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MANAGERS GENERATING MEANING FOR PAY: A TEST FOR REFLECTION THEORY

Aino Salimäki
Helsinki University of Technology

Anu Hakonen
Helsinki University of Technology

Robert L. Heneman
The Ohio State University

Address correspondence to:
Aino Salimäki
Helsinki University of Technology
Department of Industrial Engineering and Management
P.O. Box 5500
FIN – 02015 TKK
Finland
aino.salimaki@tkk.fi

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Abstract

Purpose: We draw from largely untested Thierry's (1998; 2001) Reflection Theory to study employee pay satisfaction.

Design/methodology/approach: Based on the theory, it is posited that managerial goal setting improves employee pay satisfaction through increased employee knowledge and perceived meanings of pay. The hypotheses are tested with survey data from one municipal health care organization.

Research implications and limitations: The results of the study show that both knowledge and meanings of pay mediate the effects of goal setting on pay satisfaction. We find support for the somewhat distinguishable roles of instrumental and symbolic meanings of pay. The regression analyses show that the former fully mediates the effect of pay level and the latter fully mediates the effect of goal setting on pay satisfaction. Even though our analyses do not provide evidence that common method variance would explain our results, it remains a potential issue. Future research is needed to establish the dimensionality of meanings – positive as well as negative - a pay system can convey, and to explore the degree they can be managed.

Practical implications: The results of our study suggest that organizations can promote their ROI of pay systems by paying attention to the employees' interpretations of messages conveyed by the pay system implementation process. More specifically, the results demonstrate that managers can contribute to employee pay satisfaction via goal setting process that informs employees about the functions of the pay system and use the system to give feedback on the job.

Originality/value: This study provides a unique, however, also preliminary test for Reflection Theory.

Keywords: Reflection Theory, pay satisfaction, pay administration, meaning of pay, knowledge of pay

Paper type: Research paper

Managers generating meaning for pay: A test for reflection theory

Pay satisfaction may be viewed as a necessary but not a sufficient condition for organizations to achieve the goals of their compensation systems, such as employee retention and motivation. Previous research has demonstrated that in addition to the absolute amount of pay, relative comparisons contribute to pay satisfaction (see the meta-analysis by Williams, McDaniel and Nguyen, 2006). Thus, employees pay satisfaction can be derived from the judgments they make as to whether their pay is in right proportion in comparison with their inputs and those of fellow others (equity theory; Adams, 1965), and what they think they should be receiving (discrepancy theory; Lawler, 1971; 1981). Research has also demonstrated that employees hold differential perceptions regarding the meanings of money; however, there is a call for theory development and research on how the meaning of money influences people's attitudes (Mitchell and Mickel, 1999).

From managerial perspective, understanding the values or meanings of pay is important; especially to the degree they can be managed. Managing impressions about employee compensation is of particular interest, since as the character of rewards is changing from administrative pay systems towards more flexible, strategic pay systems (Lawler, 1990; Balkin and Gomez-Mejia, 1990), and pay systems are perceived as means for enhancing productivity. At the same time, linking pay policies with strategies might be entirely reliant on the skills possessed by the immediate supervisor. Previous research has shown that managers have a crucial role in implementing pay systems (Beer and Cannon, 2004; Greller and Parsons, 1995). Especially, if the pay system relies on performance management and appraisal, the role of manager is emphasized (Miceli and Lane, 1991). One could imagine that since the immediate supervisors hold the decisive position in processes through which individual pay is determined, they could influence the pay satisfaction of employees. The question arises: what are the mechanisms through which managers can have an impact on employee satisfaction with pay?

Previous research on organizational justice has shown that perceived fairness of the procedures matter most when outcomes are low, such as low pay (Greenberg, 1987). Especially if a seemingly fair pay policy (e.g. a pay for performance policy based on equity principles) is implemented, the managers' actions in using the system not only receive more attention but these perceptions also have a crucial impact on employee performance (Greenberg, 2003). Conversely, it has been demonstrated that under conditions of underpayment, training supervisors in interpersonally fair treatment attenuated the adverse effects of the new unfavorable pay policy (Greenberg, 2006). Taken together, the research on pay satisfaction has demonstrated that pay administration process factors, particularly those enhancing employee knowledge and understanding about pay policies, contribute importantly to pay satisfaction (see for review Heneman, H.G. and Judge, 2000). More specifically, some recent research has illustrated that employers can improve the return on investment (ROI) of a pay system if they enhance employees' knowledge of the system (Heneman R.L., Mulvey and LeBlanc, 2002; Mulvey, Le Blanc, Heneman, R.L. and McInerney, 2002; Sweins, Kalmi and Hulkko-Nyman, in press).

In this paper, our intention is to demonstrate that organizations can further promote their ROI of pay systems by paying attention to the employees' interpretations of messages conveyed by the implementation process. As Mitchell and Mickel (1999) point out, money is associated with four of the most important symbolic attributes humans strive for: achievement and recognition, status and respect, freedom and control, as well as power. In studying meanings of pay, we draw from largely untested Reflection Theory (Thierry, 1998; 2001), which suggests that pay communicates meanings of personal importance beyond monetary value. It provides feedback on performance and signals the value of the job. Based on the Reflection Theory, we introduce a process model that demonstrates how managers can contribute to employee pay satisfaction, and hence improve the ROI of their pay policies.

THEORETICAL FOUNDATION

The two theories of social comparison, equity theory (Adams, 1965) and discrepancy theory (Lawler, 1971; 1981), have largely guided research on pay satisfaction. In the equity model, pay satisfaction depends on the comparison of the person's outcome-input ratio to the ratio of fellow employee or others. The greater the similarity of the ratios, the more satisfied the persons are with their pay. The discrepancy model suggests that pay satisfaction depends on the degree of discrepancy between individual's perception of the amounts of pay that they should receive and what they actually do receive. Both models suggest that pay dissatisfaction creates a dissonance that the person seeks to reduce. A recent meta-analysis demonstrated that employees' external and internal pay comparisons are highly correlated with pay satisfaction, and pay satisfaction has important implications for employee behaviors and attitudes such as voluntary turnover, absenteeism, and performance (Williams *et al*., 2006).

Reflection Theory was developed to address shortcomings in understanding why pay is meaningful to an individual organization member (Thierry, 2001). Thierry (2001) argues that "almost all theories fail to clarify *which kind of meanings* pay may have for that member" (p. 150). Reflection Theory suggests that pay provides the employee with a mirror that reflects images of status, power, value and succession. Reflection Theory proposes that the meaning pay holds for an individual can be largely deduced from employees' personal characteristics (for example values), pay level (relative to others) and the level of familiarity the person experiences with the pay system (i.e. pay system knowledge). The experienced meanings are expected to influence important employee outcomes, such as satisfaction, motivation and performance.

According to Reflection Theory, pay system knowledge is a prerequisite for the effect of pay system on employee attitudes and behaviors. The term 'knowledge of pay' means that the employees are familiar with the functions of the pay system as well as how it is applied to an individual employee (Heneman, R.L. *et al*., 2002; Mulvey *et al*., 2002). It is not obvious that employees would have sufficient knowledge on the operations of their pay system. According to a study conducted by Mulvey *et al*. (2002), performance management processes were well understood in US-based organizations, but knowledge of processes related to pay, especially knowledge about base pay systems, was considerably more obscure. According to the study, employees were not aware of what they should do in order to get a raise or reward, as well as when pay raises are decided and by whom. Research has also demonstrated that the lack of knowledge can have important consequences. Mulvey *et al*. (2002) found that poor pay system knowledge translated to low pay satisfaction, which was in turn related to low degrees of work engagement (see also Heneman, R.L. *et al*., 2002). In same fashion, research on performance appraisal has revealed that sufficient information, in this case on performance-appraisal criteria, increases satisfaction with the performance appraisal system (Williams and Levy, 1992; Williams and Levy, 2000).

The core arguments of the Reflection Theory have been subject to little empirical research (Thierry, 2001). Most of the literature on the theory has been conceptual, and focused on establishing the dimensionality of meanings of pay: *motivational properties*, *relative position*, *control* and *spending* (Thierry 1992a; 1992b; 1998; 2001; 2002). These dimensions capture both instrumental and symbolic values of money (Mitchell and Mickel, 1999). Thierry argues that in the eyes of employees, the pay or reward system is seen as meaningful when it enables reaching things of personal importance (i.e. *motivational properties*). Rewards may also be experienced as a form of feedback on personal work achievement in relation to personal goals or co-worker performance (i.e. *relative position*). Additionally, rewards may carry a message of employee value and power position in the organization (i.e. *control*). Finally, rewards may receive meaning through the goods and services bought with it (i.e. *spending*).

Although the first empirical study on operationalizing the meanings of pay provided evidence that the four dimensions could be clearly distinguished (Miedema, 1994), the second available study (Shaw, 1996) provided support for only three distinguishable dimensions (i.e.

relative position and control converged into one factor). Furthermore, Miedema (1994) showed that dimensions ‘relative position’ and ‘spending’ uniquely contributed to pay satisfaction. According to an unpublished study (see Thierry, 2001), meanings of pay did not directly explain variance in employee performance but did so through pay satisfaction. As Mitchell and Mickel (1999) note, the meaning of money is usually in the background in the workplace, and thus, it might be a more distal than proximal determinant of behaviors.

Given the lack of midrange theories that would foster our understanding of the mechanisms through which ROI on pay systems could be improved (Heneman, R.L., 2000) further theory testing and development on pay satisfaction is warranted. This study provides a test for some of the basic tenets of the Reflection Theory, and specifically studies the degree to which employee pay satisfaction is determined by the knowledge of the pay system as well as the meanings it reflects to the employee. Furthermore, we will demonstrate that managers can influence these perceptions via participatory goal setting process that aligns employee goals with organizational goals. This proposition is largely rooted in goal setting theory (Locke and Latham, 1990) as well as strategic pay framework (Lawler, 1990). The basic argument in goal setting theory is that specific and challenging goals provide cues to guide behavior and clarify performance expectations. Locke and Latham (2002) argue that goals function as mediators between incentives and outcomes, such as satisfaction with performance and rewards. There are several psychological mechanisms that explain the effect of goal specificity and difficulty on performance (see Locke and Latham, 2002 for a review). Here we focus on the importance of goal setting process to employee pay satisfaction. It can be argued based on goal setting theory that the role of managers is to provide realistic guidelines as to how the pay is aligned with employee performance via participatory goal setting process. Furthermore, as strategic pay framework posits, it is also important to provide a link between employee performance goals and organizational strategy in practice.

Hypotheses

Previous research has demonstrated that employee knowledge of a pay system is positively related to pay satisfaction (Heneman, H.G: and Judge, 2000; Heneman, R.L. *et al*, 2002; Mulvey *et al*., 2002). This study aims to find out whether managers can facilitate employee understanding of the pay system through a goal setting process. It is presumed that through a successful goal setting process that aligns individual goals with organizational strategy, managers can improve employee understanding about pay systems and, through that, have an impact on the employees' pay satisfaction.

Hypothesis 1: *Positively perceived goal setting process will enhance employee pay satisfaction through better understanding of the pay system.*

Reflection Theory proposes (Thierry, 1998; 2001) that pay reflects images important to self-identity. Pay is meaningful because of it represents instrumental and symbolic values (Mitchell and Mickel, 1999). Pay is instrumental in buying goods and services of monetary value (this is captured by the 'spending' meanings in Thierry's model). Pay symbolically signals how important the work of the employee is in the organization, and how influential the employee is ('control' meanings). It also provides feedback on performance ('relative position' meanings). We argue that these meanings of pay system are demonstrated at the workplace through goal setting and explaining why reaching them is important (i.e. providing a link with organizational strategy). It is hypothesized according to the Reflection Theory:

Hypothesis 2: *Positively perceived goal setting process will enhance pay satisfaction through meanings of pay.*

Reflection Theory proposes that the meaning of pay would be important over and above the mere knowledge of the pay system since pay reflects images important to self-identity (Thierry, 2001).

METHODOLOGY

Participants and procedure

The organization under study is a municipal sector health care organization in Finland that at the end of year 2004 had about 2000 employees. The study was conducted during spring 2004 when a new evaluation-based pay system had been operational for one year. The new system replaced a pay system where pay increases had been solely dependent on the position (job title) and the seniority of the employee. The pay reform was carried out because of a new collective labor agreement. The new pay system was developed in cooperation with the employee unions.

The word ‘manager’ in the context of this organization refers to the immediate supervisors responsible for holding yearly developmental discussions with the employees. Conducting performance appraisal was within the manager's field of responsibilities, but pay was also determined by manager-independent factors, such as organization-wide pay policy solutions and views of the upper management. The connection of performance appraisal and salary rises was discretionary, as the upper management held the final authority on raising employee salaries.

Questionnaires were distributed to the whole personnel of the departments who wished to participate in the study. The sample consisted of 807 employees in 11 departments. The individuals in the sample received the questionnaire and a return envelope by mail. The questionnaire emphasized that answers would be handled confidentially. Management of the organization also encouraged responding. Altogether 371 responses were received. This resulted in 46% response rate, which is in the acceptable range of 60±20 norm provided by Baruch (1999). Part time employees were omitted from the analysis (n=30, 8.1%), since the pay might represent different meaning for them than for full-time employees. As a result, the final sample size was 341. Performing an analysis on the missing data ensured that the sample was representative of the target group.

The majority of the respondents were female (88.3% vs. 88.9% in the target group), as usual in the health care sector. The average respondent age was 44.4 years, ranging from 20 to 63 years (vs. 44.6 in the target group). Majority (61.9%) of respondents had college-level training (vs. 60.9% in the target group). The average monthly pay of the respondents was 1972 euros (SD 885), with a median of 1800 and a mode of 2000. Employees in this sample had on average earnings that were below national average earnings (2459 euros in 2004) and below the average on the municipal sector (2297 euros in 2004: Statistics Finland, 2006).

Measures

To study pay satisfaction, two ‘Pay level satisfaction’, three ‘Pay raise satisfaction’ and four ‘Pay administration/structure satisfaction’ items from The Pay Satisfaction Questionnaire (PSQ: Heneman, H.G. and Schwab, 1985) were used. The respondent was asked to evaluate to what degree he or she agreed with the claims regarding pay satisfaction. These items were carefully translated from English to Finnish. The scale comprised of nine items (α = .94). All the items in this study were followed by a 5-point Likert-type scale, ranging from 1 = completely disagree, 5 = completely agree.

A slightly modified version of The Base Pay Knowledge scale introduced in Mulvey *et al.* (2002) was used to measure experienced knowledge of base pay. The respondent was asked to evaluate how well she/he knew the pay system. Two of the translated items were slightly modified to fit the context. The scale comprised of five items (α = .82).

Goal Setting was measured using an *ad hoc* scale based on goal-setting theory by Locke and Latham (1990) and strategic pay framework (Lawler, 1990). The role of supervisor according to goal setting theory is through a participatory goal setting process to set specific challenging yet acceptable goals. According to strategic pay framework, a link should be established not only between individual pay and performance but also between individual goals and organizational strategy. These theoretical underpinnings were incorporated to the items. The scale comprised of four items (α = .91).

The meanings of pay was measured using the three items each ‘spending’, ‘relative position’ and ‘control’ dimensions of The Meaning of Pay Scale introduced in Miedema (1994). The items were translated from English to Finnish (using an English version of the scale received from Thierry). A set of factor analyses was conducted to examine the convergent and discriminant validity of the scales. First, since this study focuses on meaning of pay, respective subscales were analyzed with confirmatory factor analysis (AMOS 7; Arbuckle, 1997). The one factor solution provided a very poor fit for the data (χ^2(df = 27) = 840.3; CFI = .62, RMSEA = .30), whereas the two factor (χ^2(df = 27) = 319.9; CFI = .87, RMSEA = .18) provided a significantly better fit, and three factor solution (χ^2(df = 25) = 50.3; CFI = .99, RMSEA = .06) fitted the data well. In the three factor solution, the parameter estimate for factor intercorrelation between ‘control’ and ‘relative position’ was high (.75), whereas the parameter estimates for the intercorrelations between ‘control’ and ‘spending’, as well as ‘relative position’ and ‘spending’ were moderate (.34 and .43 respectively).

Additionally, with concerns of common method variance in mind, we performed an exploratory factor analysis on the whole survey data (SPSS 15.0). Five meaningful factors emerged (see Appendix 1) with Eigenvalues larger than 1.00 suggesting that common method variance is not a critical issue (Podsakoff and Organ, 1986). Pay Satisfaction, The Knowledge of Pay and The Goal Setting scale loaded on separate factors. In a previous study (Shaw, 1996) it was not possible to distinguish between the Meaning of Pay dimensions ‘control’ and ‘relative position’. Also in this exploratory factor analysis, control and relative position loaded on one factor, and spending items on another. Even though our confirmatory factor analysis suggests a good fit for three factor solution with respect to Meanings of Pay, we decided to use the two clearly distinguishable variables to capture the concept. The first, renamed ‘The symbolic meanings of pay’ subscale comprised of three ‘control’ and three ‘relative position’ items (α = .92). ‘The instrumental meanings of pay’ subscale comprised of three ‘spending’ items (α = .90).

Control items

Age, gender, education and pay level of the respondents were added as controls in the model. The respondents were also asked to report this information. The mean population correlations for these variables were r = .04 for age, r = .01 for gender (0 = male, 1 = female), r = .01 for education and r = .29 for pay level in meta-analysis by Williams *et al*. (2006). Even though the studied employees were on average low paid, we expected there to be variation in pay satisfaction since for money attitudes have been found to have covary with pay satisfaction even in low paid jobs (Thozhur, Riley and Szivas, 2006). The other control variables have demonstrated quite high variation in their relationship with pay satisfaction, so no specific pattern was expected.

Statistical methods

We tested for the mediation hypotheses with set of multiple hierarchical regressions as proposed by Baron and Kenny (1986) in the equation IV –> M –> DV. A variable functions as a mediator when it meets the following conditions: 1) variations in levels of the independent variable (IV) significantly account for variations in the mediator (M; i.e. path α), 2) variations in the mediator significantly account for variations in the dependent variable (DV; i.e. path β), 3) and 3) when paths α and β are controlled, a previously significant relation between independent and dependent variables (i.e. path γ) is no longer significant (in the case of full mediation). If all three estimates, α, β, and γ, are significant, it is a case of partial mediation. If, after adding the direct relationship or before doing so, α and/or β are not significant, it is noted that no mediation occurs.

RESULTS

They correlation matrix (Table 1) supports the hypotheses presented in this study. The independent variable (i.e. goal setting) significantly correlates with the assumed mediators (i.e. knowledge of pay and meanings of pay), and the dependent variable (i.e. pay satisfaction). Also the correlations between the mediators (i.e. knowledge of pay and meanings of pay) and dependent variable (i.e. pay satisfaction) are significant. As for our control variables, pay level is significantly positively related to pay satisfaction but age, education and gender are not.

Insert Table 1 about here

We performed seven multiple hierarchical regressions to analyze whether the effect of managerial goal setting on pay satisfaction was mediated through knowledge of pay and the meanings of pay. In the first model, we demonstrate that the impact of goal setting on knowledge of pay (Table 2; F = 21.235, p = .000). In the second and third model, we'll find that goal setting explains variance in two meaning of pay variables (instrumental meanings: F = 17.219, p = .000; symbolic meanings: F = 33.048, p = .000). The fourth equation shows that goal setting also explains variance in pay satisfaction (F = 18.525, p = .000). Thus, the first four equations show that goal setting is associated with mediators and the independent variable, after controlling for gender, age, education and monthly pay level.

The fifth equation demonstrates that knowledge of pay partially mediates the relationship between goal setting and pay satisfaction. A partial mediation is detected since the effect of goal setting on pay satisfaction is less in this equation than in the fourth, however, still remains significant (F = 6.643, p = .010). The sixth equation demonstrates that instrumental meanings of pay partially mediate the relationship between goal setting and pay satisfaction. A partial mediation is detected since the effect of goal setting on pay satisfaction is less in this equation than in the fourth, however, still remains significant (F = 6.378, p = .012). The seventh equation demonstrates that symbolic meaning fully mediates the relationship between goal setting and pay satisfaction. A full mediation is detected since the effect of goal setting on pay satisfaction is less in this equation than in the fourth, and the incremental effect is insignificant (F = 1.991, p = .159).

The final regression that includes all predictors reveals that the meanings of pay as well as knowledge of pay significantly predict pay satisfaction (Table 3). The model explains 47 percent of the variation in pay satisfaction.

Supplemental *post hoc* analyses reveal that even though pay level is a significant predictor of pay satisfaction (F = 11.684, p = .001), the instrumental meanings of pay fully mediates the effect of pay level on pay satisfaction (F = 1.705, p = .193). Also symbolic meanings of pay (F = 7.092, p = .008) and knowledge of pay (F = 8.551, p = .004) partially mediate the effect of pay level on pay satisfaction.

Insert Tables 2 and 3 about here

In sum, these results suggest that the connection between goal setting and pay satisfaction is mediated by knowledge of pay (H1) and meanings of pay (H2). More specifically, partial mediation occurs in the case of instrumental meanings and full mediation occurs in the case of symbolic meanings. Moreover, our analysis reveals that meanings of pay uniquely contribute to pay satisfaction in addition to knowledge of pay.

DISCUSSION

The aim of this study was to test some basic tenets of Reflection Theory formulated by Thierry (1998; 2001). The results obtained in this study supported the two hypotheses presented. Employee perceptions of goal setting had impact on pay satisfaction through both employee knowledge and the meanings of pay. Hence, the manner in which managers are perceived to set goals clearly has an indirect impact on pay satisfaction through better knowledge and enhanced instrumental and symbolic meanings of pay. The importance of goal setting in employee pay satisfaction is also acknowledged by Locke and Latham (2002), who argued that goals function as mediators between incentives and outcomes, such as satisfaction with pay.

The results show that the better employees know the pay system, the more satisfied they are with the system. This result is in line with previous research (Heneman, H.G: and Judge, 2000; Heneman, R.L. *et al*, 2002; Mulvey *et al*., 2002). The explanation is intuitive; the better the information on what to expect, the more realistic expectations about pay. However, it is possible that an employee knows the system as such, but does not understand how it functions for him or herself specifically – and the pay system is not perceived as meaningful. Here, as demonstrated in this study, meanings of pay (Thierry, 1998; 2001) add to our understanding of the processes of employee satisfaction with pay. The meaning can be both instrumental and symbolic. Based on the results, we argue that managers can influence the experienced meanings, via linking pay to performance to enhance feedback on personal work achievement and promote employee value in the organization through linking employee goals to those of the organization (i.e. 'relative position' and 'control' in Thierry's model).

Previous research has demonstrated that employees are more satisfied with their pay if they experience that it is linked to work performance (Heneman, R.L., Greenberger and Strasser, 1988). This occurs even when the pay system is not directly connected to the performance management system (Giles and Mossholder, 1990). This is an important point since as noted by Kohn (1993), pay systems are strongly activity guiding, but often guide the wrong way. According to Kerr (1995), this may be due to the fact that often the results wanted differ from the work actually paid or rewarded for. Thus, the pay system may convey a message other than the one desired. In this case, the pay system does not communicate the goals and values considered important in the organization. Managers face a challenging task when trying to utilize pay systems as message conveyors and to increase employee satisfaction in cases where employees know the systems but deem them unsatisfactory or unfair. In the studied municipal health care organization, the average pay level of the members was well below the national average earnings and that of the municipal sector.

The overall low pay level might be reflected in on average positive appraisals on the levels of instrumental meanings of pay, but low levels of symbolic meanings of pay. There might be two explanations to the latter: First one is that this pay system did not provide the employees with much feedback on performance and the recognition of the value of the work. The second interpretation is that the employees might perceive that the system transmits negative messages (instead of nonexistent, meaningless messages). Since the survey on Meanings of Pay only measures variation in the positive ends of meanings perceived by the employees, we cannot know which option would be true in this case. We believe that the most profound exclusion in the Reflection Theory and its operationalization so far have been that it does not capture the negative connotations of the meanings of pay to employees. For example, on the negative side, the dimension ‘control’ might be interpreted as ‘being controlled’. This interpretation might present negative value to an employee, which can lead to anxiety, not satisfaction. Also the reflections of ‘power positions’ might not always be perceived positively by an employee, especially if there are doubts of the ethical nature of the management in the organization.

The future research should directly measure the negative connotations of meanings, and their dimensionality with respect to positive meanings. Future research should also directly measure perceptions of for example unethical managerial practices as an antecedent, and anxiety in addition to satisfaction as a proposed consequence of the process. Indeed, some research have demonstrated that organization-offered knowledge of pay system does not necessarily in itself act towards greater pay satisfaction if the employee does not perceive to be benefited by the system (Graham and Welbourne, 1999; Burchett and Willoughby, 2004). Nevertheless, on the positive side, the study shows that managers can contribute to employee pay satisfaction through a goal setting process. This process influences pay satisfaction through knowledge of pay, and meanings of pay. The results support the Reflection Theory of pay (Thierry, 1998; 2001). Taken together, the model explained a little less than half of the variance in pay satisfaction. The results have important implications for managerial practice.

Limitations

Our study is not without limitations. First, cross-sectional study warrants the assessment of common method variance, caused by the information gathering using one method, here survey. To help reduce the likelihood of this possibility, several steps were taken in the survey design and administration to reduce the potential threat of common method bias. We addressed this problem by assuring confidentiality of the responses, and performed exploratory factor analysis on all items of the study to analyze whether common method variance would be of serious concern (Podsakoff and Organ, 1986). Despite the steps taken here to reduce concerns about common method variance, we recognize that its potential influence on the results cannot be eliminated.

Secondly, a nonexperimental design also leads to problems when defining causality. As a consequence, these findings do not provide a valid basis for making causal inferences about relations between variables (Stone-Romero and Rosopa, 2008). We acknowledge that the cause-consequence relationship is not always realized top-down, from manager behavior to employee attitudes. Future research should incorporate longitudinal research designs, preferably randomized experiments (Stone-Romero and Rosopa, 2008), to address whether managerial interventions to promote the goal setting process actually enhance reported knowledge of pay, and perceived meanings of pay, which would be expected to impact pay satisfaction. A longitudinal research design is also needed to explore the degree to which perceptions of meanings are stable personality-differences and the degree to which they change as a function of management interventions or employee life situation.

Third, we chose not to study motivational properties meanings in this study. In Thierry's model, 'motivational properties' represents meanings of personal importance, such as "establishing contacts off the job" and "to acquire recognition from family and friends". The omission of this dimension from the study can be perceived as a limitation of our study. Note also that since ‘motivational properties’ meanings describe whether persons achieve goals of personal importance, this dimension could also be considered ‘instrumental’. Future research should provide a firmer test to the dimensionality of Meanings of Pay scale, and further test whether the dimensions would have different antecedents and consequences. In our study, we were able to demonstrate evidence for discriminant validity in the case of instrumental (here ‘spending) and symbolic (here ‘control’ and ‘relative position’) meanings. These dimensions were clearly distinguished, and demonstrated a somewhat different pattern of results. Symbolic meanings of pay fully mediated the relationship between goal setting and pay satisfaction, whereas in the case of instrumental meanings, the mediation was only partial. In addition, our *post hoc* analyses revealed that instrumental meanings of pay fully mediated the effect of pay level on pay satisfaction, whereas in the case of symbolic meanings the mediation was partial.

Implications for managerial practice

Research on pay satisfaction is important since if employers understand the antecedents of pay satisfaction, they can improve their ROI from pay systems. This is of particular interest because employers are likely exert more control on the antecedents of pay satisfaction, in terms of providing more information on the functions of pay system and ensuring that it provides the employee with positive feedback on the value of the job as well as goal achievement, than they can other sources of job satisfaction, such as satisfaction with coworkers. Based on the results of this study, we can conclude that ROI on pay systems can be improved by paying attention to how goal setting process could better provide information on the functions of pay system, as well as enhance the meaningfulness of the pay process to an employee. The interpretation of that message is crucial in determining whether employees are satisfied or unsatisfied with their pay.

However, the link from performance management to pay system may be weak for reasons beyond managerial control. The system in itself may be seen as unsatisfactory, pay levels low relative to market, and middle-level managers may not be given the needed authority for applying it. The organizational context, solutions pertaining to pay and the distribution of decision-making power within the organization may partially define the quality and existence of managerial role in a given pay system. The future research should assess whether employees pay more attention to their pay under performance-based pay systems and in which circumstances managers can have positive impact on the perceived meaningfulness of the pay system, which would be expected to enhance pay satisfaction.

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TABLE 1

Means, standard deviations and zero-order correlations*

	Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1	Age	44.38	9.50									
2	Gender (0 = male, 1 = female)	n/a	n/a	- .09								
3	Education	n/a	n/a	-.26***	-.08							
4	Average monthly pay	1972.29	885.41	.09	-.35***	.54***						
5	Goal setting	3.35	1.01	.13*	.07	-.12	.01	(.91)				
6	Knowledge of pay	3.15	.88	.07	-.07	-.03	.11	.32***	(.84)			
7	Symbolic meanings of pay	2.61	.96	.13*	.00	-.20***	.03	.38***	.41***	(.92)		
8	Instrumental meanings of pay	3.15	.88	.04	-.06	.02	.26***	.25***	.31***	.36***	(.90)	
9	Pay satisfaction	2.24	.78	-.01	-.01	-.05	.16**	.26***	.45***	.49***	.56***	(.94)

**Notes*. Reliabilities of the scales are represented on the diagonal. (N=341, *p< .05, **p< .01. ***p< .001).

TABLE 2

Regression analyses *

Equation / variables	R	R^2 change	F change	df	p (F change)
1. Using independent variables to predict mediator – knowledge of pay					
Age, gender, education	.10	.01	.912	3 / 273	.436
Average monthly pay	.15	.01	3.709	1 / 272	.055
Goal setting	.31	.07	21.235	1 / 271	.000
2. Using independent variables to predict mediator – instrumental meanings of pay					
Age, gender, education	.13	.02	1.654	3 / 276	.177
Average monthly pay	.28	.06	18.603	1 / 275	.000
Goal setting	.37	.05	17.219	1 /274	.000
3. Using independent variables to predict mediator – symbolic meanings of pay					
Age, gender, education	.18	.03	3.075	3 / 268	.028
Average monthly pay	.23	.02	4.839	1 / 267	.029
Goal setting	.39	.11	33.048	1 / 266	.000
4. Using independent variables to predict dependent variable – pay satisfaction					
Age, gender, education	.07	.00	.396	3 / 277	.756
Average monthly pay	.21	.04	11.684	1 / 276	.001
Goal setting	.32	.06	18.525	1 / 275	.000
5. Using independent variables and a mediator – knowledge of pay – to predict dependent variable					
Age, gender, education	.07	.01	.469	3 / 273	.704
Knowledge of pay	.45	.20	68.677	1 / 272	.000
Average monthly pay	.48	.02	8.551	1 / 271	.004
Goal setting	.50	.02	6.643	1 / 270	.010
6. Using independent variables and a mediator – instrumental meanings of pay – to predict dependent variable					
Age, gender, education	.07	.00	.391	3 / 276	.760
Instrumental meanings of pay	.55	.30	118.248	1 / 275	.000
Average monthly pay	.56	.00	1.705	1 / 274	.193
Goal setting	.57	.02	6.378	1 / 273	.012

7. Using independent variables and a mediator – symbolic meanings of pay – to predict dependent variable					
Age, gender, education	.07	.00	.379	3 / 268	.768
Symbolic meanings of pay	.50	.25	87.464	1 / 267	.000
Average monthly pay	.52	.02	7.092	1 / 266	.008
Goal setting	.52	.01	1.991	1 / 265	.159

**Notes*. Regressions performed with SPSS. Listwise deletion of omitted data was performed.

TABLE 3

Regression estimates in predicting pay satisfaction*

Variables	**β**		
Age	- .11	*	
Gender (0 = male, 1 = female)	.04		
Education	- .02		
Average monthly pay	.06		
Knowledge of pay	.26	***	
Instrumental meanings of pay	.38	***	
Symbolic meanings of pay	.27	***	
Goal Setting	- .02		
R^2			.47

* *Notes*. N=341, *p<.05, ***p<.001

APPENDIX 1

Exploratory factor analysis with varimax rotation*

Items	F1	F2	F3	F4	F5
I'm satisfied with the size of my base salary (pay level)	**.84**	.17	.11	.09	.20
I'm satisfied with the raises I have typically received in the past (raise)	**.82**	.19	.11	.11	.23
I'm satisfied with my take-home pay (pay level)	**.79**	.13	.07	.05	.31
I'm satisfied with the company's pay structure (administration/structure)	**.74**	.21	.13	.17	.16
I'm satisfied with my recent raises (raise)	**.74**	.14	.02	.17	.09
I'm satisfied with how my raises are determined (raise)	**.71**	.18	-.01	.32	.10
I'm satisfied with how the organization administers pay (administration/structure)	**.64**	.30	.12	.23	.11
I'm satisfied with differences in pay among jobs in the organization (administration/structure)	**.63**	.17	.11	.29	.13
I'm satisfied with the consistency of the organization's pay policies (administration/structure)	**.61**	.22	.09	.31	.16
Through my income I learn how important my work is to this organization (control)	.23	**.85**	.14	.07	.10
Through my income I learn what people think of my work (control)	.15	**.83**	.14	.07	.01
Through my income I learn how much influence I have upon the activities of my department (control)	.18	**.82**	.15	.11	.07
Through my income I learn how well I meet job expectations (relative position)	.24	**.68**	.17	.19	.17
Through my income I learn the priorities in my work (relative position)	.27	**.65**	.12	.23	.19
Through my income I learn how well I perform in comparison with my colleagues (relative position)	.18	**.65**	.16	.25	.07
My immediate supervisor explains to me why the achievement of my goals is important#	.11	.22	**.88**	.10	.07
My immediate tells me reasons for the goals I have#	.08	.11	**.82**	.09	.11
My immediate supervisor tells me how my goals are linked to organization's goals#	.06	.22	**.79**	.16	.08
Goals of my work have been agreed upon#	.12	.13	**.77**	.19	.02
I understand the bases for pay raise decisions#	.24	.14	.11	**.71**	.12
I understand the rationale for my job being placed in its grade/band/level	.33	.14	.05	**.65**	.11
I know the rationale behind my the grade/band/level of my job	.17	.11	.08	**.59**	.02
I know the grades/bands/levels of other jobs in the organization	.07	.07	.13	**.56**	.05
I understand the how my performance is linked with pay raises#	.19	.30	.20	**.56**	.09

My income enables me to buy what I want	.27	.20	.12	.14	**.85**
My income enables me to purchase the goods and services I desire	.33	.13	.09	.04	**.76**
My income enables me to attain a desirable standard of living	.36	.09	.08	.19	**.72**
Rotation Sums of Squared Loadings	5.63	4.06	2.97	2.63	2.24
% of variance	20.87	15.05	10.98	9.75	8.29

**Notes.* Extraction method: maximum likelihood. F1: Pay satisfaction, F2: Symbolic meanings of pay (‘control’ and ‘relative position’), F3: Goal setting, F4: Knowledge of pay, F5: Instrumental meanings of pay (‘spending’). #*Ad hoc* item generated for this study