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Pay satisfaction consequences : development and test of a theoretical model

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PAY SATISFACTION CONSEQUENCES:
DEVELOPMENT AND TEST OF A THEORETICAL MODEL

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Interdepartmental Program of Business Administration

by
Larry H. Faulk II
B.S., Louisiana State University, 1992
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Abstract

The considerable research examining pay satisfaction over the past thirty years has focused on antecedents and the conceptualization of the construct. Notably little attention has been given to pay satisfaction consequences. This dissertation incorporates organizational justice literature to develop a model of pay satisfaction consequences and then shows the effect of pay satisfaction on job performance, turnover intentions, organizational commitment, and other variables. Two typologies are created to explain the relationship between pay satisfaction dimensions and consequences. One typology classifies the dimensions of pay satisfaction according to their form and what type of exchange is created with the organization. The other categorizes consequences by referent and how pay satisfaction influences it. By combining these typologies, the general model of pay satisfaction consequences is formed. Based on this model, propositions are presented which address what class of pay satisfaction dimensions will influence what class of consequences and in what manner. Heneman and Schwab's (1985) pay satisfaction conceptualization is used to test the general model.

Chapter 1

Introduction

Compensation satisfaction represents an important construct to organizations and to the field of Human Resource Management, because it serves as a critical mediator between an organization's compensation policy and relevant behavioral and attitudinal outcomes (Blau, 1994; Lawler, 1981; Sturman & Short, 2000). Despite the considerable attention pay satisfaction has received (Heneman & Judge, 2000), this research domain lacks empirical tests of pay satisfaction's relationship with outcome variables (Dreher, Ash, & Bretz, 1988; Heneman, 1985; Heneman & Judge, 2000; Judge, 1993; Judge & Welbourne, 1994). Most of the research to date has examined the determinants of pay satisfaction (Berkowitz, Fraser, Treasure, & Cochran, 1987; Blau, 1994; Dyer & Theriault, 1976; Judge, 1993; Sweeney, McFarlin, & Inderrieden, 1990) or the measurement of the construct (Carragher, 1991; Heneman & Schwab, 1979, 1985; Mulvey, Miceli, & Near, 1992). With numerous potential important consequences for organizations and their employees, the lack of research on pay satisfaction consequences is conspicuous (Heneman, 1985; Heneman & Judge, 2000; Heneman & Schwab, 1985; Jones & Wright, 1992; Judge & Welbourne, 1994; Tremblay, Sire & Balkin, 1999). To advance research and practice regarding compensation plans, research must examine the consequences of pay satisfaction.

Pay satisfaction is defined as the amount of overall positive affect (or feelings) individuals have toward pay (Miceli & Lane, 1991). Beyond this simple definition, the most recent reviews (Gerhart & Milkovich, 1992; Heneman, 1985; Heneman & Judge, 2000; Miceli & Lane, 1991) reveal disagreement regarding the conceptualization of the

construct. Some researchers argue that pay satisfaction is unidimensional (Miceli, Near & Schwenk, 1991; Orpen & Bonnici, 1987); others operationalize it as having between four (DeConnick, Stilwell, & Brock, 1996; Heneman & Schwab, 1985) and seven dimensions (Williams, Carraher, Brower, & McManus, 1999); and yet others suggest that the number of dimensions depends on moderators such as cognitive complexity (Carraher & Buckley, 1996) and employee job classification (Scarpello, Huber, & Vandenberg, 1988). Despite numerous studies focused on determining the “true” dimensionality of pay satisfaction, the problem has not been definitively resolved.

Although clarifying the number of dimensions in the construct may be a meaningful pursuit, the significance of continuing this line of research is questionable. In fact, in the most recent comprehensive review of pay satisfaction literature, Heneman and Judge (2000) call for a moratorium on pay satisfaction dimensionality research. They suggest moving the focus of research away from examining the factor structure and scale intercorrelations of a popular measure of pay satisfaction, the Pay Satisfaction Questionnaire, to exploring the relationship of the construct with other variables. Specifically, they place a high priority on the exploration and the identification of pay satisfaction-outcome linkages so that future research might be of practical significance to organizations. Consistent with prior suggestions (Heneman, 1985; Judge & Welbourne, 1994), Heneman and Judge encourage the development of a pay satisfaction -outcome model that would guide hypothesis formulation and testing in the field (p. 85). Since equity and discrepancy-based models are relatively silent on what actions employees are likely to take to reduce feelings of pay dissatisfaction (Heneman & Judge, 2000, p. 85), the authors propose that procedural and distributive justice may be critical factors in

predicting behavioral responses to pay dissatisfaction. They suggest that fairness, the central tenet of organizational justice, is also central to pay satisfaction research.

This dissertation develops and tests a general model of pay satisfaction consequences. This model will be applicable to multiple conceptualizations of pay satisfaction (e.g. Heneman & Schwab, 1985; Miceli & Lane, 1991; Sturman & Short, 2000; Williams, Carraher, Brower, & McManus, 1999) and many consequences. This model will not only be valuable to theory advancement but should ultimately yield practical value; as organizations will be able to use this information, along with prior work on the determinants of pay satisfaction, to make compensation decisions that foster the attraction and retention of a satisfied and motivated work force.

This dissertation comprises six chapters. Chapter 2 traces the history of pay satisfaction research from a global, unidimensional construct to the latest multidimensional models. The literature review includes an examination of the theoretical underpinnings surrounding each research stream, empirical findings relevant to each stage of research, and a discussion of measurement issues. Chapter 3 uses this review and organizational justice theory to develop a model of pay satisfaction consequences and offers hypotheses to be tested. Chapter 4 presents the methodological procedures to test the hypotheses. The chapter discusses the research design along with definitions and measurements of the variables, sample, and procedures used in analyzing the data. Chapter 5 presents the results of the statistical analyses. Chapter 6 discusses the results, limitations, and suggestions for future research.

Chapter 2

Review of Literature

Overview

To fully understand the concept of pay satisfaction, it is necessary to review research on the construct. From the inception of organizational science, pay has been considered an important reward to motivate the behavior of employees (Taylor, 1911). Yet it was not until theorists began exploring fairness in social exchanges (e. g., Adams, 1963; Homans, 1961) that the specific cognitive mechanisms through which pay motivates workers began to become clear. Soon after, organizational researchers hypothesized that feelings of fairness lead to organization-relevant attitudes such as job satisfaction (Locke, 1969) and, more specifically, pay satisfaction (Locke, 1976), and that these attitudes impact employee behavior within organizations (Farell & Stamm, 1988; Judge & Bono, 2001; Scott & Taylor, 1985; Tett & Meyer, 1993).

Pay satisfaction has received considerable research attention since the construct's introduction into the literature, although conceptualization of the construct has changed over time. Table 1 traces the development of the pay satisfaction construct from pay level research to current multi-dimensional approaches. I identify six general approaches, or models, that characterize the types of past pay satisfaction research. The first model I identify simply includes pay and recognizes that pay has implications for employee behavior in organizations but does not explain why this is so. Initial research on pay satisfaction relied upon equity (Adams, 1963) and discrepancy theories (Lawler, 1971) to explain how individuals determine satisfaction with pay. Treated as a global construct in these models, pay satisfaction motivates individuals to engage in certain behaviors, but these approaches do not specify which behaviors will be chosen.

Table 1

Models of Pay Satisfaction

<u>Model</u>	<u>Dimensions</u>	<u>Theoretical Basis</u>	<u>Advances</u>	<u>Implications</u>
Pay	Global - The amount of money, or equivalents, distributed in return for service.	Reinforcement Expectancy (VIE) Herzberg's Two-Factor Model	Pay is an important motivator.	If pay is valued it can be used to modify behavior.
Equity Adams (1963)	Global - Outputs from the organization include pay, time-off, benefits and recognition.	Social Comparison Social Exchange	Use of referent others. Outcome/input ratio. Perceptual comparison.	If inequity exists, individual will act to reduce tensions.
Discrepancy Theory Lawler (1971)	Global - Subjective amount of money received determined by comparing actual pay to that of a referent other.	Equity Expectancy (VIE)	Consider importance. Pay is not objective Add job characteristics.	Same as equity.
Modified Discrepancy Heneman & Schwab (1985)	Pay level - The average wages or salaries. Raise - Increases in wages or salary. Benefit - Indirect compensation. Structure/Administration- How pay is determined.	Discrepancy Administrative Independence	Multidimensionality. Procedural concerns. PSQ.	Dimensions may differentially impact outcomes.

Table 1, continued

<u>Model</u>	<u>Dimensions</u>	<u>Theoretical Basis</u>	<u>Advances</u>	<u>Implications</u>
Dual Discrepancy Theory Miceli & Lane (1991)	<p>Pay level – Amount of direct compensation.</p> <p>Benefit level - Amount of indirect compensation.</p> <p>Pay system (range) – How pay is determined within job category.</p> <p>Pay system (hierarchy) – How pay is determined between job categories.</p> <p>Benefit system – How indirect compensation is determined.</p>	Administrative Independence	<p>Time.</p> <p>Separate models for each dimension.</p>	Same as modified discrepancy model.
Compensation Consequences Gerhart & Milkovich (1992)	<p>Pay level – What is the organization’s pay policy?</p> <p>Benefit – How is indirect compensation allocated?</p> <p>Pay structure – How are pay differences between levels determined?</p> <p>Individual differences – Are pay differences based on merit or tenure?</p>	Administrative Independence	<p>Macro approach.</p> <p>Pay policy importance.</p>	Pay policy decisions will have implications for individual, group, and organizations.

In the late 1970s, Heneman and Schwab (1979) built upon the work of Lawler (1971) and Dyer and Theriault (1976) to develop the modified discrepancy model that proposes that pay is multidimensional; Heneman and Schwab (1979) describe five related but unique dimensions whose antecedents and consequences depend on the different ways they are administered within organizations. Miceli and Lane's (1991) dual discrepancy model extended the modified discrepancy model by developing separate models to describe how each pay satisfaction dimension is determined. Finally, Gerhart and Milkovich's (1992) model of compensation decisions and consequences uses similar dimensions suggested by the other multidimensional approaches, but by taking a more macro approach to pay satisfaction, the model suggests that the pay policy decisions made by organizations have implications for individual, group, and organizational outcomes.

This outline will be used to examine the development of the pay satisfaction construct and the research using different conceptualizations. The review is split into two equally important parts: theoretical and methodological. First, the models are discussed in chronological order according to their appearance in the literature. I cover the theoretical basis for each and note important empirical findings. Attention is given to the similarities and differences existing between the approaches. The final part of the review covers the measurement of pay satisfaction from its unidimensional conceptualizations to current trends in compensation research. This review serves as the basis for the development of the pay satisfaction consequences model presented in Chapter 3.

Theoretical Review of Pay Satisfaction Research

Pay

Pay has long been considered one of the most important organizational rewards (Heneman & Judge, 2000) because it allows employees to obtain other rewards (Lawler, 1971). Frederick Taylor (1911) was one of the earliest to recognize the motivating effects of pay when he proposed that workers put forth extra effort on the job to maximize their economic gains. Although this premise lost favor in the late 1920s with the emergence of the human relations school (Wren, 1994), money remains the fundamental way that organizations reward employees. Yet, despite the long-standing importance of pay, the way pay impacts the behavior of employees remains to be explained.

Reinforcement theory and expectancy theory emerged as the earliest theories to shed some light on how pay influences employee behavior. Reinforcement theory (Skinner, 1953) suggests that pay acts as a general reinforcer because of its repeated pairing with primary reinforcers. People learn from life experiences that a primary need, such as food or shelter, can be satisfied if money is obtained. Other theorists suggest that through similar experiences a drive for money itself develops (Dollard & Miller, 1950). Whether treating pay as a means to an end or as an end itself, reinforcement theory does not provide a clear explanation for how pay acts as an impetus for action. People engage in behaviors because of past experiences, but the process by which past experiences determine an individual's future behavior remained unclear.

Vroom's (1964) expectancy theory helped clarify how pay influences future behavior. According to expectancy theory, three components determine motivation: 1) a judgment regarding the likelihood that an effort leads to a certain level of performance (expectancy); 2) a

judgment regarding the likelihood that this level of performance leads to a certain outcome (instrumentality); and 3) the importance of the outcome to the individual (valence). Life experience, the key determinant of behavior as suggested by reinforcement theory, influences the determination of both expectancy and instrumentality. If an individual has prior experience which leads him or her to believe that a certain level of effort will lead to a given level of performance and that this level of performance will lead to a given outcome, that person will be more likely to engage in that behavior, if the outcome is desirable (high valence). Vroom (1964) suggests that pay motivates behavior only if valued by the employee or if pay allows individuals to obtain some other highly valued outcome.

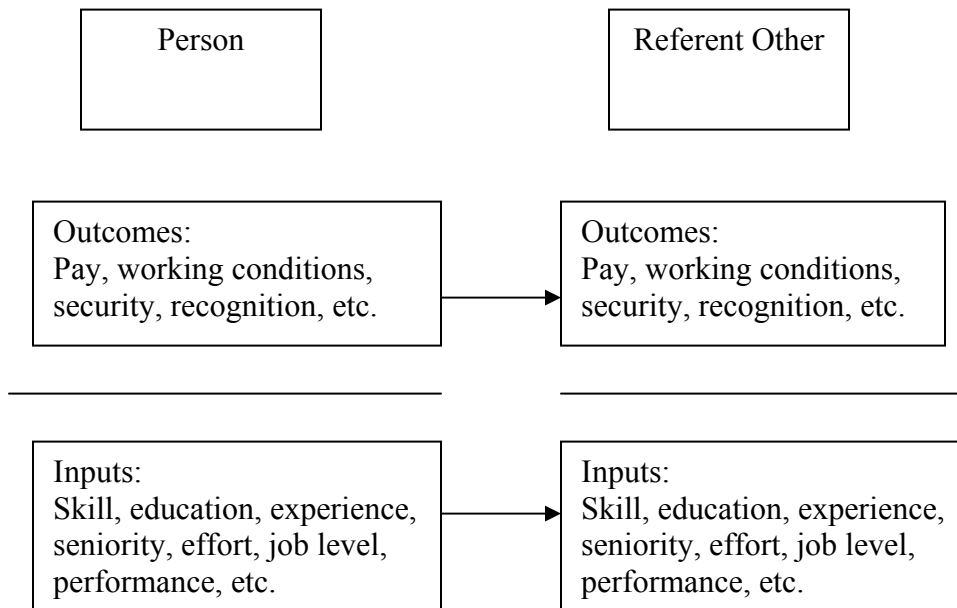
Unidimensional Pay Satisfaction

One key component not specifically delineated by either reinforcement or expectancy theory is the desirability of the outcome. This suggests an affective reaction to the outcome that influences an individual's behavior. Herzberg's (1968) two-factor motivational model provides an important link between pay research and pay satisfaction research by suggesting that it is the individual's affective reaction to pay, pay satisfaction, that impacts motivation. Herzberg (1968) suggests pay is a hygiene, or contextual factor, that prevents an employee from being motivated by such things as the work itself. Herzberg (1968) suggests that if an organization wishes to motivate employees, the organization must first make sure pay and other hygiene factors are at such levels that dissatisfaction does not occur. Along with reinforcement (Skinner, 1953) and expectancy theories (Vroom, 1964), Herzberg's (1968) two-factor theory begins to explain why pay is generally regarded as a major mechanism for rewarding and modifying behavior (Opsahl & Dunnette, 1966). However, it is difficult to relate pay directly to outcomes. It is actually

attitudes such as pay satisfaction that have been shown to be important intervening variables in the relationships between pay and outcomes.

Once research recognized an employee's affective reaction to pay is what is important, not simply objective pay, it was necessary to determine the nature and domain of pay satisfaction, its antecedents, and consequences. Initially, pay satisfaction was conceived as a unidimensional construct. It was assumed an individual has a general feeling about his or her pay and that this overall feeling is an important determinant of the individual's attitudes and behaviors (Lawler, 1971). Equity and discrepancy theories offer insight into how pay satisfaction is determined and suggests possible consequences of pay dissatisfaction.

Equity theory. Equity theory suggests that individuals are interested in maintaining fairness in their relationships with organizations. Fairness is determined by social comparison (Festinger, 1957) based on a social exchange (Homans, 1961). The exchange takes place between the individual and the organization. As shown in Figure 1, the individual examines the ratio of what is received from the organization (outputs) to what is contributed to the organization (inputs). Outputs include pay, time-off, benefits, and recognition, while inputs include experience, tenure, effort, and education. Once the ratio is determined, the individual compares his or her ratio to a referent other's ratio. This referent other can be someone doing a similar job within or outside the organization, someone doing a different job in the organization, or even the focal individual at a different point in time. The more similar the ratios are, the greater the satisfaction. However, if the ratios are significantly different, tension will result, and the individual will be motivated to reduce that tension. To reduce this tension, the individual may change his or her behavior, cognitively adjust his or her inputs and/or outputs or those of the



$\text{Person} > \text{Referent Other} = \text{inequity}$
 $\text{Person} = \text{Referent Other} = \text{equity}$
 $\text{Person} < \text{Referent Other} = \text{inequity}$

Figure 1
Equity Theory

referent, change the referent, or exhibit withdrawal behaviors (Adams, 1963; Campbell & Pritchard, 1976).

Clearly, providing an employee with a satisfactory pay package is important to the operations of an organization. If employees do not feel they are being treated fairly, they will act to reduce the tension caused by inequity. For example, if the employee feels the output/input ratio is below the referent other, the employee may reduce the number of organizational citizenship behaviors (OCBs) exhibited (Organ, 1994; Williams & Anderson, 1991). Alternatively, the individual may come in late, miss work altogether, or quit the job. If the employee is a strong performer, none of these activities benefit organizational operations.

Equity theory is an important advancement in the study of pay satisfaction because it explains how individuals form an attitude regarding pay. Equity theory also suggests that once an attitude regarding pay is formed, this attitude will cause individuals to act in certain ways, either maintaining their current behavior or changing their behavior in order to reach a state of satisfaction. Although equity theory offers a range of behaviors that individuals may engage in to reduce perceived inequity, it does not suggest how strong an influence perceived inequity has on each of the outcomes.

Discrepancy theory. Another relevant social cognitions theory that is important in the development of pay satisfaction research is discrepancy theory (Lawler, 1971). As shown in Figure 2, discrepancy theory builds on equity theory by incorporating inputs and outputs to form a perception of fairness and uses a referent other in this assessment. However, discrepancy theory adds important variables, revises the mechanism by which individuals determine their level of satisfaction, and incorporates expectancy theory (Vroom, 1964).

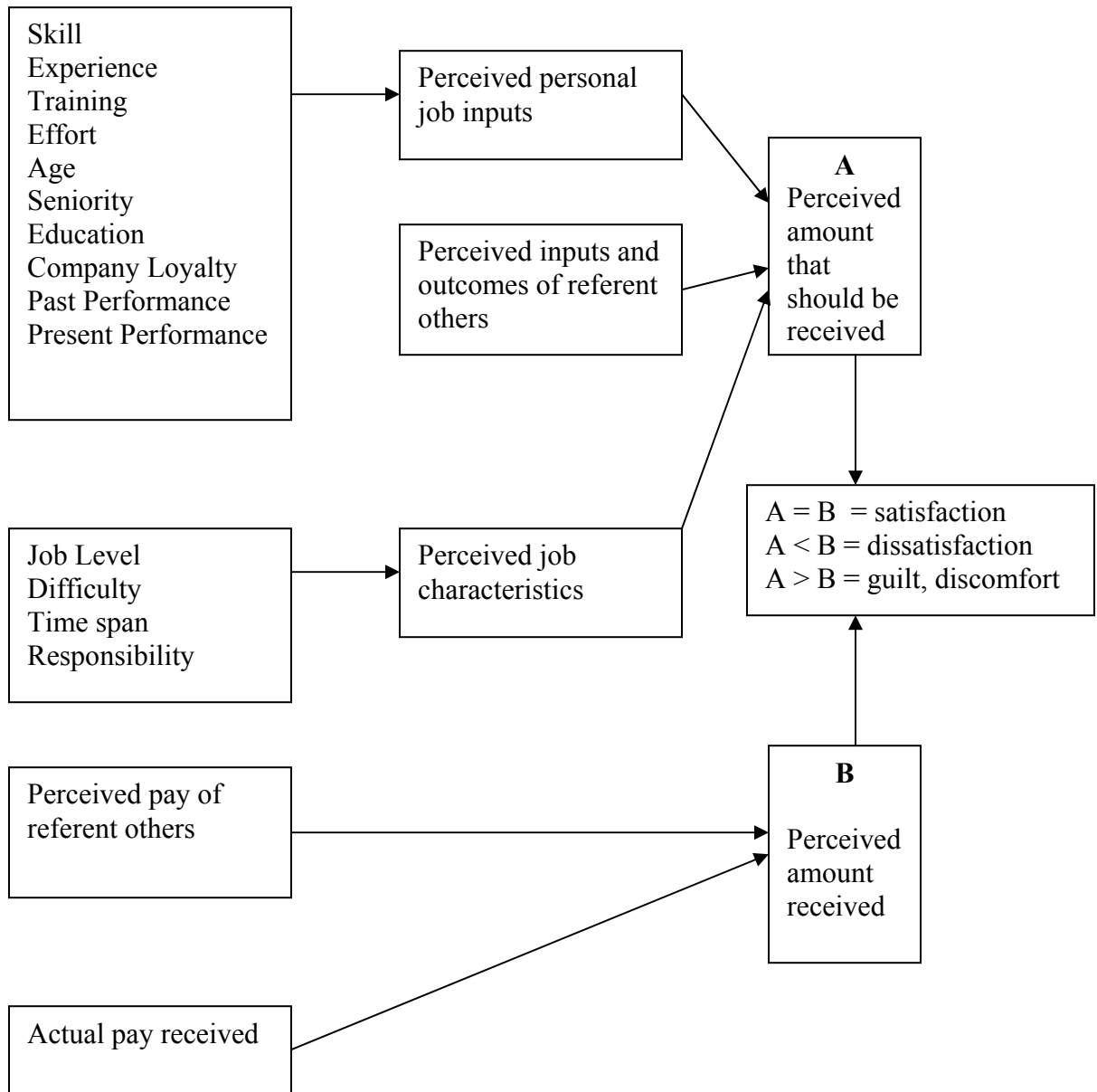


Figure 2
Discrepancy Model

The focal individual assesses his or her level of inputs and uses a referent other's inputs and outcomes to partially determine the amount of pay that should be received. A difference between this model and equity theory is that the individual also takes into account perceived job characteristics including job level, perceived difficulty of the task, and perceived responsibility when determining the perceived amount of pay that should be received. This set of perceptions forms one half of the key comparison in the discrepancy model that determines pay satisfaction. The other half of the comparison is the perceived amount of pay received that is determined by actual pay received as compared to the perceived pay of a referent other. If there is a discrepancy between an individual's perception of how much he or she receives and how much he or she feels should be received, the individual will be motivated to reduce the dissonance in much the same way explained by equity theory.

According to discrepancy theory, and unlike equity theory, motivation to engage in behaviors to reduce tension is not solely determined by a difference between what is expected and what is actually received. Lawler's discrepancy model further enhances equity's explanation of pay satisfaction's relationship with behavior by incorporating a component of expectancy theory (Vroom, 1964), valence, to determine whether a person will react to the discrepancy. If the outcome is has a low valence, the individual will not react strongly to the discrepancy. If pay is important, a discrepancy will have an impact on the individual's behavior; if it is not, the individual will not be motivated to change his or her behavior. The incorporation of valence is important because it explains why two individuals in the same inequitable or discrepant situation react differently.

Empirical findings. The majority of global pay satisfaction research focuses on its antecedents. Considerable progress has been made in identifying the causes of pay satisfaction (Berkowitz et al., 1987; Dreher, 1981; Dyer & Theriault, 1976; Sweeney et al., 1990). For example, perceptions of future inequity (Berkowitz et al., 1987), education (Lawler & Porter, 1966), occupational level (Schwab & Wallace, 1974), actual pay level (Berger & Schwab, 1980; Dreher, 1980; Dreher et al., 1988; Hemmasi, Graf & Lust, 1992; Rice, Phillips, & McFarlin, 1990), and the sources of an individual's information regarding compensation (Capelli & Sherer, 1988) have all been found to explain variance in pay satisfaction.

Although several articles emphasize the importance of determining the impact of global pay satisfaction on outcome variables (Blau, 1994; Heneman, 1985; Shaprio & Wahba, 1978), very few have explored the question empirically. Using a sample of 2000 middle managers, Miceli, Jung, Near & Greenberger (1991) found global pay satisfaction related positively to global job satisfaction ($r = .28$), lack of job search ($r = .23$), and intent to stay until retirement ($r = .26$). Motowildo (1983), using a sample of 89 salespeople, analyzed the relationship of pay level satisfaction and withdrawal behavior. He found that pay satisfaction's relationship with turnover is indirect through turnover intent, and that relationship between quantity of pay and turnover intention is mediated by pay satisfaction. Pay satisfaction explains an additional 15.9% of the variance in turnover intention after age, tenure, general satisfaction, pay, and pay expectation have been entered in the regression equation. Although positively correlated with termination ($r = .23$, $p < .05$), pay satisfaction does not explain a significant amount of variance in turnover beyond that explained by turnover intention. Motowildo suggests that these findings support Mobley's (1977) hypothesis that withdrawal cognition is the most immediate antecedent

of voluntary turnover and that pay satisfaction is the most important determinant of turnover intentions. Thus, pay satisfaction may not be a direct determinant of turnover and future research should focus on the relationship between pay satisfaction and withdrawal cognitions.

Global pay satisfaction research has advanced the understanding of pay's importance in organizations in significant ways. First and foremost, the shift in focus from objective pay to the affective reaction to pay provides an important intervening variable between pay and outcomes. Secondly, the theoretical underpinnings of this research stream, equity theory (Adams, 1963) and its close derivative, discrepancy theory (Lawler, 1971), expand on the theories used in pay research to provide a process by which pay satisfaction is determined. Finally, these theories offer suggestions regarding the effect of pay satisfaction on outcomes (Adams, 1963; Campbell & Pritchard, 1976; Lawler, 1971). What this stream of research does not explain is which of these possible behaviors will be chosen.

Two other concepts in equity and discrepancy theory are left unexplored if pay satisfaction is conceptualized as a unidimensional construct. First, equity theory allows the comparison of other variables such as recognition, time-off, and benefits when determining whether or not the individual is treated fairly. A unidimensional conceptualization of pay satisfaction focuses solely on pay; arguably pay level (Heneman, 1985). Secondly, discrepancy theory borrows the concept of valence from expectancy theory (Vroom, 1964) to explain differing reactions to the same inequitable situation. To determine pay satisfaction's domain and nature, researchers needed to explore the possibility that pay satisfaction may include other dimensions that will impact outcomes differentially. This need led to the creation of a multidimensional approach of pay satisfaction.

Multidimensional Pay Satisfaction

Soon after Locke (1969) hypothesized that pay was a facet of job satisfaction that warranted singular attention, he suggested that pay satisfaction might be a multidimensional construct (Locke, 1976). The first to explicitly explore this possibility were Heneman & Schwab (1979). They suggested that pay satisfaction consists of four related, but distinct dimensions, and developed the Pay Satisfaction Questionnaire (PSQ) to test the hypothesis (Heneman & Schwab, 1985). Their model has received considerable attention but is not universally accepted. Miceli and Lane (1991) and Gerhart and Milkovich (1992) have also proposed multidimensional models of pay satisfaction. The basis for these models is the administrative independence concept, which builds upon discrepancy theory. In this section, administrative independence is discussed first to provide a foundation for a review of the three main models of multidimensional pay satisfaction.

Administrative Independence. The premise of the administrative independence concept is similar to that of equity and discrepancy theories (Heneman, 1985). An individual makes comparison with referent others based on what the individual offers an organization and what he or she receives in return (Adams, 1963; Lawler, 1971; Heneman & Schwab, 1979). According to the administrative independence concept, it is how these outcomes are administered, not simply whether or not the individual receives a certain amount of compensation, that has consequences in an organizational setting (Heneman & Schwab, 1979). While discrepancy theory focuses on a unidimensional conceptualization of pay, administrative independence suggests pay is multidimensional and divided into two categories: direct compensation, consisting of salary, wages, and raises, and indirect compensation consisting of benefits such as

time off, health insurance, and retirement plans (Heneman, 1985). One must distinguish between the different components of pay because the components have different determinants and consequences (Judge, 1993). To look at the components as a single construct compromises attempts to explain pay satisfaction and its influences (Ironson, Smith, Brannick, Gibson, & Paul, 1989). An individual may be satisfied with one component of his or her pay while being dissatisfied with another. Organizations must understand these distinctions in order to make specific, informed decisions regarding compensation policy. Administrative independence's extension of discrepancy theory is the basis for subsequent multidimensional models of pay satisfaction.

Heneman & Schwab's (1979, 1985) modified discrepancy model. Heneman and Schwab (1979) expanded upon the discrepancy model (Lawler, 1971) by suggesting that pay can be broken into four distinct categories: pay level, pay structure, pay system, and pay form. Heneman and Schwab (1979) defined these dimensions as follows (pp. 1-2):

1. Pay level is the average of several wages or salaries in the organization. The average may be based on individual pay rates for a single position or on pay averages for a number of positions.
2. Pay structure is the hierarchy of pay rates or levels among jobs in an organization.
3. Pay system is the method the organization uses to determine pay raises for individuals which can be computed in terms of the amount of time the employee spends on the job (time-based systems) or for his performance or efficiency (performance-based systems). Performance-based systems include individual and group incentive systems, merit systems, commissions, cost-reduction schemes, and profit sharing.

4. Pay form is the type of pay that is received by the employee. Pay may be viewed as direct remuneration for time worked or performance, or it may be viewed as indirect remuneration in the form of fringe benefits or services.

Based on the conceptual work of Dyer and Theriault (1976) and a subsequent empirical study by Weiner (1980), Heneman (1985) added a fifth dimension, pay policies and administration. In a study using Canadian and American managers, Dyer and Theriault (1976) tested a category of variables previously not included in the study of pay satisfaction: perceptions of pay system administration. Their hypothesis that employees may be dissatisfied with their pay because they do not agree with, or understand, how it is administered is supported by their initial test. Weiner (1980) provided further support for Dyer and Theriault's (1976) hypothesis when it was found that including pay system administration in Lawler's (1971) model explained more variance in absenteeism than did the original discrepancy model.

Comparing Figures 2 and 3 shows that the same mechanism that drives satisfaction in the discrepancy model remains, but there are now comparisons made for each of the dimensions. Heneman (1985) proposes that it is necessary to divide pay satisfaction into these dimensions because the components "frequently have separate policies, procedures, and practices" (p. 131), because employees may experience a separate satisfaction for each dimension, and because these affective reactions may be related, but unique, feelings. If Heneman (1985) is correct, it is necessary to treat each dimension as a separate construct and to determine the antecedents and consequences of each.

Empirical findings. Most of the work testing the modified discrepancy model focuses on antecedents. Although the point of the model is to treat pay satisfaction as a multidimensional construct, much of the research does not. Studies take one component of the model, usually pay

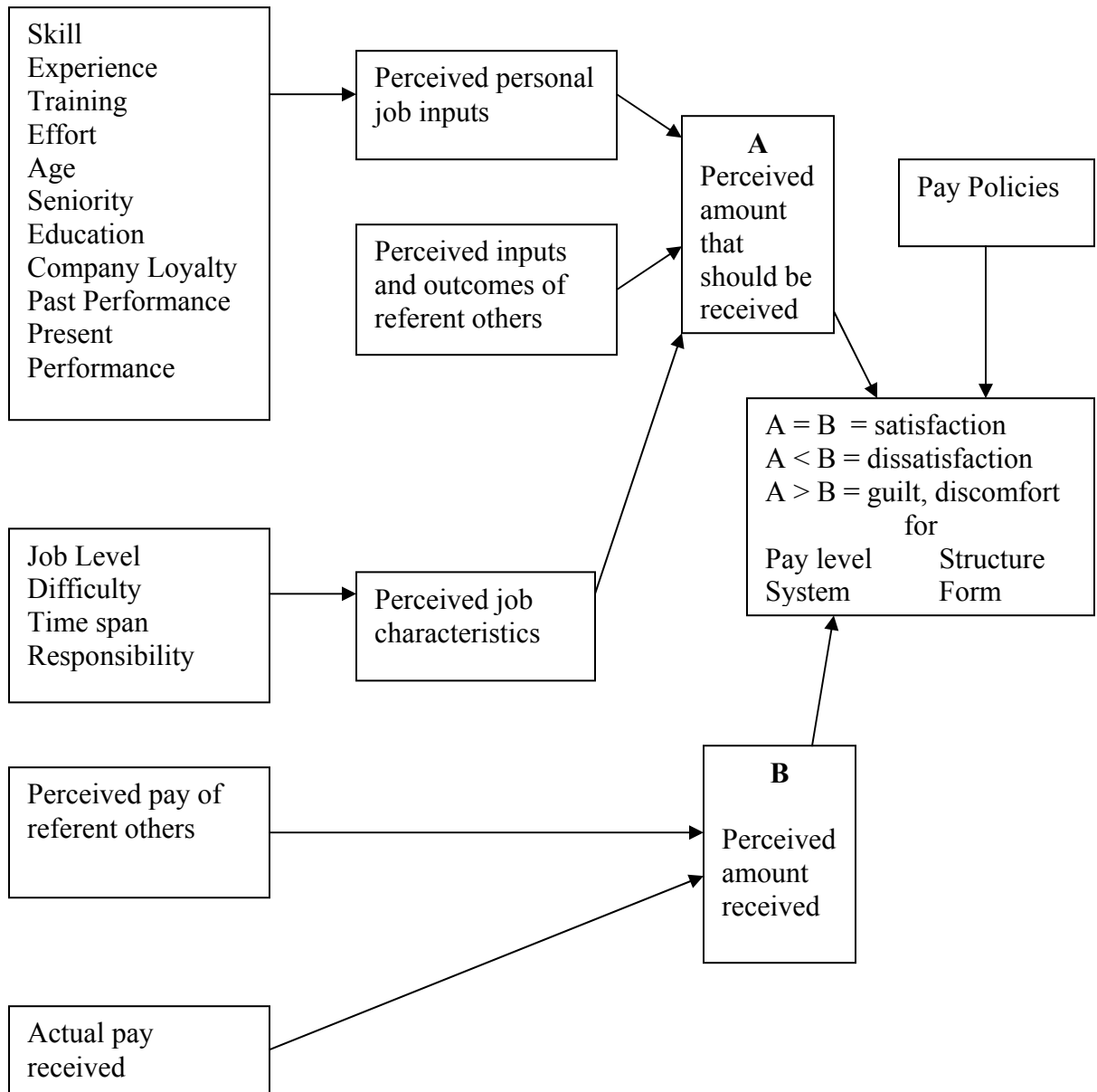


Figure 3

Modified Discrepancy Model

level, and attempt to determine the relationship of that dimension with other variables, or collapse the four dimensions into a summed scale. If researchers only wish to study pay level satisfaction or collapse all of the dimensions into a unidimensional construct, the object of conceptualizing pay satisfaction as multidimensional is lost.

One study that attempted to test the discriminant validity of the modified discrepancy model's dimensions by relating them to other variables was Judge (1993). He attempted to relate ten antecedents with the four dimensions. Using a LISREL (Joreskog & Sorbum, 1999) model, Judge was able to demonstrate that the predictors differentially related to the factors as hypothesized. These differential relationships support the importance of treating the dimensions as related, but distinct, dimensions of pay satisfaction as suggested by the modified discrepancy model.

The above study provides support for the modified discrepancy model beyond a factor analysis. If only one dimension is studied, proving differential relationships exist is difficult. Using the modified discrepancy model, two studies explore the relationship between pay satisfaction and outcome variables by collapsing the dimensions into a global factor. Miceli, Near and Schwenk (1991) found pay satisfaction is negatively related to whistleblowing, while Welbourne and Cable (1995) suggest pay satisfaction may be positively related to OCBs. Although these studies use the mechanism specifically designed to measure the multidimensional conceptualization proposed by the modified discrepancy model, the PSQ, collapsing the dimensions provides no information to either prove or disprove the possibility that pay satisfaction is multidimensional and that those dimensions impact outcomes differentially.

Several studies have been done since the modified discrepancy model was introduced, but the model is not being used to its full potential to offer insight into how pay satisfaction fits into the overall picture within organizations. More studies need to follow the design of Judge (1993) in order to test the assumptions of the model. Several studies have attempted to validate the factor structure of the PSQ, but only Judge (1993) has used the measure to relate the hypothesized dimensions to a wide variety of antecedents proposed to differentially relate to the four dimensions. To provide further support for the model, a similar study should be undertaken to test the differential relationships pay satisfaction dimensions have on consequences. Despite the failure of researchers to adequately test the model, the modified discrepancy model represents a major advancement in the study of pay satisfaction because it proposes that pay is not a unidimensional construct, but is composed of multiple related, but unique components and that each has a separate influence on outcomes of interest. The modified discrepancy model also suggests that these dimensions may have differential impact on outcomes. If this is the case, how managers approach compensation policy may be altered based on future research findings.

Miceli & Lane's (1991) dual discrepancy model. Miceli and Lane's (1991) model builds on the modified discrepancy model by describing in detail the way that pay satisfaction is determined. The model proposed by Miceli and Lane (1991) can be referred to as the dual discrepancy model for one of two reasons. First, the model follows Mulvey's (1990) suggestion that at least two two-level dimensions of pay satisfaction exist; one level focuses on reactions to the outcomes received while another focuses on reactions to the system. Also, the model considers time when assessing reactions to pay, thus creating a sub-model that concentrates on an individual's responses to the current state of affairs and another sub-model which focuses on

responses to anticipated changes in pay (Miceli & Lane, 1991). Each of these dimensions has particular causes and potential implications for organizations. I will discuss only the distinctions between outcome and system, because the time dimension was not covered extensively in the original.

Miceli and Lane (1991) suggest the modified discrepancy model is lacking due to ambiguity in the conceptual definitions of the dimensions. They suggest that it is unclear, for example, whether or not raise refers to the how large a raise is or how the raise is determined (Miceli & Lane, 1991, p. 243). They contend that this point must be clarified in order to properly understand how employees determine satisfaction with their pay. They propose that reactions to both direct and indirect pay must be separated into reactions to outcomes and systems. Further, they deem it is necessary to divide pay system satisfaction into satisfaction within one's job category (range) and between job categories (hierarchy). This division creates a total of five dimensions: pay level satisfaction; benefit level satisfaction; pay system satisfaction (range); pay system satisfaction (hierarchy); and benefit system satisfaction.

In addition, they suggest the modified discrepancy model is in error because it treats each dimension in the same manner, with satisfaction determined in the same way for all dimensions. Consistent with Ash, Lee, and Dreher (1985), Miceli & Lane (1991) assert that Lawler's (1971) discrepancy model is essentially only a model of predictors for pay level satisfaction, and to a lesser extent, pay raise satisfaction which is inappropriate for other dimensions (p. 247). Since Heneman and Schwab's (1985) modified discrepancy model retains much of Lawler's (1971) original, it is necessary to create a distinct model for each of the dimensions to more accurately describe how each is determined.

One major difference between Miceli and Lane's (1991) dual discrepancy model and Heneman and Schwab's (1985) modified discrepancy model is the inclusion of numerous other variables to clarify how each of the particular satisfactions is determined. As an example, the model of pay level satisfaction, depicted in Figure 4, will be discussed. When determining the perceived amount to be received, the model takes into account how people expect to be treated based on their cultural traditions. For example, in the United States employees believe they should be paid more than they were in previous years (Miceli & Lane, 1991). Secondly, people determine how much they should receive not only from comparisons with others, but also on individual needs that include factors such as family size and health. A final factor people take into account when determining the amount they should receive is the extent to which they perceive organizations use fair rules in determining pay. This perception is affected by environmental factors such as the cost of living and an individual's knowledge of other pay systems. If the cost of living is high, the individual will expect higher pay, and, if they have knowledge of other pay systems, this knowledge will serve as a basis for comparison. The determination of whether or not the rules are fair is also influenced by organizational communication. Organizations' efforts to explain pay decisions may affect how much an individual feels he or she should be paid.

Another key difference between the dual discrepancy model and the modified discrepancy model (Heneman & Schwab, 1985) is that Miceli and Lane's model does not take into account how much a referent other receives when determining how much an individual perceives he or she is paid. The pay of a referent other is only taken into account when determining the perception of how much should be received. Unlike Heneman and Schwab's

(1985) model, the dual discrepancy model takes into account the likelihood of expected salary increases or bonuses within the rating period. If a person is certain that a raise is coming, he or she will factor this perception into determining the amount received. If an organization does not provide information regarding the possibility of a raise, the expected increase component may not play a role in the determination of perceived amount paid, only the salary or wages received to date.

The final alteration to the model is the addition of over-reward/equity sensitivity. If an individual is sensitive, he or she will experience guilt from being over-rewarded and thus feel less satisfaction. However, if an individual feels that he or she should be over-rewarded (entitled) this will not have an effect on satisfaction (Huseman, Hatfield, & Miles, 1987).

Empirical results. In a review of the pay satisfaction literature, only three studies were found that attempt to test this framework, and these test only one of the models. Although not specifically testing the model but pay level satisfaction models in general, Blau (1994), using a sample of managers from a pharmaceutical firm, found support for the pay level satisfaction model. Individual inputs, job evaluation, and inequity of pay were negatively related to pay satisfaction. In another study, Tremblay, Sire & Pelchat (1998), using 285 Canadian employees, found that individual factors had a significant indirect effect on benefit level satisfaction. Williams (1995), using a sample of 122 library employees to test benefit level satisfaction, provides the most rigorous test of the model. A few modifications were made to the model by the author, and over half of the obtained variance in benefit level satisfaction was explained. However, the results were not consistent with the theoretical model, and a revised, more parsimonious model was proposed based on the results.

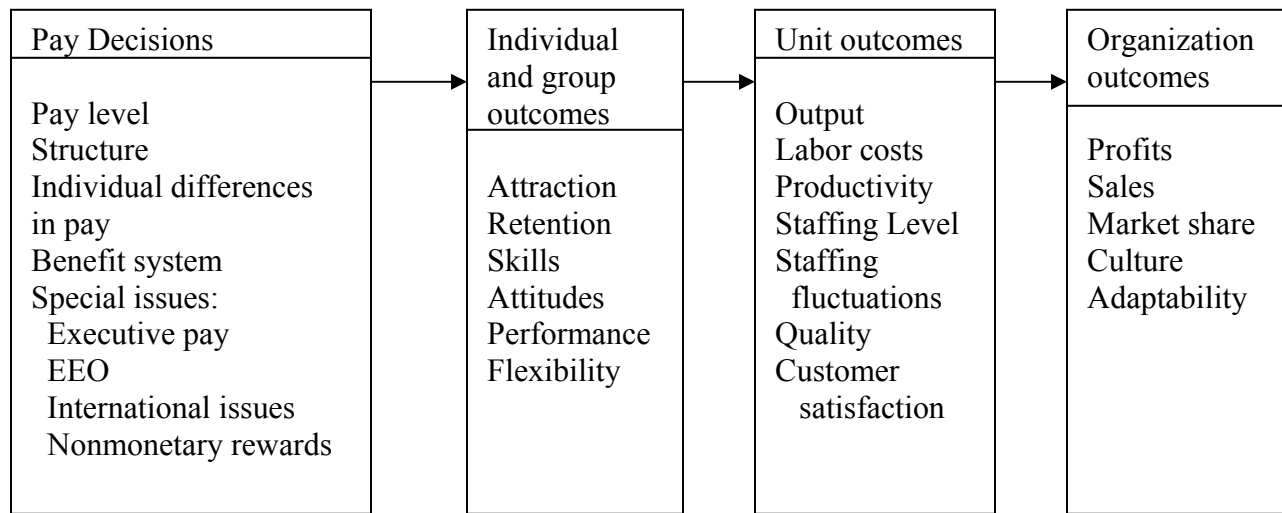
Williams' (1995) benefit level satisfaction model does not use an overall standard of comparison between perceived amount of benefits that should be received and are received through which all other independent variables are hypothesized to determine benefit level satisfaction. Instead, multiple comparisons are made within the category of benefit comparisons. Williams hypothesizes that the perceived amount received has a direct positive effect on benefit level satisfaction, but the perceived amount that should be received is completely removed from the model. She also proposes that benefit administration has a direct affect on benefit level satisfaction instead of an indirect impact through benefit use. Benefit use's impact remains indirect through perceived amount of benefit received. Environmental factors pertaining to benefit cost as well as environmental factors pertaining to the need for certain benefits remain, but personal factors are no longer taken into account when determining benefit level satisfaction. Finally, the types and levels of benefits provided and employee contributions are hypothesized to impact benefit level satisfaction directly. In addition to parsimony, this model incorporates variables that are easier to measure than those proposed in Miceli and Lane's (1991) model of benefit level satisfaction. However, the revised model remains untested.

Miceli and Lane's dual discrepancy model improves on the modified discrepancy model by creating specific models for each of the dimensions of pay satisfaction; these models include additional variables that may more accurately predict each of the satisfactions. The other major advancement in pay satisfaction research the dual discrepancy model offers is the inclusion of time. Miceli and Lane (1991) suggest that individuals not only react to the current state of their pay, but to potential changes. The

dual discrepancy model offers some interesting suggestions on how pay satisfaction is determined and brings up some valid criticisms of previous models. However, due to the model's complexity, many of the proposals remain untested.

Gerhart and Milkovich's (1992) model of compensation decisions and consequences. As presented in Figure 5, this model of multidimensional pay satisfaction differs significantly from the previous two that have been discussed. While the other approaches have focused on individual-level determinants of pay satisfaction, Gerhart and Milkovich's (1992) model is an interdisciplinary approach describing how employers make decisions about compensation. In addition, the model focuses on compensation itself rather than attempting to use compensation as a means of testing motivational theories. Perhaps the most important difference is that the model explicitly attempts to describe how these compensation decisions made by employers impact individual, group, and organizational consequences, whereas the previous models focus solely on antecedents of pay satisfaction. Although the Gerhart and Milkovich (1992) model has a more macro approach, resembles the other multidimensional models of pay satisfaction in that it recognizes compensation differences caused by its administration and identifies similar pay satisfaction dimensions.

Gerhart and Milkovich (1992) suggest compensation decisions can be classified into four distinct areas of compensation policy. The first is the pay-level policy, which determines whether a firm will have a lead, lag, or match policy. The second involves how organizations determine individual-level pay differentiation decisions - whether decisions will be related to performance or to length of service. The third decision is the pay structure policy that determines the pay differences between levels of the



Contingency Factors

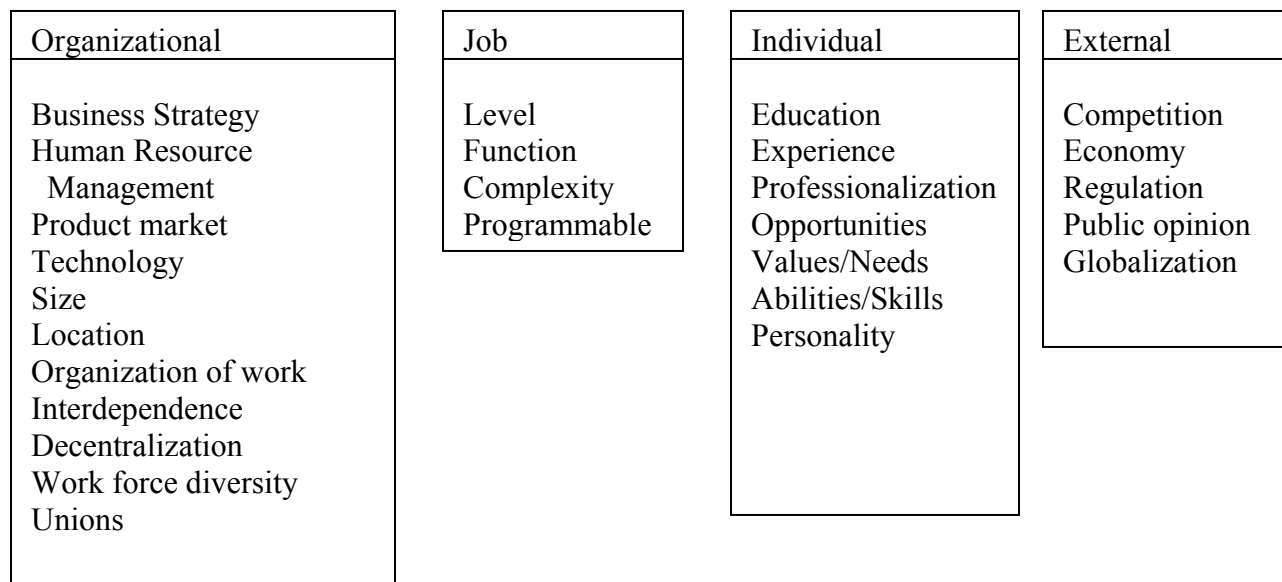


Figure 5

Compensation Consequences Model

organizational hierarchy. Lastly, the organization must decide how to administer benefits to its employees. These compensation policy decisions relate closely to the pay level, pay system, pay structure, and benefit dimensions, respectively, of the modified discrepancy model (Heneman & Schwab, 1985) and the pay level, pay system (range), pay system (hierarchy), and benefit level dimensions of the dual discrepancy model (Miceli & Lane, 1991). But, as mentioned above, the focus is not on how employees determine these different satisfaction dimensions, but on why organizations make different decisions and what consequences these decisions could have within organizations. Since the reasons why organizations make certain decisions are outside the scope of this dissertation, the potential consequences of these compensation decisions made by organizations will be the focus of the remainder of this section.

According to the model, pay decisions made by organizations can significantly impact individual and group level consequences, including performance, skill development, work-related attitudes, and work force composition. Pay level and benefit policy can determine what type of workers are attracted to the organization by signaling job seekers to less visible organizational attributes. These same policies will determine whether or not employees are willing to continue to work for the organization. If the pay level or benefit level is not satisfactory, the desirability of movement will increase and it is more likely that withdrawal behaviors such as tardiness, absenteeism, and turnover will increase (March & Simon, 1958). Unsatisfactory pay and benefit levels may also reduce the motivation of employees and eventually negatively impact individual, group, and organization performance.

Pay structure will also impact individual consequences. If there are significant pay differences between hierarchical levels, employees may focus on being successful rather than effective (Luthans, 1988). That is, they will try to engage in behaviors such as networking and ingratiation that allow movement to higher levels instead of focusing on behaviors important to effective job performance. If large pay differentials exist and it is not likely that individuals will be able to move up in the organization and realize large pay increases, decreased motivation to perform and increased turnover may result (Livernash, 1957). However, if the pay differential is not large enough, individuals may not be motivated to pursue promotions and higher pay (Ehrenberg & Bognanno, 1990).

The procedures used to establish and rationalize pay differentiation decisions will also influence employee behavior by signaling what is valued. If individual pay decisions are based on merit or skill, employees will be motivated to work harder to receive these rewards and potentially seek training to gain an advantage. If the decisions are based on subjective evaluations, ingratiation and networking behavior may take precedence over job performance. If the decisions are based on tenure, higher performing employees may feel under-rewarded and seek jobs in organizations that will pay them based on merit.

These individual-level outcomes can have implications for group and ultimately organizational outcomes. If the compensation decisions do not motivate strong job performance on an individual level, it is not likely an organization will perform well. According to Gerhart and Milkovich (1992), the key to an effective compensation system is to make sure that the decisions made regarding the four dimensions fit the overall

organizational strategy. Several articles attempt to verify the points raised by this model (Banker, Lee, Potter, & Srinivasan, 1996; Bloom & Milkovich, 1998; Huselid, 1995).

Empirical results. Three studies focused on the pay differential component of the model. Huselid (1995) found that incentive compensation was a key component in a High Performance Work Practices human resources policy that had economically and statistically significant impacts on individual and group outcomes such as turnover and productivity as well as overall corporate financial policy. Banker et al., (1996), in a sample of 34 outlets of a national retail chain, found that outcome-based incentives positively impacted sales and customer satisfaction. In another study, Bloom and Milkovich (1998) found that high-risk firms that relied on incentive pay exhibited poorer performance than high-risk firms that did not. These studies support Gerhart and Milkovich's (1992) contention that compensation decisions, specifically, individual pay differentiation decisions, impact individual, group, and organizational consequences.

Gerhart and Milkovich's (1992) compensation consequences model provides a new perspective on pay satisfaction. Gerhart and Milkovich (1992) move from the psychological approaches of the equity- and discrepancy-based models that focus on employee perceptions and use an interdisciplinary approach to describe how employers make compensation decisions. The primary advance made using this approach is the focus on consequences. The model takes into account not only individual level consequences of pay satisfaction, but group and organization consequences as well. Gerhart and Milkovich do not explain how these outcomes may come to pass, but the explicit recognition of pay satisfaction's relation to various consequences represents an important addition to the research stream. The primary point of the model, that

compensation policy impacts individual, group, and organization-level consequences, is intriguing, but a model explaining why this occurs is needed.

Summary

Each of the multidimensional models has advanced the understanding of pay satisfaction by adding considerations not incorporated into previous models. The modified discrepancy model (Heneman & Schwab, 1985) uses the administrative independence concept (Heneman & Schwab, 1979) to suggest that pay consists of four related, but unique dimensions: pay level, raise, benefits and structure/administration. Further, employees may have separate affective reactions to each of these dimensions, and each dimension may have different antecedents and consequences. The dual-discrepancy model (Miceli & Lane, 1991) advances pay satisfaction research by taking time into account and offering separate models for each dimension of pay. Finally, the compensation consequences model (Gerhart & Milkovich, 1992) highlights the potential consequences of pay satisfaction. What is lacking in all of these models is a theoretical basis suggesting why the dimensions of pay satisfaction might have different impacts on organization-relevant attitudes and behaviors.

Current theoretical trends. While pay satisfaction antecedent research has been guided by equity and discrepancy theories and dimensionality studies have used the concept of administrative independence, the deficiency in research linking pay satisfaction to consequences has been blamed on the lack of a theoretical model to guide research (Heneman, 1985; Heneman & Judge, 2000; Judge, 1993; Judge & Welbourne, 1994). In a recent review, Heneman and Judge (2000) suggest that organizational justice may provide the theory to explain many of the relationships between pay satisfaction and

relevant behavioral and attitudinal consequences. They suggest, “fairness, whether in terms of distributive or procedural justice, is central to pay satisfaction” (p. 93).

Further, they propose that pay level satisfaction, raise satisfaction, and benefit satisfaction should correlate more highly with distributive justice while structure/ administration satisfaction would relate more closely to procedural justice. Although the specific relationship between justice and pay satisfaction is not defined, the suggestion that justice may provide insight into pay satisfaction offers direction for pay satisfaction consequence research.

Methodological Review of the Pay Satisfaction Construct

In the previous section, the theoretical development of the pay satisfaction construct was reviewed. By definition, a construct is a concept that is consciously invented or adopted for a specific scientific purpose (Kerlinger, 1986). In this case, the scientific purpose is to specify an individual’s satisfaction with different dimensions of his or her pay. The theoretical review provides an operational definition for pay satisfaction upon which measurement of the construct might be based. Since the operational definition for the construct is not universally agreed upon, pay satisfaction has been measured in several ways. The methodological review of the pay satisfaction construct will be presented in chronological order according to a measure’s first appearance in the literature. First, unidimensional measures are presented, then the multi-dimensional approach, and finally, the latest methodological developments will be discussed.

Measurement of Unidimensional Pay Satisfaction

Since the unidimensional approach to pay satisfaction views pay satisfaction as a unified, global construct, research must employ measures reflecting this view. A common approach to assessing unidimensional pay satisfaction is the use of *ad hoc* measures. *Ad hoc* measures are constructed for specific studies and normally do not have much evidence of construct validity (Heneman, 1985). Advantages of using *ad hoc* measures are that they are very easy to construct and enable the researcher to tailor-make items for specific research situations (Heneman, 1985). Disadvantages of *ad hoc* measures include a failure to establish construct validity and the difficulty generalizing results outside the specific research setting (Heneman, 1985). These measures were popular early in pay satisfaction research (Krefting & Mahoney, 1977; Motowildo, 1982, 1983) and *ad hoc* measures are still used in current research (e.g. Greenberg, 1990b; Miceli, Jung, Near, & Greenberger, 1991; Sweeney, McFarlin, & Inderrieden, 1990) despite the availability of widely accepted, psychometrically robust measures.

Another method of measuring unidimensional pay satisfaction uses the sub-scales of two generally accepted job satisfaction measures, the Job Descriptive Index, or JDI (Smith, Kendall, & Hulin, 1969) and the Minnesota Satisfaction Questionnaire, or MSQ (Weiss, Dawis, England, & Loftquist, 1967). Both the JDI and the MSQ were developed in the late 1960s to measure job satisfaction through a facet approach. That is, they measure overall job satisfaction by measuring satisfaction with specific facets of an individual's job; these facets include the work itself, co-workers, supervision, and pay. These facet scores are summed to provide job satisfaction scores. In the 1970s, pay satisfaction researchers began to use the pay sub-scales of the JDI and MSQ instead of *ad*

hoc measures to increase validity and to compare results across studies (e.g., Berger & Schwab, 1980; Blau, 1994; Capelli & Sherer, 1988; Dreher, 1981; Dyer & Theriault, 1976; Schwab & Wallace, 1974).

Although the use of *ad hoc* measures allowed for some understanding of the pay satisfaction construct, the use of these psychometrically robust measures allows researchers to more accurately measure the construct and to compare results across studies allowing knowledge to accumulate regarding pay satisfaction. However, researchers must pay close attention to how the construct is measured to avoid comparing two different constructs labeled similarly.

Measurement of Multidimensional Pay Satisfaction

Heneman and Schwab (1979; 1985) suggested that pay satisfaction is not a unified attitude, but one made up of four related, but unique facets. If this is the case, using the sub-scales of the MSQ or JDI, that treat the PSQ as a global construct (Heneman & Schwab, 1985; Heneman & Judge, 2000), is not appropriate. In order to capture the “true” nature of pay satisfaction, a multi-dimensional measure needed to be developed and used. To achieve this end, Heneman and Schwab (1985) developed the Pay Satisfaction Questionnaire (PSQ). As mentioned earlier, five relatively independent dimensions are hypothesized by Heneman & Schwab (1985): level, structure, benefits (form), raises (system), and administration. Each dimension was measured with four Likert-style items and administered to heterogeneous groups of white-collar workers. After confirmatory factor analysis, the items loaded as expected, but after an exploratory factor analysis, two items were dropped and the structure and administration scales were combined (Heneman & Schwab, 1985). Using a national sample of nurses, the factor

structure results were replicated. In both samples, strong evidence of inter-rater reliability as well as low between-dimension inter-item correlations were found suggesting high reliability and discriminant validity.

After the publication of this article, research in the area increased significantly, and many studies successfully validated the measure (Carragher & Buckley, 1996; DeConnick, Stilwell & Brock, 1996; Judge, 1993; Judge & Welbourne, 1994; Mulvey, Miceli, & Near, 1992). Other studies, however, did not support the four dimensions. For example, in a sample of 101 Australian instructors, Orpen and Bonnici (1987) found that all of the items loaded on one factor, while Carragher (1991), using a sample of 146 MBA students, found that the raise items loaded on either the structure/administration or pay level factors and suggested there were only three dimensions. A study by Scarpello, Huber, and Vandenberg (1988) found that the four-factor structure was appropriate for salaried-exempt employees, but that a three-factor solution was appropriate for hourly employees.

In addition to providing a multidimensional measure of pay satisfaction with strong psychometric properties, the PSQ allows for a more precise comparison of results from different studies by specifying the four dimensions of pay satisfaction. Although the PSQ has received significant support, work continues to refine the instrument so that it may more accurately capture the multidimensional nature of the pay satisfaction construct. Perhaps due to the focus on the factor structure and scale inter-correlations of the PSQ, Heneman and Judge (2000) call for a moratorium on further research on the PSQ's dimensionality. They point out that the purpose of the PSQ was not to be a definitive research or survey instrument, but a measure of the nature and domain of pay

satisfaction (p.83). They recommend examining pay satisfaction's relationship with outcome variables. Although the majority of the work has focused on the testing the validity and reliability of the pay satisfaction questionnaire, some studies have been devoted to determining the relationship of the multidimensional construct to other organizational relevant variables (Heneman & Milanowski, 1998; Miceli et al., 1991; Miceli, Near, & Scwenk, 1991; Motowildo, 1983)

Current Methodological Trends

As mentioned above, one of the major criticisms of the PSQ is that some studies fail to replicate the four-factor structure proposed by Heneman and Schwab (1985). Some suggest this failure is due to problems with the measure, while others believe moderator variables may be affecting the number of dimensions perceived by employees. Each of these possibilities will be briefly explored.

Advances in measurement. Although the pay satisfaction questionnaire has received considerable support (DeConnick et al., 1996; Judge, 1993; Judge & Welbourne, 1994), work continues to refine and further specify the measurement of multidimensional pay satisfaction. Hart and Carraher (1995) attempted to more precisely measure benefit satisfaction by developing the Attitudes Toward Benefits Scale (ATBS). This short, six-item measure not only measures benefit satisfaction, but the perceived ease of replacement of a benefit and the perceived cost to the organization as well. It is argued that this scale is necessary in order to more accurately capture how important benefits are in attracting, retaining, and satisfying employees.

Unlike the work of Hart and Carraher (1995) in which a new scale is spun off from the PSQ, Sturman and Short (2000) suggest adding a contingent pay dimension to

the PSQ. The authors argue that this addition is a necessary revision to the PSQ due to the increasing use of contingent pay in organizations at all levels. The authors found support for the contingent pay dimension after finding that a five-factor structure best fit the data and that the four new contingent pay items had high convergent validity with each other and high discriminant validity with the other items in the PSQ. Additionally, the authors point out that the contingent pay dimension may not be appropriate in all situations. They suggest that the PSQ should be flexible and incorporate dimensions that are offered in a particular organization.

Williams, Carraher, Brower, and McManus (1999) re-examined the underlying dimensionality of the pay satisfaction construct in order to develop the Comprehensive Pay Satisfaction Questionnaire (CPSQ). They based their work on Williams and Brower (1996) in which the theoretical approaches of Heneman and Schwab (1985) and Miceli and Lane (1991) were unified to yield eight potential dimensions of pay satisfaction. Fifty-one total items were developed and both exploratory and confirmatory factor analyses were performed to refine the scales and factor structure. Final results yielded 35 items measuring seven dimensions: benefit administration, benefit system, benefit level, pay level, pay structure, pay system, and raise satisfactions. The authors argue that the CPSQ is an improvement over existing measures because its basis in theory and use of more items provides a better sampling of the content domain of pay satisfaction. As some researchers continue to refine the construct, others search for moderator variables that may influence the number of dimensions perceived by employees.

Potential moderators. Two recent studies have suggested potential moderators that seem to affect the dimensionality of pay satisfaction. With a sample of nursing home

and manufacturing firm employees Scarpello, Huber, & Vandenberg (1988) found that the pay satisfaction questionnaire factor structure varied by job classification. Exempt employees perceived four factors while nonexempt and hourly employees perceived three. The authors do not seem to put too much faith in their findings. Instead they criticize the PSQ for "failing to accurately assess the dimensionality of the compensation satisfaction construct" (p. 170) and suggest several alterations that could be made to increase the validity and reliability of the measure.

The other study that found a potential moderator specifically set out to find it (Carragher & Buckley, 1996). The results showed that 2000 teachers perceived anywhere from one to five different dimensions using the PSQ, with the number of dimensions increasing with cognitive complexity. The authors suggest that this variety of perceptions occurred because some of the subcategories are not differentially distinguishable to the participants. Sturman and Carragher (1999) also examine the importance of cognitive complexity in pay satisfaction dimensionality research but go beyond suggesting that it is a moderator. They use cognitive complexity as the basis to test a random-effects model of pay satisfaction that is in direct contrast to the fixed-effects model assumed by prior research.

Sturman and Carragher (1999) argue that differences in pay satisfaction dimensionality between individuals are a function of their ability to discriminate between each of the dimensions and their motivation to do so. Cognitive complexity provides the ability to discriminate, while pay level satisfaction and pay level are hypothesized to provide the motivation to discriminate. Results using a sample of teachers and financial service employees support Sturman and Carragher's contention that a random-effects

model is superior to a fixed-effects model. The authors suggest that if individual conceptualizations of pay satisfaction dimensions are ignored, important effects may be obscured. Using the random effects model allows researchers to capture these effects.

The latest research in the field continues previous attempts by researchers to more accurately assess the true nature of pay satisfaction. These trends may have implications for the interpretation of previous studies. Refinement of pay satisfaction's measurement allows the field to keep current with changes in organizations, specifically with the increased importance of benefits and contingent pay in today's business environment. Work identifying moderators provides a potential explanation for the inconsistent results obtained using the PSQ. Finally, the support for the random-effects model may necessitate a major shift in the way pay satisfaction research is done towards an individual-level focus.

Summary

Pay has long been considered an important motivator for employees (Taylor, 1911). Research focused on determining how pay motivates employees used reinforcement (Skinner, 1953) and expectancy (Vroom, 1964) theories to suggest that based on an individual's prior experience, if an individual expect to receive something of value if he or she engages in a behavior, he or she will engage in that behavior. However, how prior experience leads to future behavior remained unclear. Pay satisfaction research provides an intervening variable between pay and consequences to explain the experience-behavior relationship.

Equity (Adams, 1963) and discrepancy theories (Lawler, 1971) are the basis of pay satisfaction research. These theories suggest that people are motivated to engage in a

range of behaviors because they wish to reduce tension created by inequity (or a discrepancy) caused by prior experiences. The next step in the development of the pay satisfaction construct incorporated the administrative independence concept into the discrepancy model that suggests pay is multidimensional. Research following the publication of the modified discrepancy model (Heneman & Schwab, 1985), particularly Judge (1993), provides significant evidence that pay satisfaction is multidimensional, because the dimensions of pay satisfaction have different causes and potentially different consequences. Subsequent work continued to refine the multidimensional construct (Gerhart & Milkovich, 1992; Miceli & Lane, 1991) and test the relationship of the construct to other variables (Berkowitz et al., 1987; Dreher, 1981; Sweeney et al., 1990), but none of this work has offered any insight into how the individual dimensions of pay satisfaction might differentially impact outcomes. Consequently, in order to continue the advancement of pay satisfaction research, it is necessary to create a theoretical foundation explaining why the components of pay satisfaction influence consequences differentially.

The necessity of a model of pay satisfaction consequences has been suggested numerous times over the past two decades (Heneman, 1985; Heneman & Judge, 2000; Huber, Seybolt, & Veneman, 1992; Judge, 1993; Judge & Welbourne, 1994). Heneman (1985) states that a pay consequences model must be developed so that “research can begin considering the possibility that the four dimensions of pay satisfaction may have differential implications for, and effects on, any given dependent variable”(p. 137). However, no reason is offered as to why these effects occur, and no model has been developed in the intervening time.

In the next chapter, I explore Heneman and Judge's (2000) suggestion that organizational justice theory may provide some insight into the differential relationships between pay satisfaction dimensions and various consequences.

Chapter 3

Model Development and Hypotheses

Organizational Justice's Relationship with Pay Satisfaction

The review of the pay satisfaction research in the previous chapter shows that considerable advances have been made since the inception of the research stream. However, as indicated, the majority of the research focuses on the antecedents of pay satisfaction (Berger & Schwab, 1980; Berkowitz et al., 1987; Dyer & Theriault, 1976; Judge, 1993) and how to conceptualize the construct (Lawler, 1971; Heneman & Schwab, 1979; Gerhart & Milkovich, 1992; Miceli & Lane, 1991). Little attention has been given to exploring the potential consequences of pay satisfaction (Huber, Seybolt, & Veneman, 1992; Judge, 1993; Lucero & Allen, 1994). This oversight is in part due to the lack of a conceptual model to guide research (Heneman, 1985; Heneman & Judge, 2000; Judge & Welbourne, 1994). Since the previous models of pay satisfaction offer no theoretical basis for differential impact on consequences the dimensions of pay satisfaction will have, it is necessary to rely on research from other areas.

Organizational justice research is used in this dissertation to guide the development of the pay satisfaction consequences model. Organizational justice is highly relevant to understanding pay satisfaction (Folger & Konovsky, 1989; Heneman & Judge, 2000; McFarlin & Sweeney, 1992; Scarpello & Jones, 1996; Sweeney & McFarlin, 1993). Of specific bearing on the development of the pay satisfaction consequences model, Heneman and Judge (2000) state “both procedural and distributive justice appear to be critical factors in predicting behavioral responses to pay dissatisfaction” (p. 93). However, there has yet to be a comprehensive test of these relationships. In order to understand the application of justice to pay satisfaction research, the justice literature is reviewed and the justice-pay satisfaction relationship is delineated.

Following this discussion, I describe the pay satisfaction consequence model is described and offer hypotheses to be tested.

Organizational Justice

Organizational justice theory has its origins in equity theory (Adams, 1963).

Organizational justice research proposes individuals make two separate, but related, types of fairness judgments relevant to pay satisfaction research. One relates to what they are paid and one concerns how they are paid (Cropanzano & Greenberg, 1997; Greenberg, 1990a). The first of these judgments is referred to as distributive justice. The origin of distributive justice can be traced to the work of Homans (1961) who coined the term "rule of distributive justice" to describe the expected relationship in a social exchange (Cropanzano & Greenberg, 1997).

Simply put, distributive justice concerns the perceived fairness of outcomes received (Folger & Konovsky, 1989). This perception of fairness is not simply determined by the amount received, but by what is received relative to some referent other (Cropanzano & Greenberg, 1997). This is a common point that justice theory shares with Adam's (1963) equity theory; however, justice theory goes further to suggest that people also determine fairness by the adequacy of their compensation relative to their expectations, needs, or general societal norms (Cropanzano & Greenberg, 1997).

Organizational justice theory does not solely focus on the outcomes received: how the outcomes are determined are hypothesized to be equally, if not more, important to employees. This type of justice, procedural justice, is concerned with the perceived fairness of the methods used to determine the amount of rewards (Folger & Konovsky, 1989). The concept was first developed in the mid-1970s when Thibaut & Walker (1975) studied the legal system. They found that it was not simply the verdict and sentence that lead to perceived fairness, but how the

decisions are reached, that have an impact on fairness perceptions. By addressing procedural concerns, organizational justice diverges from both discrepancy and equity theories, because discrepancy and equity theories propose that only outcomes determine fairness perceptions and satisfaction (Campbell & Pritchard, 1976; Cropanzano & Greenberg, 1997).

Procedural justice was adapted to organizational settings by Greenberg & Folger (1983). What followed was a great deal of empirical work showing that procedural justice has a number of positive consequences for organizations. Procedural justice has been positively related to organizational citizenship behavior (Konovsky & Pugh, 1994; Niehoff & Moorman, 1993), perceived organizational support (Moorman, Blakely, & Niehoff, 1998), trust in supervisor (Konovsky & Pugh, 1994), organizational commitment (Folger & Konovsky, 1989), and tentatively, job performance (Gilliland, 1994; Konovsky & Cropanzano, 1991).

This simultaneous consideration of procedural and distributive justice is referred to as the two-factor model (Folger & Konovsky, 1989; Sweeney & McFarlin, 1993). According to this model of organizational justice, procedural and distributive justice are related constructs but may have different consequences. In his review, Greenberg (1990a) found that procedural justice is most often linked to system satisfaction while distributive justice is most often related to outcome satisfaction. Research findings support this model; procedural justice has been found to impact affective reactions and behaviors focused on the organization as a whole (e.g., organizational commitment, organizational citizenship behaviors), while distributive justice impacts reactions and behaviors related to the specific job (e.g., job satisfaction; Folger & Konovsky, 1989; Dulebohn & Martocchio, 1998; Sweeney & McFarlin, 1993). The differential impact of the type of justice has important ramifications for organizations. If an organization is

trying to increase commitment to the firm, managers should focus efforts on increasing perceptions of procedural fairness, but if they wish to increase job satisfaction, increasing perceptions of distributive justice should be the focus (Martin & Bennett, 1996; Sweeney & McFarlin, 1993). The following sections will show how this two-factor distinction is relevant to the justice-pay satisfaction relationship and how organizational justice is useful in developing the pay satisfaction consequences model, in which the dimensions of pay satisfaction are differentially related to consequences. This discussion will yield a model of pay satisfaction consequences in which pay satisfaction dimensions have both direct effects on consequences and indirect effects mediated by justice perceptions.

Relationship of Organizational Justice to Pay Satisfaction

As can be seen in Table 2, research, although not extensive, has found a strong relationship between justice and pay satisfaction (e.g. DeConnick, Stillwell, & Brock, 1996; Dulebohn & Martocchio, 1998). Furthermore, research has shown differential effects for distributive and procedural justice in their relationships with various pay satisfaction dimensions (e.g., McFarlin & Sweeney, 1992; Sweeney & McFarlin, 1993; Tremblay, Sire & Balkin, 1999). For example, McFarlin and Sweeney (1992) found that pay level satisfaction correlated more highly with distributive justice ($r = .62$) than procedural justice ($r = .51$), and that, when entered into a hierarchical regression, distributive justice explained twice as much incremental variance in pay level satisfaction than procedural justice. Another study, which included more than one dimension of pay satisfaction, found that distributive

Table 2

Pay Satisfaction - Organizational Justice Articles

Article	Sample	Type of Justice	Pay Satisfaction Definition	Key Results
Price & Mueller (1981)	1091 Nurses	Distributive	Pay level only.	Pay not correlated with DJ.
Folger & Konovsky (1989)	217 Manufacturing Employees	Procedural and Distributive	Raise sub-scale of PSQ.	Controlling for PJ, DJ explains twice as much incremental variance in pay raise satisfaction as did PJ controlling for DJ.
Summers & Hendrix (1991)	265 Managers	Pay equity	Pay level- 4 items from MSQ.	Linear structural path from pay equity to pay satisfaction is .60.
McFarlin & Sweeney (1992)	675 Bank employees	Procedural and Distributive	Pay level-ad hoc	Pay level correlates more highly with DJ ($r = .62$) than PJ (.51). DJ explains twice as much incremental variance in pay level satisfaction than PJ.
Sweeney & McFarlin (1993)	188 Engineers	Procedural and Distributive	Pay level- ad hoc.	Pay level correlates more highly with DJ ($r = .44$) than PJ (.24). DJ=s structural path to pay level satisfaction was .85 while PJ was not significant.

Table 2, continued

Article	Sample	Type of Justice	Pay Satisfaction Definition	Key Results
Davis & Ward (1995)	124 public employees 373 private employees	Procedural and Distributive specific to health care	Benefit – PSQ sub-scale modified for health care only.	DJ accounted for approximately half of variance in benefit satisfaction in both samples while PJ accounted for smaller amount only in private sector.
DeConnick, Stillwell, & Brock (1996)	474 Bank employees	Distributive	Four dimensions of PSQ.	Confirmatory factor analysis confirms discriminant and convergent validity of DJ and four dimensions of PSQ.
Scarpello & Jones (1996)	612 Government employees	Procedural and Distributive	Unidimensional	DJ strongly predicted pay satisfaction ($\beta = .80$) while PJ did not.
Martin & Bennett (1996)	1337 Financial services employees	Procedural and Distributive	Benefit, Raise and Level sub-scales of PSQ	Each dimension of pay was more highly correlated to its corresponding DJ measure than PJ measure.
Tremblay, Sire, & Balkin (1999)	285 employees from diverse sources	Procedural and Distributive	Pay level and Benefit ad hoc measures.	DJ explains 26 % of variance in level satisfaction, PJ 0%. PJ explains 24% of variance in benefit satisfaction, DJ 10%.

justice explained 26% of the variance in pay level satisfaction, while procedural justice did not account for any, and that procedural justice explained 24% of the variance in benefit satisfaction and distributive justice only 10% (Tremblay, Sire, & Balkin, 1999).

The close relationship between justice and pay satisfaction has led some to suggest that justice and pay satisfaction may be indistinct constructs (Heneman & Judge, 2000; Miceli & Lane, 1991). However, empirical work using confirmatory factor analysis has found that distributive justice and the four dimensions of pay satisfaction are distinct constructs (DeConnick et al., 1996). Further support for the distinctiveness of justice and satisfaction comes from referent cognitions theory that suggests that people may feel that they have been fairly treated, but may still feel dissatisfied with what they receive (Folger, 1986). The reasoning behind this theory is that individuals compare what they receive against what might have been received under different circumstances (using different procedures). If what is received is achieved under the best possible circumstances (through fair procedures), they feel that they have been treated justly, despite feeling dissatisfied if they received less than they expected (Greenberg, 1990a). In sum, pay and justice are distinct but related construct, yet the strength of this relationship shows the potential value of applying justice theory to help predict pay satisfaction consequences. Further, it is important to investigate the separate dimensions of pay satisfaction, just as research has distinguished between the two types of justice. Using this perspective, I will now develop a model that suggests the dimensions of pay satisfaction relate differentially to consequences because of the manner in which pay is administered in organizations. The basic argument is that each dimension of pay satisfaction will have different effects on consequences based on the type of exchange created with the organization: whether the dimension refers to an outcome or a

procedure, and whether the relationship between the consequence variable and pay satisfaction is based on the cognitive or affective component of the pay satisfaction dimension.

Model and Hypotheses

Assumptions and Model Limitations

Before specifying the general model of pay satisfaction consequences, it is important to describe the conceptual boundaries of the model. It should be understood that the purpose of this model is to relate pay satisfaction dimensions with important attitudinal and behavioral consequences in organizations, not to explore the interrelationships of the consequence variables. All theoretical models are “attempts by man to model some aspect of the empirical world” (Dubin, 1976). Theoretical models are simplifications of reality that are limited by such restrictions as methodology and prior research, yet attempt to explain relationships between a subset of a system. The general model of pay satisfaction consequences is no different, focusing only on a subset of the potential consequences that could be studied.

I now discuss the consequence variables used and the reasons for using these variables but not others. The consequences in this model are among the most researched in the organizational sciences, and they measure attitudes and behaviors found to significantly impact organizations (O’Reilly, 1991). In addition, the variables included in the model have been related to both justice and pay satisfaction. Other variables such as trust and perceived organizational support (Eisenberger, Fasolo, & Davis-LaMastro, 1990) have received attention recently, but these variables do not have as established a research stream as those used in the model. Although prior research has investigated the relationship between pay satisfaction and some of these consequence variables, the differential relationships between the dimensions of

pay satisfaction and consequences have not been explored in a single study. The consequences included in the model are the following: job satisfaction, job performance, organizational commitment (both affective and continuance), turnover intentions, and organizational citizenship behaviors (OCBs). Each of these consequences will be briefly described below.

Job satisfaction. Job satisfaction is a “pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1976: 1300). Job satisfaction has been measured in two general ways: the facet approach and the global approach. The facet approach focuses on factors related to the job that contribute to overall satisfaction, one of which is salary. The global approach simply asks if the worker is satisfied overall, and it suggests that workers can be dissatisfied with facets of the job and still be satisfied with the job in general (Smither, 1994). Both approaches have their proponents (Ironson, Smith, Brannick, Gibson & Paul, 1989; Wanous, Reichers, & Hardy, 1997), and there is evidence for a strong relationship between the measures (Wanous et al., 1997). However, using a facet approach here may confound the measurement of job satisfaction and pay satisfaction by measuring the same thing twice. Thus, a global approach will be used. As past research has shown, job satisfaction should have a positive relationship with pay satisfaction and its dimensions (Miceli et al., 1991)

Performance. Performance is defined as the accomplishment of job duties as required by the organization, or as Henry Ford puts it “doing the work that is set before them.” (Likert, 1963). Past research relating job satisfaction to performance has shown negligible relationships with performance (Podsakoff & Williams, 1986; Weiss & Cropanzano, 1996). The lack of a clear relationship between job satisfaction and performance has been attributed to the general nature of the attitude and the specificity of the performance measures (Fisher, 1980). A

potential solution to this problem is to make the attitude more specific (Weiss & Cropanzano, 1996). This is what this study will attempt to do by focusing more precisely on the relationship between a pay satisfaction dimension and performance. Despite the lack of consistency in results relating job satisfaction to performance, it is intuitively appealing to expect that, with a more precise measurement of the attitude, a pay satisfaction dimension, a positive relationship will be found with job performance and this expectation has found recent empirical support (Bretz & Thomas, 1992).

Organizational commitment. Organizational commitment is a psychological state that binds an individual to the organization. It is a link between an employee and the organization that makes turnover less likely (Allen & Meyer, 1990). The general construct can be broken into two independent, but related components: affective (or attitudinal) and continuance (or calculative) commitment (Mathieu & Zajac, 1990). Affective commitment is defined as an employee's emotional attachment to, identification with, and involvement in the organization (Allen & Meyer, 1990). Continuance commitment is a desire to continue to engage in consistent lines of activity as a result of the accumulation of costs which would be lost if the activity were discontinued (Allen & Meyer, 1990; Becker, 1960). As will be established during the development of the general model, this distinction will create relationships between some dimensions of pay satisfaction and certain forms of organizational commitment. It has been suggested that general pay satisfaction will have a positive influence on both forms of organizational commitment (Heneman & Judge, 2000; Lee & Martin, 1996; Shapiro & Wahba, 1978), and this contention has been supported in a recent meta-analysis (Mathieu & Zajac, 1990) and empirical work (Huber, Seybolt, & Veneman, 1992).

Turnover intentions. Turnover intentions measure an individual's thoughts about leaving the organization. According to the classic turnover model, these thoughts are a function of the perceived desirability of leaving and the perceived ease of movement from the organization (March & Simon, 1958). Many researchers suggest that turnover is a multi-stage process that includes attitudinal, decisional, and behavioral components. Individual factors, work-related factors, and economic conditions determine whether an individual will turnover (Lum, Kervin, Clark, Reid, Sirola, 1998). This study will not explore the impact of individual factors or economic conditions on the turnover decision, but focus only on work-related factors, specifically the pay satisfaction dimensions. Further, a link between pay satisfaction and turnover intentions will be explored rather than a direct relationship between pay satisfaction and turnover because prior research has shown that the pay satisfaction-turnover relationship is fully mediated by turnover intentions (Griffeth & Hom, 1995; Mobley, Horner, & Hollingsworth, 1978; Motowildo, 1983; Price & Mueller, 1986). As suggested by prior empirical work, the dimensions of pay satisfaction should have a negative influence on turnover intentions (Miceli et al., 1991; Motowildo, 1983).

Organizational citizenship behaviors (OCBs). OCBs represent "individual behaviors that are discretionary, not directly or implicitly recognized by the formal reward system, and in the aggregate promote the efficient and effective functioning of the organization" (Organ, 1988: 4). Although OCBs are specifically defined as extra-role behaviors that are not rewarded by the organization (Organ & Ryan, 1995), the concept of a psychological contract proposed by Rousseau (1989) may explain why individuals will act to benefit the organization despite not being specifically rewarded. The psychological contract creates certain expectations in the mind

of an individual regarding his or her treatment within the organization. As long as an organization meets these expectations, an individual will continue to engage in behaviors to benefit the organization. These behaviors can be separated into actions that are focused on the organization (OCBOs) and those that are focused on individual employees (OCBIs) that ultimately benefit the organization (Williams & Anderson, 1991). The expectation that satisfaction with pay will have a positive influence on OCBs has been supported in prior research (Blau, 1994; Welbourne & Cable, 1995). Thus, it should be expected that relevant pay satisfaction dimensions positively relate to OCBs.

During the development of the general pay satisfaction consequence model, each of the consequences introduced above will be classified according to (a) the referent at which they are focused; and (b) whether their relationship with pay satisfaction is based on the cognitive or affective component of the dimension. Based on this classification, the consequence will relate to a certain classification of pay satisfaction dimension in a particular manner. These relationships and the theoretical basis for them will now be presented.

General Pay Satisfaction Consequence Model

I will address two issues to support the argument that pay satisfaction dimensions will have separate and important effects on outcomes of value to organizations. The first is that the pay satisfaction dimensions have unique effects on perceptions of organizational justice. This provides a test of the extent to which pay influences fairness perceptions. The second issue is to explain the differential impact of pay satisfaction dimensions on consequences. If the dimensions of pay satisfaction do not have distinguishable impacts on consequences, there is little to be gained from working on a more micro-mediational level (Mathieu & Zajac, 1992). In

these tests, I will determine whether or not these relationships will be direct, mediated or partially mediated by organizational justice. Two typologies will be utilized to address this issue: one classifies the dimensions of pay satisfaction, the other consequences. Both will be discussed in turn, than combined to create the general model of pay satisfaction consequences.

Pay satisfaction dimensions' relationship with organizational justice. As discussed above, research has found a close relationship between pay satisfaction and organizational justice. In most studies, organizational justice is hypothesized to influence pay satisfaction (Davis & Ward, 1995; Dulebohn & Martocchio, 1998; De Connick et al., 1996; Folger & Konovsky, 1989; Scarpello & Jones, 1996). That is, perceptions of fairness regarding procedures used to determine outcomes and perceptions of fairness with the outcomes influence how satisfied an individual is with his or her pay. However, it is also possible that pay satisfaction might influence perceptions of fairness (Heneman & Judge, 2000). Moorman (1991) indirectly supports this possibility showing that procedural justice mediated the relationship between job satisfaction and organizational citizenship behaviors. As I will discuss in detail in Chapter 4, in order for procedural justice to mediate the job satisfaction-OCB relationship, job satisfaction must first influence procedural justice (Baron & Kenny, 1986). If job satisfaction influences procedural justice, it is also possible that pay satisfaction, and its individual dimensions, may also influence organizational justice.

Heneman and Judge (2000) offer guidance on how the individual pay satisfaction dimensions will influence the two types of organizational justice. They propose that the pay satisfaction dimensions that focus on an outcome (e.g. pay level satisfaction, raise satisfaction and benefit satisfaction) relate to distributive justice, while those that focus on processes (e.g.

structure/administration satisfaction) relate to procedural justice. Using the work of Moorman (1991) and Heneman and Judge (2000), the following relationships between the dimensions of pay satisfaction and the types of organizational justice are proposed:

Proposition 1: The outcome-based pay satisfaction dimensions will have a positive relationship with distributive justice.

Proposition 2: The procedure-based pay satisfaction dimensions will have a positive relationship with procedural justice.

In order to determine which dimensions of pay satisfaction will fall into each category, outcome-based or procedure-based, and how those dimensions might differentially relate to consequences I will now create a typology that classifies the dimensions of pay satisfaction.

Classification of pay satisfaction dimensions. The primary explanation for differential relationships between pay satisfaction dimensions and consequences stems from the concept of administrative independence (Heneman & Schwab, 1985). The various dimensions of pay are experienced differently by individuals and will therefore elicit distinctive reactions. In order to explain why pay dimensions are experienced differently, it is useful to classify the dimensions of pay satisfaction in a manner that represents how individuals experience pay. As shown in Table 3, the dimensions of pay satisfaction can be classified using a two-by-two typology that focuses on the type of exchange created with the organization and whether the pay dimension represents satisfaction with an outcome and/or a process.

The first dimension of the typology, which explains why the dimensions of pay will be experienced differently, emerges from the precepts of social exchange theory (Blau, 1964). According to social exchange theory, there are two types of exchanges that occur between an

Table 3

Pay Satisfaction Dimension Typology

Pay Dimension Form

		Outcome	Procedure
Type of Exchange	Economic	Outcome Based Economic Exchange	Procedure-Based Economic Exchange
	Social	Outcome-Based Social Exchange	Procedure-Based Social Exchange

organization and its employees: economic and social. When an employee puts forth effort or engages in work activity in return for direct compensation from the employer (e.g., a pay check on Friday for the previous week's work) an economic exchange occurs. Social exchanges are based on the belief that the relationship will fulfill unspecified future obligations rather than a simple economic exchange in the current time period (Blau, 1964). In organizations, it is the employee who normally engages in some type of behavior that is beneficial to the organization with the expectation that the organization will reciprocate at some future date.

The manner in which different types of pay are administered in organizations can be seen as important components in either economic or social exchanges. Each of the dimensions of pay satisfaction has elements of economic and/or social exchanges, with the specific elements being dependent upon the conceptualization of pay satisfaction. As an example, pay level refers to the wages or salary that employees receive for their work in the organization (Heneman & Schwab, 1985). Pay level is a specific amount of money received from employers and can be compared to the effort employees put forth. This transaction of effort and work on the part of the employee for wages or salary on the part of the organization creates an economic exchange.

Some benefits (e.g., retirement pensions, health insurance), on the other hand, will form the basis of a social exchange between the organization and employee. To earn these benefits employees work for the organization with the belief that the benefits will be paid out at some later date (Dreher, Ash, & Bretz, 1988). Employees put forth effort for the organization in return for the promise of benefits, such as health insurance and retirement benefits, with the expectation that if they become ill or retire, the organization will pay. Therefore, some benefits create social exchanges between employees and organizations (Blau, 1964).

Depending on the type of exchange developed, associations with certain consequences will result. Economic exchanges will more likely elicit reactions based on a calculation. An individual will compare his or her effort and work put forth for the organization to the particular type of pay received from the organization and, based on this comparison, will develop some attitude or engage in a particular behavior. Alternatively, social exchanges will create an affective reaction leading to other attitudes and behaviors. If employees feel the organization will reciprocate their current efforts with future benefits, positive attitudes and behaviors will result; if not, the opposite will occur. The focus of these attitudes and behaviors will be a result of whether the pay dimension takes on the form of an outcome or a procedure.

The second dimension of the typology builds on organizational justice research that has consistently shown that perceptions of fairness regarding procedures and perceptions of fairness about outcomes impact different types of variables. The justice literature has repeatedly shown that distributive justice is more closely related to consequences focused on the job and that procedural justice relates more closely to consequences focused on the organization as a whole (Dulebohn & Martocchio, 1996; Folger & Konovsky, 1989; Greenberg, 1987; Cropanzano & Greenberg, 1997; McFarlin & Sweeney, 1992; Sweeney & McFarlin, 1992; Welbourne, 1998). Therefore, if a dimension of pay satisfaction is a result of a procedure, it will relate to consequences focused on the organization as a whole. For example, structure/administration satisfaction will relate to organization commitment. If a pay satisfaction dimension is based on an outcome, it will influence consequences related to the individual's job. For example, raise satisfaction will relate to job satisfaction.

The next step in the development of the pay satisfaction consequence model is to classify potential consequences. This classification will clarify which variables refer to the organization as a whole and which refer to the job and suggest whether the relationship between pay satisfaction and the outcome will be direct or mediated by justice.

Classification of pay satisfaction consequences. As shown in Table 4, potential consequences can be classified along two dimensions: consequence referent (or focus) and basis for influence. The first dimension of the typology classifies consequences according to the focus of the attitude or behavior. Consequences classified as organizational referents are those attitudes and behaviors directed towards the organization as a whole. Organization referent consequences in this model include organizational commitment (both affective and continuance), organizational citizenship behaviors focused on the organization, and turnover intentions. These outcomes are classified consistently with prior work in which organizational commitment is defined as a psychological state which binds an individual to the organization (Allen & Meyer, 1990); organizational citizenship behaviors are actions that promote the efficient and effective functioning of the organization (Organ, 1988); and turnover intentions measure an individual's thoughts about leaving the organization (Lum, Kervin, Clark, Reid, & Sirola, 1998).

Job referent attitudes and behaviors are those related to the personal circumstances of the employee. The job referent consequences that will be used in this model include job satisfaction, which is the individual's affective reaction to the job; job performance, which measures the employee's achievement in required activities (Welbourne et al., 1998); and organizational citizenship behaviors that focus directly on co-workers (Williams & Anderson, 1991).

Table 4

Classification of Consequences

		Basis of Influence	
		Cognitive Component	Affective Component
Consequent Referent	Organizational Focus	Organizational Citizenship Behaviors: Organization Focus Continuance Commitment Turnover Intentions	Affective Commitment
	Job Focus	Job Performance Organizational Citizenship Behaviors: Individual Focus	Job Satisfaction

This distinction between consequences focused on the organization as a whole and those focused on the job is important because it suggests how pay satisfaction dimensions relate to specific consequences. The next dimension in the consequence typology will suggest whether the relationships between the dimensions of pay satisfaction and consequences will be direct or mediated by organizational justice.

The second dimension of the consequence typology, “basis of influence,” attempts to capture the reason how and why the particular consequence will relate to pay satisfaction. This line of thinking follows the work of Moorman (1991) in which the relationship between organizational citizenship behaviors and global job satisfaction was mediated by procedural justice. Moorman (1991) uses the work of Organ (1988a, 1988b) to explain that the cognitive component of job satisfaction, which appears to account for the relationship of job satisfaction and organizational citizenship behaviors, actually reflects the influence of fairness perceptions. Through an examination of job satisfaction definitions and measures, Organ (1988b) came to the conclusion that “because cognitions are such a direct and immediate determinant of these feelings (of job satisfaction), both components of attitude are strongly represented in (employee’s) responses” (p. 551). Moorman (1991) found support for Organ’s (1988a) suggestion that if job satisfaction and fairness perceptions (justice) are both measured, job satisfaction will no longer be related to organizational citizenship behaviors, because organizational justice more cleanly taps cognitions.

In addition to pay satisfaction’s cognitive component, it also represents the amount of overall affect that individuals have toward pay or a component of pay (Miceli & Lane, 1991). A cognitive process, such as the process described in the modified discrepancy model (Heneman &

Schwab, 1985), is hypothesized to determine this affective reaction. Therefore, similar to job satisfaction, pay satisfaction has both cognitive and affective components (Moorman, 1991; Organ, 1988b). Zajonc (1980) suggests that cognition and affect are not necessarily tightly bound and may operate in a semi-independent fashion.

Consistent with Moorman (1991), I expect that when the cognitive component of pay satisfaction causes the relationship with a consequence, the relationship will be mediated or partially mediated by organizational justice. This is because justice more cleanly taps cognition. However, if the affective component creates the relationship between the pay satisfaction dimension and the consequence, pay satisfaction should have a direct relationship with the outcome.

As shown in Table 4, performance, organizational citizenship behaviors, turnover intentions and continuance commitment are considered to relate to pay satisfaction because of the cognitive process that determines satisfaction. In each of these relationships, an employee uses a cognitive process, such as the one described in the modified discrepancy model, to determine whether or not he or she should engage in a particular behavior or be committed to an organization. According to the modified discrepancy model, if there is a discrepancy between what is expected and what is received an employee will react negatively; if there is not, reaction will be positive.

Affective commitment and job satisfaction are both related to pay satisfaction based on its affective component. Affective commitment will be related to the affective component of pay satisfaction because affective commitment measures an individual's attachment to the organization for its own sake apart from its purely instrumental, or economic, worth (Buchanan,

1974). Thus, the affective reaction to pay will influence an individual's commitment to an organization beyond economic concerns. Similarly, job satisfaction is an affective reaction to the overall job, including pay (Futrell & Varadarajan, 1985; Judge, 1993; Smith et al., 1969; Weiss et al., 1967). Workers who perceive that pay is equitable tend to report higher levels of job satisfaction (Day & Schoenrade, 1997). Therefore, the affective reaction to pay will influence the affective reaction to the overall job.

By combining the pay satisfaction dimension typology and the consequence typology, the general model of pay satisfaction consequences is revealed. As shown in Figure 6, the hypothesized effect of a pay satisfaction dimension depends on the specific class of consequences to which it will relate. Summarizing the main points from the previous sections: a) if the dimension of pay satisfaction represents an economic exchange, it will relate to consequences that are determined through a calculation; b) if a dimension of pay satisfaction represents a social exchange with the organization, it will relate to consequences that are feelings, or affective reactions; c) if the dimension of pay satisfaction is considered a procedure it will relate to consequences focused on the organization as a whole; d) if it is considered an outcome it will relate to consequences focused on the job; e) if the consequence is related to pay satisfaction because of the dimension's cognitive component, the relationship will be mediated by organizational justice; and f) if the relationship is based on pay satisfaction's affective component, the relationship will be direct.

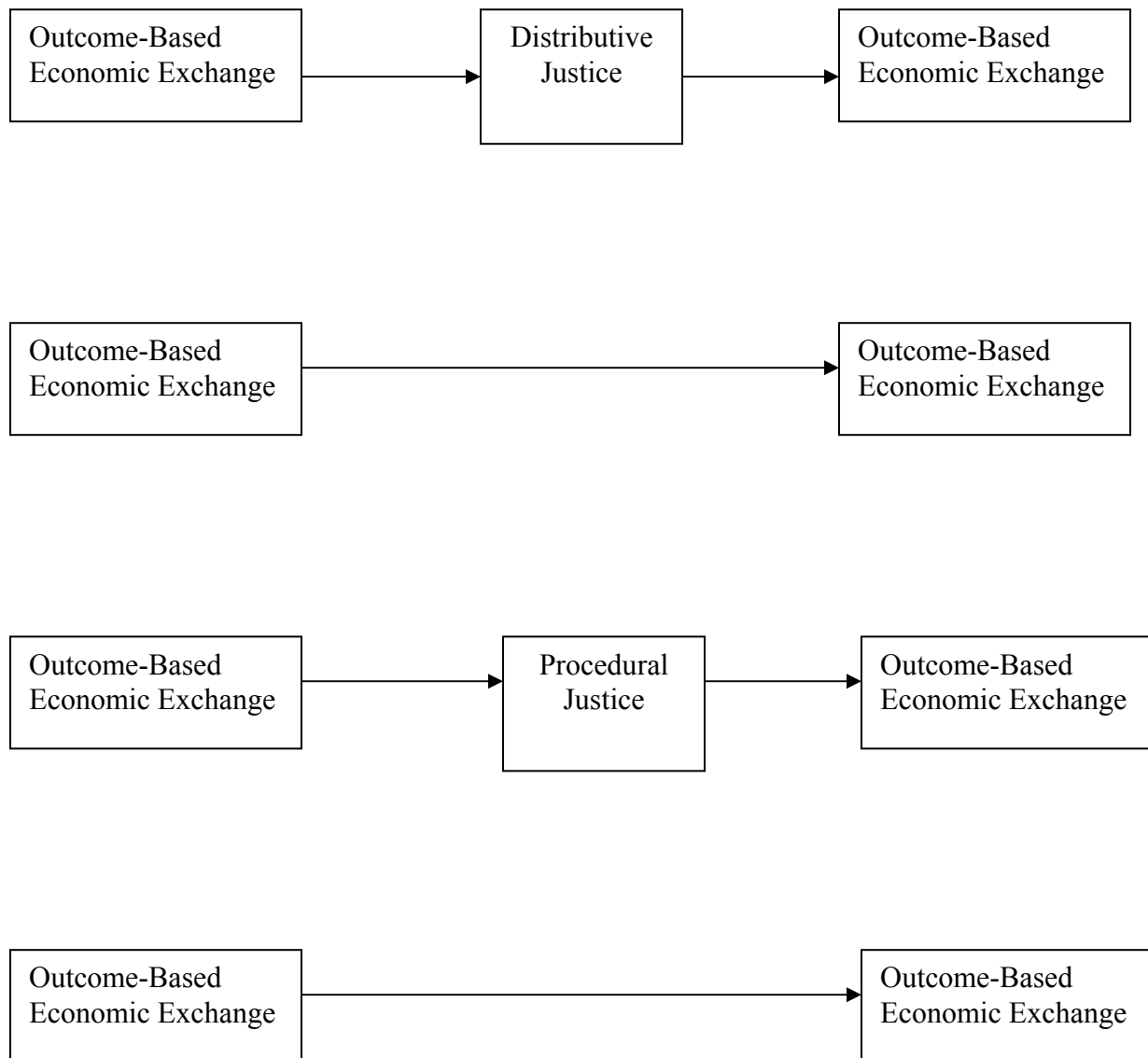


Figure 6

General Pay Satisfaction Consequences Model

Thus, using these major points, four propositions emerge:

Proposition 3: Distributive justice will mediate the relationship between outcome-based pay satisfaction dimensions that create an economic exchange and job-focused consequences whose relationship with pay satisfaction is based upon cognitive processes.

Proposition 4: Outcome-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with job-focused consequences whose relationship with pay satisfaction is based upon affect.

Proposition 5: Procedural justice will mediate the relationship between procedure-based pay satisfaction dimensions that create an economic exchange with the organization and organization-focused consequences whose relationship with pay satisfaction is based upon cognitive process.

Proposition 6: Procedure-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with organization-focused consequences whose relationship with pay satisfaction is based upon affect.

Application of the Pay Satisfaction Consequence Model

The remainder of this dissertation will be dedicated to testing the pay satisfaction consequence model's six propositions that are intended to be generalizable to any pay satisfaction conceptualization's dimensionality. Yet, to apply this model to a specific conceptualization of pay satisfaction (e.g., Heneman & Schwab, 1985; Miceli & Lane, 1991; Williams et al., 1999), one must classify each dimension of pay satisfaction considering the typology set out in Table 3 and then test. To classify each pay dimension, one should be able to read the definition and classify it based on what the dimension purports to measure.

Table 5

Classification of Pay Satisfaction Dimensions

Outcome-Based Economic Exchange	Outcome-Based Social Exchange	Procedure-Based Economic Exchange	Procedure-Based Social Exchange
Pay Level (H) (M) (W)	Raise (H) (W)	Structure/ Administration (H)	Structure/ Administration (H)
Raise (H) (W)	Benefits (H)	Raise (H) (W)	Raise (H) (W)
Benefits (H)	Benefit Level (M) (W)	Benefit System (M) (W)	Benefit System (M)
Benefit Level (M) (W)	Contingent Pay (S)	Pay System (Range) (M)	Pay System (Hierarchy) (M)
Contingent Pay (S)		Pay Structure (W)	Benefit Administration (W)
		Contingent Pay (S)	Pay System (W)
			Contingent Pay (S)

(H) = Heneman & Schwab (1985)

(M) = Miceli & Lane (1991)

(W) = Williams, Carraher, Brower & McManus (1999)

(S) = Sturman & Short (2000)

Unfortunately, in many instances what the definition states and what is measured do not match perfectly. Therefore, both the definition and the actual scale items will guide the classification of the dimensions of the modified discrepancy model. Table 5 illustrates how the dimensions of pay satisfaction can be classified according to the previously discussed typology using several conceptualizations of pay satisfaction (Heneman & Schwab, 1985; Miceli & Lane, 1991; Sturman & Short, 2000; Williams et al., 1999). To test the general pay satisfaction consequence model, I will rely on the dimensionality of pay satisfaction suggested by Heneman and Schwab (1985), measured by the Pay Satisfaction Questionnaire (PSQ). The reason that this conceptualization is used is that its dimensionality has received empirical support and it is the most widely used and tested measure of pay satisfaction (Carragher, 1991; Carragher & Buckley, 1996; DeConnick et al., 1996; Heneman & Schwab, 1985; Judge, 1993; Judge & Welbourne, 1994; Scarpello et al., 1988; Sturman & Short, 2000). Figure 7 illustrates the hypothesized relationships.

Organizational Justice

According to the pay satisfaction consequences model, pay satisfaction dimensions that focus on outcomes relate to distributive justice, while the pay satisfaction dimensions that focus on processes relate to procedural justice. Heneman and Judge (2000) suggest that pay level satisfaction, raise satisfaction, and benefit satisfaction relate to distributive justice and structure/administration satisfaction relates to procedural justice. This study follows the work of Heneman and Judge (2000) with one exception. As noted above, the manner in which the dimension of pay satisfaction is measured will influence how the dimension is classified.

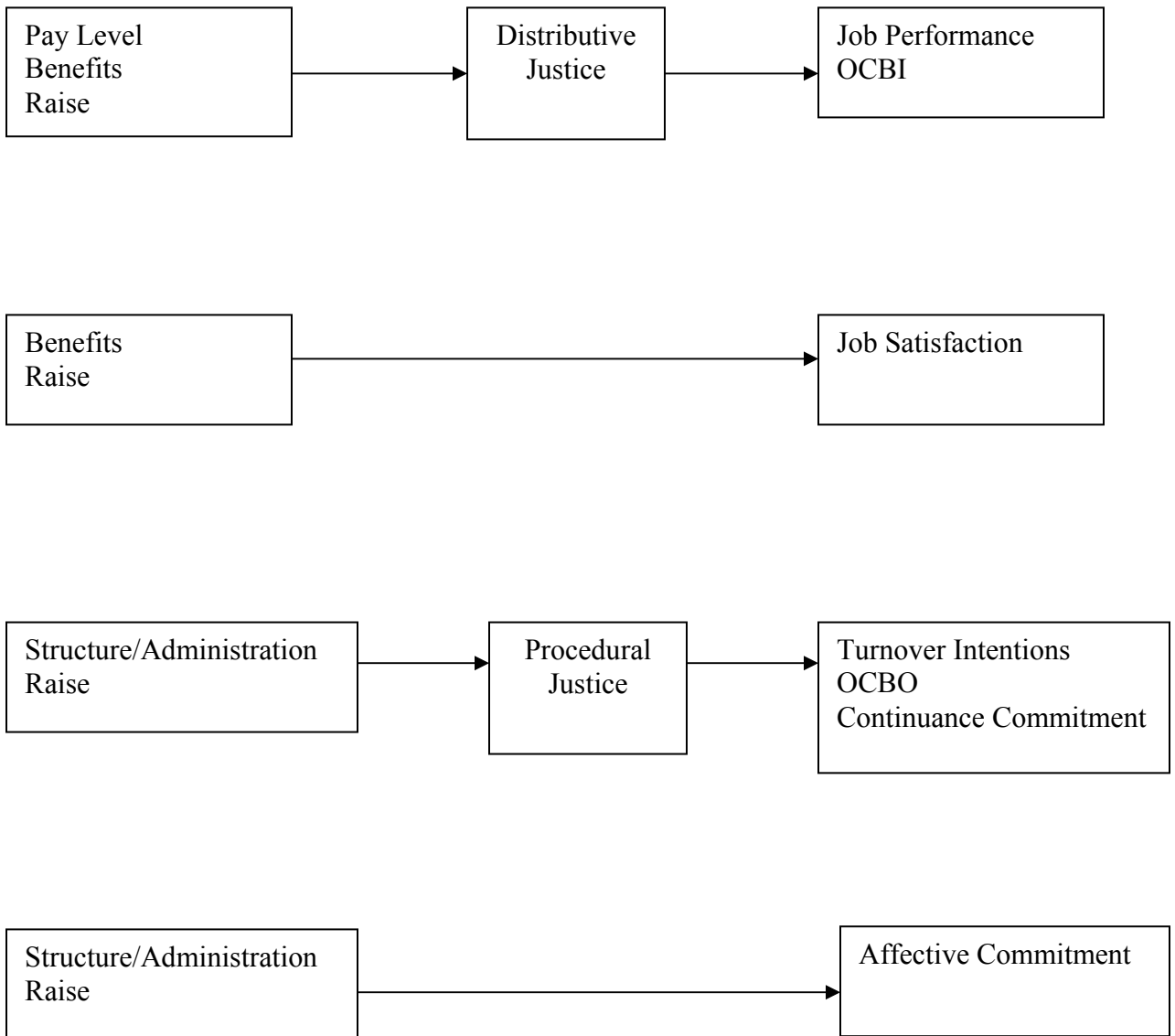


Figure 7

Application of the General Pay Satisfaction Consequences Model

Raise satisfaction is an individual's satisfaction with the changes in his or her pay (Heneman & Schwab, 1985). However, as measured by the PSQ, past studies have found that an employees' satisfaction with how raises are determined is also captured (Carragher, 1991). For this reason, raise satisfaction will not only influence distributive justice, but procedural justice as well.

In past studies, a positive relationship between organizational justice and pay satisfaction has consistently been found (Davis & Ward, 1995; Dulebohn & Martocchio, 1998; DeConnick et al, 1996; Moorman, 1991). In these studies it is presumed that justice influences satisfaction. However, these studies use cross-sectional designs and collect data using surveys. It is difficult to determine causality in these studies due to potential common method variance and the lack of temporal precedence (Heneman & Judge, 2000). Since it is equally likely that the opposite causality may occur, this study will test the possibility that the more satisfied an individual is with his or her pay, the more likely he or she will perceive fairness. Thus,

Hypothesis 1: Pay level satisfaction has a positive relationship with distributive justice.

Hypothesis 2: Benefit satisfaction has a positive relationship with distributive justice.

Hypothesis 3: Raise satisfaction has a positive relationship with distributive justice.

Hypothesis 4: Raise satisfaction has a positive relationship with procedural justice.

Hypothesis 5: Structure/ administration satisfaction has a positive relationship with procedural justice.

Proposition 3

According to Proposition 3, distributive justice will mediate the relationship between outcome-based pay satisfaction dimensions that create an economic exchange and job-focused consequences whose relationship with pay satisfaction is based upon cognitive processes. As defined by Heneman and Schwab (1985), pay level satisfaction is satisfaction with current wages or salary, benefit satisfaction is an individual's satisfaction with the indirect pay the individual receives in the form of time not worked, insurance, pensions, income maintenance, and miscellaneous services, and raise satisfaction is satisfaction with the change in an individual's pay level. These dimensions of pay satisfaction are considered to be outcome-based because they relate to something the individual receives. For pay level it is a paycheck, be it a wage or salary; for benefits it is a day off with pay or a service; and for raises it is an increase in his or her wage or salary.

Pay level, benefits, and raises create an economic exchange with organizations because the employee receives these outcomes in return for the quality and quantity of work performed. If an employee is paid on an hourly basis, the more hours he or she works, the larger the paycheck. The longer the employee works for an organization, the better benefits he or she receives (e.g. longer vacations). Finally, raises create an economic exchange as the individual receives larger increases in pay for better work (merit) or longer service (seniority).

These dimensions of pay satisfaction are hypothesized to indirectly influence job performance and organizational citizenship behaviors directed at individuals. Although both of these variables may eventually benefit the organization, they are specifically directed at the individual, or job level. The person's job performance is focused on the tasks that he or she is personally required to accomplish. OCBI are efforts to help co-workers perform their duties, rather than extra effort directed at helping the organization as a whole (Williams & Anderson, 1991).

When determining whether or not to engage in these behaviors, it is proposed that the individual will use a cognitive process to determine whether or not the organization has fairly compensated them in the form of pay, benefits, or raises. Since distributive justice more accurately measures this cognitive process (Moorman, 1991), distributive justice will mediate the pay satisfaction dimension's influence on job performance and OCBI. Past research has found a positive relationship between pay satisfaction and job performance (Bretz & Thomas, 1992) and OCBI (Welbourne & Cable, 1995) that should be replicated in this study. In order to support a mediated relationship it is necessary to first show that each dimension of pay satisfaction has a significant relationship with job performance and OCBI and then show that this relationship loses its significance once the influence of distributive justice is taken into account. Thus,

Hypothesis 6 (a): Pay level satisfaction will have a positive relationship with job performance.

Hypothesis 6 (b): Distributive justice will mediate the relationship between pay level satisfaction and job performance.

Hypothesis 7 (a): Benefit satisfaction will have a positive relationship with job performance.

Hypothesis 7 (b): Distributive justice will mediate the relationship between benefit satisfaction and job performance.

Hypothesis 8 (a): Raise satisfaction will have a positive relationship with job performance.

Hypothesis 8 (b): Distributive justice will mediate the relationship between raise satisfaction and job performance.

Hypothesis 9 (a): Pay level satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals.

Hypothesis 9 (b): Distributive justice will mediate the relationship between pay level satisfaction and organizational citizenship behaviors directed at individuals.

Hypothesis 10 (a): Benefit satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals.

Hypothesis 10 (b): Distributive justice will mediate the relationship between benefit satisfaction and organizational citizenship behaviors directed at individuals.

Hypothesis 11 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals.

Hypothesis 11 (b): Distributive justice will mediate the relationship between raise satisfaction and organizational citizenship behaviors directed at individuals.

Proposition 4

Proposition 4 suggests that outcome-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with job-focused consequences whose relationship with pay satisfaction is based on affect. As shown in Figure 7, benefit satisfaction and raise satisfaction are the pay satisfaction dimensions that fall into this category. Consistent with the discussion in the previous section, both are outcome-based because they focus on something the individual receives from the organization. They are considered to create a social exchange with the organization because the employee might not immediately receive the outcomes. The individual must engage in some work behavior with the expectation that the organization will reciprocate at a later date. For example, an individual works so that he or she will be covered under the organization's health insurance and retirement plan. However, these benefits will not be received until an individual becomes sick or retires. Similarly, raises are generally only given once or twice a year. To receive an increase in pay, the individual must engage in a certain level of work behavior over a period of time prior to the receiving the raise.

Job satisfaction is the sole job-focused consequence that is hypothesized to relate to pay satisfaction based on an affective reaction. Job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976:1300). This positive emotional state is likely to occur if the expectations of an individual regarding his or her benefits and raises have been met through prior experiences. That is, if an individual has received the expected benefits and raises promised by the organization, he or she will be more satisfied with his or her job.

Consistent with this expectation, prior research has found that workers who perceive that pay is equitable tend to report higher levels of job satisfaction (Day & Schoenrade, 1997).

Thus,

Hypothesis 12: Benefit satisfaction will have a positive relationship with job satisfaction

Hypothesis 13: Raise satisfaction will have a positive relationship with job satisfaction

Proposition 5

According to Proposition 5, procedural justice will mediate the relationship between procedure-based pay satisfaction dimensions that create an economic exchange and organization-focused consequences whose relationship with pay satisfaction is based upon cognitive processes. As presented in Figure 7, raise satisfaction and structure/administration satisfaction are the procedure-based pay satisfaction dimensions and they create not only economic exchanges, but social exchanges as well.

Raise satisfaction is defined as satisfaction with changes in an individual's pay level (Heneman & Schwab, 1985). This suggests that it is outcome-based, which it is, as noted above. However, as discussed during the classification of the pay satisfaction dimensions, the manner in which the construct is measured must also be taken into consideration. In previous research, raise satisfaction items have loaded on the structure/administration dimension (Carragher, 1991), which suggests that, raise satisfaction, as measured by the PSQ, also captures an individual's satisfaction with the procedures used to determine raises. For this reason, raise satisfaction is also classified as a procedure-based dimension of pay satisfaction in this study.

As discussed above, raises will create both an economic and social exchange with organizations. An economic transaction takes place when the individual receives a raise. The monetary amount of the raise can be compared against the amount of effort and work put forth on the part of the worker. If there is a discrepancy between what is expected and what is received, dissatisfaction will result which will lead to the proposed consequences. Raises also create a social exchange with the organization because raises are received infrequently and in some cases, are not assured. Employees put forth effort in hopes that they will be reciprocated in the future by the organization with a raise. This current effort in hopes of a future payoff will create a social exchange.

Structure/administration refers to the hierarchical relationships created among pay rates for different jobs within the organization (Heneman & Schwab, 1985). These hierarchical relationships are created by the procedures and policies that are used by the organization to determine pay. Thus, satisfaction with structure/administration captures reactions towards policies and procedures and should be classified as a procedure. The issue is to determine whether structure/administration satisfaction creates a social or economic exchange. The answer is both. The pay structure/administration will determine both how employees are currently paid as well as how the employees believe they will be paid in the future. Therefore, employees will assess the current hierarchical distributions of pay throughout the organization to determine if the economic relationship with the organization is satisfactory. In addition, they will also consider whether or not the pay policies and procedures in place will lead to the satisfaction of future needs, creating a social exchange. If employees believe that the pay structure/ administration creates satisfactory economic and social exchanges with the organization they will have

positive attitudes towards the organization and engage in positive behaviors that are directed at the organization.

Therefore, raise satisfaction and structure/administration satisfaction will impact consequences focused on the organization as a whole whether the relationship is based on cognition or affect. Procedural justice will mediate the relationships based on the cognitive component of structure/administration satisfaction, while the relationships that are based on an affective reaction will be direct.

Turnover intention is the first consequence that is expected to relate to the procedure-based pay satisfaction dimensions based on cognitive processes. Turnover intentions measure an individual's thoughts about leaving the organization. According to the classic turnover model, these thoughts are a function of the perceived desirability of leaving and the perceived ease of movement from the organization (March & Simon, 1958). Individual factors, work-related factors, and economic conditions determine whether an individual will turnover (Lum, Kervin, Clark, Reid, & Sirola, 1998). An individual will assess his or her current situation in the organization based on how pay is determined in the organization and assess whether or not other alternatives are available that make movement desirable. If the individual determines other organizations might use procedures that would provide them with more favorable pay packages than what is provided by the current organization, satisfaction will decline and turnover intentions will increase. Since this assessment is based on a cognitive process, the relationship will be mediated by fairness perceptions, specifically procedural justice. As suggested by prior empirical work, the dimensions of pay satisfaction should have a negative influence on turnover intentions (Miceli et al., 1991; Motowildo, 1983). Thus,

Hypothesis 14 (a): Raise satisfaction will have a negative relationship with turnover intentions.

Hypothesis 14 (b): Procedural justice will mediate the relationship between raise satisfaction and turnover intentions.

Hypothesis 15 (a): Structure/administration satisfaction will have a negative relationship with turnover intentions.

Hypothesis 15 (b): Procedural justice will mediate the relationship between structure/ administration satisfaction and turnover intentions.

Raise satisfaction and structure/administration satisfaction are hypothesized to indirectly influence organizational citizenship behaviors directed at the organization. OCBOs are defined as extra-role behaviors that benefit the organization as a whole such as giving prior notice when unable to attend work and adherence to informal rules devised to maintain order (Williams & Anderson, 1991). Although, by definition, these behaviors are not formally rewarded by the organization, an individual's satisfaction with how pay is determined in the organization will influence the likelihood that he or she will engage in these behaviors. The use of fair procedures suggests to employees that they are valued by the organization, and creates a climate in the organization conducive to organizational citizenship behaviors (Lind & Earley, 1991). A perception on the part of an employee that fair procedures are used, or satisfaction with those procedures that are used to determine pay within the organization will determine whether or not employees engage in organizational citizenship behaviors (Moorman, Blakely, & Niehoff, 1998). Thus,

Hypothesis 16 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization.

Hypothesis 16 (b): Procedural justice will mediate the relationship between raise satisfaction and organizational citizenship behaviors directed at the organization.

Hypothesis 17 (a): Structure/administration satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization.

Hypothesis 17 (b): Procedural justice will mediate the relationship between structure/ administration satisfaction and organizational citizenship behaviors directed at the organization.

The final consequence that is hypothesized to indirectly relate to raise satisfaction and structure/administration is continuance commitment. Continuance commitment is based on an individual's perception that he or she has "sunk costs" in the organization that cannot be recovered if he or she leaves the organization (Allen & Meyer, 1990; Becker, 1960). Similar to turnover intentions, an individual will assess his or her current situation with the organization as compared to alternatives available outside the organization. If this calculation suggests that the current situation is best, he or she will have higher levels of continuance commitment. If other alternatives are more desirable, continuance commitment will be low. Part of this determination will relate to satisfaction with procedures used to determine pay in the organization. If an individual is satisfied with the procedures, it is likely that continuance commitment will be higher. Since satisfaction with procedures is based on a cognitive process that calculates the most favorable alternative for the individual, procedural justice will mediate the relationship

between raise satisfaction and structure/administration satisfaction and continuance commitment. Thus,

Hypothesis 18 (a): Raise satisfaction will have a positive relationship with continuance commitment.

Hypothesis 18 (b): Procedural justice will mediate the relationship between raise satisfaction and continuance commitment.

Hypothesis 19 (a): Structure/administration satisfaction will have a positive relationship with continuance commitment.

Hypothesis 19 (b): Procedural justice will mediate the relationship between structure/ administration satisfaction and continuance commitment.

Proposition 6

Proposition 6 suggests that procedure-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with organization-focused consequences whose relationship with pay satisfaction is based on affect. As discussed above, raise satisfaction and structure/administration satisfaction are the relevant pay satisfaction dimensions for these relationships.

Affective commitment is the sole organization-focused consequence that is hypothesized to relate to pay satisfaction based on affect. Affective commitment should be related to the affective component of pay satisfaction because affective commitment measures an individual's attachment to the organization apart from purely its instrumental, or economic, worth (Buchanan, 1974). An individual is not attached to the organization because of what the organization gives to him or her in exchange for work, but because of his or her identification and involvement in the organization (Porter,

Steers, Mowday, & Boulian, 1974). This identification and involvement in the organization may be related to his or her satisfaction with the procedures used to determine pay. Consistent with work relating global job satisfaction to organizational commitment (Porter et al., 1974), raise and structure/ administration satisfaction is expected to relate positively to affective commitment. Thus,

Hypothesis 20: Raise satisfaction will have a positive relationship with affective commitment.

Hypothesis 21: Structure/administration satisfaction will have a positive relationship with affective commitment.

Table 6

Summary of Propositions and Hypotheses

Proposition 1: The outcome-based pay satisfaction dimensions will have a positive relationship with distributive justice.

Hypothesis 1: Pay level satisfaction has a positive relationship with distributive justice.

Hypothesis 2: Benefit satisfaction has a positive relationship with distributive justice.

Hypothesis 3: Raise satisfaction has a positive relationship with distributive justice.

Proposition 2: The procedure based pay satisfaction dimensions will have a positive relationship with procedural justice.

Hypothesis 4: Raise satisfaction has a positive relationship with procedural justice.

Hypothesis 5: Structure/administration satisfaction has a positive relationship with procedural justice.

Proposition 3: Distributive justice will mediate the relationship between outcome-based pay satisfaction dimensions that create an economic exchange and job-focused consequences whose relationship with pay satisfaction is based upon cognitive processes.

Hypothesis 6 (a): Pay level satisfaction will have a positive relationship with job performance.

Hypothesis 6 (b): Distributive justice mediates the relationship between pay level satisfaction and job performance.

Hypothesis 7 (a): Benefit satisfaction will have a positive relationship with job performance.

Hypothesis 7 (b): Distributive justice mediates the relationship between benefit satisfaction and job performance.

Hypothesis 8 (a): Raise satisfaction will have a positive relationship with job performance.

Table continues

Hypothesis 8 (b): Distributive justice mediates the relationship between raise satisfaction and job performance.

Hypothesis 9 (a): Pay level satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals.

Hypothesis 9 (b): Distributive justice mediates the relationship between pay level satisfaction and organizational citizenship behaviors directed at individuals.

Hypothesis 10 (a): Benefit satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals.

Hypothesis 10 (b): Distributive justice mediates the relationship between benefit satisfaction and organizational citizenship behaviors directed at individuals.

Hypothesis 11 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals.

Hypothesis 11 (b): Distributive justice mediates the relationship between raise satisfaction and organizational citizenship behaviors directed at individuals.

Proposition 4: Outcome-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with job-focused consequences whose relationship with pay satisfaction is based upon affect.

Hypothesis 12: Benefit satisfaction will have a direct positive relationship with job satisfaction.

Hypothesis 13: Raise satisfaction will have a direct positive relationship with job satisfaction.

Proposition 5: Procedural justice will mediate the relationship between procedure-based pay satisfaction dimensions that create an economic exchange with the organization and organization-focused consequences whose relationship with pay satisfaction is based upon cognitive process.

Hypothesis 14 (a): Raise satisfaction will have a negative relationship with turnover intentions.

Hypothesis 14 (b): Procedural justice mediates the relationship between raise satisfaction and turnover intentions.

Hypothesis 15 (a): Structure/administration satisfaction will have a negative relationship with turnover intentions.

Table continues

Hypothesis 15 (b): Procedural justice mediates the relationship between structure/administration satisfaction and turnover intentions.

Hypothesis 16 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization.

Hypothesis 16 (b): Procedural justice mediates the relationship between raise satisfaction and organizational citizenship behaviors directed at the organization.

Hypothesis 17 (a): Structure/administration satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization.

Hypothesis 17 (b): Procedural justice mediates the relationship between structure/administration satisfaction and organizational citizenship behaviors directed at the organization.

Hypothesis 18 (a): Raise satisfaction will have a positive relationship with continuance commitment.

Hypothesis 18 (b): Procedural justice mediates the relationship between raise satisfaction and continuance commitment.

Hypothesis 19 (a): Structure/administration satisfaction will have a positive relationship with continuance commitment.

Hypothesis 19 (b): Procedural justice mediates the relationship between structure/administration satisfaction and continuance commitment.

Proposition 6: Procedure-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with organization-focused consequences whose relationship with pay satisfaction is based upon affect.

Hypothesis 20: Raise satisfaction will have a direct positive relationship with affective commitment.

Hypothesis 21: Structure/administration satisfaction will have a direct positive relationship with affective commitment.

Chapter 4

Method

Sample

The data to test the hypotheses were collected from a large public sector state agency in a southeastern state. The purpose of the agency is to develop, maintain, and support the state's transportation and water resource infrastructure to serve the needs of the public. The data were collected from the centrally located headquarters in the state capital. Data was collected from all divisions in the department including engineering, construction, and service groups that employ professional, managerial, technical, and administrative personnel. Since this organization is a state agency, its pay system is very structured according to General Schedule (GS) levels. There is a publicly available range of pay that can be earned by an individual within a certain GS level before he or she can move to another pay grade by demonstrating an increase in skill level and gaining an increase in responsibilities. Benefit coverage is consistent across all levels, except that the amount of life insurance coverage increases with GS level. All employees are eligible for: group hospitalization and dental insurance; sick, annual, military, civil, and funeral leave; paid holidays; tuition reimbursement; the state retirement plan; and deferred compensation.

Approximately 650 employees worked in the department's headquarters. Five hundred twenty-six returned subordinate surveys (81%). Of these, 323 were matched with supervisor surveys for a 49.6% response rate for all analyses. However, matched surveys are not needed for all analyses. Using data obtained from the human resource department and comparing matched with unmatched surveys, no significant differences

were found between respondents and non-respondents with respect to age, race, gender, marital status, job level, salary, organizational tenure or job tenure. Thus, the sample was representative of the larger population of employees.

The subjects were divided into three employee groupings: middle and top level managers (25%), front-line managers (12.7%), and operational employees (60.1%). Education level of the respondents was as follows: high school diploma or less (14.6%), some college or technical school (38.6%), undergraduate degree (35.8%), some graduate school (5.6%), and graduate degree (5.3%). The average salary of the employees was \$37,267 (SD = \$13,717), within a range from \$11,000 to \$95,000. Respondents were from 19 to 66 years old, with an average age of 43.2 years. Organizational tenure ranged from new hires to 37 years with the organization, with an average 14.2 years of service. The respondents had been in their current position an average of four years and eight months with a range of one month to 30 years. Fifty-six percent of the employees were male, and 20% of the employees were minorities.

Procedure

A survey measuring pay satisfaction, job satisfaction, intention to turnover, organizational commitment, and demographic information was administered to employees attending one of 16 required meetings held in the department's auditorium. Prior to the meetings, each employee received a letter from the human resource department stating the purpose and importance of the survey. To reduce any fears about confidentiality, I made a brief presentation before each administration stating who I was, the purpose of the survey, and how the surveys would be handled. After turning in the employee survey, respondents were asked if they had any supervisory duties. If so, the

employee was given another survey for each of his or her subordinates which measured performance and organizational citizenship behaviors along with a self-addressed, stamped envelope to be returned directly to me.

Measures

Employee survey

With the exception of demographic data and salary information, all responses were answered on a seven-point Likert-type scale. A complete list of the survey items grouped by variable name appears in Appendix A. The employee and supervisor surveys appear in Appendices B and C, respectively.

Demographic data. Demographic data includes: gender; educational level; marital status; race; age; family size; organizational tenure; job tenure; job level; pay type; and salary.

Job satisfaction. The extent to which employees are satisfied with their jobs was measured using a three-item ($\alpha = .75$) global satisfaction scale adapted from Hackman and Oldham (1975). Sample items include “Generally speaking, I am very satisfied with this job;” and “I am generally satisfied with the kind of work I do in this job.”

Pay satisfaction. The extent to which employees are satisfied with their pay was assessed using Heneman and Schwab’s (1985) Pay Satisfaction Questionnaire (PSQ). The PSQ is the most prevalent measure of multidimensional pay satisfaction (Heneman & Judge, 2000; Sturman & Short, 2000) and has received considerable support (DeConnick et al., 1996; Heneman & Schwab, 1985; Heneman, R., Greenberger & Strasser, 1988; Judge, 1993; Judge & Welbourne, 1994; Sturman & Short, 2000) for its four-dimensional conceptualization. This 18- item scale is designed to measure the four

components of pay satisfaction: pay level satisfaction (four items; $\alpha = .96$); raise satisfaction (four items; $\alpha = .79$); benefit satisfaction (four items; $\alpha = .88$); and structure/administration satisfaction (six items). Due to some controversy regarding poor loadings within the structure/administration sub-scale (Heneman & Judge, 2000), two items were added from Blau (1994) in hopes of increasing the reliability of the measure. After further analysis, that will be discussed in the next chapter, seven-items ($\alpha = .88$) were used to measure structure/ administration satisfaction. Using a seven-point scale ranging from 1 = “very dissatisfied” to 7 = “very satisfied,” respondents indicated the extent to which they are satisfied with the 20 items describing their pay satisfaction. Sample items include the following: “My take home pay;” “The number of benefits I receive;” and “How the company administers pay.”

Procedural justice. Nine items ($\alpha = .88$) derived from Greenberg (1986) were used to measure employee perceptions of the fairness of the procedures used to determine outcomes. These items reflect Levinthal’s (1976) procedural rules. Using a seven-point scale ranging from 1 = “strongly disagree” to 7 = “strongly agree,” respondents indicated the extent to which they concur with each statement. Sample items include the following: (At this organization...)”I am given the opportunity to modify decisions that have already been made,” “Concern is shown for my rights,” and “There is real interest in trying to be fair to me.”

Distributive justice. Distributive justice was measured using the six-item ($\alpha = .96$) Distributive Justice Index (DJI) developed by Price and Mueller (1986). The questions ask the respondents to what degree they agree with statements regarding how fairly they have been rewarded by the organization in reference to their responsibilities,

education, experience, training, effort, job stress, and work performed. Responses range from 1 = “strongly disagree” to 7 = “strongly agree.” Sample items include the following: (I am fairly rewarded) “Considering the responsibilities I have,” and “For the stresses and strains of my job.”

Organizational commitment. Employee perceptions of their attachment to the organization were measured with twelve items from Meyer, Allen and Smith’s (1993) organizational commitment scale. These twelve items are designed to measure two different types of commitment to the organization: affective ($\alpha = .81$) and continuance ($\alpha = .80$). Each is measured with six items using a seven point scales ranging from 1 = “strongly disagree” to 7 = “strongly agree.” Sample items include “I would be happy to spend the rest of my career with this organization” for affective commitment and “Right now, staying with my organization is a matter of necessity as much as desire” for continuance commitment.

Intention to turnover. Employee turnover intentions were measured using the six negatively phrased items ($\alpha = .77$) from Mowday, Steers, and Porter’s (1979) Organizational Commitment Questionnaire (OCQ). Although originally designed to measure organizational commitment, research has shown that these items accurately measure an employee’s intentions to quit (Blau, 1989; Carsten & Spector, 1987; Davy & Kinicki & Scheck, 1991; Farkas & Tetrick, 1989; Williams & Hazer, 1986). While the positively worded items in the scale measure affective, or attitudinal commitment (Mathieu & Zajac, 1990), the negatively worded items measure behavioral commitment (Allen & Meyer, 1990) that suggests intent to engage in some type of behavior, in this

case staying in or leaving the organization. Sample items include: “There’s not too much to be gained by sticking with this organization indefinitely.”

Supervisor Survey

Organizational citizenship behavior. Extra-role behavior was measured using Williams and Anderson’s (1991) 14-item organizational citizenship behavior (OCB) scale. This scale is designed to measure two different types of OCBs; seven items ($\alpha = .92$) measure behaviors that have a specific individual as a target (OCBI), and the remaining seven items ($\alpha = .84$) measure those behaviors that focus on benefiting the entire organization (OCBO). Sample items include the following: “Adequately completes assigned duties;” (OCBO) and “Helps others who have been absent” (OCBI).

Performance. Performance was measured using the job performance sub-scale of Welbourne, Johnson, and Erez’s (1998) Role-Based Performance Scale. This scale uses four items to measure job performance ($\alpha = .91$). The employee is rated on a scale with 1 = “needs improvement” through 7 = “excellent.” Sample items include the following: “Accuracy of work;” and “Quality of work output.”

Analyses

Since the hypothesized model of pay satisfaction consequences proposes relationships with procedural and distributive justice, direct relationships between the dimensions of pay satisfaction and outcomes, and mediated relationships, it is necessary to test all three. The relationship of the pay satisfaction dimensions and justice perceptions will be tested with multiple regression. All four pay satisfaction dimensions will be used to predict both justice types. Depending on the type of justice predicted, I expect certain pay satisfaction dimensions to be significant. Mediation will be

investigated using the Baron and Kenny (1986) procedure. This method suggests three conditions must be met for mediation to exist. First, variations in the levels of the independent variable must significantly account for variations in the mediator. Second, variations in the mediator must account significantly for variations in the dependent variable. Third, once the prior two paths are controlled, a previously significant path between the independent variable and the dependent variable must have lower, or no significance (Baron & Kenny, 1986: 1176). For example, in order for distributive justice to mediate the pay level satisfaction/job performance relationship it must be shown that: 1) pay level satisfaction accounts for significant variance in distributive justice perception; 2) distributive justice perception accounts for significant variance in job performance; and 3) once these two paths are controlled, the magnitude of the relationship between pay level satisfaction and job performance is reduced. Since there may be other, untested moderators, full or partial mediation will provide support for the model.

As first introduced by Judd and Kenny (1981) and discussed in detail in Baron and Kenny (1986), to test for mediation three regression models should be estimated: 1) regress the mediator on the independent variable; 2) regress the dependent variable on the independent variable; and 3) regress the dependent variable on both the independent variable and the mediator. Separate coefficients for each equation should be estimated and tested. To support mediation the independent variable must affect the mediator in the first equation; the independent variable must affect the dependent variable in the second equation, and the mediator must affect the dependent variable in the third equation (Baron & Kenny, 1986). In addition, the effect of the independent variable on the

dependent variable must disappear in the third equation to support full mediation. If the effect remains significant but decreases in size, partial mediation is supported.

Three concerns must be addressed when using multiple regression to test a mediated model: 1) multi-collinearity between the independent variable and mediator in the third equation; 2) measurement error in the mediator; and 3) the possibility that the dependent variable causes the mediator (Baron & Kenny, 1986). The problem with multi-collinearity is that it reduces the power in the test of the coefficients in the third equation. Baron and Kenny (1986) suggest the significance and the size of the coefficients be examined because once the mediator's affect is taken into account, the coefficient of the independent variable in the third equation may increase in size but lose significance.

A second potential problem is measurement error in the mediator. This error could underestimate the effect of the mediator on the dependent variable while simultaneously overestimating the effect of the independent variable on the dependent variable. This error would mask the mediated effect of justice on the relationship between pay satisfaction dimensions and consequences. By using the Price and Mueller (1986) measure for distributive justice and the Greenberg (1986) measure for procedural justice, two measures found to be reliable in past studies, this concern should be minimized. A final concern using multiple regression to estimate mediation effects is the possibility that the dependent variable causes the mediator rather than the reverse as hypothesized. This concern should be allayed by the theoretical support offered in hypothesis development supporting the proposed relationships.

In summary, a series of regression equations will be estimated to test the hypotheses. The first step in the Baron and Kenny (1986) method will be used to test the hypotheses relating pay satisfaction dimensions to organization justice perceptions. To test the hypotheses relating pay satisfaction dimensions to outcomes, the second and third equations suggested by Baron and Kenny (1986) will be estimated for each outcome.

Chapter 5

Analyses and Results

This chapter reports the findings of the study. First, the data used for the analyses is further described. Second, the analyses used to confirm the validity of the measures are presented. Finally, the results of the hypotheses tests are reported.

Data Sets

Two different, but overlapping data sets are used for the analyses presented in this chapter. The reason for the use of two data sets is the availability of data for different analyses. For analyses that focus on relationships between employee attitudes, a larger set of data is available ($N=525$) that includes all subordinate surveys completed. This set will be referred to as the full data set. For the analyses that relate employee attitudes to performance measures, both in- and extra-role, a smaller set of data is used ($N=323$), because only those subordinate surveys that have matching supervisor surveys have performance data. This data set will be referred to as the matched data set. To test whether the responses of the individuals who have matched data and those who have only the subordinate survey were significantly different, the means and correlations of the scales were compared. The means, standard deviations, reliabilities, and correlations between the scales are presented for the full data set in Table 7, for the matched data in Table 8, and for the subordinate surveys without matches in Table 9. Tables 7 and 9 do not contain information relating to performance because it was incomplete or unavailable.

Although the hypotheses will be tested using either the data from Tables 7 or 8, the means and correlations compared are those in Tables 8 and 9. The data in Tables 7

Table 7
 Descriptives
 Full Data Set

Dimension	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Level	3.52	1.64	(.96)									
2. Benefit	3.82	1.40	.53	(.88)								
3. Raise	3.96	1.33	.73	.55	(.79)							
4. Structure	3.47	1.19	.65	.54	.75	(.88)						
5. Procedural Justice	4.00	1.16	.42	.33	.52	.53	(.88)					
6. Distributive Justice	3.60	1.60	.67	.40	.65	.67	.58	(.96)				
7. Job Satisfaction	4.86	1.20	.36	.30	.39	.34	.46	.42	(.75)			
8. Turnover Intention	3.50	1.13	-.39	-.37	-.43	-.42	-.43	-.43	-.37	(.77)		
9. Affective Com.	4.29	1.21	.37	.34	.38	.36	.50	.35	.50	-.57	(.81)	
10. Continuance Com.	4.03	1.28	-.11	-.07	-.14	-.12	-.10	-.07	.08	-.08	.07	(.80)

Note. $N = 525$. All correlations greater than .14 are significant at $p < .001$; correlations greater than .11 are significant at $p < .01$; and correlations greater than .09 are significant at $p < .05$. Coefficient alpha reliability estimates are in parenthesis on the main diagonal.

Table 8

Descriptives

Matched Data Set

Dimension	Mean	SD	1	2	3	4	5	6
1. Level	3.55	1.64	(.96)					
2. Benefit	3.84	1.40	.53	(.88)				
3. Raise	3.94	1.37	.74	.55	(.81)			
4. Structure	3.45	1.18	.64	.59	.75	(.88)		
5. Procedural Justice	4.03	1.15	.43	.42	.51	.55	(.87)	
6. Distributive Justice	3.64	1.58	.68	.44	.66	.67	.56	(.95)
7. Job satisfaction	4.83	1.17	.37	.36	.38	.39	.43	.43
8. Turnover Intent	3.47	1.09	-.45	-.37	-.44	-.45	-.45	-.46
9. Affective Commitment	4.31	1.20	.41	.37	.39	.40	.49	.38
10. Continuance Commitment	4.03	1.28	-.11	-.10	-.16	-.12	-.09	-.06
11. Job Performance	5.80	0.98	.03	.03	.06	.00	.04	-.06
12. OCBI	5.10	1.08	.13	.16	.14	.07	.11	.09
13. OCBO	5.51	1.01	.13	.16	.20	.16	.22	.15

Note. $N = 323$. All correlations greater than .18 are significant at $p < .001$, correlations greater than .14 are significant at $p < .01$, and correlations greater than .11 are significant at $p < .05$. Coefficient alpha reliability estimates are in parenthesis on the main diagonal.

Table 8, continued

Descriptives

Matched Data Set

Dimension	7	8	9	10	11	12	13
1. PLS							
2. BS							
3. RS							
4. S/A							
5. PJ							
6. DJ							
7. JS	(.72)						
8. TOI	-.43	(.76)					
9. AC	.52	-.60	(.81)				
10. CC	.10	-.07	.08	(.80)			
11. JP	.07	-.07	.07	.03	(.91)		
12. OCBI	.17	-.12	.14	.04	.60	(.92)	
13. OCBO	.19	-.17	.20	.00	.57	.54	(.84)

Note. $N = 323$. All correlations greater than .18 are significant at $p < .001$, correlations greater than .14 are significant at $p < .01$, and correlations greater than .11 are significant at $p < .05$. Coefficient alpha reliability estimates are in parenthesis on the main diagonal.

Table 9
Descriptives
Subordinate Survey Only

Dimension	Mean	<u>SD</u>	1	2	3	4	5	6	7	8	9	10
1. Level	3.47	1.64	(.95)									
2. Benefits	3.78	1.41	.53	(.88)								
3. Raise	3.99	1.27	.71	.54	(.74)							
4. Structure	3.51	1.20	.66	.48	.76	(.88)						
5. Procedural Justice	3.96	1.16	.39	.18	.55	.51	(.87)					
6. Distributive Justice	3.52	1.62	.65	.33	.65	.68	.61	(.96)				
7. Job Satisfaction	4.92	1.24	.36	.22	.43	.27	.52	.42	(.80)			
8. Turnover Intention	3.55	1.81	-.30	-.37	-.42	-.38	-.40	-.38	-.27	(.79)		
9. Affective Com.	4.27	1.23	.31	.28	.37	.31	.51	.31	.46	-.53	(.82)	
10. Continuance Com.	4.05	1.28	-.12	-.01	-.12	-.12	-.12	-.08	.06	-.10	-.06	(.79)

Note. N = 202. All correlations greater than .25 are significant at $p < .001$; correlations greater than .18 are significant at $p < .01$. Coefficient alpha reliability estimates are in parenthesis on the main diagonal.

and 8 are not independent because the matched data in Table 8 is a subset of the full data set in Table 7. In order to test whether or not the responses are significantly different in the two sets of data used to test hypotheses, the means and correlations of those who do have a matching supervisor survey are compared to those who do not. If the differences between the sets' means and correlations are not significantly different than zero, I will assume the responses for the two samples are comparable.

To determine whether the difference between the means of the scales in each sample were significant, a series of t -tests were performed. If the difference between the two sample means is not equal to zero, the two samples cannot be considered similar (Glass & Hopkins, 1996). That is, those individuals who have matching supervisor surveys may have significantly different attitudes than those employees who do not. As can be seen by comparing Tables 8 and 9, the largest mean difference is for distributive justice (.12). The resulting t -value (.84) is smaller than the test statistic at $p < .05$, 1.96. Thus, it is strongly supported that there is no meaningful difference in subjects between the full and matched data sets.

To further insure the similarity of the two data sets, the differences between the scale correlations were examined using the test suggested by Bobko (1995). Using Fisher's z_r transformation, it was found that a difference of .15 between the two samples' correlations is statistically significant. Of the 45 correlations, only two comparisons produced statistically significant differences: 1) benefits and procedural justice (.24); and 2) job satisfaction and turnover intentions (.16). Considered alone, these results might be a cause for concern. However, in conjunction with the tests of the difference between scale means, it is reasonable to assume that similar findings would result if all the subordinate surveys had supervisor matches.

Preliminary Analyses

Before testing the hypotheses, it is also necessary to verify the construct validity of the measures. Although the scales used in the study have been found to be acceptable in numerous other studies, it is valuable to test the reliability and validity of the scales with this sample. The reliability of each of the scales for both sets of data is provided along with the other descriptive statistics in Tables 7 and 8. As can be seen, the Cronbach's alphas are all above .72 (for job satisfaction in the matched sample), which are higher than the generally accepted minimal level for reliability, .70 (Bobko, 1995; Nunnally & Bernstein, 1994). In addition, the reliabilities are similar to those in other studies using the same measures (DeConnick et al., 1996; Heneman & Schwab, 1985; Judge, 1993; Meyer et al., 1993; Sturman & Short, 2000; Welbourne et al., 1998; Williams & Anderson, 1991).

Since many of the items collected may be intercorrelated, and the potential for common method variance may be created by the collection method (Cook & Campbell, 1979), it is necessary to show that the individual items load on the expected factors. Confirmatory factor analyses were conducted using LISREL VIII (Joreskog & Sorbum, 1996) to achieve this end. Because of limitations that exist with LISREL VIII (fit problems using more than thirty indicators), the variables were separated as follows and separate analyses conducted: 1) the four dimensions of the pay satisfaction questionnaire (20 items); 2) the two types of justice (15 items); 3) the other attitudinal variables on the subordinate questionnaire (21 items); and 4) the items on the supervisor survey measuring in- and extra-role performance (18 items). The results of these analyses are presented in Tables 10, 11, 12 and 13, respectively. Each of the proposed models for the confirmatory factor analyses were compared with an orthogonal model in which none of the factors correlate with each other, a single factor model in which all items

load on one higher level factor, and other theoretically plausible models. For example, in Table 10, four alternative models to the four-factor PSQ are tested. The first alternative model loads the pay level, structure/administration, and raise items on a single factor and treats benefit items as hypothesized. The second alternative model combines raise and pay level in a single factor and leaves the structure/administration and benefit items to load as expected. The third alternative model combines pay level and structure/administration while the fourth alternative model combines raise and structure/administration items together.

To assess whether the hypothesized models provide the best fit for the data, five fit indices are used. The first three fit indices are measures of absolute fit; they determine the degree to which the overall model predicts the observed covariance matrix.

Or more simply, absolute fit indices show how well an *a priori* model reproduces the sample data. These include the χ^2 statistic, the root means square error of approximation (Browne & Cudek, 1989), and the goodness of fit index (Tanaka & Huba, 1984). In general, large χ^2 values indicate poor fit while small χ^2 values indicate a good fit of the model to the data. Since the χ^2 statistic is sensitive to sample size and departures from multivariate normality, Joreskog and Sorbum (1999) suggest comparing χ^2 values for alternative models to determine which model fits the data best. A significant drop in χ^2 compared to the decrease in degrees of freedom indicates a better fitting model. If there is only a small decrease in χ^2 in comparison to the drop in the degrees of freedom the improvement from one model to the next is considered to be capitalizing on chance. The root mean square error of approximation (RMSEA) and goodness of fit index (GFI) also assess fit in relation to the degrees of freedom, and are thus subject to changes in sample size. A RMSEA below .05 indicates very good fit, a RMSEA between .05

Table 10

Fit Statistics of Alternative Models

Pay Satisfaction Questionnaire

Model	χ^2	df	GFI	NNFI	CFI	RMSEA
Orthogonal model	1946.99	152	.72	.76	.79	.150
Single factor	3661.13	152	.58	.70	.73	.210
Two factor: level, raise, & structure/ administration	2679.06	151	.65	.80	.83	.179
Three factor: level & raise.	978.75	149	.84	.90	.90	.103
Three factor: level & structure/administration	2531.65	149	.66	.81	.83	.175
Three factor: raise & structure/administration	919.73	149	.84	.91	.92	.099
Four factor	689.53	146	.88	.92	.94	.084

Note: Data used includes all subordinate surveys. $N = 525$.

Table 11

Fit Statistics of Alternative Models

Organizational Justice

Model	χ^2	df	GFI	NNFI	CFI	RMSEA
Orthogonal model	518.34	90	.82	.86	.88	.122
Single factor	2047.93	90	.54	.67	.72	.260
Two factor: Distributive and Procedural Justice load on separate factors.	415.84	89	.85	.90	.92	.107

Note: Data used only includes those supervisor surveys with a corresponding supervisor survey. $N = 323$.

Table 12

Fit Statistics of Alternative Models

Subordinate Survey Dependent Variables

Model	χ^2	df	GFI	NNFI	CFI	RMSEA
Orthogonal model	1082.24	189	.76	.70	.73	.121
Single factor	2125.45	189	.61	.46	.51	.178
Three Factor: Affective And Continuance Commitment load on single factor	1820.96	186	.65	.55	.60	.165
Four Factor: JS, AC, CC and Turnover Intentions	731.74	183	.82	.80	.82	.097

Note: Data used only includes those subordinate surveys with a corresponding supervisor survey. $N = 323$. JS = Job satisfaction; AC = Affective commitment; CC = continuance commitment.

Table 13

Fit Statistics of Alternative Models

Performance Measures

Model	χ^2	df	GFI	NNFI	CFI	RMSEA
Orthogonal model	5809.06	527	.49	.65	.67	.176
Single factor	6758.97	527	.45	.61	.64	.192
Two factor: Job Performance & global OCB	6297.16	526	.47	.64	.66	.185
Three factor: Job Performance & two factor OCB.	5388.80	524	.50	.67	.70	.170

Note: Data used only includes those supervisor surveys with a corresponding subordinate survey. $N = 323$. OCB = Organizational Citizenship Behaviors.

and .08 indicates a moderate fit, and a RMSEA above .08 indicates a poor fit (DeConnick et al., 1996). For the GFI, higher values indicate better fit with a value greater than .90 considered to be sufficient (Hu & Bentler, 1995).

The last two fit indices are considered incremental fit indices because they measure the proportionate improvement in fit of the proposed model over alternative models. The major improvement of these indices over the prior three is that they are robust to most sampling fluctuations. For both the comparative fit index (CFI) and the non-normed fit index (NNFI), a higher value indicates better fit with a value of .90 or higher being sufficient (Hu & Bentler, 1995). Each of the CFAs will be discussed in turn using these fit indices to assess whether or not the proposed scales best fit the data in the sample.

The results of the CFA for the Pay Satisfaction Questionnaire items provide strong support for the superiority of the proposed four-factor model to any of the alternative models. A χ^2 difference statistic indicated that the four-factor model fit significantly better than the next best fitting model, the three-factor model combining the raise and structure/administration items ($\chi^2 = 230.20, p < .01$). The goodness-of-fit indices also indicated the four-factor model provides a better fit than any of the alternatives. The GFI for the four-factor model was .88, compared to .84 for the next best fitting model; the NNFI was .92 for the four-factor model as compared to .91 for the next best fitting model; the CFI for the four-factor model was .94 compared to .92 the next best fitting model; and the RMSEA for the four-factor model was .08 compared with .10 for the next best fitting model. Although the RMSEA was only marginally acceptable and the GFI was a little lower than the preferred level for the fit statistic, the results do provide support for treating the four dimensions of pay satisfaction as distinct variables. In addition to the results of the CFA, the factor loadings of the items on their respective dimensions of pay satisfaction found

in Table 14 provide further support for the four-factor dimensionality of the PSQ. While some of the loadings are a little low (.56 for raise item two), all loadings are significant ($p < .05$) and can be considered to be practically significant (Hair et al., 1996).

The remaining CFAs also offer support for the other scales used in the study, but not as strong support as for the PSQ. Using the χ^2 difference test, all of the proposed models fit better than any alternative: for justice ($\chi^2 = 102.50$, with 1 degree of freedom, $p < .01$), the attitudinal variables ($\chi^2 = 350.50$, with 6 degrees of freedom, $p < .01$), and for the performance variables ($\chi^2 = 1156.38$, with 18 degrees of freedom, $p < .01$). For the remaining fit indices, the results were mixed. The results are mixed because the fit indices for most of the proposed models fall short of the generally accepted levels (not greater than .90 for GFI, NNFI, and CFI, or below .08 for RMSEA). However, in all cases the proposed models fit better than any of the alternative models. Although these results do not suggest the greatest confidence in the scales used, the fact that they were found to be valid and reliable scales in other studies, and because the scales fit better than any of the alternative models, does offer some support for using the scales in this study.

Tests of Hypotheses

Hypotheses testing pay satisfaction dimension- organizational justice relationships

In order to test the relationships hypothesized in propositions 1 and 2, it is necessary to establish that variations in the levels of the pay satisfaction dimensions significantly account for variations in the two types of organizational justice. Pay level satisfaction, benefit satisfaction, and raise satisfaction should account for significant variations in distributive justice while raise satisfaction and structure/administration satisfaction should account for significant variance in procedural justice. To test for significance, several regressions were run. First, the types of

Table 14

LISREL Estimates of Factor Loadings for the Pay Satisfaction Questionnaire

Full Data Set

Item	Pay Level	Benefits	Raise	Structure/ Administration
PLS1	.91			
PLS2	.95			
PLS3	.95			
PLS4	.93			
BS1		.85		
BS2		.78		
BS3		.84		
BS4		.85		
RS1			.79	
RS2			.56	
RS3			.83	
RS4			.68	
SAS1				.82
SAS2				.71
SAS3				.66
SAS4				.76
SAS5				.82
SAS6				.72
SAS7				.73

Note: All factor loadings are significant at $p < .05$. $N = 525$. PLS = pay level satisfaction; BS = benefit satisfaction; RS = raise satisfaction; SAS = structure/administration satisfaction.

organizational justice were regressed on each of the independent variables and several control variables separately, then together. A significant standardized beta coefficient and a significant increase in R^2 from the control variable only regression indicate the dimension of pay satisfaction accounts for significant variance in the type of justice. The results of these analyses are presented for both sets of data in Appendix D.

The results are supportive, as the pay satisfaction dimensions all have significant standardized beta coefficients and account for a significant increase in R^2 for the respective type of justice. As presented in Appendix D, Tables 1, 2, and 3, pay level satisfaction ($\beta = .71$; adjusted R^2 change = .47, $p < .001$), benefit satisfaction ($\beta = .40$; adjusted R^2 change = .16, $p < .001$), and raise satisfaction ($\beta = .65$; adjusted R^2 change = .41, $p < .001$) account for significant variation in distributive justice using the full data set. Similarly, as presented in Appendix D, Tables 4 and 5, the results of the regressions using raise satisfaction ($\beta = .51$; adjusted R^2 change = .25, $p < .001$) and structure/ administration satisfaction ($\beta = .53$; adjusted R^2 change = .26, $p < .001$) support significant influence on procedural justice. The results for the matched data set produce similar results for all analyses. These results provide support for Hypotheses 1, 2, 3, 4, and 5.

To provide a more conservative test, several other regressions were run in which the dimensions of pay satisfaction were entered into the same regression equation to test whether or not the standardized beta coefficients remained significant. First, each type of justice was regressed on the all dimensions of pay satisfaction simultaneously, with and without controls. The results of these models using the full data set are presented in Tables 15 and 16. The results, with the exception of benefit satisfaction, provide strong support. For distributive justice, the standardized beta coefficients for both pay level satisfaction ($\beta = .43$, $p = .001$) and raise

Table 15

Distributive Justice Regression Models

Variable	Step 1-Controls only	Step 2- add PS dimensions
Sex	.09	.11***
Education	-.14*	-.07
Race	-.05	-.02
Age	-.07	-.04
Organization Tenure	-.03	.04
Job Tenure	-.14*	-.04
Job Level	.09	.01
Pay Level	.04	-.11*
Marital Status	.08	.02
Pay Level Satisfaction		.43***
Benefit Satisfaction		-.07
Raise Satisfaction		.16***
Structure/Administration		.30***
ΔR^2		.53***
R^2	.06***	.60***
Adjusted R^2	.04***	.59***

Notes: [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Table 16

Procedural Justice Regression Models

Variable	Step 1-Controls only	Step 2- add PS dimensions
Sex	.08	.10*
Education	-.06	-.03
Race	-.00	.00
Age	-.07	-.06
Organization Tenure	-.06	.03
Job Tenure	-.10	-.04
Job Level	.20***	.13**
Pay Level	.05	.02
Marital Status	.02	-.02
Pay Level Satisfaction		-.07
Benefit Satisfaction		.02
Raise Satisfaction		.30***
Structure/Administration		.34***
ΔR^2		.29***
R^2	.06***	.35***
Adjusted R^2	.05***	.34***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Hypotheses testing pay satisfaction dimension – consequence relationships

Now that the relationships between the pay satisfaction dimensions and the types of justice have been established, and one condition of mediation has been satisfied (the independent variables influence the mediator), in order to test the remainder of the hypotheses, it is now necessary to first show that the independent variables significantly influence the dependent variables (consequences). If mediation is expected, the influence of the independent variable will no longer be significant once the mediator is entered into the regression equation. This finding offers support for the hypotheses related to Propositions 3 and 5. If the significant influence of the independent variable remains after the mediator is entered in the equation, a direct effect is supported. This finding offers support for hypotheses related to Propositions 4 and 6.

Hypotheses tests using single dimensions of pay satisfaction. To provide an initial test of the hypotheses, each consequence was regressed on the dimensions of pay satisfaction to which it was hypothesized to relate. These regressions will determine whether or not a pay satisfaction dimension influences a consequence without taking into account the influence of the other pay satisfaction dimensions. The results of the individual regression analyses are presented in Appendix E and summarized in Table 17. The tables in Appendix E are much like the tables in Appendix D that present the influence of the independent variables on the mediator variables, except columns are added to illustrate the impact of adding the mediator to the regression model. These columns will show whether the influence of the particular dimension of pay satisfaction on the outcome variable is direct or mediated. Some of the hypotheses are tested with both data sets (12, 13, 14, 15, 18, 19, 20, & 21) while the others (6, 7, 8, 9, 10, 11, 16, & 17) are tested with only the matched data set due to data availability for the performance measures.

Table 17 presents the findings in an abbreviated form showing the standardized beta coefficients for each dimension for each hypothesized consequence it is hypothesized to influence. The standardized beta coefficient of the pay satisfaction dimension when the appropriate type of organizational justice is entered into the regression equation is also presented to determine if mediation exists. The results are presented from left to right according to the pay satisfaction consequences model's propositions.

Proposition 3 suggests that distributive justice mediates the relationship between outcome-based pay satisfaction dimensions that create an economic exchange and job-focused consequences whose relationship is based upon cognitive processes. The hypothesized relationships between the dimensions of pay satisfaction and job performance measures did not exist. As shown in Table 17, the hypotheses were not supported because none of the relationships between the pay satisfaction dimensions and job performance achieved initial significance. If the relationship is not initially significant, distributive justice cannot account for something that is not there. These results fail to support hypotheses 6, 7, and 8.

The results of the analyses between the pay satisfaction dimensions and organizational citizenship behaviors focused on individuals were more favorable. The initial relationships between pay level satisfaction ($\beta = .12, p < .05$), benefit satisfaction ($\beta = .14, p < .05$), and raise satisfaction ($\beta = .16, p < .01$) with OCBI were all significant. Once distributive justice is entered into the regression equations, the relationships are no longer significant. These results suggest that distributive justice mediates the relationships between pay level satisfaction, benefit

Table 17

Summary of Hypotheses Tests Using Individual Pay Satisfaction Dimensions

Dimensions	Job Performance	OCBI	Job Satisfaction	Turnover Intentions	OCBO	Continuance Commitment	Affective Commitment
Structure/Administration				-.22***	.15*	-.10*	.38***
Structure/Administration with Procedural Justice				-.19***	.03	-.07	.17***
Pay Level	-.03	.12*					
Pay Level with Distributive Justice	.02	.06					
Raise	.05	.16**	.28***	-.25***	.20***	-.15***	.38***
Raise with Procedural Justice				-.22***	.11	-.14**	.18***
Raise with Distributive Justice	.14 ^t	.14	.16**				
Benefit	.01	.14*	.16**				
Benefit with Distributive Justice	.04	.11	.07 ^t				

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N = 460$ for analyses for affective commitment, continuance commitment, turnover intentions, and job satisfaction which uses the full data set with listwise deletion of missing data. $N = 289$ for analyses for job performance, organizational citizenship behaviors directed at the organization, and organizational citizenship behaviors directed at individuals which uses the matched data set with listwise deletion of missing data.

satisfaction, and raise satisfaction and organizational citizenship behaviors directed at individuals. These results support Hypotheses 9, 10, and 11.

Proposition 4 suggests a direct relationship between outcome-based dimensions of pay satisfaction which create a social exchange with the organization and job-focused consequences whose relationships with the pay satisfaction dimension are based on affect. The relationships between pay satisfaction dimensions and the consequences should remain significant even after distributive justice enters the regression equation. Benefit satisfaction and raise satisfaction were hypothesized to influence job satisfaction. Benefit satisfaction ($\beta = .16, p < .01$) and raise satisfaction ($\beta = .28, p < .001$) both significantly influenced job satisfaction. Further, benefit satisfaction ($\beta = .07, p < .10$) and raise satisfaction ($\beta = .16, p < .01$) continued to significantly influence job satisfaction even after the influence of distributive justice is taken into account. These results support Hypotheses 12 and 13.

Proposition 5 suggests that procedural justice mediates the relationship between procedure-based pay satisfaction dimensions that create an economic exchange and organization-focused consequences whose relationship is based upon cognitive processes. To test these hypotheses, an initial significant relationship between the pay satisfaction dimension and the consequence must be established. For mediation to exist, the relationship will no longer be significant once procedural justice enters the regression equation.

Procedural justice was hypothesized to mediate the relationships between both raise satisfaction and structure/administration satisfaction and turnover intentions. Raise satisfaction ($\beta = -.25, p < .001$) and structure/administration ($\beta = -.22, p < .001$) did have significant relationships with turnover intentions. However, raise satisfaction ($\beta = -.22, p < .001$) and structure/administration satisfaction ($\beta = -.19, p < .001$) continued to significantly influence

turnover intentions after taking into account the influence of procedural justice. This suggests a direct relationship between both raise satisfaction and structure/administration satisfaction and turnover intentions rather than the expected mediated relationship. These results support Hypotheses 14(a) and 15(a), but fail to support Hypotheses 14(b) and 15 (b).

The results of the analyses between the pay satisfaction dimensions and organizational citizenship behaviors focused on the organization were more favorable. The initial relationships between raise satisfaction ($\beta = .20, p < .001$) and structure/ administration satisfaction ($\beta = .15, p < .05$) with OCBO were both significant. Once procedural justice is entered into the regression equations, the relationships were no longer significant. These results suggest that procedural justice mediates the raise satisfaction-OCBO and the structure/administration satisfaction-OCBO relationships. These results support Hypotheses 16 and 17.

The results of the final set of analyses related to Proposition 5 were mixed. Both raise satisfaction ($\beta = -.15, p < .001$) and structure/administration satisfaction ($\beta = -.10, p < .05$) had significant relationships with continuance commitment. Consistent with expectations, the influence of structure/administration satisfaction was no longer significant once procedural justice entered the regression equation, suggesting mediation. However, raise satisfaction ($\beta = -.14, p < .01$) remained significant even after the influence of procedural justice is taken into account, suggesting a direct relationship. These results support Hypotheses 18 (a), 19 (a), and 19 (b), but fail to support 18 (b).

Proposition 6 suggests a direct relationship between procedure-based dimensions of pay satisfaction which create a social exchange with the organization and organization-focused consequences whose relationships with the pay satisfaction dimension are based on affect. The relationships between pay satisfaction dimensions and the consequences should remain

significant even after procedural justice enters the regression equation. Raise satisfaction and structure/administration satisfaction were hypothesized to influence affective commitment. Raise satisfaction ($\beta = .38, p < .001$) and structure/administration satisfaction ($\beta = .38, p < .001$) both significantly influenced affective commitment. Raise satisfaction ($\beta = .18, p < .001$) and structure/ administration satisfaction ($\beta = .17, p < .001$) continued to significantly influence affective commitment after the influence of procedural justice was taken into account. These results are supportive of Hypotheses 20 and 21. A summary of the hypotheses tests using single pay satisfaction dimension regressions is presented in Table 18.

Hypotheses tests using all pay satisfaction dimensions. To provide a more conservative test of the hypotheses, each consequence was regressed on all dimensions of pay satisfaction simultaneously. By entering all pay satisfaction dimensions in the regression equation at once, shared variance among the pay satisfaction dimensions is taken into account. In the individual regression models, a pay satisfaction dimension might seem to influence a consequence, but this influence may not be significant when the other dimensions of pay satisfaction are taken into account because of high intercorrelations among the pay satisfaction dimensions. If the standardized beta coefficient remains significant in these models, strong confidence can be placed in the relationship between the variables.

Tables 19 through 25 present the multiple regression results by consequence, according to the order the consequence appears in the pay satisfaction consequences model. In step one, only the control variables are entered into the equation. Next, the four pay satisfaction dimensions are entered in addition to the control variables to determine if there is an initial significant relationship exists between the pay satisfaction dimensions and the consequence. Finally justice is entered into the regression equation to test for mediation.

Table 18

Summary of Hypotheses Test Results Using Individual Pay Satisfaction Dimensions

Proposition 1: The outcome-based pay satisfaction dimensions will have a positive relationship with distributive justice.

Hypothesis 1: Pay level satisfaction has a positive relationship with distributive justice. **Supported**

Hypothesis 2: Benefit satisfaction has a positive relationship with distributive justice. **Supported**

Hypothesis 3: Raise satisfaction has a positive relationship with distributive justice. **Supported**

Proposition 2: The procedure-based pay satisfaction dimensions will have a positive relationship with procedural justice.

Hypothesis 4: Raise satisfaction has a positive relationship with procedural justice. **Supported.**

Hypothesis 5: Structure/administration satisfaction has a positive relationship with procedural justice. **Supported.**

Proposition 3: Distributive justice will mediate the relationship between outcome-based pay satisfaction dimensions that create an economic exchange and job-focused consequences whose relationship with pay satisfaction is based upon cognitive processes.

Hypothesis 6 (a): Pay level satisfaction will have a positive relationship with job performance. **Not supported.**

Hypothesis 6 (b): Distributive justice mediates the relationship between pay level satisfaction and job performance. **Not supported.**

Hypothesis 7 (a): Benefit satisfaction will have a positive relationship with job performance. **Not supported.**

Hypothesis 7 (b): Distributive justice mediates the relationship between benefit satisfaction and job performance. **Not supported.**

Hypothesis 8 (a): Raise satisfaction will have a positive relationship with job performance. **Not supported.**

Table continues

Hypothesis 8 (b): Distributive justice mediates the relationship between raise satisfaction and job performance. **Not supported.**

Hypothesis 9 (a): Pay level satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals. **Supported.**

Hypothesis 9 (b): Distributive justice mediates the relationship between pay level satisfaction and organizational citizenship behaviors directed at individuals. **Supported.**

Hypothesis 10 (a): Benefit satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals. **Supported.**

Hypothesis 10 (b): Distributive justice mediates the relationship between benefit satisfaction and organizational citizenship behaviors directed at individuals. **Supported.**

Hypothesis 11 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals. **Supported.**

Hypothesis 11 (b): Distributive justice mediates the relationship between raise satisfaction and organizational citizenship behaviors directed at individuals. **Supported.**

Proposition 4: Outcome-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with job-focused consequences whose relationship with pay satisfaction is based upon affect.

Hypothesis 12: Benefit satisfaction will have a direct positive relationship with job satisfaction. **Supported.**

Hypothesis 13: Raise satisfaction will have a direct positive relationship with job satisfaction. **Supported.**

Proposition 5: Procedural justice will mediate the relationship between procedure-based pay satisfaction dimensions that create an economic exchange with the organization and organization-focused consequences whose relationship with pay satisfaction is based upon cognitive processes.

Hypothesis 14 (a): Raise satisfaction will have a negative relationship with turnover intentions. **Supported.**

Hypothesis 14 (b): Procedural justice mediates the relationship between raise satisfaction and turnover intentions. **Not supported.**

Table continues

Hypothesis 15 (a): Structure/administration satisfaction will have a negative relationship with turnover intentions. **Supported.**

Hypothesis 15 (b): Procedural justice mediates the relationship between structure/administration satisfaction and turnover intentions. **Not supported.**

Hypothesis 16 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization. **Supported.**

Hypothesis 16 (b): Procedural justice mediates the relationship between raise satisfaction and organizational citizenship behaviors directed at the organization. **Supported.**

Hypothesis 17 (a): Structure/administration satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization. **Supported.**

Hypothesis 17 (b): Procedural justice mediates the relationship between structure/administration satisfaction and organizational citizenship behaviors directed at the organization. **Supported.**

Hypothesis 18 (a): Raise satisfaction will have a positive relationship with continuance commitment. **Supported.**

Hypothesis 18 (b): Procedural justice mediates the relationship between raise satisfaction and continuance commitment. **Not supported.**

Hypothesis 19 (a): Structure/administration satisfaction will have a positive relationship with continuance commitment. **Supported.**

Hypothesis 19 (b): Procedural justice mediates the relationship between structure/administration satisfaction and continuance commitment. **Supported.**

Proposition 6: Procedure-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with organization-focused consequences whose relationship with pay satisfaction is based upon affect.

Hypothesis 20: Raise satisfaction will have a direct positive relationship with affective commitment. **Supported.**

Hypothesis 21: Structure/administration satisfaction will have a direct positive relationship with affective commitment. **Supported.**

Table 19 presents the regression analysis results relating all dimensions of pay satisfaction to job performance. Results are mostly consistent with the single dimension regressions discussed above as both pay level satisfaction and benefit satisfaction failed to achieve an initial significant relationship with job performance. Reinforcing the single dimensions regression results, these findings fail to support Hypotheses 6 and 7. A finding that was different than prior analyses was the marginally significant relationship between raise satisfaction and job performance ($\beta = .19, p < .10$) that remained significant after the influence of distributive justice entered the regression ($\beta = .20, p < .10$). These results suggest a direct relationship between raise satisfaction and job performance. That is, an employee who is more satisfied with the raises he or she receives will perform at a higher level. However, this finding remains inconsistent with expectations, as a mediated relationship was hypothesized. Thus, Hypotheses 8(a) is supported by the initial significant relationship between raise satisfaction and job performance, but Hypothesis 8(b) is not because of the continued significance of that relationship.

Table 20 presents the results of the analyses focusing on organizational citizenship behaviors directed at individuals. These results are inconsistent with the results of the single regression analyses in which the hypothesized mediated relationships were found for all three pay satisfaction dimensions. Pay level satisfaction and benefit satisfaction failed to achieve an initial significant relationship with OCBI, failing to support Hypotheses 9(a) and 10(a). Further, since the initial relationships are not significant, it is not possible for distributive justice to act as a mediator, thus failing to support Hypotheses 9 (b) and 10 (b). Similar to the results of the relationship analyses testing the relationships of all pay satisfaction dimensions with job performance, raise satisfaction had a marginally significant initial relationship with OCBI

Table 19

Influence of Pay Satisfaction Dimensions on Job Performance

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.21***	-.21***	-.20***
Education	-.11	-.11	-.12
Race	.09	.09	.08
Age	-.04	-.04	-.05
Organization Tenure	.07	.07	.08
Job Tenure	-.09	-.08	-.09
Job Level	-.01	-.00	-.01
Pay Level	.31***	.33***	.32***
Marital Status	-.01	-.01	-.01
Pay Level Satisfaction		-.13	-.09
Benefit Satisfaction		-.01	.01
Raise Satisfaction		.19 ^t	.20 ^t
Structure/Administration		-.07	-.03
Distributive Justice			-.10
ΔR^2		.01	.00
R^2	.14***	.15***	.16***
Adjusted R^2	.11***	.11***	.11***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses. Due to missing values and list-wise deletion $N = 289$.

($\beta = .19, p < .10$) which remained significant after the influence of distributive justice was taken into account ($\beta = .18, p < .10$). Again, this suggests a direct, rather than the hypothesized mediated relationship. This suggest that an individual who is more satisfied with his or her raise will be more likely to engage in organizational citizenship behaviors that are directed at individuals. These results support Hypothesis 11(a), but fail to support Hypothesis 11(b). Raise satisfaction and benefit satisfaction were hypothesized to have positive direct effects on job satisfaction. The initial regressions supported Hypotheses 12 and 13. The results in Table 21 partially reinforce these findings. The effect of raise satisfaction on job satisfaction ($\beta = .21, p < .01$) remained significant after distributive justice enters the regression model ($\beta = .18, p < .01$), but benefit satisfaction failed to achieve initial significance. Therefore, an individual who is satisfied with his or her raise will likely be more satisfied with his or her job. These results provide further support for Hypothesis 13, but no longer support Hypothesis 12.

Procedural justice was hypothesized as a mediator between both structure/ administration satisfaction and raise satisfaction and turnover intentions. As reported above, Hypotheses 14 (b) and 15 (b) were not supported because both raise satisfaction and structure/administration satisfaction continued to have a significant influence on turnover intentions after procedural justice entered the regression model. The results in Table 22 present the results of the analyses with all pay satisfaction dimensions. Unlike the single regression results, structure/ administration satisfaction did not achieve an initial significant effect. This finding fails to support Hypothesis 15 (a), which suggests a direct relationship, and Hypothesis 15 (b) because procedural justice cannot mediate a non-existent relationship.

Table 20

Influence of Pay Satisfaction Dimensions on Organizational Citizenship Behaviors-Individual Focus

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.14*	-.15*	-.16**
Education	-.08	-.06	-.06
Race	.15*	.14*	.15*
Age	.03	.04	.04
Organization Tenure	.07	.07	.07
Job Tenure	-.05	-.05	-.04
Job Level	.16*	.15*	.15*
Pay Level	.04	.02	.03
Marital Status	-.04	-.05	-.05
Pay Level Satisfaction		-.02	-.05
Benefit Satisfaction		.10	.10
Raise Satisfaction		.19 ^t	.18 ^t
Structure/Administration		-.11	-.13
Distributive Justice			.07
ΔR^2		.03*	.00
R^2	.11***	.14***	.14***
Adjusted R^2	.08***	.10***	.10***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses. Due to missing values and list-wise deletion $N = 289$.

Table 21

Influence of Pay Satisfaction Dimensions on Job Satisfaction

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	.08 ^t	.08 ^t	.05
Education	-.03	-.01	.01
Race	-.04	-.04	-.04
Age	.04	.06	.07
Organization Tenure	.05	.06	.06
Job Tenure	-.06	-.04	-.03
Job Level	-.05	-.06	-.06
Pay Level	.02	-.01	.02
Marital Status	.01	-.01	-.02
Affective Commitment	.50***	.38***	.36***
Continuance Commitment	.04	.08 ^t	.08 ^t
Pay Level Satisfaction		.08	-.01
Benefit Satisfaction		.02	.04
Raise Satisfaction		.21**	.18**
Structure/Administration		.01	-.05
Distributive Justice			.21***
ΔR^2		.07***	.02***
R^2	.26***	.33***	.35***
Adjusted R^2	.24***	.31***	.33***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Consistent with the single regression findings, raise satisfaction's initial significant relationship with turnover intentions ($\beta = -.13, p < .05$) retained marginal significance ($\beta = -.11, p < .10$) when procedural justice entered the equation. These findings continue to support Hypotheses 14 (a) and fail to support Hypothesis 14 (b). An interesting finding is that benefit satisfaction had an unexpected direct influence on turnover intentions ($\beta = -.13, p < .01$). Based on these results, an individual who is more satisfied with his or her raises and benefit package will be less likely to think about leaving the organization. Table 23 presents the results of the regression analyses relating the pay satisfaction dimensions to organizational citizenship behaviors directed at organizations. The single regression analyses supported OCBO's hypothesized mediated relationships with raise satisfaction and structure/administration satisfaction. The multi-dimensional regression analyses do not. Raise satisfaction again had a significant relationship with OCBI ($\beta = .29, p < .01$), but unlike the single regression results, the relationship remained significant ($\beta = .25, p < .01$) after procedural justice entered the regression equation. This finding suggests a direct relationship, providing continued support for Hypothesis 16 (a), but failing to support Hypothesis 16 (b). Structure/ administration satisfaction failed to achieve an initial significant relationship with OCBO. This finding fails to support both parts of Hypothesis 17. An unexpected finding was a negative relationship between pay level satisfaction and OCBO ($\beta = -.19, p < .05$) that retained its significance when procedural justice's influence was taken into account ($\beta = -.17, p < .10$). Taken together, these findings suggest that the more satisfied an individual is with his or her raise, and the less satisfied he or she is with his or her pay level, the more likely he or she is to engage in organizational citizenship behaviors directed at the organization.

Table 22

Influence of Pay Satisfaction Dimensions on Turnover Intentions

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	.08*	.08*	.08*
Education	-.01	-.01	-.01
Race	-.01	-.01	-.00
Age	.04	.02	.02
Organization Tenure	.10 ^t	.09	.09
Job Tenure	.02	.01	.01
Job Level	.01	.02	.03
Pay Level	-.03	-.02	-.02
Marital Status	-.00	.02	.02
Affective Commitment	-.54***	-.45***	-.43***
Continuance Commitment	-.04	-.09*	-.09*
Job Satisfaction	-.11*	-.03	-.01
Pay Level Satisfaction		-.03	-.03
Benefit Satisfaction		-.12**	-.13**
Raise Satisfaction		-.13*	-.11 ^t
Structure/Administration		-.06	-.04
Procedural Justice			-.09 ^t
ΔR^2		.06***	.00
R^2	.36***	.42***	.42***
Adjusted R^2	.34***	.40***	.40***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Table 23

Influence of Pay Satisfaction Dimensions on Organizational Citizenship Behaviors-
Organization Focus

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.11 ^t	-.11 ^t	-.12*
Education	.07	.08	.08
Race	.09	.09	.10
Age	-.03	-.03	-.03
Organization Tenure	-.02	.01	.01
Job Tenure	-.02	-.01	.01
Job Level	.09	.09	.09
Pay Level	.14	.15	.14
Marital Status	-.01	-.02	-.02
Pay Level Satisfaction		-.19*	-.17 ^t
Benefit Satisfaction		.10	.07
Raise Satisfaction		.29**	.25*
Structure/Administration		-.01	-.07
Procedural Justice			.19**
ΔR^2		.06**	.02**
R^2	.07*	.13***	.15**
Adjusted R^2	.04*	.08***	.10**

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses. Due to missing values and list-wise deletion $N = 289$.

Procedural justice was also hypothesized as a mediator between both structure/administration satisfaction and raise satisfaction and continuance commitment. As reported above, Hypotheses 18 (a) was supported but not Hypotheses 18 (b) since the raise satisfaction – continuance commitment relationship remained significant after procedural justice entered the regression equation while both parts of Hypothesis 19 were supported as procedural justice mediated the structure/administration – continuance commitment relationship. The results of the more restrictive regression equations for continuance commitment, presented in Table 24, reinforce some of these findings. Raise satisfaction’s initial significant relationship with continuance commitment ($\beta = -.15, p < .05$) remains marginally significant ($\beta = -.14, p < .10$) once procedural justice entered the equation. These results continue to support Hypothesis 18 (a) and fail to support 18 (b). Contrary to the single regression results, structure/administration significance no longer had an initial significant relationship with continuance commitment. This finding no longer supports either part of Hypothesis 19. Taken together, these findings suggest that the more satisfied an individual is with his or her raise, the less likely he or she will be committed to the organization based on an accumulation of “side bets” which would be lost if he or she left the organization.

Raise satisfaction and structure/administration satisfaction were hypothesized to have direct, positive effects on affective commitment. The initial regressions supported both Hypotheses 20 and 21. The results in Table 25 show that both raise satisfaction ($\beta = .18, p < .05$) and structure/administration satisfaction ($\beta = .16, p < .05$) had significant relationships with affective commitment. However, these effects lost significance when procedural justice entered the regression model, suggesting mediation. Therefore, how satisfied the individual is with his

Table 24

Influence of Pay Satisfaction Dimensions on Continuance Commitment

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.05	-.05	-.04
Education	.10 ^t	.09	.09
Race	.06	.06	.06
Age	.01	-.00	-.01
Organization Tenure	.39***	.38***	.38***
Job Tenure	-.01	-.01	-.01
Job Level	.03	.03	.03
Pay Level	-.36***	-.34***	-.34***
Marital Status	-.13**	-.12*	-.12*
Affective Commitment	.04	.10*	.12*
Pay Level Satisfaction		-.02	-.02
Benefit Satisfaction		-.06	-.06
Raise Satisfaction		-.15*	-.14 ^t
Structure/Administration		.05	.06
Procedural Justice			-.05
ΔR^2		.02*	.00
R^2	.18***	.20***	.20***
Adjusted R^2	.16***	.17***	.17***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Table 25

Influence of Pay Satisfaction Dimensions on Affective Commitment

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.03	-.02	-.06
Education	-.04	-.03	-.02
Race	-.00	-.01	-.01
Age	.06 ^t	.06	.08 ^t
Organization Tenure	.05	.08	.06
Job Tenure	-.05	-.01	.00
Job Level	.22***	.17**	.12*
Pay Level	.04	.02	.02
Marital Status	-.05	-.08 ^t	-.07 ^t
Continuance Commitment	.04	.10*	.10*
Pay Level Satisfaction		.02	.05
Benefit Satisfaction		.13*	.13**
Raise Satisfaction		.18*	.06
Structure/Administration		.16*	.03
Procedural Justice			.38***
ΔR^2		.17***	.10***
R^2	.09***	.26***	.36***
Adjusted R^2	.07***	.24***	.33***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses. Due to missing values and list-wise deletion $N = 289$.

or her raises and how satisfied he or she is with the way the organization determines pay only influences his or her affective commitment through his or her perception of fairness with procedures used in the organization. These results fail to support Hypotheses 20 and 21. An unexpected finding was that benefit satisfaction had a direct influence on affective commitment ($\beta = .13, p < .05$). This finding suggests that the more satisfied an individual is with his or her benefits package, the more likely he or she will be affectively committed to the organization. A summary of the hypotheses tests using all pay satisfaction dimensions is presented in Table 26.

Table 26

Summary of Hypotheses Results Using All Pay Satisfaction Dimensions

Proposition 1: The outcome-based pay satisfaction dimensions will have a positive relationship with distributive justice.

Hypothesis 1: Pay level satisfaction has a positive relationship with distributive justice. **Supported.**

Hypothesis 2: Benefit satisfaction has a positive relationship with distributive justice. **Not supported.**

Hypothesis 3: Raise satisfaction has a positive relationship with distributive justice. **Supported.**

Proposition 2: The procedure-based pay satisfaction dimensions will have a positive relationship with procedural justice.

Hypothesis 4: Raise satisfaction has a positive relationship with procedural justice. **Supported.**

Hypothesis 5: Structure/administration satisfaction has a positive relationship with procedural justice. **Supported.**

Proposition 3: Distributive justice will mediate the relationship between outcome-based pay satisfaction dimensions that create an economic exchange and job-focused consequences whose relationship with pay satisfaction is based upon cognitive processes.

Hypothesis 6 (a): Pay level satisfaction will have a positive relationship with job performance. **Not supported.**

Hypothesis 6 (b): Distributive justice mediates the relationship between pay level satisfaction and job performance. **Not supported.**

Hypothesis 7 (a): Benefit satisfaction will have a positive relationship with job performance. **Not supported.**

Hypothesis 7 (b): Distributive justice mediates the relationship between benefit satisfaction and job performance. **Not supported.**

Hypothesis 8 (a): Raise satisfaction will have a positive relationship with job performance. **Supported.**

Table continues

Hypothesis 8 (b): Distributive justice mediates the relationship between raise satisfaction and job performance. **Not supported.**

Hypothesis 9 (a): Pay level satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals. **Not supported.**

Hypothesis 9 (b): Distributive justice mediates the relationship between pay level satisfaction and organizational citizenship behaviors directed at individuals. **Not supported.**

Hypothesis 10 (a): Benefit satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals. **Not supported.**

Hypothesis 10 (b): Distributive justice mediates the relationship between benefit satisfaction and organizational citizenship behaviors directed at individuals. **Not supported.**

Hypothesis 11 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at individuals. **Supported.**

Hypothesis 11 (b): Distributive justice mediates the relationship between raise satisfaction and organizational citizenship behaviors directed at individuals. **Not supported.**

Proposition 4: Outcome-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with job-focused consequences whose relationship with pay satisfaction is based upon affect.

Hypothesis 12: Benefit satisfaction will have a direct positive relationship with job satisfaction. **Not supported.**

Hypothesis 13: Raise satisfaction will have a direct positive relationship with job satisfaction. **Supported.**

Proposition 5: Procedural justice will mediate the relationship between procedure-based pay satisfaction dimensions that create an economic exchange with the organization and organization-focused consequences whose relationship with pay satisfaction is based upon cognitive processes.

Hypothesis 14 (a): Raise satisfaction will have a negative relationship with turnover intentions. **Supported.**

Hypothesis 14 (b): Procedural justice mediates the relationship between raise satisfaction and turnover intentions. **Not supported.**

Table continues

Hypothesis 15 (a): Structure/administration satisfaction will have a negative relationship with turnover intentions. **Not supported.**

Hypothesis 15 (b): Procedural justice mediates the relationship between structure/administration satisfaction and turnover intentions. **Not supported.**

Hypothesis 16 (a): Raise satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization. **Supported.**

Hypothesis 16 (b): Procedural justice mediates the relationship between raise satisfaction and organizational citizenship behaviors directed at the organization. **Not supported.**

Hypothesis 17 (a): Structure/administration satisfaction will have a positive relationship with organizational citizenship behaviors directed at the organization. **Not supported.**

Hypothesis 17 (b): Procedural justice mediates the relationship between structure/administration satisfaction and organizational citizenship behaviors directed at the organization. **Not supported.**

Hypothesis 18 (a): Raise satisfaction will have a positive relationship with continuance commitment. **Supported (but negative).**

Hypothesis 18 (b): Procedural justice mediates the relationship between raise satisfaction and continuance commitment. **Not supported.**

Hypothesis 19 (a): Structure/administration satisfaction will have a positive relationship with continuance commitment. **Not supported.**

Hypothesis 19 (b): Procedural justice mediates the relationship between structure/administration satisfaction and continuance commitment. **Not supported.**

Proposition 6: Procedure-based pay satisfaction dimensions that create a social exchange with the organization will have a direct relationship with organization-focused consequences whose relationship with pay satisfaction is based upon affect.

Hypothesis 20: Raise satisfaction will have a direct positive relationship with affective commitment. **Not supported (mediated).**

Hypothesis 21: Structure/administration satisfaction will have a direct positive relationship with affective commitment. **Not supported (mediated).**

Chapter 6

Discussion

Summary of Results

The purpose of this dissertation was to present and test a general model of pay satisfaction consequences in order to close a gap in the literature and offer guidance to organizations on compensation decisions. To accomplish this task, two sets of analyses were conducted to determine the impact of four pay satisfaction dimensions; pay level, raise, benefit, and structure/administration, on turnover intentions, job satisfaction, affective commitment, continuance commitment, organizational citizenship behaviors directed at organizations, organizational citizenship behaviors directed at individuals, and job performance. Although the results were mixed, and in some instances contradictory, the analyses do provide support for differential effects of pay satisfaction dimensions on the various consequences with support for the proposed model diminishing as the method of analysis becomes more conservative. The results of the single dimension regression analyses will be discussed first, as they provide the most consistent results in light of the proposed model. These results will then be discussed in contrast to the more conservative tests provided by the multiple regression results which include all dimensions of pay satisfaction.

Single Dimension Regression Results

To reduce confusion in presentation, the results will be discussed by Proposition. Figure 8 presents the results of the single regression analyses that test the individual pay satisfaction dimensions' relationships with organizational justice. Figure 8 replicates the relationships presented on the left side of the general model of pay satisfaction consequences. To review, the pay satisfaction dimensions are classified according to whether they are outcome- or procedure-

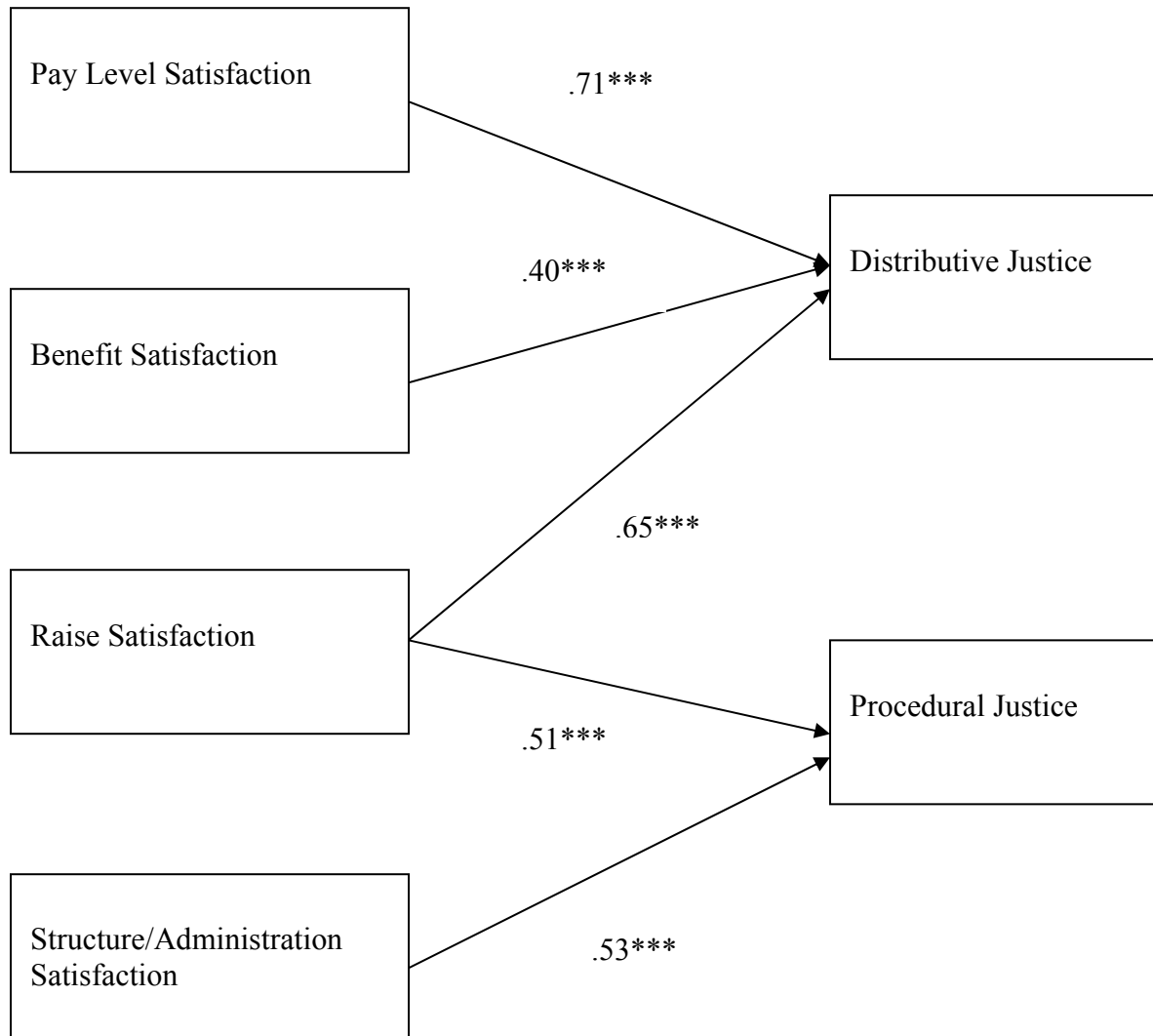


Figure 8
 Results of Single Dimension Regression Analyses
 Propositions 1 & 2

based and whether they create an economic or social exchange. Following the suggestion of Heneman and Judge, outcome-based dimensions are expected to relate to distributive justice, while procedure-based dimensions will relate to procedural justice. Satisfaction with one's pay is expected to positively influence perceptions of justice.

This relationship is a key departure from previous research and a key point in the model. The majority of prior work suggests that fairness perceptions determine satisfaction levels, that is organizational justice predicts pay satisfaction (Davis & Ward, 1995; Dulebohn & Martocchio, 1998; Martin & Bennett, 1996; Scarpello & Jones, 1996). However, due to the limitations of the studies and how the data were collected, the causal ordering of the variables cannot be specified with certainty (Heneman & Judge, 2000). This leaves open the possibility that pay satisfaction might cause organizational justice. As articulated during model development, this possibility is not only explored in this study, but is a central issue upon which the model is based. If pay satisfaction does not significantly influence organizational justice, justice cannot mediate relationships between pay satisfaction dimensions and consequences.

The results were highly supportive of the hypothesized relationships between the dimensions of pay satisfaction and organizational justice. Individually, pay level satisfaction ($\beta = .71, p < .001; \Delta R^2 = .47, p < .001$); benefit satisfaction ($\beta = .40, p < .001; \Delta R^2 = .16, p < .001$); and raise satisfaction ($\beta = .65, p < .001; \Delta R^2 = .41, p < .001$) accounted for significant amount of variance in distributive justice, while raise satisfaction ($\beta = .51, p < .001; \Delta R^2 = .25, p < .001$) and structure/administration satisfaction ($\beta = .53, p < .001; \Delta R^2 = .26, p < .001$) accounted for significant variance in procedural justice. These findings compare favorably to results that demonstrate the influence of justice on pay satisfaction (Tremblay et al., 1999) in which similar relationships were found in the opposite direction. Based on these results, it is reasonable to

expect that the more satisfied an individual is with dimensions of his or her pay the more likely he or she will perceive fairness in the procedures used to determine pay, and the pay itself. Further, it is tenable that justice may act as a mediator for pay satisfaction – consequence relationships.

Figure 9 presents the results of the hypotheses tests for Propositions 3 and 4 using the single dimension regression analyses. This part of the model focuses on the outcome-based pay satisfaction dimensions and their relationships to job-focused outcomes. Figure 9 presents only the significant results relevant to the pay satisfaction dimensions. The relationships between distributive justice and the consequences are not included. Paths from the pay satisfaction dimension to the consequence represent direct relationships. Paths from distributive justice to the consequence represent mediated relationships with each prior significant relationship between the pay satisfaction dimension and the consequence listed above.

Except for the lack of relationships between the dimensions of pay satisfaction and job performance, this portion of the model was supported. None of the dimensions of pay satisfaction had significant relationships with job performance. Although all three outcome-based dimensions were hypothesized to indirectly influence job performance, this finding is not completely unexpected. Past research has vigilantly searched for the “holy grail” (Weiss & Cropanzano, 1996:50) of satisfaction research with little success. This disappointing track record continues with the results of this study. It was hoped that by taking the suggestion of Weiss and Cropanzano (1996) that further specifying the measurement of satisfaction would lead to finding the illusive significant relationship between satisfaction and performance. It did not. The failure to find a significant relationship between any of the pay satisfaction dimensions and job performance might be explained by Herzberg’s (1968) classification of pay as a hygiene

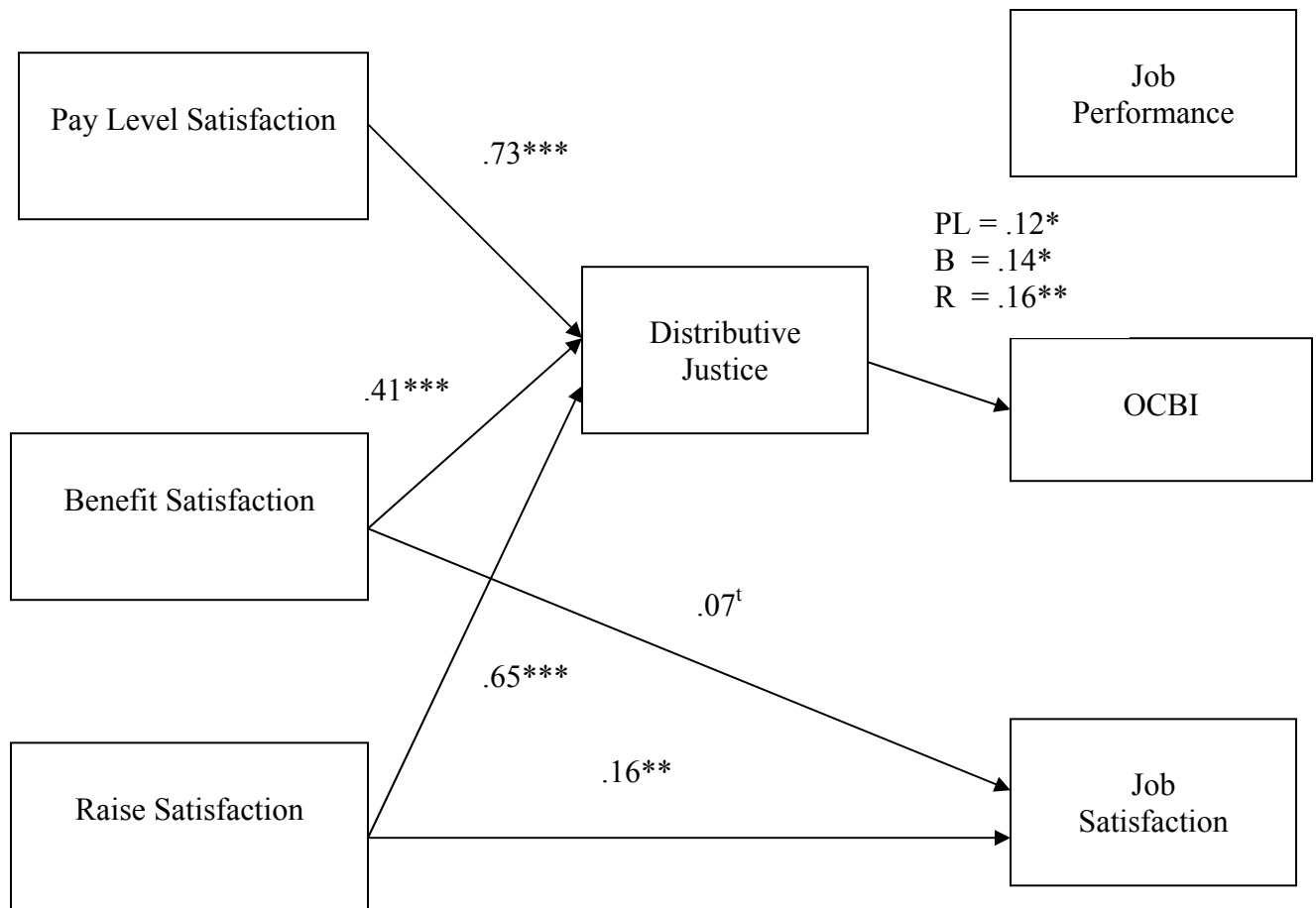


Figure 9
 Results of Single Dimension Regression Analyses
 Propositions 3 & 4

factor. Hygiene factors are considered contextual factors that do not directly lead to motivation; hygiene factors only provide a foundation for other factors (e.g., opportunities for advancement and interesting work) to motivate employees. Thus, pay satisfaction may act as a moderator between other constructs and performance, rather than a direct influence.

The tests focusing on OCBI were more favorable. All hypothesized paths relating the pay satisfaction dimensions to OCBI were supported. The initial significant relations of pay level satisfaction ($\beta = .12, p < .05$), benefit satisfaction ($\beta = .14, p < .05$), and raise satisfaction ($\beta = .16, p < .01$) with organizational citizenship behaviors directed at individuals lost significance when distributive justice entered the regression model, supporting mediation. Although prior research, and this study, has failed to find a relationship between satisfaction and in-role performance, results consistently show relationships between satisfaction and extra-role behaviors (Organ & Ryan, 1995). A potential explanation why pay satisfaction influences OCBI, but not in-role performance, is that, unlike task performance, the performance of OCBs is not constrained by limitations of ability or by work processes (Bateman & Organ, 1983; Organ & Ryan, 1995; Smith, Organ, & Near, 1983). Thus, individuals who are more satisfied with the components of their pay are more likely to engage in behaviors that assist their co-workers although these behaviors are not specifically related to their job duties. As expected, the influence of pay satisfaction on OCBI will be indirect through perceptions of fairness regarding outcomes.

As hypothesized, job satisfaction is directly influenced by both raise satisfaction ($\beta = .16, p < .001$) and benefit satisfaction ($\beta = .11, p < .05$). Benefit satisfaction (2.1%) and raise satisfaction (6.5%) explain a significant amount of the variance in job satisfaction beyond the influence of demographic variables and organizational commitment. These findings are

consistent with the expectations expressed in the literature (Lee & Martin, 1996; Shapiro & Wahba, 1978) and prior empirical findings (Miceli et al., 1991) focused on global pay satisfaction. These findings are important since the significant findings relating benefit satisfaction and raise satisfaction to job satisfaction more precisely pinpoint what compensation components influence satisfaction with one's job.

As mentioned above, job satisfaction's expected relationship with job performance has not been found, but satisfaction with one's job might provide the foundation upon which an individual might be motivated to perform at higher levels by other factors in the organization. Ensuring that an individual's benefit package is satisfactory and that satisfying raises are received at acceptable times will make it more likely that an individual is satisfied with his or her job. Although the two dimensions of pay satisfaction do explain a significant amount of variance, the results presented in Appendix E, Tables 12 and 13, suggest that affective commitment ($\beta = .37, p < .001$ with benefits; $\beta = .36, p < .001$ with raises) and distributive justice ($\beta = .27, p < .001$ with benefits; $\beta = .20, p < .001$ with raises) have a much greater influence on job satisfaction. While the influence of benefit satisfaction and raise satisfaction may not be as great as affective commitment or distributive justice, they are important determinants of job satisfaction.

Figure 10 presents the results of the hypotheses associated with Propositions 5 and 6. These findings are not as consistent with expectations as were the results of the tests relating pay satisfaction dimensions to organizational justice and job-focused consequences. The discrepancies lie in the expected relationships with consequences expected to relate indirectly to raise satisfaction and structure/administration satisfaction based on the cognitive component of the pay satisfaction dimensions. As expected, procedural justice mediated the relationships

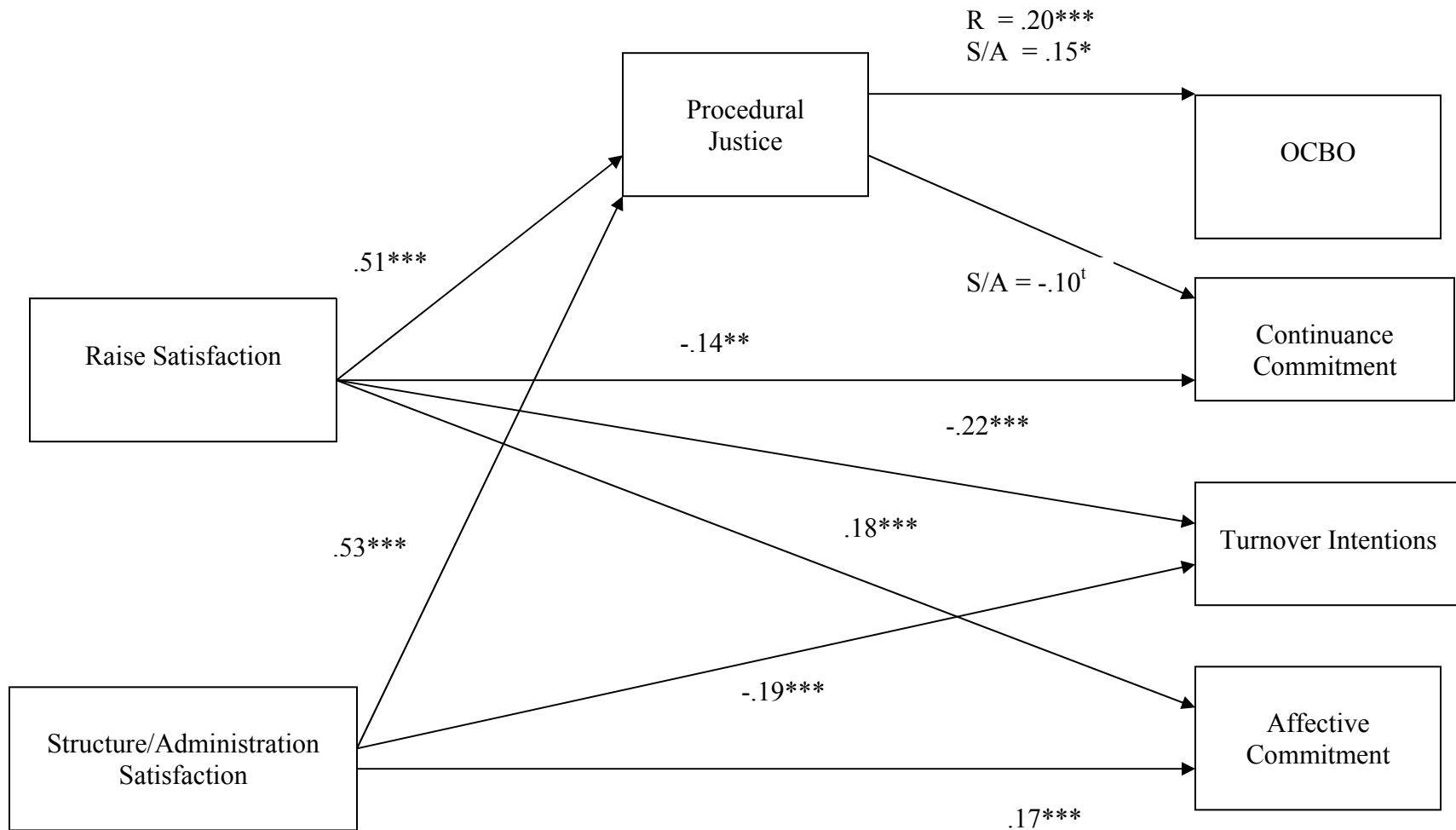


Figure 10

Results of Single Dimension Regression Analyses

Propositions 5 & 6

between raise satisfaction and structure/ administration satisfaction with organizational citizenship behaviors focused on the organization and the influence of structure/ administration satisfaction on continuance commitment. Contrary to expectations, raise satisfaction ($\beta = -.22$, $p < .001$) and structure/administration ($\beta = -.19$, $p < .001$) directly influence turnover intentions and raise satisfaction directly relates to continuance commitment ($\beta = -.14$, $p < .01$).

Although these results were not as hypothesized, they should not be considered as damaging to the underlying focus of the paper, to demonstrate differential relationships between the dimensions of pay satisfaction and consequences. This is especially true for continuance commitment. Structure/administration satisfaction's mediated relationship supports the model while raise satisfaction's relationship is contrary to expectations. The model does not explain the results, but the findings show employees do discriminate between the two dimensions of pay satisfaction because they have different influences on their commitment to the organization based on investments in the organization.

The direct influence of the dimensions on turnover intentions rather than the expected mediated relationship through procedural justice might be due to the mis-classification of the consequence. The relationship might not be based on a cognitive process, but affect. It was proposed that in determining whether or not to leave the organization the individual would weigh the costs of staying in the organization against the benefits of leaving which include how satisfied the individual is with the raises received and how the organization determines pay. From these results, it is possible that the decision to leave may be more of an emotional, or affective, reaction to the pay policies of the organization and the raises received. That is, if the person is happy with how the organization determines pay and the raises they have received, they are less likely to leave.

The one consequence that was expected to directly relate to raise satisfaction and structure/administration satisfaction did. Raise satisfaction ($\beta = .18, p < .001$) and structure/administration ($\beta = .17, p < .001$) directly influenced affective commitment. This finding is consistent with expectations expressed in prior work (Heneman & Judge, 2000; Lee & Martin, 1996). The degree to which an individual will wish to remain with the organization due to his or her emotional attachment to and identification with the organization is positively influenced by his or her satisfaction with raises and how pay decisions are made in the organization.

Viewing the results from the perspective of the propositions rather than the specific hypotheses, the model performs very well once the performance measure is removed. Five of the six propositions are supported. Beyond providing support for the model, the results of the individual dimension regression analyses also support the multidimensional conceptualization of pay satisfaction. This study shows that the pay satisfaction dimensions differentially impact consequences. In conjunction with the work analyzing the factor structure of the PSQ and Judge (1993) that showed the individual dimensions of pay satisfaction are influenced by unique antecedents, the results of this study create a nomological network for the individual dimensions of pay satisfaction.

Comparative Results of Alternate Analyses

While the results of the single dimension regression analyses are fairly straightforward and fit the model to some degree, when the results of the regressions that include all of the dimensions of pay satisfaction are taken into account, interpretation becomes more complicated. In addition to the difficulty created by the inconsistent results, the findings are also difficult to interpret because of the high correlations among the pay satisfaction dimensions. Although prior

analyses have shown that the dimensions are distinct, the dimensions have very high correlations with each other, between .53 and .75. These strong intercorrelations make it difficult to determine which dimension is responsible for explanation of variance in the consequences. Also, high correlation among the pay satisfaction dimensions makes it more challenging to find significant relationships between the dimensions of pay satisfaction and the consequences because each of the dimensions may have very little unique contribution (Bobko, 1995).

With this concern in mind, Figure 11 presents the results of the hypotheses tests for Propositions 1 and 2. Consistent with the single dimension analyses, pay level satisfaction ($\beta = .42, p < .001$) and raise satisfaction ($\beta = .16, p < .001$) significantly influenced distributive justice. Raise satisfaction ($\beta = .30, p < .001$) and structure/administration satisfaction ($\beta = .34, p < .001$) continued to significantly influence procedural justice. The one expected relationship not found was the relationship between benefit satisfaction and distributive justice. Additionally, an unexpected significant relationship was found between structure/administration satisfaction and distributive justice ($\beta = .30, p < .001$) that was second only in size to pay level satisfaction. Together, the dimensions of pay satisfaction account for a large amount for variance in both distributive ($\Delta R^2 = .54, p < .001$) and procedural justice ($\Delta R^2 = .29, p < .001$) beyond the influence of the control variables. These findings add further support to the contention that if an individual is satisfied with his or her pay he or she will be more likely to perceive fairness in his or her exchanges with the organization.

Figure 12 presents the results of the hypotheses tests for Propositions 3 and 4. The only consistent findings from the single regression analyses are the lack of significant relationships between pay level satisfaction and benefit satisfaction with job performance and the significant influence of raise satisfaction on job satisfaction. Neither pay level satisfaction nor benefit

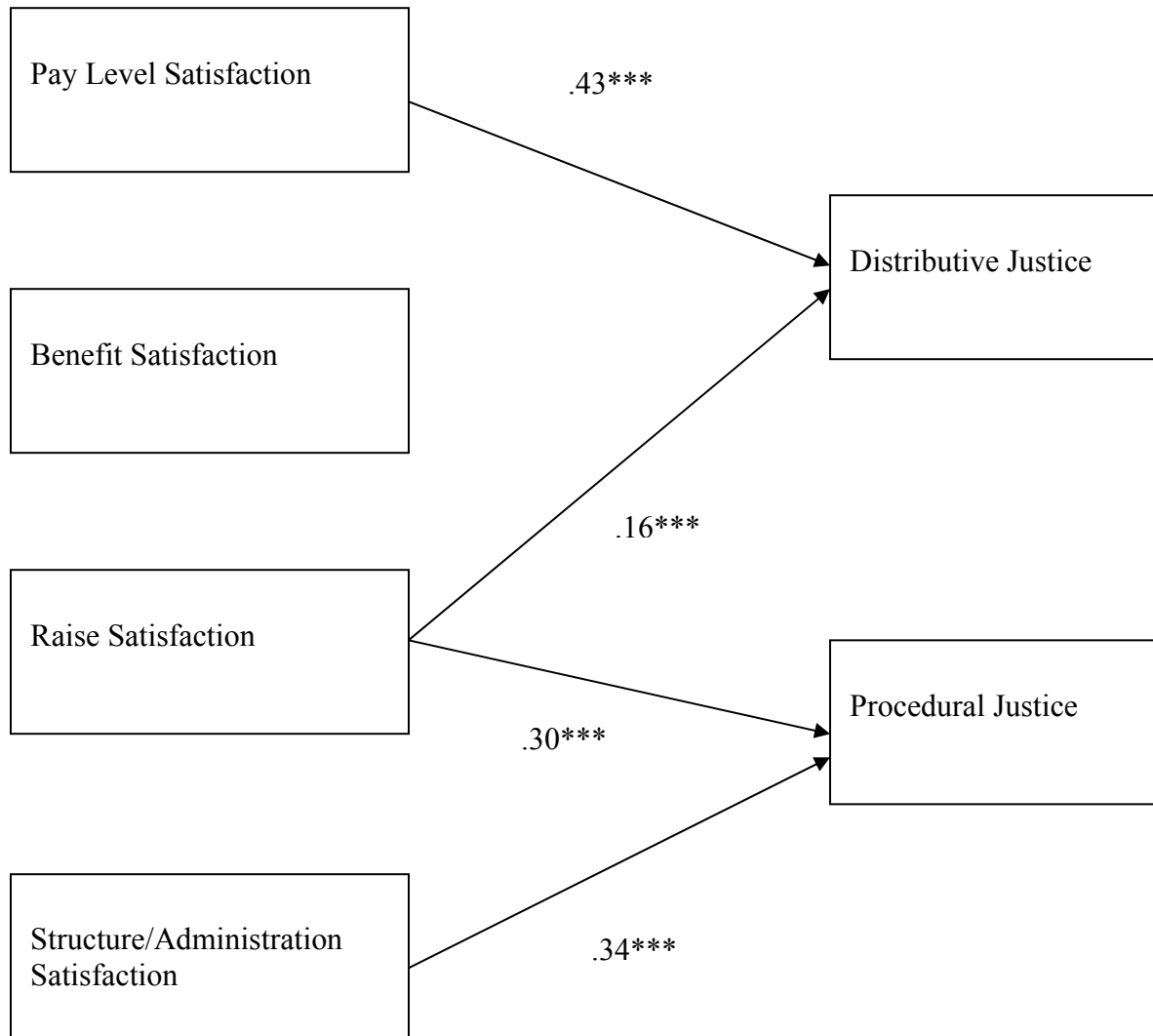


Figure 11
 Results of All Dimension Regression Analyses
 Propositions 1 & 2

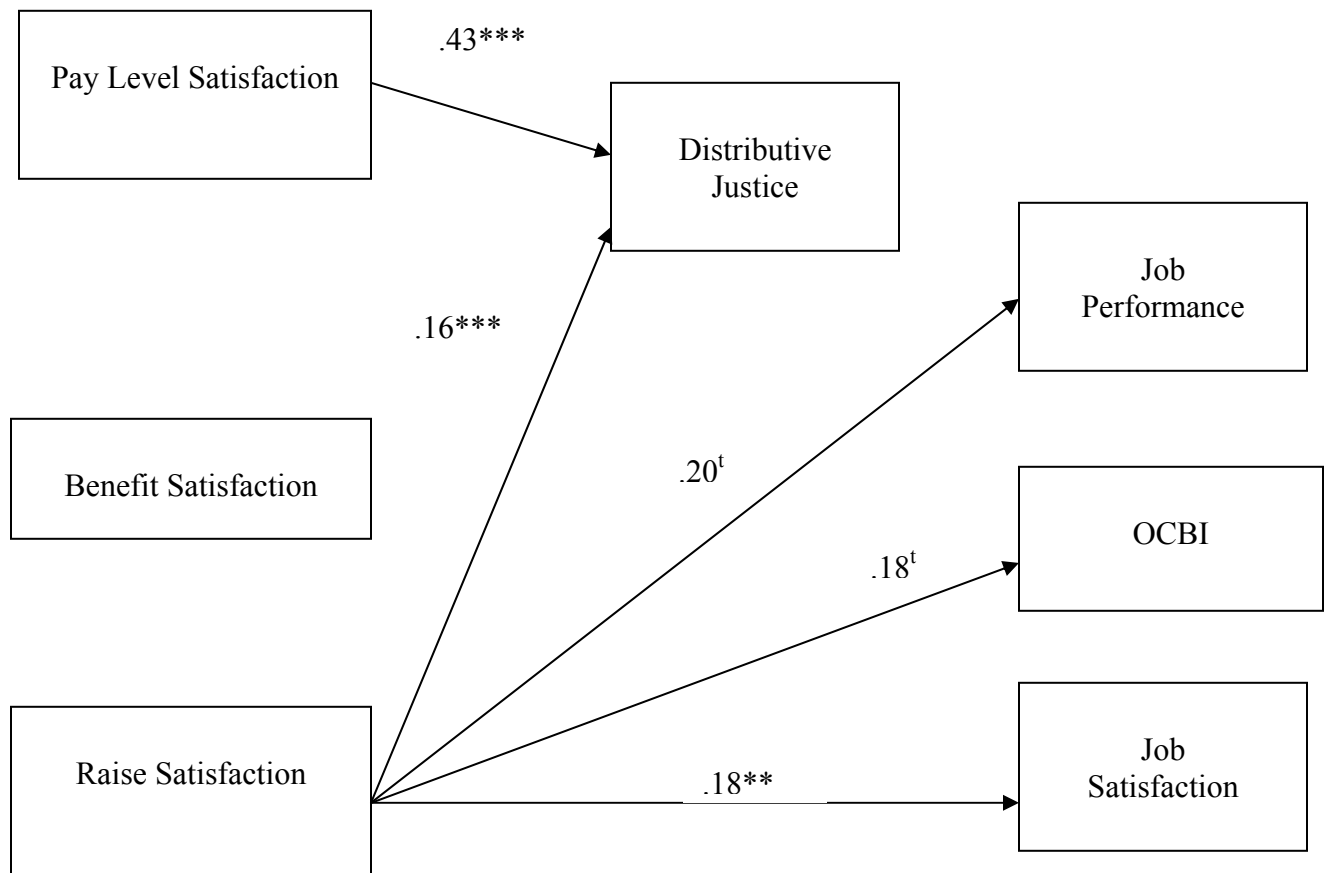


Figure 12

Results of All Dimension Regression Analyses

Propositions 3 & 4

satisfaction have significant relationships with any of the consequences. Raise satisfaction's relationship with OCBI is no longer mediated by distributive justice, but is direct. In addition, job performance is now directly influenced by raise satisfaction. These findings suggest that, of the dimensions of pay satisfaction, satisfaction with raises is most important. According to these results, the more satisfied an individual is with his or her raises the more likely he or she will engage in both in- and extra-role behaviors and he or she will be more satisfied with his or her job. Although this is an important finding, it seems that demographic variables are much more important in determining performance levels with pay level and sex impacting job performance and job level, race, and sex influencing OCBI to a much greater degree than raise satisfaction. The significant pay level – job performance relationship brings into question whether it is satisfaction with pay or the pay itself that influences performance of one's jobs duties. It may be the case in this organization that individual's are directly rewarded for their performance which motivates employees to perform at higher levels.

Figure 13 presents the findings of the hypotheses tests for Propositions 5 and 6. Raise satisfaction continues to have direct negative influences on the turnover intentions and the level of continuance commitment of the employees. In addition, raise satisfaction now has a direct influence on the likelihood that employees will engage in OCBO whereas it had no relationship with OCBO in the initial regression equations. Another difference between these results and prior findings is that procedural justice now mediates the formerly direct relationships between raise satisfaction and structure/ administration satisfaction and affective commitment. The final differences involve structure/administration satisfaction that now has no relationship with continuance commitment, OCBO or turnover intentions. These findings suggest that, when taking all of the dimensions of pay satisfaction into account simultaneously, raise satisfaction is

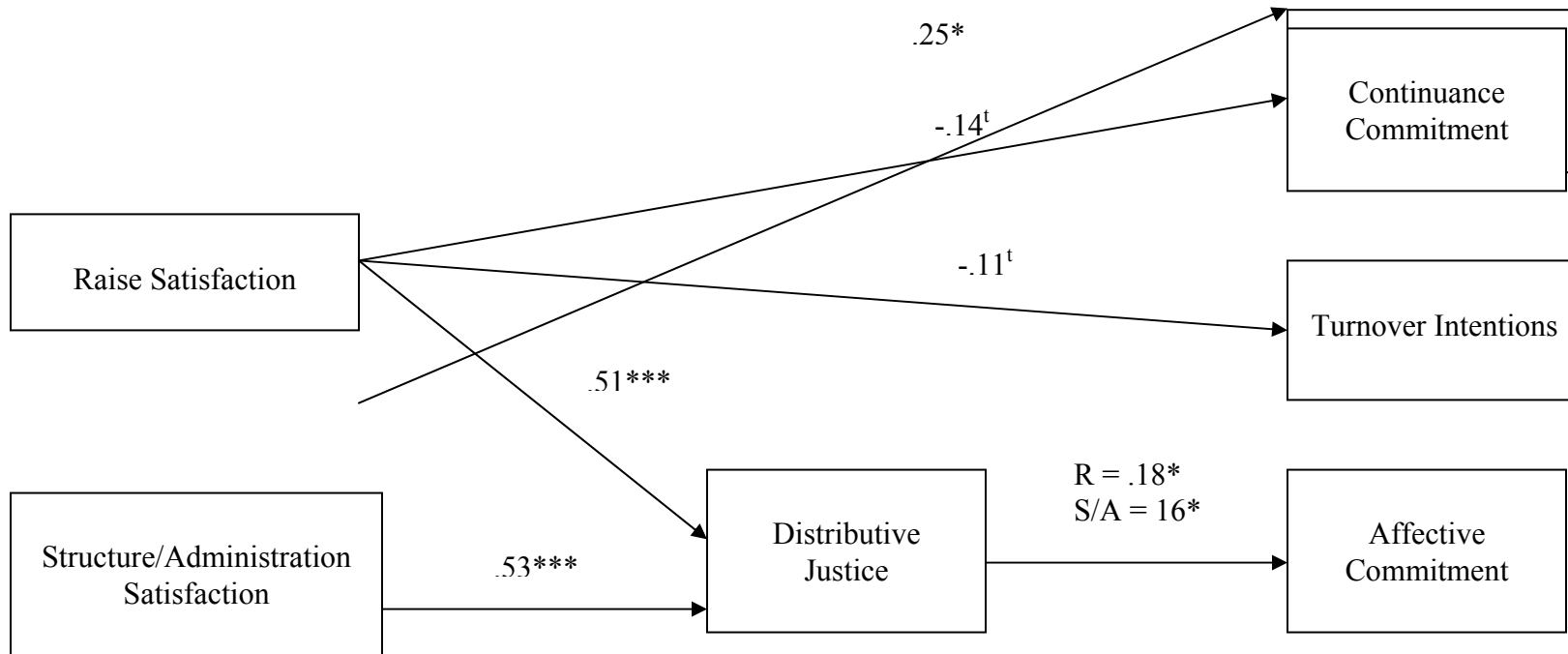


Figure 13

Results of All Dimension Regression Analyses

Propositions 5 & 6

most important. More specifically, the measurement of raise satisfaction may capture the important component of structure/administration satisfaction that influences OCBO, continuance commitment, and turnover intentions.

The majority of the relationships that change between the analyses with single dimensions and all dimensions involve the lack of initial relationships between the pay satisfaction dimensions and the consequences. This finding rules out direct or mediated relationships. The reason for this may be due to the high correlations between the dimensions of pay satisfaction. The results do show that one dimension of pay satisfaction, raise satisfaction, influences all but one of the consequences directly; even with perceptions of fairness taken into account.

When considered together, the results of the two analyses do not provide support for the overall model, nor consistent relationships between the dimensions of pay satisfaction and the consequences. However, the results do suggest that the basic premise of the model, that it is important to consider pay satisfaction as a multidimensional construct with individual dimensions influencing outcomes differently, is tenable.

Contributions to the Literature

This dissertation provides the first step in closing a gap in the pay satisfaction literature that has been pointed out by several researchers over the past two decades (Heneman & Judge, 2000; Judge, 1993; Judge & Welbourne, 1994). Despite the advances made in pay satisfaction in regard to its conceptualization and antecedents, very little work has been done to determine what influence pay satisfaction might have on important outcomes in organizations. While equity theory and its derivative, discrepancy theory, have guided research on pay satisfaction antecedents, no theoretical model has been offered to explain how pay satisfaction influences

other variables. The purpose of this study was to develop and test this much sought after theoretical model.

Although the results did not fully support the proposed model, it does provide a starting point for future research. The results suggest pay satisfaction dimensions do have significant influences on consequences. Perhaps more importantly for the pay satisfaction research stream, results provide further support for the multidimensional nature of pay satisfaction, as the influences on consequences differ among the pay satisfaction dimensions. These differences add further support to the contention that pay satisfaction should not be considered a global construct, but one with related, but distinct dimensions.

Beyond providing the first step in future research on pay satisfaction consequences, this study provides the most comprehensive analyses of pay satisfaction's relationship to outcome variables. To this point very few studies have investigated what influence pay satisfaction might have on other variables. Other studies have found relationships between pay satisfaction and whistleblowing (Miceli, Near, & Schwenk, 1991), turnover intentions (Motowildo, 1983), and job satisfaction (Miceli, Jung, Near, & Greenberger, 1991), but very few have assessed pay satisfaction's influence on numerous variables at one time. Further, no previous study has assessed the differential effects of all the dimensions of pay satisfaction on those consequences.

A specific departure from prior research is the pay satisfaction's hypothesized influence on organizational justice. Previous work consistently argues the opposite; that fairness perceptions influence satisfaction (Dailey & Kirk, 1992; Davis & Ward, 1995; Dulebohn & Martocchio, 1998; Martin & Bennett, 1996; Scarpello & Jones, 1996; Tremblay et al., 1999). Although the methods to gather the data and the cross-sectional design prevent a definitive test

of causality, the results of this study do support the possibility that satisfaction with one's pay may influence perceptions of fairness.

From a purely methodological standpoint, this study has provided the first test of the discriminant validity of the dimensions of the PSQ by simultaneously looking at their influences on consequences. Most studies have tested the dimensionality of the PSQ by performing factor analyses (Carragher, 1991; DeConnick et al., 1996; Heneman & Scwab, 1985; Orpen & Bonnici, 1987; Sturman & Short, 2000). One other study did test the dimensionality of the PSQ by examining differential relations with other variables, but it did so with antecedents (Judge, 1993).

Implications for Practice

One of the primary purposes of this study is to provide managers advice on how to make compensation decisions. Pay and its components are major expenses to organizations and with a highly competitive environment in most industries, it is important that managers allocate scarce resources in a manner that they get the "most bang for the buck." Gerhart and Milkovich (1992) suggest that pay satisfaction has many important influences on individual, group and organizational outcomes. The importance of this study is that it provides information on what dimensions of pay satisfaction might influence particular outcomes. If pay satisfaction is treated as a global construct, valuable information regarding how resources should be allocated when making compensation decisions would be lost.

Although there are conflicting results across the analyses, one suggestion that can be given is that if improving task performance is the aim of the organization, increasing pay satisfaction or satisfaction with any of its particular dimensions should not be a focus. Training and job design would more likely improve employee performance. However, if increasing the number of extra-role behaviors is important, increasing employee satisfaction with different

components of pay may be a good idea. In the single dimension analyses pay level satisfaction, benefit satisfaction, and raise satisfaction all indirectly influenced OCBI while raise satisfaction and structure/administration satisfaction indirectly influence OCBO. Even though pay satisfaction does not influence specific task-related performance, pay satisfaction's potential for increasing the number of extra-role behaviors that contribute to the effectiveness of the organization is noteworthy.

Increasing satisfaction with the different components of pay has also been shown to significantly influence an individual's intention to leave the organization. According to the analyses with all dimensions of pay satisfaction, increasing employees' satisfaction with their benefits should be the focus. Depending on the method of analysis, benefit satisfaction, structure/administration, and raise satisfaction had significant negative influences on turnover intentions. Beyond the direct effects tested in the model, pay satisfaction might also have indirect influences on turnover intentions in an organization as several of the dimensions had significant impacts on job satisfaction, affective commitment, and continuance commitment which have been shown to be important antecedents of turnover intentions. If managers are interested in retaining members of their workforce, it would be wise to focus on increasing pay satisfaction.

One of the most consistent implications for organizations is that raises are important. As hypothesized, raises had significant relationships with all of the consequences in the model. Actually, raise satisfaction had more direct and indirect influences on consequences than all other dimensions combined, with larger effect sizes in most instances.

According to the results of the individual dimension regression models, raise satisfaction is directly related to both affective and continuance commitment, turnover intentions, procedural

justice, distributive justice, and job satisfaction. Raise satisfaction also has indirect influences on organization citizenship behaviors focused on both the organization and individuals through procedural justice. In the more conservative regression models with all dimensions included, raise satisfaction is directly related to both distributive and procedural justice, job performance, continuance commitment, turnover intentions, OCBI, OCBO and job satisfaction and indirectly related to affective commitment. So if the organization would like to have employees who are satisfied with their jobs, more likely to engage in extra-role behaviors, more committed to the organization, and are less likely to leave, it would be wise to increase raise satisfaction. With this information, and that provided by Judge (1993), managers should focus attention on reducing the period of time between raises and making sure that employees consistently receive appropriate raises.

The fact that the model did not receive complete support should not be of concern to the practitioner. It is not the underlying theory that is important in the workplace, but the results. If the findings of the study are correct, and the predictions made are accurate, managers can use the conclusions drawn from this study to alter their compensation policies to influence outcomes important to their organizations (Dubin, 1976).

Limitations and Future Research

As in all research, this study has several limitations. The first is that the data were collected from a single organization. Although the organization was diverse with respect to demographic characteristics, pay levels, and job classification, it is still a single organization. This may reduce the generalizability of the findings. It may be that the findings of this study may be specific to the organization. One particular concern is that the organization is a state agency with a very strict pay policy. It may be that in a private organization the findings may be

very different. Future research should explore this possibility by testing the model in other settings, especially in private industry.

Another limitation is the data for the study was collected at a single point in time. The cross-sectional nature of the data prevents causal inferences. In order to prove causality, one must show temporal precedence that can only be done with data collected at least at two different points in time. One of the key differences between this study and past research is that pay satisfaction is hypothesized to influence organizational justice, rather than vice versa. Prior research has made this presumption, but due to similar design flaws, the causal relationship between the constructs could not be definitively proven. Although there are several studies that make the argument that perceptions of fairness will influence satisfaction with pay dimensions (Folger & Konovsky, 1989; McFarlin & Sweeney, 1992; Price & Mueller, 1981; Sweeney & McFarlin, 1993), it is equally plausible that the relationship is reversed (Heneman & Judge, 2000). However, this study did not improve on prior designs to clarify the issue. Future research should use a longitudinal design to clarify causal relationships hypothesized in the model.

In addition to the causal relationship between pay satisfaction and organizational justice, how the individual dimensions and types of justice relate is also still open to question. The model followed the suggestion of Heneman and Judge (2000) to relate the outcome-based dimensions to distributive justice and procedure-based dimensions to procedural justice. However, in the analyses using all dimensions of pay satisfaction, benefit satisfaction failed to significantly relate to distributive justice, but structure/ administration had a significant relationship with distributive justice. This finding was inconsistent with expectations. To test for other potential unexpected relationships the all dimension regressions were run with both types of justice in the equation, not just the type hypothesized. These results are presented in

Appendix F. Most of the relationships did not change. However, when distributive justice is added to the regression relating the pay satisfaction dimensions to turnover intentions, raise satisfaction's effect loses its significance. This suggests that distributive justice might influence the raise-turnover intention relationship, not procedural justice. Future work should explore these relationships further.

A limitation mentioned during the discussion of the regression results including all pay satisfaction dimensions is the high correlations among the pay satisfaction dimensions. High correlation among the independent variables makes it difficult to determine which independent variable is responsible for the changes in the dependent variable and makes it less likely to find significant relationships because each of the dimensions may have little unique contribution to the influence on the consequence (Bobko, 1995). Two possible solutions to this problem are to combine the dimensions or to drop a dimension. Since one of the main foci of this stream of research is to prove the multidimensional nature of the pay satisfaction construct, this would be a step backward. Before doing this, a third potential solution, increasing sample size, should be explored. If a larger sample size does not resolve the problem, reassessing the dimensions may be necessary.

Another potential limitation is the use of a single instrument to measure pay satisfaction. Although the PSQ has received substantial support in the literature, it is not universally accepted. In order to verify these results, future research should use other instruments, such as the CPSQ (Williams et al., 1999) to measure pay satisfaction. This task should not be difficult, given the availability of a sample, as guidelines for applying other measures of pay satisfaction have been provided in this paper.

The final potential limitation is the subjectivity associated with classifying both the dimensions of pay satisfaction and consequences leaves opportunity for error. How one classifies these variables after reading their definitions and assessing the scale items used to measure the variable requires individual interpretation. As mentioned earlier, this may have led to the unexpected results with turnover intentions. To reduce the amount of subjectivity, future research should use multiple individuals to determine the classification of the dimensions of pay satisfaction and the consequences.

Conclusion

In summary, the purpose of this study was to develop and test a general model of pay satisfaction consequences. Although, the model did not receive full or consistent support from the analyses, the results did support an underlying focus of the study - that the dimensions of pay satisfaction do have differential impacts on outcome variables. The results provide further support for the multidimensional nature of the pay satisfaction and point out that there is some benefit to treating it as such. Since the results of the different analyses were inconsistent and at times contradictory, very few definitive statements can be made. One is that raise satisfaction is very important in that it appears to influence numerous consequences. Another is that pay satisfaction has very little impact on performance. Hopefully, this initial foray into the development of a pay satisfaction consequences model will spur other researchers to build on its foundation in order to gain a better understanding of pay satisfaction's influence in organizations.

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Appendix A Scale Items

Job Satisfaction (adapted from Hackman & Oldham, 1975)

1. Generally speaking, I am very satisfied with this job.
2. I am generally satisfied with the kind of work I do in this job.
3. Most people on this job are very satisfied with the job.

Pay Satisfaction (Heneman & Schwab, 1985 [1st 18]; Blau, 1994 [last two])

1. My take home pay. (PL 1)
2. My benefit package. (B 1)
3. My most recent raise. (R 1)
4. Influence my supervisor has on my pay. (R 2)
5. My current salary. (PL 2)
6. Amount the company pays toward my benefits. (B 2)
7. The raises I have typically received in the past. (R 3)
8. The company's pay structure. (SA 1)
9. Information the company gives about pay issues of concern to me. (SA 2)
10. My overall level of pay. (PL 3)
11. The value of my benefits. (B 3)
12. Pay of other jobs in the company. (SA 3)
13. Consistency of the company's pay policies. (SA 4)
14. Size of my current salary. (PL 4)
15. The number of benefits I receive. (B 4)
16. How my raises are determined. (R 4)
17. Differences in pay among jobs in the company. (SA 5)
18. How the company administers pay. (SA 6)
19. The pay criteria or job evaluation factors used by the company. (SA 7)
20. The accuracy of my most recent performance appraisal. (SA 8)

Organizational Commitment (Meyer, Allen & Smith, 1990)

1. I would be very happy to spend the rest of my career with this organization.
2. I really feel as if this organization's problems are my own.
3. I do not feel a strong sense of "belonging" to my organization (R).
4. I do not feel "emotionally attached" to this organization. (R)
5. I do not feel like "part of the family" at my organization. (R)
6. This organization has a great deal of personal meaning for me.
7. Right now, staying with my organization is a matter of necessity as much as desire.
8. It would be very hard for me to leave my organization right now, even if I wanted to.
9. Too much of my life would be disrupted if I decided I wanted to leave my organization now.
10. I feel that I have too few options to consider leaving this organization.

11. If I had not already put so much of myself into this organization, I might consider working elsewhere.
12. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.

Procedural Justice (Greenberg, 1986)

In this organization . . .

1. Consistent rules and procedures are used to make decisions about things that affect me.
2. Personal motives or biases influence decisions that affect me.(R)
3. Decisions that affect me are made ethically.
4. Accurate information is used to make decisions that affect me.
5. My input is obtained prior to making decisions.
6. I am given the opportunity to modify decisions that have already been made.
7. The reasons behind decisions that affect me are explained.
8. Concern is shown for my rights.
9. There is a real interest in trying to be fair to me.

Distributive Justice (Price & Mueller, 1986)

I am fairly rewarded. . .

1. Considering the responsibilities I have.
2. Taking into account the amount of education and training that I have had.
3. In view of the amount of experience I have.
4. For the amount of effort that I put forth.
5. For work that I have done well.
6. For the stresses and strains of my job.

Organizational Citizenship Behavior (Williams & Anderson, 1991)

1. Help others who have been absent.
2. Help others who have heavy work loads.
3. Assist supervisor with his/her work (when not asked).
4. Take time to listen to co-workers' problems and worries.
5. Go out of the way to help new employees.
6. Take a personal interest in other employee.
7. Pass along information to co-workers.
8. Attend work more than others.
9. Give advance notice when unable to go to work.
10. Take undeserved breaks. (R)
11. Spend a great deal of time on personal phone conversations. (R)
12. Complain about insignificant things at work. (R)
13. Conserve and protects organizational property.
14. Adhere to informal rules devised to maintain order.

Performance (RBPS; Welbourne, Johnson, & Erez, 1998)

1. Quantity of work output.
2. Quality of work output.
3. Accuracy of work.
4. Customer service provided.
5. Obtaining personal career goals.
6. Developing skills needed for future career.
7. Making progress in career.
8. Seeking out career opportunities.
9. Coming up with new ideas.
10. Working to implement new ideas.
11. Finding improved ways to do things.
12. Creating better processes and routines.
13. Working as part of a team or work group.
14. Seeking information from others in work group.
15. Making sure work group succeeds.
16. Responding to the needs of others in work group.
17. Doing things that help others when its not part of my job.
18. Working for the overall good of the company.
19. Doing things to promote the company.
20. Helping so the company is a good place to be.

Intent to Turnover (Mowday, Steers, & Porter, 1979)

1. I feel very little loyalty to the organization.
2. I could just as well be working for a different organization as long as the type of work was similar.
3. It would take very little change in my present circumstances to cause me to leave this organization.
4. There's not too much to be gained by sticking with this organization indefinitely.
5. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.
6. Deciding to work for this organization was a definite mistake on my part.

Comparisons (Rice, Phillips, & McFarlin, 1990)

1. What should be the annual salary of people holding jobs comparable to your own? (deserved)
2. Please think of the one person at work with whom you most compare yourself. What is that person's salary?
3. Please estimate the average annual salary in your region for people holding jobs comparable to your own.
4. What would you consider to be the minimally acceptable annual salary for people holding jobs comparable to your own?

5. Please estimate the average annual salary of people holding similar educations and with similar experience in other industries in your region.
6. Please estimate your average annual salary over the past 5 years.

Facet Importance

- Supervision.
- Relationships with co-workers.
- Time off.
- Reasonable scheduling.
- Promotion opportunities.
- Interesting and rewarding work.
- Take-home pay.
- Benefits package.
- Participation in decision making.
- A physically comfortable work space.

Absenteeism

1. How many work days did you miss in the last six months (not counting vacation)?
2. In comparison to others how would you rank your attendance?

Appendix B Employee Survey

The statements below describe various aspects of your pay. For each statement, decide how satisfied or dissatisfied you feel about your pay, and put the number in the corresponding blank that best indicates your feeling.

1. Very Dissatisfied 2. Dissatisfied 3. Slightly Dissatisfied 4. Neither Satisfied nor Dissatisfied 5. Slightly Satisfied 6. Satisfied 7. Very Satisfied

- ___ 1. Take home pay.
- ___ 2. My benefit package.
- ___ 3. My most recent raise.
- ___ 4. Influence my supervisor has on my pay.
- ___ 5. My current salary.
- ___ 6. Amount the company pays toward my benefits.
- ___ 7. The raises I have typically received in the past.
- ___ 8. The company's pay structure.
- ___ 9. Information the company gives about pay issues of concern to me.
- ___ 10. My overall level of pay.
- ___ 11. The value of my benefits.
- ___ 12. Pay of other jobs in the company.
- ___ 13. Consistency of the company's pay policies.
- ___ 14. Size of my current salary.
- ___ 15. The number of benefits I receive.
- ___ 16. How my raises are determined.
- ___ 17. Differences in pay among jobs in the company.
- ___ 18. How the company administers pay.
- ___ 19. The pay criteria or job evaluation factors used by the company.
- ___ 20. The accuracy of my most recent performance appraisal.

The following questions concern your work-related attitudes. Please indicate the degree of your agreement or disagreement with each statement. In the blank next to each statement, write the number 1, 2, 3, 4, or 5 which corresponds to the following scale:

1. Strongly Disagree 2. Disagree 3. Slightly Disagree 4. Neutral 5. Slightly Agree 6. Agree 7. Strongly Agree

- ___ 1. Generally speaking, I am very satisfied with this job.
- ___ 2. I am generally satisfied with the kind of work I do in this job.
- ___ 3. Most people on this job are very satisfied with the job.
- ___ 4. I would be very happy to spend the rest of my career with this organization.
- ___ 5. I really feel as if this organization's problems are my own.
- ___ 6. I do not feel a strong sense of "belonging" to my organization.

- 7. I do not feel "emotionally attached" to this organization.
- 8. I do not feel like "part of the family" at my organization.
- 9. This organization has a great deal of personal meaning for me.
- 10. Right now, staying with my organization is a matter of necessity as much as desire.
- 11. It would be very hard for me to leave my organization, even if I wanted to.
- 12. Too much of my life would be disrupted if I decided I wanted to leave my organization now.
- 13. I feel that I have too few options to consider leaving this organization.
- 14. If I had not already put so much of myself into this organization, I might consider working elsewhere.
- 15. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.
- 16. I feel very little loyalty to the organization.
- 17. I could just as well be working for a different organization as long as the type of work was similar.
- 18. It would take very little change in my present circumstances to cause me to leave this organization.
- 19. There's not too much to be gained by sticking with this organization indefinitely.
- 20. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.
- 21. Deciding to work for this organization was a definite mistake on my part.

In this organization . . .

- 24. Consistent rules and procedures are used to make decisions about things that affect me.
- 25. Personal motives or biases influence decisions that affect me.
- 26. Decisions that affect me are made ethically.
- 27. Accurate information is used to make decisions that affect me.
- 28. My input is obtained prior to making decisions.
- 29. I am given the opportunity to modify decisions that have already been made.
- 30. The reasons behind decisions that affect me are explained.
- 31. Concern is shown for my rights.
- 32. There is a real interest in trying to be fair to me.

I am fairly rewarded. . .

- 33. Considering the responsibilities I have.
- 34. Taking into account the amount of education and training that I have had.
- 35. In view of the amount of experience I have.
- 36. For the amount of effort that I put forth.
- 37. For work that I have done well.
- 38. For the stresses and strains of my job.

Please answer each of the questions below by marking the number next to the description which best fits you or by writing the correct information.

1. Are you -
 - (1) Female
 - (2) Male

2. What is your education level (indicate highest completed)?
 - (1) Some elementary school (grades 1-7)
 - (2) Completed elementary school (8th grade)
 - (3) Some high school (grades 9-11)
 - (4) Graduated high school or GED
 - (5) Some college or technical training beyond high school (1-3 years)
 - (6) Graduated from college (B.A., B.S. or other Bachelor's degree)
 - (7) Some graduate school
 - (8) Graduate degree (Masters, Ph. D., M.D., etc.)

3. What is your marital status?
 - (1) Married
 - (2) Divorced/Separated/Widowed
 - (3) Single, Never married

4. What is your ethnic background?
 - (1) African-American
 - (2) Oriental
 - (3) Hispanic
 - (4) American Indian
 - (5) White
 - (6) None of the above

5. How old were you on your last birthday?
_____ years

6. Is your income the primary source of financial support for your immediate family?
 - (1) Yes
 - (2) No

7. How many dependents do you have (others who depend on your income for support)?
_____ dependents

8. How long have you worked for your organization?
_____ years, _____ months

9. How long have you been in your current position?

_____ years, _____ months

10. How would you classify your position?

- (1) operational employee (actually produce good or service)
- (2) front-line manager
- (3) lower-middle manager
- (4) upper-middle manager
- (5) top management

11. Are you paid:

- (1) Hourly
- (2) Salary

12. What is your current annual salary?

\$ _____

13. What should be the annual salary of people holding jobs comparable to your own?

\$ _____

14. Please think of the one person at work with whom you most compare yourself. What is that person's salary?

\$ _____

15. Please estimate the average annual salary in your region for people holding jobs comparable to your own.

\$ _____

16. What would you consider to be the minimally acceptable annual salary for people holding jobs comparable to your own?

\$ _____

17. Please estimate the average annual salary of people holding similar educations and with similar experience in other industries in your region.

\$ _____

18. Please estimate your average annual salary over the past 5 years.

\$ _____

How many work days did you miss in the last six months (not counting vacation)?

- (1) 0
- (2) 1-3 days
- (3) 4-6 days
- (4) 7-9 days
- (5) 10 or more

In comparison to others how would you rank your attendance?

- (1) One of the best
- (2) Above average
- (3) Average
- (4) Below average
- (5) One of the worst

Please rank the following aspects of your job; 1 being the most important, 10 the least.

- | | |
|--|--------------------------------|
| _____ Supervision. | _____ Take-home pay. |
| _____ Benefits package. | _____ Reasonable scheduling. |
| _____ Participation in decision making. | _____ Promotion opportunities. |
| _____ A physically comfortable work space. | _____ Interesting work. |
| _____ Relationships with co-workers. | _____ Time off. |

Appendix C Supervisor Survey

The statements below describe various aspects of employee performance. For each statement, decide how you would rate the focal employee and put the number in the corresponding blank that best indicates your feeling. Use the following scale: 1 = Terrible; 2 = Needs much improvement; 3 = Needs some improvement; 4 = Satisfactory; 5 = Fair; 6 = Good; and 7 = Excellent.

- _____ Quantity of work output.
- _____ Quality of work output.
- _____ Accuracy of work.
- _____ Customer service provided.
- _____ Obtaining personal career goals.
- _____ Developing skills needed for his/her future career.
- _____ Making progress in his/her career.
- _____ Seeking out career opportunities.
- _____ Coming up with new ideas.
- _____ Working to implement new ideas.
- _____ Finding improved ways to do things.
- _____ Creating better processes and routines.
- _____ Working as part of a team or work group.
- _____ Seeking information from others in his/her work group.
- _____ Making sure his/her work group succeeds.
- _____ Responding to the needs of others in his/her work group.
- _____ Doing things that help others when its not part of their job.
- _____ Working for the overall good of the company.
- _____ Doing things to promote the company.
- _____ Helping so that the company is a good place to be.

Please rank these activities according to how often the focal employee performs them. Please use the following scale: 1 = Never; 2 = Rarely; 3 = Infrequently; 4 = Sometimes; 5 = Often; 6 = Frequently; and 7 = Always.

- _____ Helps others who have been absent.
- _____ Helps others who have heavy work loads.
- _____ Assists you with your work (when not asked).
- _____ Takes time to listen to co-workers problems and worries.
- _____ Goes out of the way to help new employees.
- _____ Takes a personal interest in other employees.
- _____ Passes along information to co-workers.
- _____ Attends work more than others.
- _____ Gives advance notice when unable to come to work.
- _____ Takes undeserved breaks.
- _____ Spends a great deal of time on personal phone conversations.

- _____ Complains about insignificant things at work.
- _____ Conserves and protects organizational property.
- _____ Adheres to informal rules devised to maintain order.

Appendix D
Influence of Individual Pay Satisfaction Dimensions on Organizational Justice
 Table D.1

Effect of Pay Level Satisfaction on Distributive Justice

Independent Variables	Level Only <u>N=525</u>	Level Only <u>N=323</u>	Controls Only <u>N=460</u>	Controls Only <u>N=289</u>	Controls & Level <u>N=460</u>	Controls & Level <u>N=289</u>
Sex			.09	.11	.09**	.10*
Education			-.14*	-.08	-.06	-.03
Marital Status			.08	.02	.03	.03
Race			-.05	-.05	-.02	-.06
Age			-.07	-.13	-.05	-.05
Organizational Tenure			-.03	-.01	-.04	.02
Job Tenure			-.14*	-.12	-.06	-.09
Job Level			.09	.06	.03	-.02
Pay			.04	.00	-.16**	-.13*
Pay Level Satisfaction	.67***	.68***			.71***	.72***
Adjusted R^2	.45***	.47***	.04***	.03	.51***	.53***
Δ in adjusted R^2					.47***	.50***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. N=525 come from all subordinate survey data as do N= 460 which reflects listwise deletion in same data set. N=323 results come from matched data with N=289 coming from same data set to reflect listwise deletion of missing data.

Table D.2

Effect of Benefit Satisfaction on Distributive Justice

Independent Variables	Benefit Only N=525	Benefit Only N=323	Controls Only N=460	Controls Only N=289	Controls & Benefit N=460	Controls & Benefit N=289
Sex			.09	.11	.10*	.10
Education			-.14*	-.08	-.14**	-.07
Marital Status			.08	.02	.04	-.01
Race			-.05	-.05	-.06	-.07
Age			-.07	-.13	-.09	-.14*
Organizational Tenure			-.03	-.01	-.03	.03
Job Tenure			-.14*	-.12	-.15**	-.17**
Job Level			.09	.06	.06	.04
Pay			.04	.00	.04	-.03
-----	-----	-----	-----	-----	-----	-----
Benefit Satisfaction	.40***	.44***			.40***	.46***
-----	-----	-----	-----	-----	-----	-----
Adjusted R^2	.16***	.19***	.04***	.03	.20***	.24***
Δ in adjusted R^2					.16***	.21***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Table D. 3

Effect of Raise Satisfaction on Distributive Justice

Independent Variables	Raise Only N=525	Raise Only N=323	Controls Only N=460	Controls Only N=289	Controls & Raise N=460	Controls & Raise N=289
Sex			.09	.11	.10**	.11*
Education			-.14*	-.08	-.10*	-.04
Marital Status			.08	.02	.04	.02
Race			-.05	-.05	-.05	-.06
Age			-.07	-.13	-.03	-.07
Organizational Tenure			-.03	-.01	.03	.06
Job Tenure			-.14*	-.12	-.08	-.06
Job Level			.09	.06	.02	.02
Pay			.04	.00	-.03	-.04
-----	-----	-----	-----	-----	-----	-----
Raise Satisfaction	.65***	.66***			.65***	.67***
-----	-----	-----	-----	-----	-----	-----
Adjusted R^2	.43***	.43***	.04***	.03	.45***	.46***
Δ in adjusted R^2					.41***	.43***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. N=525 come from all subordinate survey data as do N= 460 which reflects listwise deletion in same data set. N=323 results come from matched data with N=289 coming from same data set to reflect listwise deletion of missing data.

Table D.4

Effect of Raise Satisfaction on Procedural Justice

Independent Variables	Raise Only N=525	Raise Only N=323	Controls Only N=460	Controls Only N=289	Controls & Raise N=460	Controls & Raise N=289
Sex			.08	.03	.08*	.03
Education			-.06	-.02	-.02	.02
Marital Status			.02	.02	-.01	.02
Race			-.00	-.04	-.00	-.05
Age			-.07	-.04	-.04	-.00
Organizational Tenure			-.06	-.09	-.01	-.04
Job Tenure			-.10	-.11	-.05	-.06
Job Level			.20***	.13	.14**	.10
Pay			.05	.08	-.01	.04
-----	-----	-----	-----	-----	-----	-----
Raise Satisfaction	.52***	.51***			.51***	.51***
-----	-----	-----	-----	-----	-----	-----
Adjusted R^2	.27***	.26***	.05***	.02	.29***	.28***
Δ in adjusted R^2					.25***	.25***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Table D.5

Effect of Structure/Administration Satisfaction on Procedural Justice

Independent Variables	S/A Only N=525	S/A Only N=323	Controls Only N=460	Controls Only N=289	Controls & S/A N=460	Controls & S/A N=289
Sex			.08	.03	.10*	.05
Education			-.06	-.02	-.04	-.03
Marital Status			.02	.02	-.02	.01
Race			-.00	-.04	.01	-.03
Age			-.07	-.04	-.07	-.04
Organizational Tenure			-.06	-.09	.04	.03
Job Tenure			-.10	-.11	-.04	-.08
Job Level			.20***	.13	.14**	.10
Pay			.05	.08	.02	.07
-----	-----	-----	-----	-----	-----	-----
Structure/Administration	.53***	.55***			.53***	.55***
-----	-----	-----	-----	-----	-----	-----
Adjusted R^2	.28***	.30***	.05***	.02	.31***	.32***
Δ in adjusted R^2					.26***	.29***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. N=525 come from all subordinate survey data as do N= 460 which reflects listwise deletion in same data set. N=323 results come from matched data with N=289 coming from same data set to reflect listwise deletion of missing data.

Appendix E
Test of Hypotheses Using Individual Pay Satisfaction Dimensions

Table E.1

Influence of Pay Level Satisfaction on Job Performance

Independent Variables	Pay Level Satisfaction Only	Controls Only	Controls and Pay Level Satisfaction	Controls, Pay Level and Distributive Justice
Sex		-.21***	-.21***	-.21***
Education		-.11	-.12	-.12
Marital Status		-.01	-.01	-.01
Race		.09	.09	.09
Age		-.04	-.05	-.01
Organizational Tenure		.07	.07	.07
Job Tenure		-.09	-.09	-.09
Job Level		-.01	-.01	-.01
Pay		.31***	.32***	.31***
Pay Level Satisfaction	.03		-.03	.02
Distributive Justice				-.06
Adjusted R^2	-.00	.11***	.11***	.11***
Δ in adjusted R^2			-.00	-.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.2

Influence of Benefit Satisfaction on Job Performance

Independent Variables	Benefit Only	Controls Only	Controls and Benefit Satisfaction	Controls, Benefit and Distributive Justice
Sex		-.21***	-.21***	-.21***
Education		-.11	-.11	-.12
Marital Status		-.01	-.01	-.01
Race		.09	.09	.08
Age		-.04	-.04	-.05
Organizational Tenure		.07	.07	.07
Job Tenure		-.09	-.09	-.10
Job Level		-.01	-.01	-.01
Pay		.31***	.31***	.31***
-----	-----	-----	-----	-----
Benefit Satisfaction	.03		.01	.04
-----	-----	-----	-----	-----
Distributive Justice				-.07
Adjusted R^2	-.00	.11***	.11***	.11***
Δ in adjusted R^2			-.00	.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.3

Influence of Raise Satisfaction on Job Performance

Independent Variables	Raise Only	Controls Only	Controls and Raise Satisfaction	Controls, Raise and Distributive Justice
Sex		-.21***	-.21***	-.20***
Education		-.11	-.11	-.12
Marital Status		-.01	-.01	-.01
Race		.09	.09	.08
Age		-.04	-.04	-.05
Organizational Tenure		.07	.07	.08
Job Tenure		-.09	-.08	-.09
Job Level		-.01	-.01	-.01
Pay		.31***	.31***	.31***
-----	-----	-----	-----	-----
Raise Satisfaction	.06		.05	.14
-----	-----	-----	-----	-----
Distributive Justice				-.14
Adjusted R^2	.00	.11***	.11***	.12***
Δ in adjusted R^2			-.00	.01

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.4

Influence of Pay Level Satisfaction on OCBI

Independent Variables	Pay Level Satisfaction Only	Controls Only	Controls and Pay Level Satisfaction	Controls, Pay Level and Distributive Justice
Sex		-.14*	-.15*	-.15*
Education		-.08	-.07	-.07
Marital Status		-.04	-.04	-.04
Race		.15*	.15*	.15*
Age		.03	.04	.05
Organizational Tenure		.07	.07	.07
Job Tenure		-.05	-.04	-.03
Job Level		.16*	.14	.14
Pay		.04	.02	.03
Pay Level Satisfaction	.13*		.12*	.06
Distributive Justice				.08
Adjusted R^2	.01*	.08***	.09***	.09***
Δ in adjusted R^2			.01*	.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.5

Influence of Benefit Satisfaction on OCBI

Independent Variables	Benefit Only	Controls Only	Controls and Benefit Satisfaction	Controls, Benefit and Distributive Justice
Sex		-.14*	-.15*	-.15*
Education		-.08	-.08	-.07
Marital Status		-.04	-.05	-.05
Race		.15*	.14*	.15*
Age		.03	.03	.04
Organizational Tenure		.07	.08	.08
Job Tenure		-.05	-.06	-.05
Job Level		.16*	.15*	.15
Pay		.04	.03	.03
-----	-----	-----	-----	-----
Benefit Satisfaction	.16**		.14*	.11
-----	-----	-----	-----	-----
Distributive Justice				.07
Adjusted R^2	.02**	.08***	.10***	.10***
Δ in adjusted R^2			-.02*	.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.6

Influence of Raise Satisfaction on OCBI

Independent Variables	Raise Only	Controls Only	Controls and Raise Satisfaction	Controls, Raise and Distributive Justice
Sex		-.14	-.14*	-.15*
Education		-.08*	-.07	-.07
Marital Status		-.04	-.04	-.04
Race		.15*	.15*	.15*
Age		.03	.04	.04
Organizational Tenure		.07	.08	.08
Job Tenure		-.05	-.03	-.03
Job Level		.16*	.15*	.15
Pay		.04	.03	.03
-----	-----	-----	-----	-----
Raise Satisfaction	.14*		.16**	.14
-----	-----	-----	-----	-----
Distributive Justice				.03
Adjusted R^2	.02*	.08***	.10***	.10***
Δ in adjusted R^2			.02**	-.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.7

Influence of Benefit Satisfaction on Job Satisfaction

Independent Variables	Benefit Only <u>N</u> =525	Benefit Only <u>N</u> =323	Controls Only <u>N</u> =460	Controls Only <u>N</u> =289	Controls & Benefit <u>N</u> =460	Controls & Benefit <u>N</u> =289	Controls, Benefit & DJ <u>N</u> =460	Controls, Benefit & DJ <u>N</u> =289
Sex			.08	.04	.08	.04	.05	.01
Education			-.03	.01	-.03	.01	.01	.02
Marital Status			.01	.02	-.00	.00	-.02	-.01
Race			-.04	.01	-.05	-.00	-.03	.01
Age			.04	.07	.04	.07	.06	.11
Organizational Tenure			.05	.01	.05	.02	.06	.02
Job Tenure			-.06	-.04	-.07	-.07	-.03	-.03
Job Level			-.05	-.05	-.05	-.05	-.05	-.05
Pay			.02	.01	.03	.00	.02	.01
Affective Commitment			.50***	.54***	.44***	.45***	.37***	.38*
Continuance Commitment			.04	.07	.06	.09	.06	.10
Benefit Satisfaction	.30***	.36***			.16***	.21**	.07	.11*
Distributive Justice							.27***	.26***
Adjusted R ²	.20***	.13***	.24***	.28***	.27***	.31***	.32***	.35***
Δ in adjusted R ²					.02***	.03***	.05***	.05***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. N=525 come from all subordinate survey data as do N= 460 which reflects listwise deletion in same data set. N=323 results come from matched data with N=289 coming from same data set to reflect listwise deletion of missing data.

Table E.8

Influence of Raise Satisfaction on Job Satisfaction

Independent Variables	Raise Only N=525	Raise Only N=323	Controls Only N=460	Controls Only N=289	Controls & Raise N=460	Controls & Raise N=289	Controls, Raise & DJ N=460	Controls, Raise & DJ N=289
Sex			.08	.04	.08	.04	.06	.01
Education			-.03	.01	-.02	.01	.01	.02
Marital Status			.01	.02	-.01	.01	-.02	.01
Race			-.04	.01	-.05	.00	-.04	.01
Age			.04	.07	.06	.10	.07	.12
Organizational Tenure			.05	.01	.07	.02	.06	.02
Job Tenure			-.06	-.04	-.04	-.02	-.02	-.01
Job Level			-.05	-.05	-.06	-.05	-.06	-.05
Pay			.02	.01	.01	.01	.01	.01
Affective Commitment			.50*	.54***	.39**	.42***	.36**	.38***
Continuance Commitment			.04	.07	.08	.11	.07	.10
Raise Satisfaction	.39***	.38**			.28***	.27**	.16**	.14
Distributive Justice							.20*	.22***
Adjusted R^2	.15***	.14**	.24***	.28	.31**	.33***	.33*	.35***
Δ in adjusted R^2					.07**	.06***	.02**	.02***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. N=525 come from all subordinate survey data as do N= 460 which reflects listwise deletion in same data set. N=323 results come from matched data with N=289 coming from same data set to reflect listwise deletion of missing data.

Table E.9

Influence of Raise Satisfaction on Turnover Intentions

Independent Variables	Raise Only N=525	Raise Only N=323	Controls Only N=460	Controls Only N=289	Controls & Raise N=460	Controls & Raise N=289	Controls, Raise & PJ N=460	Controls, Raise & PJ N=289
Sex			.08*	.06	.08	.06	.08*	.06
Education			-.01	.06	-.01	.05	-.02	.05
Marital Status			-.00	-.03	.01	-.02	.01	-.02
Race			-.01	.04	-.01	.04	-.01	.04
Age			.04	.05	.01	.02	.01	.01
Organizational Tenure			.10	.19*	.09	.17**	.08	.17*
Job Tenure			.02	.03	.01	.01	.00	.01
Job Level			.01	.06	.02	.07	.03	.07
Pay			-.03	-.12	-.02	-.12	-.02	-.12
Affective Commitment			-.54**	-.57***	-.48***	-.51***	-.45**	-.49***
Continuance Commitment			-.04	-.07	-.08*	-.10*	-.09	-.10
Job Satisfaction			-.11	-.15**	-.03	-.09	-.01	-.08
-----	-----	-----	-----	-----	-----	-----	-----	-----
Raise Satisfaction	-.43***	-.44***			-.25**	-.23***	-.22***	-.21***
-----	-----	-----	-----	-----	-----	-----	-----	-----
Procedural Justice							-.10	-.06
Adjusted R^2	.18***	.19***	.34***	.43***	.39**	.47**	.39***	.47**
Δ in adjusted R^2					.05***	.04**	.00	.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Table E.10

Influence of Structure/Administration Satisfaction on Turnover Intentions

Independent Variables	S/A Only N=525	S/A Only N=323	Controls Only N=460	Controls Only N=289	Controls & S/A N=460	Controls & S/A N=289	Controls, S/A & PJ N=460	Controls, S/A & PJ N=289
Sex			.08*	.06	.07	.05	.08*	.05
Education			-.01	.06	-.01	.07	-.01	.07
Marital Status			-.00	-.03	.02	-.02	.02	-.02
Race			-.01	.04	-.02	.04	-.02	.03
Age			.04	.05	.03	.03	.02	.03
Organizational Tenure			.10	.19*	.06	.14*	.06	.14*
Job Tenure			.02	.03	.00	.02	-.00	.02
Job Level			.01	.06	.02	.07	.03	.07
Pay			-.03	-.12	-.03	-.13	-.03	-.13
Affective Commitment			-.54**	-.57***	-.48***	-.51**	-.45***	-.49***
Continuance Commitment			-.04	-.07	-.07	-.08	-.07	-.09
Job Satisfaction			-.11	-.15**	-.06	-.10	-.04	-.09
Structure/Administration	-.42***	-.45***			-.22***	-.21	-.19***	-.19***
Procedural Justice							-.10	-.06
Adjusted R^2	.18*	.20***	.34***	.43***	.38***	.46***	.38***	.46***
Δ in adjusted R^2					.04**	.03***	.00	.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Table E.11

Influence of Raise Satisfaction on OCBO

Independent Variables	Raise Only	Controls Only	Controls and Raise Satisfaction	Controls, Raise and Procedural Justice
Sex		-.11	-.11	-.12
Education		.07	.09	.08
Marital Status		-.01	-.01	-.02
Race		.09	.09	.10
Age		-.03	-.02	-.02
Organizational Tenure		-.02	.00	.01
Job Tenure		-.02	.00	.01
Job Level		.09	.08	.06
Pay		.14	.13	.12
Raise Satisfaction	.20***		.20***	.11
Procedural Justice				.18*
Adjusted R^2	.04**	.04*	.08**	.10*
Δ in adjusted R^2			.04**	.02**

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.12

Influence of Structure/Administration Satisfaction on OCBO

Independent Variables	Structure/Administration Only	Controls Only	Controls and Structure/ Administration	Controls, S/A and Procedural Justice
Sex		-.11	-.11	-.12
Education		.07	.07	.08
Marital Status		-.01	-.01	-.02
Race		.09	.10	.10
Age		-.03	-.03	-.02
Organizational Tenure		-.02	.02	.01
Job Tenure		-.02	-.01	.01
Job Level		.09	.08	.06
Pay		.14	.14	.12
Structure/Administration	.16**		.15	.03
Procedural Justice				.22**
Adjusted R^2	.02**	.04*	.06*	.09**
Δ in adjusted R^2			.02	.03**

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analysis. Due to missing values and list-wise deletion, $N = 289$. Values are standardized beta coefficients.

Table E.13

Influence of Raise Satisfaction on Continuance Commitment

Independent Variables	Raise Only N=525	Raise Only N=323	Controls Only N=460	Controls Only N=289	Controls & Raise N=460	Controls & Raise N=289	Controls, Raise & PJ N=460	Controls, Raise & PJ N=289
Sex			-.05	-.06	-.05	-.06	-.04	-.06
Education			.10	.04	.09	.04	.09	.04
Marital Status			-.13*	-.14*	-.12*	-.13*	-.12*	-.13*
Race			.06	.06	.06	.06	.06	.06
Age			.01	-.02	-.00	-.03	-.01	-.03
Organizational Tenure			.39**	.41**	.37***	.39***	.37**	.39***
Job Tenure			-.01	-.03	-.02	-.04	-.02	.08
Job Level			.03	.08	.03	.08	.04	.08
Pay			-.36**	-.29***	-.34***	-.28***	-.34***	-.28***
Affective Commitment			.04	.02	.10*	.08	.12	.08
Raise	-.14***	-.16*			-.15***	-.15*	-.14*	-.14*
Procedural Justice							-.04	-.01
Adjusted R^2	.02**	.02**	.16**	.16**	.18**	.17***	.18**	.17**
Δ in adjusted R^2					.02**	.01**	-.00	-.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Table E.14

Influence of Structure/Administration Satisfaction on Continuance Commitment

Independent Variables	S/A Only N=525	S/A Only N=323	Controls Only N=460	Controls Only N=289	Controls & S/A N=460	Controls & S/A N=289	Controls, S/A & PJ N=460	Controls, S/A & PJ N=289
Sex			-.05	-.06	-.05	-.06	-.04	-.06
Education			.10	.04	.09	.04	.09	.04
Marital Status			-.13*	-.14*	-.12*	-.14	-.12*	-.13*
Race			.06	.06	.05	.06	.05	.05
Age			.01	-.02	.01	-.02	.00	-.02
Organizational Tenure			.39**	.41**	.37**	.39***	.37***	.39***
Job Tenure			-.01	-.03	-.02	-.03	-.02	-.03
Job Level			.03	.08	.03	.08	.04	.08
Pay			-.36**	-.29***	-.35***	-.29***	-.35**	-.29**
Affective Commitment			.04	.02	.08	.05	.10	.07
Structure/Administration	-.12*	-.12			-.10*	-.07	-.07	-.06
Procedural Justice							-.07	-.04
Adjusted R^2	.01**	.01*	.16**	.16**	.16***	.16**	.17**	.16**
Δ in adjusted R^2					.01	-.00	.00	-.00

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. N=525 come from all subordinate survey data as do N= 460 which reflects listwise deletion in same data set. N=323 results come from matched data with N=289 coming from same data set to reflect listwise deletion of missing data.

Table E.15

Influence of Raise Satisfaction on Affective Commitment

Independent Variables	Raise Only N=525	Raise Only N=323	Controls Only N=460	Controls Only N=289	Controls & Raise N=460	Controls & Raise N=289	Controls, Raise & PJ N=460	Controls, Raise & PJ N=289
Sex			-.03	-.01	-.03	-.00	-.06	-.01
Education			-.04	-.09	-.02	-.07	-.01	-.07
Marital Status			-.05	-.09	-.06	-.09	-.06	-.10
Race			-.00	-.02	-.01	-.03	-.01	-.01
Age			.06	.04	.08	.08	.09	.08
Organizational Tenure			.05	.05	.07	.07	.07	.08
Job Tenure			-.05	-.03	-.01	.01	.01	.03
Job Level			.22**	.17*	.17*	.14	.12	.10
Pay			.04	.03	.02	.02	.02	-.01
Continuance Commitment			.04	.02	.10	.08	.10	.07
-----	-----	-----	-----	-----	-----	-----	-----	-----
Raise Satisfaction	.38***	.39***			.39**	.43**	.18***	.22**
-----	-----	-----	-----	-----	-----	-----	-----	-----
Procedural Justice							.40***	.41***
Adjusted R^2	.14***	.15**	.07***	.04*	.21***	.22**	.32***	.34**
Δ in adjusted R^2					.14***	.17***	.11***	.12***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Table E.16

Influence of Structure/Administration Satisfaction on Affective Commitment

Independent Variables	S/A Only N=525	S/A Only N=323	Controls Only N=460	Controls Only N=289	Controls & S/A N=460	Controls & S/A N=289	Controls, S/A & PJ N=460	Controls, S/A & PJ N=289
Sex			-.03	-.01	-.02	.02	-.06	-.00
Education			-.04	-.09	-.03	-.10	-.02	-.09
Marital Status			-.05	-.09	-.08	-.09	-.07	-.10
Race			-.00	-.02	.01	-.02	.00	-.01
Age			.06	.04	.05	.05	.08	.07
Organizational Tenure			.05	.05	.11	.13	.09	.12
Job Tenure			-.05	-.03	-.00	-.01	.01	.02
Job Level			.22**	.17*	.17**	.14	.12	.10
Pay			.04	.03	.03	.03	.03	.00
Continuance Commitment			.04	.02	.07	.05	.08*	.05
Structure/Administration	.36**	.40*			.38***	.45**	.17***	.23***
Procedural Justice							.40***	.39***
Adjusted R^2	.13**	.15**	.07***	.04*	.21**	.24**	.32**	.34**
Δ in adjusted R^2					.14**	.19***	.11***	.10***

Notes: * $p < .05$; ** $p < .01$; *** $p < .001$. Values are standardized beta coefficients. $N=525$ come from all subordinate survey data as do $N=460$ which reflects listwise deletion in same data set. $N=323$ results come from matched data with $N=289$ coming from same data set to reflect listwise deletion of missing data.

Appendix F

Test of Hypotheses Using All Dimensions of Pay Satisfaction with Both Types of Organizational Justice

Table F.1

Influence of Pay Satisfaction Dimensions on Job Performance

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.21***	-.21***	-.20***
Education	-.11	-.11	-.11
Race	.09	.09	.09
Age	-.04	-.04	-.05
Organization Tenure	.07	.07	.08
Job Tenure	-.09	-.08	-.08
Job Level	-.01	-.00	-.05
Pay Level	.31***	.33**	.31***
Marital Status	-.01	-.01	-.01
Pay Level Satisfaction		-.13	-.07
Benefit Satisfaction		-.01	.00
Raise Satisfaction		.19	.19 ^t
Structure/Administration		-.07	-.05
Distributive Justice			-.14
Procedural Justice			.09
ΔR^2		.01	.01
R^2	.14***	.15***	.16***
Adjusted R^2	.11***	.11***	.11***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses. Due to missing values and list-wise deletion $N = 289$.

Table F.2

Influence of Pay Satisfaction Dimensions on Organizational Citizenship Behaviors-
Individual Focus

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.14*	-.15*	-.16**
Education	-.08	-.06	-.06
Race	.15*	.14*	.15*
Age	.03	.04	.04
Organization Tenure	.07	.07	.07
Job Tenure	-.05	-.05	-.04
Job Level	.16*	.15*	.14 ^t
Pay Level	.04	.02	.02
Marital Status	-.04	-.05	-.05
Pay Level Satisfaction		-.02	-.03
Benefit Satisfaction		.10	.09
Raise Satisfaction		.19 ^t	.17 ^t
Structure/Administration		-.11	-.14
Distributive Justice			.04
Procedural Justice			.06
ΔR^2		.03*	.00
R^2	.11***	.14***	.14***
Adjusted R^2	.08***	.01***	.10***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses.
Due to missing values and list-wise deletion $N = 289$.

Table F.3

Influence of Pay Satisfaction Dimensions on Job Satisfaction

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	.08 ^t	.08 ^t	.04
Education	-.03	-.01	.00
Race	-.04	-.04	-.04
Age	.04	.06	.09 ^t
Organization Tenure	.05	.06	.06
Job Tenure	-.06	-.04	-.02
Job Level	-.05	-.06	-.07
Pay Level	.02	-.01	.01
Marital Status	.01	-.01	-.02
Affective Commitment	.50***	.38***	.29***
Continuance Commitment	.04	.08 ^t	.09 ^t
Pay Level Satisfaction		.08	-.04
Benefit Satisfaction		.02	.04
Raise Satisfaction		.21**	.14*
Structure/Administration		.01	-.09
Distributive Justice			.13*
Procedural Justice			.21***
ΔR^2		.07***	.04***
R^2	.26***	.33***	.37***
Adjusted R^2	.24***	.31***	.35***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Table F.4

Influence of Pay Satisfaction Dimensions on Turnover Intentions

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	.08*	.08*	.10*
Education	-.01	-.01	-.02
Race	-.01	-.01	-.01
Age	.04	.02	.01
Organization Tenure	.10 ^t	.09	.09
Job Tenure	.02	.01	.01
Job Level	.01	.02	.03
Pay Level	-.03	-.02	-.04
Marital Status	-.00	.02	.03
Affective Commitment	-.54***	-.45***	-.44***
Continuance Commitment	-.04	-.09*	-.09*
Job Satisfaction	-.11*	-.03	-.01
Pay Level Satisfaction		-.02	-.05
Benefit Satisfaction		-.12**	-.14**
Raise Satisfaction		-.13*	-.10
Structure/Administration		-.06	-.00
Distributive Justice			-.18**
Procedural Justice			-.04
ΔR^2		.06***	.02**
R^2	.36***	.42***	.44***
Adjusted R^2	.34***	.40***	.41***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Table F.5

Influence of Pay Satisfaction Dimensions on Organizational Citizenship Behaviors-
Organization Focus

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.11 ^t	-.11 ^t	-.13*
Education	.07	.08	.09
Race	.09	.09	.10 ^t
Age	-.03	-.03	-.02
Organization Tenure	-.02	.01	.00
Job Tenure	-.02	-.01	.01
Job Level	.09	.09	.08
Pay Level	.14	.15	.15 ^t
Marital Status	-.01	-.02	-.03
Pay Level Satisfaction		-.19*	-.23*
Benefit Satisfaction		.10	.08
Raise Satisfaction		.29**	.24*
Structure/Administration		-.01	-.10
Distributive Justice			.14
Procedural Justice			.15*
ΔR^2		.06**	.03*
R^2	.07*	.13***	.15**
Adjusted R^2	.04*	.08***	.11**

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses.
Due to missing values and list-wise deletion $N = 289$.

Table F.6

Influence of Pay Satisfaction Dimensions on Continuance Commitment

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.05	-.05	-.05
Education	.10 ^t	.09	.09
Race	.06	.06	.06
Age	.01	-.00	-.00
Organization Tenure	.39***	.38***	.38***
Job Tenure	-.01	-.01	-.01
Job Level	.03	.03	.04
Pay Level	-.36***	-.34***	-.33***
Marital Status	-.13**	-.12*	-.12*
Affective Commitment	.04	.10*	.12*
Pay Level Satisfaction		-.02	-.05
Benefit Satisfaction		-.06	-.05
Raise Satisfaction		-.15*	-.14 ^t
Structure/Administration		.05	.05
Distributive Justice			.07
Procedural Justice			-.07
ΔR^2		.02*	.00
R^2	.18***	.20***	.20***
Adjusted R^2	.16***	.17***	.17***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Full data used for analyses. Due to missing values and list-wise deletion $N = 460$.

Table F.7

Influence of Pay Satisfaction Dimensions on Affective Commitment

Variable	Step 1-Controls only	Step 2- add PS dimensions	Step 3- add Mediator
Sex	-.03	-.02	-.06
Education	-.04	-.03	-.01
Race	-.00	-.01	-.01
Age	.06 ^t	.06	.08 ^t
Organization Tenure	.05	.08	.06
Job Tenure	-.05	-.01	.00
Job Level	.22***	.17**	.12*
Pay Level	.04	.02	.02
Marital Status	-.05	-.08 ^t	-.07 ^t
Continuance Commitment	.04	.10*	.10*
Pay Level Satisfaction		.02	.04
Benefit Satisfaction		.13*	.13**
Raise Satisfaction		.18*	.06
Structure/Administration		.16*	.03
Distributive Justice			.02
Procedural Justice			.38***
ΔR^2		.17***	.10***
R^2	.09***	.26***	.36***
Adjusted R^2	.07***	.24***	.33***

Notes: ^t $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$. Matched data used for analyses. Due to missing values and list-wise deletion $N = 289$.

Vita

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