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Organizational justice perceptions and pay level satisfaction

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Abstract

Purpose – The purpose of this paper is to compare the relative importance or effects of individual equity, external equity, internal equity, procedural justice, and informational justice on pay level satisfaction.

Design/methodology/approach – The paper uses a policy-capturing methodology to determine the importance of the five factors and considers both group analyses and individual analyses of the data.

Findings – Of the three types of equity, individual equity was the most important factor on pay level satisfaction. External equity and the three other factors were important for many individuals, and this was shown through the individual analyses.

Research limitations/implications – The number of scenarios given to each participant was limited due to possible fatigue.

Practical implications – The findings will help managers make judgments on how to respond to conflicts between internal alignment and external market conditions. Knowledge of which factors are most important will help managers create more effective compensation programs.

Originality/value – This is the first multi-justice study to find the relative effects of justice perceptions on pay level satisfaction, and it includes informational justice.

Keywords Pay structures, Equity theory, Managers, Justice, Employees, Individual psychology

Paper type Research paper

In models of pay satisfaction, pay comparisons and pay fairness have been accorded important roles in the process people use in determining pay satisfaction (Heneman and Judge, 2000; Wu and Wang, 2008). Interestingly, if we look at the relationship between one's objective pay (actual pay level) and pay satisfaction, the relationship is rather weak. In fact, the research has shown that pay satisfaction is probably a function of the discrepancy of perceived pay level and the amount that the employee believes their pay should be (Williams *et al.*, 2006). The primary goal of the present study is to seek a better understanding of the antecedents of pay satisfaction, and specifically, to focus on pay comparisons and the perceptions of fairness and organizational justice. This is particularly important since prior research suggests that if employers understand the antecedents of pay satisfaction they can design more effective pay systems (Salimäki *et al.*, 2009).

Two meta-analyses examined organizational justice dimensions and found significant relationships between justice dimensions and job satisfaction (Colquitt

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et al., 2001) and pay satisfaction (Cohen-Charash and Spector, 2001). Heneman and Judge (2000) and Miceli and Lane (1991) have suggested that future studies on pay satisfaction need to specifically incorporate organizational justice dimensions into their studies (Williams *et al.*, 2006). This study is a response to this call; in particular, it is a response to the need to conduct single studies that incorporate multiple justice elements (Colquitt and Greenberg, 2003) and to consider the role of justice constructs as antecedents of pay satisfaction. The meta-analysis by Williams *et al.* (2006) did affirm the importance that key referents have on pay satisfaction; however, it did not provide any insights into the ranking of key referents, an important objective of this study. In addition, the only recent study that has examined the importance of multiple equity or justice dimensions on pay satisfaction (Terpstra and Honoree, 2003) was a direct, non-experimental survey, which examined faculty at universities, a sample that may lack generalizability across business organizations. Given the importance of pay comparisons on pay satisfaction (Heneman and Judge, 2000; Wu and Wang, 2008), this study chose to operationalize distributive justice using the three common forms of equity, while also incorporating procedural and informational justice. By using policy capturing as a methodology this study allows us to consider the relative contribution of each of the equity and justice constructs on pay level satisfaction. This study is unique, since it is the only experimental study to incorporate more than two forms of justice in a single study on pay satisfaction and measure the relative contribution of each of these constructs for each subject.

Equity perceptions and distributive justice

Homans' (1961) concept of distributive justice was the basis for both equity theory (Adams, 1963) and discrepancy theory (Lawler, 1971, 1981), which together provide the theoretical grounding for much of the pay satisfaction literature. According to equity theory, an employee compares his/her outcome/input ratio with referent others, and pay satisfaction is dependent on the comparison of the person's ratio with a comparison other. The second theory, discrepancy theory, is derivative of equity theory, and considers pay satisfaction to be a function of the discrepancy of two perceptions: how much one does receive versus how much one should receive.

Social comparison theory plays a role either explicitly, with equity theory, or implicitly, with discrepancy theory. The key concept underlying the theory is that satisfaction with outcomes is dependent on relative comparisons with other people (Sweeney *et al.*, 1990). Social comparison theory also suggests that most people typically use more than one referent (Goodman, 1974). Two types of equity comparisons are with people doing the same job. Individual equity considers comparisons of employees doing the same job inside the company while external equity considers comparisons with those outside of the company. Prior research based on equity theory and discrepancy theory has supported claims that perceptions of equity are associated with pay satisfaction (Goodman, 1974; Judge, 1993; Rice *et al.*, 1990; Scholl *et al.*, 1987; Weiner, 1980) as well as benefit satisfaction (Tremblay *et al.*, 1998).

A meta-analysis analyzed the relationship of distributive justice with the broad construct of job satisfaction and found a relatively high correlation between the two (Colquitt *et al.*, 2001). This meta-analysis, however, did not specifically consider pay satisfaction; there is a general consensus, however, that pay is an outcome of high

importance when evaluating job satisfaction (Heneman and Schwab, 1985). Several empirical studies have suggested that distributive justice is an important component in evaluating pay satisfaction (Folger and Konovsky, 1989; Scarpello and Jones, 1996; Tremblay *et al.*, 2000). Furthermore, McFarlin and Sweeney (1992) found that distributive justice perceptions correlated 0.63 with pay level satisfaction. In the present study, we consider pay level satisfaction level as the key dependent variable. Thus equity theory and discrepancy theory as well as the empirical evidence suggest:

H1. There is a positive relationship between individual equity and pay level satisfaction.

H2. There is a positive relationship between external equity and pay level satisfaction.

We also consider internal equity, often known as internal alignment; it is another distributive justice perception considered by organizations when setting pay. The importance of internal equity, is confirmed by research indicating that people make both upward (e.g. Martin, 1982) and downward comparisons (e.g. Wills, 1991) within the organization (Harris *et al.*, 2008; Sweeney and McFarlin, 2004). From a theoretical perspective, the importance of internal alignment for pay satisfaction is based on fraternal deprivation theory. This theory focuses on comparisons between an individual's membership group and a dissimilar group (Runciman, 1966; Dornstein, 1991). Investigations of internal pay comparisons have suggested that employees appeared sensitive to the overall configuration of the reward system (Dornstein, 1988; Martin, 1982). Further, there has been some support that wide pay differentials within a company can have an impact on product quality (Cowherd and Levine, 1992) and turnover (Bloom and Michel, 2002). The importance assigned to internal pay alignment by researchers and professionals as well as prior research suggest that:

H3. There is a positive relationship between internal equity and pay level satisfaction.

Comparing the importance of equity perceptions

Social comparisons have played a fundamental role in pay satisfaction, but researchers seem to be divided on which type of equity perceptions are the most important. Festinger (1954) believed that the tendency to compare oneself to a referent decreased as the difference between the person and the referent increased. Thus people in positions that require similar skills and abilities were more likely to compare themselves to one another. Exchange theories typically categorize individuals in a similar position, both inside (individual equity) and outside (external equity) the organization, as similar referents. Research has demonstrated that there is a link between both individual and external equity and pay satisfaction (Judge, 1993; Rice *et al.*, 1990; Scholl *et al.*, 1987; Sweeney *et al.*, 1990; Weiner, 1980); however, the question of which type of pay comparisons have the greatest impact on employees is under-researched.

There have been only a few studies that compared the effects of these equity or justice dimensions, on pay satisfaction, Terpstra and Honoree (2003) compared how university faculty members rated the three types of equity and found that individual equity was the most important, followed by external equity and lastly internal equity.

Another study (Law and Wong, 1998) compared referents and found that colleagues with similar qualifications were the preferred referents; a more recent study found that external equity rivaled individual equity in terms of its impact on pay satisfaction (Sweeney and McFarlin, 2005). These theories, as well as the empirical research on pay satisfaction and pay referents, would suggest that a greater emphasis might be placed on referents that were the most similar, thus:

H4a. Individual equity has a greater impact on pay level satisfaction than external equity.

H4b. Individual equity and external equity have a greater impact on pay level satisfaction than internal equity.

Given that referent selection may be influenced by personal and situational variables, it would be valuable for researchers and practitioners to understand which variables may influence the relative importance of the key potential referents (Kulik and Ambrose, 1992). Studies have suggested that the selection of a particular group of referents was related to the information available and the perceived relevance or attractiveness of the potential referents (Goodman, 1974; Levine and Moreland, 1987). Based on his 1974 study, Goodman (1977) suggested that situational factors, like organizational level, might influence the availability of information; he believed that senior managers were more likely to have greater access to information on outsider referents due to their greater interorganizational mobility.

Kulik and Ambrose (1992) suggested that the use of external referents among more senior managers was most likely the result of the pyramidal shape of most organizations. In these organizations, higher-level employees have fewer similar relevant others with which to make their comparisons internally. At lower levels, however, organizations typically had several internal candidates performing a similar job with which one could compare pay. This indicates that lower level employees are more likely to have similar referents inside the organization. Both these conceptual and empirical considerations would suggest that:

H5. External equity will have a greater impact on pay level satisfaction for senior level managers than for lower level managers.

Procedural justice

Procedural justice is concerned with one's perception of the process that determines fair pay (Colquitt *et al.*, 2001). This form of justice is based on the use of rules that help make decisions consistent, accurate, correctable, and unbiased (Colquitt and Greenberg, 2003). Empirical research has demonstrated that procedural justice is an antecedent to various outcomes such as commitment (Folger and Konovsky, 1989; Lemons and Jones, 2001; Mansour-Cole and Scott, 1998), extra role behavior (Cloutier and Vilhuber, 2008) and pay satisfaction (e.g. Folger and Konovsky, 1989). Specifically, Folger and Konovsky (1989) found a positive relationship between pay satisfaction and the existence of an appeal process for salary increases, and Tremblay *et al.* (2000) found that procedural justice perceptions were linked to satisfaction with benefits. A sample of professors used a simple comparison procedure to identify procedural justice as a more important determinant of pay satisfaction than any of the three forms of equity

(Terpstra and Honoree, 2003). These studies have demonstrated that procedural justice has had an effect on pay satisfaction suggesting that:

H6. There is a positive relationship between procedural justice and pay level satisfaction.

Interactional and informational justice

Interactional justice is defined as the perceived fairness of how decisions are enacted by authority figures and is focused on interpersonal factors (Colquitt and Greenberg, 2003). Bies and Moag (1986) were the first to suggest that interactional justice was a distinct construct that was concerned with truthfulness, justification, respect, and propriety (Colquitt *et al.*, 2005). Although there has been a dearth of research on the relationship of pay satisfaction and interactional justice, several studies have examined the impact of interactional justice on employee perceptions and behaviors. For example, Greenberg's (1993) research established that providing justification during the decision process influenced the consequences associated with decisional outcomes such as employee theft and turnover. Interactional justice research has also demonstrated that there is a relationship between interactional justice and affective commitment (Klendauer and Deller, 2009) as well as the broader construct of job satisfaction (Masterson *et al.*, 2000).

Greenberg (1993) has argued that interactional justice should be divided into two distinct components, informational justice and interpersonal justice. The reasoning was that interactional justice consisted of two types of treatment and that these two forms of interactional justice have different effects. There seems to be strong support for this distinction as well as its differential effects (Colquitt, 2001; Colquitt *et al.*, 2001). Interpersonal justice reflects the degree to which people are treated with respect and dignity by authorities or third parties, while informational justice focuses on truthfulness and whether people receive adequate explanations or justifications for their treatment. The present study focuses on informational justice since this form of justice is moderately related to job satisfaction, and since pay satisfaction is a major component of job satisfaction a similar result may be expected (Colquitt *et al.*, 2001). This suggests that:

H7. There is a positive relationship between informational justice and pay level satisfaction.

One of the primary purposes of the present study is to make comparisons of the relative effects of the five factors: individual equity, external equity, internal equity, procedural justice, informational-justice. There have been comparisons made between distributive and procedural justice on pay satisfaction, and the findings tend to support distributive justice over procedural justice (Folger and Konovsky, 1989; Konovsky *et al.*, 1987; McFarlin and Sweeney, 1992; Scarpello and Jones, 1996). The present study uses a more powerful approach, a policy-capturing methodology, to find the relative effects of the three equity perceptions, as well as those for procedural justice and informational justice. This analysis was done for each individual as well as each job level. This means that we can evaluate the importance of each factor for each respondent. Further, this approach allows the researcher to control for social desirability bias, a notable advantage for policy-capturing procedures over direct estimation procedures (Karren and Barringer, 2002).

Method

Sample

The participants of the study were executive managers of a large financial services company located in the Northeast United States. The questionnaire was distributed to 80 participants at their corporate headquarters, and of these, 52 participants filled out the questionnaire, a 65 percent response rate. These included four levels of management: 12 vice presidents (VPs); 14 assistant vice presidents (AVP's); 17 directors; and nine managers. Of the 52 participants, 16 were women and 36 were men. The range of compensation was $57,000 to $530,000.

Procedure

A cover letter, instructions, and, a questionnaire for each job level, were distributed by the HR department, to each of the potential participants. The instructions indicated that the questionnaire contained 32 pay scenarios that might exist for their position, and the participants were asked to assess how each hypothetical situation might impact their pay level satisfaction. The questionnaires for the four levels of management were almost identical; the differences were based on the "real" pay differences in this organization. In order to create realism for each participant, the scenarios had different numerical/percentage descriptions for the two levels of the individual, internal, and external equity factors. The final scenarios were based on actual pay ranges for each management position. Modifications were made by the executive vice president of human resources to make the vignettes more realistic. An example of an actual vignette is shown in the Appendix (see Figure A1).

Design

The five factors were: perceptions of individual equity, external equity, internal equity, procedural justice, and informational justice. Five factors or predictor variables were manipulated in a $2 \times 2 \times 2 \times 2 \times 2$ randomized block design. Each factor contained either a high and low level statement, and each vignette included five statements or one statement from each of the five factors. The total number of vignettes was 32, which were all possible combinations of the five factors. The use of a full factorial design creates zero correlations among the factors and permits the examination of the relative (standardized) beta coefficients and the percent of the variance accounted for by each factor in each manager's decision. It should be noted that only five factors were used in this study due to limitations related to fatigue.

The first three factors are forms of distributive justice. The factor, individual equity, referred to pay comparisons, among people, doing the same, or similar jobs, within the same organization. The low level for this factor assumed that you would have similar contributions as compared to the referent other, but the referent other was to be paid a higher amount. The high level for this factor assumed equal pay and similar contributions. Each participant's questionnaire reflected the compensation information based on the data for their respective position.

The next factor, external equity, referred to the fairness of compensation, comparing their job to the same or similar jobs outside the organization. The low level for external equity assumed that the referent was working at another company and was paid a percentage greater than the respondent was paid. The high level for this factor assumed equal pay for similar contributions and seniority.

The next factor, internal equity, referred to internal fairness, and the pay relationships between jobs, within a single organization. The comparison for this form of equity is based on comparing one job with a job at the next higher level. The low level for this factor stated that the person in the higher level was paid a specific percentage more than you, and this difference was not justified based on requirements, responsibilities, and demands for the position. The high level stated that the higher pay was justified.

The fourth factor, procedural justice, referred to the fairness of procedures and processes used to make allocation decisions. To operationalize procedural justice, one of Leventhal's (1980) six rules of fair procedures, correctability, was selected. Correctability, which allows for appeals to change decisions, was selected because management believed the effectiveness of the appeal process to be a salient and realistic factor. For the low level the instructions suggested that there was not an effective appeal process, while the high level suggested that the appeal process was viewed as fair.

The fifth factor, informational justice, is whether explanations are complete and given with sufficient detail. Informational justice was selected as the company believed that there was a benefit to distributing information about pay levels to employees and felt that they had open and honest lines of communication with their employees. The low level for informational justice stated that you had not been provided candid and thorough information while the high level stated that you had been provided candid and through information. "Candid" communication and "thorough" explanation of purposes were part of Colquitt's (2001) measure for informational justice and used by DeConinck and Johnson (2009) to measure informational justice.

Criterion variable: pay level satisfaction

Participants were asked to rate how satisfied they would be with their pay level given the described situation. The response choices rated an individual's level of pay satisfaction along a bipolar continuum ranging from "very satisfied" (7) to "very dissatisfied" (1). This measurement is consistent with prior research, which considered pay satisfaction as a dependent variable (Scholl *et al.*, 1987).

Results

One major purpose of the analysis was to identify the influence of each of the five organizational justice variables that made up the vignettes. Each participant's assessment of pay level satisfaction was determined by ordinary least square regression analysis on the pay level satisfaction scores. We found standardized beta coefficients and regression coefficients for each of the justice variables, specific to each participant. Table I presents the composite evaluation policy of all participants, both in aggregate and by title. The regression coefficients for the overall analysis were all positive and statistically significant ($p < 0.01$). The group analysis of the interactions indicated that they did not have statistically significant effects. It should be noted that the Durbin-Watson statistic indicated that autocorrelation was not present in the data and that ordinary least squares regression was acceptable for this analysis. Individual equity was the most influential factor for the whole group as well as the four positions. The relative importance of the factors for all individuals from highest to lowest was as follows: individual equity (0.52), external equity (0.36), internal equity (0.30), informational justice (0.20), and procedural justice (0.16).

A fully crossed factorial ANOVA was analyzed for each respondent. This allowed us to calculate the percentage of variance accounted for by each factor and their interactions. The mean results for each job level are shown in Table II, and it shows the relative importance for each factor and for all the interactions together. (The results for each manager can be obtained from the authors.)

When we consider all the respondents, the percentage of variance (R^2) was as follows: individual equity (35.1), external equity (17.1), internal equity (13.5), procedural justice (5.7), informational justice (6.7), and all interactions (21.8).

Tests of hypotheses

H1, *H2*, and *H3* were tests of individual, external, and internal equity, and in support of the first three hypotheses, the group analysis revealed a positive relationship between the individual, external, and internal equity variables and pay level satisfaction. Thus, the overall group analysis, as well as the analyses by title found in Table I, suggested that each of the three forms of distributive equity had a positive relationship with pay level satisfaction.

An analysis of confidence intervals for the group regression analysis provides support for *H4a* and *H4b*; these test whether individual equity has a greater impact than external equity and internal equity, respectively. Table III shows that individual equity at the 95 percent confidence level had a greater impact on pay level satisfaction than external equity or internal equity. An examination of the confidence intervals of the coefficients at each level also demonstrated support for *H4a* since individual equity had a greater effect than external equity. There was only partial support for *H4b* by job

	Justice factors				
Job title	Individual equity	External equity	Internal equity	Procedural justice	Informational justice
VP	2.04*	1.35*	0.92*	0.32*	0.54*
AVP	1.57*	1.09*	1.09*	0.56*	0.70*
Director	1.43*	1.07*	0.93*	0.64*	0.76*
Manager	1.90*	1.24*	0.87*	0.38*	0.49*
Total	1.69*	1.17*	0.96*	0.50*	0.65**

Notes: Each cell contains unstandardized beta coefficients. $^{*}p < 0.01$

Table I.
Group policy: beta coefficients by job title

	Individual equity	External equity	Internal equity	Procedural justice	Informational justice	Interactions
VP's	42.3	18.9	12.0	2.3	4.7	19.3
AVP's	30.9	16.7	16.4	6.1	6.7	23.3
Directors	29.6	15.9	14.3	8.6	9.2	22.4
Managers	42.6	17.6	9.6	4.2	4.7	21.4
Weighted mean	35.1	17.1	13.5	5.7	6.7	21.8

Notes: Each of the numerical results is equal to R^2; the total R^2 for each row is equal to 100 percent

Table II.
Mean percent of variance accounted for by factor and for each level

level since individual equity was greater than internal equity at all levels but external equity was greater than internal equity only for VPs and for managers.

H5 was supported somewhat since the external equity regression coefficient for VPs was higher than for all other position types. However, the second highest regression coefficient was for managers, and this coefficient was higher than those for AVPs and directors. These regression coefficients and the comparisons for external equity can be seen in Table I. A multiple comparison test, which compared the VPs with all the other job levels, was not statistically significant.

H6 and *H7*, tests of procedural and informational justice, were supported by the positive and statistically significant coefficients for both the aggregate group analysis and the analyses by title (see Table I). The individual regressions also supported positive relationships between both procedural and informational justice with pay level satisfaction. Demographic information on gender and tenure was also collected from each participant. The adjusted R^2 for this model was virtually unchanged at 0.56 from the model where only the five predictor-variables were included. Gender and tenure had a minimal effect on overall pay level satisfaction, and neither was statistically significant at the 0.05 level.

Reliability

A strategy that includes limited duplication of several questions is recommended to check for reliability (Karren and Barringer, 2002). Given the constraints on the number of questions imposed by management, an alternative strategy was used in this study. Reliability was calculated by correlating similar scenarios for each individual – the only difference between the two scenarios were the values of the least influential factor. Since the least influential factor should have little or no effect on the result, these comparisons were considered very similar to comparing two identical scenarios. This test was used as a proxy for the recommended reliability check. Only one participant was eliminated from the analysis as a result of a low reliability estimate. The average correlation was 0.82 for the 52 participants using eight questions per participant. This high correlation suggests that scores were highly reliable.

Discussion

The results of this study supported the influence of the three types of equity (individual equity, external equity, and internal equity) with individual equity having the largest effect. Of the 52 respondents, 38 or 73 percent had individual equity as their first choice. The dominance of individual equity supports theories that emphasize the importance of comparisons to similar others (Homans, 1961).

Types of equity	Confidence interval	
	Lower bound	Upper bound
Individual equity	1.59	1.79
External equity	1.06	1.27
Internal equity	0.86	1.06

Note: These regression coefficients represent the 95 percent lower and upper bounds for the group analyses

Table III.
Confidence intervals for coefficients by type of equity

Although most of the managers found for stronger effects among the three types of equity, there was a large group of managers that gave importance to either procedural and/or informational justice. Very few individuals had a policy where there was only one meaningful factor; this gave support to the use of multiple referents. Also, this is the first study to show a positive relationship between informational justice, and pay level satisfaction. The influence of informational justice should be of great interest to managers since the focus is on the treatment of the employee and the dialogue he/she has with the manager. This suggests that providing candid and thorough information about pay differences can have a positive impact on an employee's pay level satisfaction. These findings raise some concerns in organizations where pay secrecy exists.

We did not find full support for the wider use of external equity at the higher job levels. It is quite possible that since the study took place at corporate headquarters and there was a fairly large population of VPs at headquarters; thus, there may have been less of a need for external comparisons. Future research should investigate whether the use of external comparisons may be more important when there are relatively few senior managers available to make comparisons.

The results indicated that internal equity had a significant and positive impact on employees at all levels, which did give some support for fraternal deprivation theory (Martin, 1982). Although internal equity was the least used of the three types of equity, the question remains whether our sample contained pay differentials that were large enough to create discontent among managers at these levels. This study supported the influence of the three types of equity over both procedural and informational justice. These findings are in line with the meta-analysis by Cohen-Charash and Spector (2001) which found that distributive justice had a larger impact than procedural justice; they do, however, contrast the results of a direct estimation procedure in which procedural justice had more of an effect than distributive justice (Terpstra and Honoree, 2003).

Implications for theory, practice, and society

The results do have practical implications for managers and for society as a whole. A major challenge for organizations is balancing the demands for internal alignment and external competitiveness. One goal of this study was to help human resource professionals better understand which factors influence employees' judgments about pay; knowledge of the importance of these factors may be helpful in creating more effective compensation programs. Perceptions of individual equity might be particularly salient when considering whether to make counteroffers to employees thinking about leaving the organization. For example, if a counteroffer is made to an employee leaving his/her position this might negatively impact employees in the same job. This may be a troublesome consequence for organizations interested in retaining their best employees. Counteroffers may result in individual inequities and a reduction in pay satisfaction for those in the same job, unless the pay levels for these employees are adjusted upwards. Another example of inequity involves hiring candidates from the outside with a much more generous pay package. Again, employees in the same job are likely to view this new outsider with contempt, and this is likely to result in poor morale and future turnover. Given the trends for the increased use of incentive pay-for-performance programs, there is likely to be an increase in pay disparity among those in the same job. Large disparities are likely to increase pay level dissatisfaction.

These instances point to the benefit of developing a more open dialogue regarding the way pay is set so differentials are understood and deemed as fair.

When these findings are considered in the context of the existing literature on pay secrecy, it suggests that pay satisfaction may be enhanced in an organization where pay information is available and pay decisions are understood. This point is highlighted by the influence of informational justice for many of the respondents. This is particularly true given the misconceptions that can exist in an environment of pay secrecy (Lawler, 1981). Managers need to understand that pay comparisons will play an important part in employees' evaluations of their pay, and they might benefit by operating under the assumption that attempts at such comparisons will occur whether the company chooses to share the information or not.

Given the findings of this study and the possible negative ramifications of pay secrecy, further empirical research that considers the impact of an open pay policy on fairness perceptions is warranted (Colella *et al.*, 2007). From a practical perspective, the results of the study suggest that human resource professionals should be conscious of the fact that pay decisions are not made in a vacuum and that pay comparisons have a meaningful influence on pay satisfaction. Considering the weight placed on individual equity it is particularly important that people believe that their pay is fair in comparison with others doing similar jobs. Given this desire to make comparisons when evaluating their pay, it is suggested that employers change their pay secrecy policies and allow employees to understand the rationale behind the differentials.

Income disparity has been increasing in the USA over the last few decades (Levenson, 2006). It has been an increasing concern since widening disparities of income within job categories as well as across job categories are likely to cause increased pay dissatisfaction and increased turnover. With increased income disparity, we expect that more employees are likely to attend to differences in pay. This attention may push organizations to rethink their pay policies. This may mean disclosing more information regarding pay levels as well as the pay process itself. In addition, society's policy makers may challenge the ethics of large inappropriate pay disparities. They will likely consider restrictions on pay, or at least change the process by which boards set pay; that is, by requiring greater transparency and more shareholder involvement.

Limitations and future directions

One limitation to the study was the number of scenarios given to each participant. The decision to limit the number of scenarios to 32 reduced the power in the study and did not allow us to examine the two dimensions of interactional justice, informational justice and interpersonal justice. Typically, increasing the number of scenarios increases the power of the individual analyses, but this risks fatigue in the individual and may reduce reliability if the questionnaire is too long (Karren and Barringer, 2002). In terms of the individual analyses, 32 scenarios did, however, exceed the 5 to 1 minimum ratio of scenarios to factors (Cooksey, 1996). Another limitation has to do with external validity. Since the survey was conducted at one organization, generalizability may be limited to similar firms with similar pay structures. Given that this study took place at a major financial institution in the USA and that financial firms are part of the larger service sector, the findings may, however, be generalizable to organizations in other industries.

A final limitation was that the two most senior levels of the organization, senior vice presidents (SVPs) and executive vice presidents (EVPs), did not participate in the

study. At many firms, the compensation structure is defined by higher pay for successive positions with the largest gap between CEOs and the executives who report to them (Finkelstein and Hambrick, 1996). The pay differentials at these more senior levels are likely to be greater and thus the importance of internal equity may be greater at these higher levels.

Future research should address some of the limitations of this study. First, considering the potential effects of internal equity, it would be more valuable if data could be gathered at the more senior levels where there are the greatest differentials. Another approach would be to examine firms with greater pay differentials to check whether internal equity would have greater impact. Second, given the importance of cultural dimensions in determining pay satisfaction, it would be valuable to conduct a similar study at a multinational or a company located in a country whose cultural dimensions (e.g. collectivist) were different from those of the United States. Limitations notwithstanding, this study was the first to consider the impact of three types of organizational justice constructs on pay level satisfaction, responding to the call of Williams *et al.* (2006) to integrate the two literatures in an empirical study. The results provided insight into how justice factors impact an individual's assessment of pay level satisfaction, and clearly demonstrated the overriding influence of individual equity.

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Appendix

Each of the scenarios contained a statement from each of the five factors. The following is an example scenario:

1. How satisfied would you be with your pay if the following pay situation existed?

- You believe that others at competing companies who are doing the same job with similar capabilities and seniority are paid 33% more than you.
- You believe that a person in the next higher job category is paid 67% more than you; however, you believe that the higher pay is justified based on requirements, responsibilities, and demands of the position.
- You believe that some others at your company doing the same job with similar contributions and seniority are paid 33% more than you.
- There is no effective appeal process when an associate believes an unfair pay decision has been made.
- Your manager has almost always provided you with candid and thorough information on pay differences.

Very							Very
1	2	3	4	5	6	7	
Dissatisfied							Satisfied

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