t-values greater than 1.645 indicate significant effects at \( p = .05 \) for a one-tailed test. Variance extracted is based on Fornell and Larcker’s (1981) formula. Highest R² is the highest variance shared between this construct and any other construct in the model; it is computed as the square of highest R (correlation). Average R² is the average variance shared between this construct and all other constructs; it is computed as the mean of squared correlations. Composite reliability is based on Fornell and Larcker’s formula.
significant influence on procedural fairness (β = .19 and .18, respectively, p < .10). These results support P2 and P5 but not P3 or P4.

For interational fairness, when supervisors help develop performance improvement plans, salespeople’s perceptions of interational fairness are enhanced (β = .34, p < .01). Participation in decision making is also associated with greater interational fairness (β = .32, p < .01). These results support P3 and P5. Finally, measure appropriateness enhances interational fairness (β = .25, p < .01).

**Discussion**

This study was motivated by three objectives: (1) to use a broader, more complete conceptualization of the merit pay fairness construct that included dimensions of distributive, procedural, and interational fairness; (2) to study the simultaneous mediating mechanisms of supervisory trust and job satisfaction in fairness processes; and (3) to explore the supervisory behaviors during the merit pay decision process that increase fairness perceptions. Our findings offer initial
insights into these issues and provide concrete directions for further research and managerial guidelines. Before discussing these findings, we address the limitations of our study.

**Limitations**

Several limitations of our study are noteworthy. First, the study is based on cross-sectional survey data, and we advise caution in drawing cause–effect inferences. In addition, the association among constructs may be inflated as a result of common method variance. To reduce this inflation, we followed Heneman’s (1974) suggestions for enhancing the accuracy and validity of self-ratings by guaranteeing confidentiality. Furthermore, we collected data for salespeople’s performance from a different source (i.e., supervisors). The use of multiple source data likely reduces the influence of common method bias. Nevertheless, because we focus on the differential effects of constructs (e.g., interactional and distributive fairness), we recognize that the common method variance would act to obscure such differential effects. In this sense, our findings of differential patterns are likely conservative. Second, the study is based on a sample of salespeople employed by a single organization. Studies in other contexts, such as across organizations and over time, are needed to establish the generalizability of our findings. Third, two of the study constructs (commitment and improvement plan) have less-than-ideal psychometric properties, with several low-loading items. Low loadings result in low reliability that introduces random noise in the results, thereby making it difficult to detect significant effects. Nevertheless, the confirmatory and exploratory factor analysis results confirm that the measures are not confounded. Fourth, the actual merit pay-raise data for the sample were not available. It is possible that salespeople who receive higher-than-average raises evidence a positive bias. However, we were able to test for this bias indirectly by using perceived favorability of outcomes as a covariate in the analysis; we found that our results were virtually unaltered. Despite these limitations, our results offer useful insights into the differential effects of fairness dimensions by considering the simultaneous influences of all three fairness judgments, direct and mediated pathways to satisfaction and supervisor trust that link fairness judgments and outcomes, and potential relationships among antecedents and fairness judgments. We discuss each of these contributions. Thereafter, we draw managerial implications.
Differential Effects of Fairness Dimensions

The results of our study reveal a differential pattern of effects for the three fairness dimensions. Although interactional fairness significantly influences supervisor trust and job satisfaction, distributive fairness has a significant effect on supervisor trust but not on job satisfaction. It appears that when the effect of interaction quality between salespeople and their supervisors is accounted for, presence or absence of distributive fairness is unimportant for generating job satisfaction. This result is counter to the findings of a study by Netemeyer and colleagues (1997). However, because Netemeyer and colleagues did not consider interactional fairness, it is difficult to predict whether the impact of distributive fairness that they observed could potentially be weakened with a complete accounting of fairness dimensions.

More important, procedural fairness is associated with neither supervisor trust nor job satisfaction. This nonsignificance of procedural fairness in our study is at variance with results from previous studies (Konovsky and Pugh 1994; Kumar, Scheer, and Steenkamp 1995). However, most previous studies have used a composite view of procedural fairness, including decision-making structures and supervisors’ enactment of the structures (Aryee, Budhwar, and Chen 2002). Our findings suggest that when procedures and their enactment are separated, it is interactional fairness that affects work outcomes. The inference that can be drawn from this finding is that the effects observed for procedural fairness in (some) previous studies may be attributable to the interactional fairness component: Why should interactional fairness be more important than procedural fairness? It is possible that salespeople have reasonably complete information about how the supervisor interacted with them (because of the information’s relative transparency), but they do not have complete information on the quality of procedures used by the supervisor to arrive at merit pay decisions (because of its relative confidentiality). In addition, interactional fairness may be more potent not only because of its intrinsic value (e.g., treating salespeople with dignity) but also because of its signaling value (e.g., as a “signal” for the procedures used). The validity of these conjectural explanations needs to be established by further replication and extension of our work, yet we appear to have sufficient evidence to suggest that studies that fail to include all three fairness dimensions risk misspecification bias.

Mediated and Direct Pathways of Fairness: Outcomes Relationships

Although we posited that the influence of fairness judgments on salesperson outcomes is mediated by supervisor trust and job satisfaction, our results offer a complex pattern of evidence. Overall, fairness effects on commitment are indirect and fully mediated, whereas opportunistic behaviors are influenced by partially mediated pathways that involve a combination of direct and indirect effects. In contrast, fairness effects on performance are direct and unmediated. We discuss each in turn.

In terms of salespeople’s commitment to their organization, the direct influence of fairness perceptions is marginal; rather, commitment is driven primarily by salespeople’s job satisfaction and, to a lesser degree, by supervisor trust. This suggests that the way employees feel about their job experiences is more important to organizational loyalty than the level of trust they have with their supervisors. Because satisfaction and trust, in turn, are mostly influenced by interactional fairness, it appears that organizational loyalty is influenced more by whether an organization treats its employees with respect and dignity and less by whether it provides fair distribution of monetary rewards.

A salesperson’s propensity to engage in opportunistic behaviors is influenced directly by supervisor trust and distributive fairness. When trust is established through dignified and respectful treatment of the employee (e.g., interactional fairness and participation), salespeople may view the supervisor as a partner rather than an adversary and may work actively to make their job less difficult. It appears that employees do this by avoiding opportunistic behaviors that may otherwise demand valuable supervisory time for close monitoring of employee activities (Bateman and Organ 1983). As a result, the sales manager is left to perform strategic functions rather than become distracted in time-consuming, nonproductive monitoring behaviors. The results indicate a direct, positive effect of distributive fairness, suggesting that higher fairness of merit pay awards increases the propensity of opportunistic behaviors. This is counterintuitive. However, distributive fairness has an indirect, negative effect on opportunistic behaviors through its effect on supervisor trust. The direct and indirect effects are in opposition such that the net effect of distributive fairness is a weak, marginally positive effect (.15). A possible explanation for this positive net effect is that salespeople may not be satisfied with the absolute merit pay distributions, though they remain satisfied with the relative distributions. In turn, this dissatisfaction may prompt salespeople to engage in self-interest-seeking opportunistic behaviors. Because of restrictions on the measurement process imposed by the organization, it was not feasible to collect information on the actual pay-raise amount, and thus we cannot evaluate this explanation in the present setting. Further research needs to examine fairness of both relative and absolute distributions and their relative effects.

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2To further test for this differential effect, we tested a constrained model in which the three fairness dimensions were constrained to have equal effect on job satisfaction. This analysis revealed that though the invariance hypothesis cannot be rejected for distributive and procedural fairness ($\chi^2 = .47, p = .7$), the influence of interactional fairness is indeed distinct ($\chi^2 = 3.80, p = .05$). Likewise, when the effects of procedural and interactional fairness on supervisor trust were constrained to be equal, we obtained a significant $\chi^2$, indicating rejection of this hypothesis ($\chi^2 = 13.1, p < .01$).

3To test for this differential effect, we constrained the effects of supervisor trust and satisfaction on commitment to be equal. This yielded a significant statistic, indicating a rejection of this proposal ($\chi^2 = 4.74, p < .05$).

4Likewise, a differential effects test produced a significant statistic, suggesting that opportunistic behaviors are differently related to satisfaction, trust, and distributive fairness ($\chi^2 = 10.25, p < .01$).
Finally, in terms of job performance, although neither satisfaction nor trust has a significant, direct influence, both distributive fairness and performance improvement plans yield direct, unmediated effects. The lack of a significant satisfaction-performance association is consistent with previous research; however, the lack of trust effect is somewhat surprising. There are two possible explanations for this result. The first, and probably less viable, explanation is that salesperson performance is under the direct regulation of both merit pay awards (i.e., distributive fairness) and performance enhancement plans and is less sensitive to social exchange mechanisms. The second, and probably more viable, explanation is that when the supervisor acts in an equitable manner and provides employees with feedback that can improve their future performance, trust may have a lesser role in encouraging reciprocal actions. In this sense, the social exchange variable, trust, has a significant effect, but only in a fairness deficient environment. Further research is needed to test these speculations by examining potential moderators of the trust → performance relationship.

In addition, our study sheds new light on an outstanding issue in the literature related to the (lack of) relationship between salesperson job performance and satisfaction. Our results reveal that although satisfaction and performance are weakly correlated, the explanation levels are relatively high for both at 38% and 40%, respectively. Participation and interactional fairness have a strong effect on job satisfaction, and performance improvement plan and distributive fairness have a strong effect on job performance. As such, it appears that satisfaction and performance are linked to different fairness mechanisms. Salespeople’s job satisfaction is sensitive to the aspects of their relationship with the supervisor and work that “touches their heart,” such as when the supervisor engages in behaviors that signal respect, dignity, and participatory decision making. In contrast, salesperson performance is apparently more sensitive to “head” factors, including the supervisor’s attempts to aid in developing a plan for individual performance improvement and the hard calculus of distributive fairness. The notion that job satisfaction and performance may be related to “heart” and “head” mechanisms that are rooted in different aspects of fairness perceptions offers new insight and directions for further research.

**Antecedents of Fairness Perceptions**

Our objective was to use this study’s empirical results to provide a theoretical foundation for the study of fairness antecedents. Using theoretical and pragmatic considerations, we included five antecedents for our initial examination. Our results demonstrate that the included antecedent factors are meaningful in understanding the formulation of distributive and interactional fairness judgments in merit pay decisions ($R^2 = 48%$ and $58\%$, respectively). However, in regard to procedural fairness, our results indicate a more tentative stance ($R^2 = 12\%$). We discuss each result in turn.

**Distributive fairness.** Results show that distributive fairness perceptions are greater when (1) the merit pay rewards that salespeople receive are linked to job performance, (2) the supervisor is unbiased and consistent in applying appropriate performance standards, and (3) the supervisor aids in designing a plan for improving a salesperson’s future performance. Taken together, these results imply that after the impact of the linkage between current input and outcomes is accounted for, the prospect of improved future outcomes influences salespeople’s beliefs about the fairness of their current reward decision. This indicates that unfairness perceptions arising from current distributions could be mitigated if supervisors were to begin discussing performance details post hoc and outlining how performance can be improved in the future. As such, our results contradict conventional wisdom that salespeople are concerned solely about short-term rewards. Evidently, even though salespeople respond to current merit rewards, they are responsive to strategies for enhancing future rewards.

**Procedural fairness.** Two of the four proposed antecedents for procedural fairness (use of unbiased procedures and participation) were statistically significant. Neither use of appropriate data nor supervisory focus on future performance was significant. Consequently, it appears critical that sales managers engage in behaviors and practices that emphasize an unbiased approach in merit pay decisions. An option is to produce and share hard evidence that supports that performance-pay linkages are not compromised by individual manager biases. In cases where performance can be reasonably quantified, it may be useful to compute and monitor performance-pay correlation with the notion that attenuation of this correlation beyond a cutoff value (e.g., .80) is probably on account of process errors. Although contextual factors must be considered in designing such strategies, our findings argue for management behaviors and practices that increase transparency of merit pay decisions and promote neutrality by curbing individual biases. The significance of participation rests on it being a means of influencing the merit pay decision-making process. Employees who participate may believe that they were able to manage their supervisor’s expectations when making pay decisions. It is inevitable that employees will sometimes receive unfavorable outcomes, and participation can temper the potential backlash from employees when this occurs.

The nonfindings for performance measure appropriateness and improvement plan are intriguing. Use of appropriate measures enables supervisors to focus on job activities that are important. Apparently, although they may use appropriate measures, supervisors can still show bias in translating individual measurements into rewards. Likewise, it was believed that when supervisors discuss improvement plans with employees, the latter would be presented with the opportunity to provide input and thereby influence the performance evaluation process. Then, why is it that the design of improvement plans would influence distributive fairness but not procedural fairness? Is it possible that salespeople consider these plans instrumental in achieving greater performance but not necessarily in increasing their influence over the reward decision? More research is needed to unravel these intriguing effects.

**Interactional fairness.** Three antecedents (improvement plans, measure appropriateness, and participation) are strongly related to interactional fairness. Developing performance improvement plans not only helps in aligning per-
ceptions and expectations between supervisors and employees (Morgan and Hunt 1994) but also signals that the supervisor cares. Using appropriate measures indicates that the supervisor understands that the salesperson has the right to be evaluated correctly. Finally, participation reinforces the social standing of salespeople in their respective groups and informs that they are valued members of the sales team.

Overall, the supported propositions in regard to fairness antecedents suggest that these linkages are meaningful, and despite the limited number of antecedents that we could include in our study, they together explain a significant proportion of the variance in distributive and interactional fairness. Although the explanation level for procedural fairness is more modest, the pattern of results appears reasonable and offers a fertile ground for future theorizing.

Managerial Implications

A major finding of potential interest to managers is the dominant role of interactional fairness in achieving two of the three outcomes that govern organizational effectiveness. It was suggested previously that supervisory interactions not only might be more transparent than procedures but also might signal to employees that the supervisor cares for their well-being. This is good news for managers, because the economic costs of interacting in a manner that raises the dignity and standing of employees are not likely to be as high as the costs associated with satisfying either procedural or distributive fairness. This does not imply that the distribution of rewards or the procedures used to determine them are not important in their own right. Our point is merely that interactional fairness is critical in fairness mechanisms and one that can be easily achieved by managers.

Another major finding of the study is the importance of distributive fairness in influencing employees’ job performance. The sense of equity that arises from being rewarded fairly provides the incentive to salespeople to work harder and to improve their job performance. In a way, this result argues for unveiling the shroud of secrecy that typically exists in pay-raise situations. Previous research has noted that when employees are not provided comparative pay information, they tend to believe that they obtained a raise that is lower than others, which in turn typically results in lower fairness perceptions (Futrell and Jenkins 1978).

From a managerial perspective, it would be especially unfortunate to interpret our results to imply that procedural fairness may be safely ignored. The results are more complex. Often, in the analysis of the sort used herein, the relative importance of a variable is determined by the principle of discrimination, that is, the variable along which the respondents can be differentiated the most. As such, the appropriate interpretation is that given the situational context of our sample, further increases in procedural fairness may be less potent than similar increases in interactional fairness. Furthermore, varying interactional fairness holds more promise given the current situation and pay practices for the specific sample of salespeople used. Managers are cautioned to develop such understanding in the light of their specific context and sales force practices.

What can managers do to shape employee perceptions of the three fairness dimensions? They can put into place a performance improvement plan for employees. Such plans are opportunities for supervisors to provide feedback to salespeople about what they are doing “right” or “wrong” and to explicate what they should do to improve performance. The positive effect of such planning suggests that salespeople do not view it as a performance impediment resulting from supervisors stepping on their turf. A clear message from the results is that managers need to spend more time with salespeople with an aim to improve their future performance ability.

Managers could also allow salespeople to participate in goal setting and process determination, because this has a favorable influence on not only interactional and procedural fairness but also the two mediators. Participation is the backbone behind the concept of “quality circles” in total quality management. As our results suggest, it may also be the backbone behind the “loyalty” of salespeople to their supervisors and organizations. It appears that employees expect to be asked to participate (based on influence on procedural fairness) and derive great value from the symbolism this represents (based on its influence on interactional fairness). Employees are being asked to do more with less, and participation may be a way by which employees can be made to believe that they are being given more. Finally, managers need to ensure that pay is linked to performance and to make that linkage known to employees. They may be able to do this not only by using appropriate measures of performance but also by ensuring that no employee has undue influence over the rewards process.

Conclusion

The study of fairness judgments and its consequences in sales force settings dates to the mid-1980s, and a considerable body of work exists that establishes the relevance and significance of such judgments. Our study advances this body of work by posing different questions and shifting the direction of inquiry. Instead of asking whether fairness judgments matter for sales force outcomes, we ask, How do fairness judgments work to influence critical outcomes and what factors influence the formation of fairness judgments? This shift has important theoretical and managerial implications.

Theoretically, by highlighting the contrasting mechanisms by which distributive, procedural, and interactional fairness judgments influence job outcomes, our findings implore future researchers to eschew studies that fail to capture the breadth of the fairness construct and/or complexity of its mechanisms. Significantly, our work opens new dialogues on several unresolved issues in sales force management. We presented arguments about why performance and job satisfaction, two seemingly related concepts, may be driven by different fairness mechanisms. Likewise, although our study clarifies that pay-to-performance linkages work, it also highlights the performance-commitment dilemma; that is, although distributive fairness and appropriate pay-for-performance linkages may propel salespeople to perform better, they do little to gain their commitment. Organizational commitment is influenced by job satisfaction; in our data, job satisfaction is shaped mainly by interactional fair-
ness. Consequently, to motivate salespeople toward higher performance and retain them requires that two separate mechanisms be activated simultaneously, one involving interactional fairness and job satisfaction and the other involving distributive fairness and improvement plans. Activation of just one mechanism produces obvious pitfalls such as losing the high performers or retaining the low and average performers. This requires managers to focus simultaneously on multiple dimensions of fairness and activate multiple mechanisms. Human agency and judgments are complex, dynamic phenomena that defy simple answers, yet this complexity and dynamism can be understood and captured with the tools at the disposal of marketing science today. Our study has provided an initial attempt in the context of merit pay-raise decisions. Future researchers and managers will find our proposed fairness model a fertile ground for further refinement and development to understand how to motivate and retain a high-performance sales force.

**Appendix**

**Operational Measures Used for Study Constructs**

Unless otherwise noted, we measured the following items on a five-point Likert scale where 1 = “strongly disagree” and 5 = “strongly agree.” The items marked with [O] were removed from the analyses because of poor internal consistency with their respective scales.

**Fairness Antecedents**

**Linkage to Rewards (Folger and Konovsky 1989)**

1. My pay increases are based upon how my performance compares with my goals.
2. My merit increases are directly tied to my performance.

**Consistent/Unbiased Application of Performance Standards (Tyler 1989)**

1. Do you think that you received a better or worse merit increase than others because of your race, sex, age, nationality, or some other characteristic of you as a person? (Three-point scale: 1 = “yes”; –1 = “no”; 0 = “don’t know”)
2. Do you think that your supervisor treated you worse than others because of your race, sex, age, nationality, or some other characteristic of you as a person? (Three-point scale: 1 = “yes”; –1 = “no”; 0 = “don’t know”)

**Performance Improvement Plan (Folger and Konovsky 1989)**

Indicate the extent to which you believe your supervisor did each of the following during the last performance cycle:

1. Discussed plans or objectives to improve your performance.
2. Asked for your ideas on what you could do to improve your performance.
3. Developed an action plan for future performance.

**Measure Appropriateness (New Scale)**

1. My performance is evaluated on all relevant and important skill areas of my job.
2. Standards or performance targets are set for each skill area of my job.
3. The targets set for my job, I believe, are appropriate.
4. The standards used in performance review are all based on a thorough analysis of the job I perform.

**Participation (Teas 1981; Vroom 1964)**

1. I am allowed a high degree of influence in the determination of my work goals.
2. I really have little voice in the formulation of my work goals. [reverse scored]
3. The setting of my work goals is pretty much within my control.
4. My supervisor usually asks for my opinions and thoughts when determining my work goals.

**Fairness Dimensions**

**Distributive Fairness (Folger and Konovsky 1989)**

1. I consider the size of my last merit increase to be fair.
2. My last merit increase gave me the full amount I deserved.
3. The size of my last merit increase was more than what I expected.
4. The level of merit increase I received was (1 = “very unfair”; 4 = “very fair”).

**Procedural Fairness (Folger and Konovsky 1989; Moorman 1991)**

1. How much of a chance or opportunity did your supervisor give you to describe your achievements and contributions to him/her before making your merit increase decision? (Four-point Likert scale: 1 = “a great deal of opportunity”; 4 = “not much opportunity at all”)
2. How much influence did you have over the merit decision made by your supervisor? (Four-point scale: 1 = “a great deal of influence”; 4 = “not much influence at all”)
3. How much consideration did your supervisor give to what you said when making merit increase decisions? (Four-point scale: 1 = “a great deal of consideration”; 4 = “not much consideration at all”)
4. Overall, how fair were the methods used by your supervisor to make your merit increase decision? (Four-point scale: 1 = “very fair”; 4 = “very unfair”)

**Interactional Fairness (Folger and Konovsky 1989; Moorman 1991)**

Indicate the extent to which you believe your supervisor did each of the following during the last performance cycle:

1. Was honest and ethical in dealing with you.
2. Showed a real interest in trying to be fair.
3. Treated you with respect and dignity.
4. Was sensitive to your personal needs.
5. Showed concerns for your rights as an employee.
**Fairness Mediators**

**Supervisory Trust (O’Reilly and Roberts 1974)**

1. How free do you feel to discuss with your immediate supervisor the problems and difficulties in your job without jeopardizing your position or having it held against you later? (Seven-point scale: 1 = “completely free”; 7 = “very cautiously”)

2. Immediate supervisors at times make decisions which seem to be against the interest of employees. When this happens to you as an employee, how much trust do you have that your immediate supervisor’s decision was justified by other considerations? (Seven-point scale: 1 = “trust completely”; 7 = “feel very distrustful”)

3. To what extent do you have trust and confidence in your immediate supervisor regarding his or her general fairness? (Seven-point scale: 1 = “completely”; 7 = “very little”)

**Job Satisfaction (Lucas et al. 1987)**

1. My job is satisfying.
2. My job is exciting.
3. I’m really doing something worthwhile in my job.
4. The work I perform gives me a sense of accomplishment.

**Fairness Consequences**

**Job Performance (New Scale)**

This employee

1. Performed above average on annual sales objective.
2. Performed above average on business growth objective.
3. Performed above average on professional growth objective.
4. Is one of our best managers.
5. Is outstanding.

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