



Impact of variable risk preferences on the effectiveness of control by pay

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Pay for performance is an organizational control mechanism intended to align the interests of employer and employee. We investigated whether employee risk preference interferes with the effects of this 'control by pay' on attitudinal and behavioural outcomes. We found that the degree of consistency between risk preference and control by pay affected withdrawal intentions, contingent pay satisfaction and organizational citizenship behaviour, as hypothesized. The results suggest that the use of pay for performance as a control mechanism should take into account employee risk preference, and that this concern should apply broadly in the organization, not just at the executive level.

Organizations are moving away from traditional compensation programmes, and toward more flexible pay systems that are more strategically aligned with complex, changing business environments (Heneman, Ledford, & Gresham, 2000; Lawler, 2000). One element of this trend is to link pay and performance more tightly and increase the variability of pay. Pay for performance (PFP) plans such as bonuses, gain-sharing, and stock plans are increasingly complementing or replacing more traditional PFP plans internationally (Flynn, 1999; Heery, 1996).

PFP is a form of organizational control in that it can align employee and organizational interests, and thus can be viewed as 'control by pay'. Control by pay can address employee equity and justice concerns (Heneman *et al.*, 2000; Wiseman, Gomez-Mejia, & Fugate, 2000), and from an organization's perspective, lower fixed cost by reducing compensation payment when individual, group, or firm productivity is low (Eisenhardt, 1985).

However, PFP inherently involves risk, because of the numerous factors not under the employee's control that can interfere with the relationship between effort and outcome (Igalens & Rousel, 1999). Thus, an employee experiencing PFP may also perceive the risk inherent in the pay system, and if highly risk averse, may engage in behaviours detrimental to the firm. Conversely, an employee who is not risk averse

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may prefer a pay system in which pay is used to motivate performance. The effect of risk on employee behaviour has received attention in research on top executive pay, especially from a theoretical perspective (Wiseman & Gomez-Mejia, 1998). For employees below the executive level however, the interaction between compensation design and individual risk characteristics has received little direct research attention, despite its potential effects on important outcomes (Wiseman *et al.*, 2000).

We address the issue of the match between control by pay and risk preference by examining, using a non-executive sample, whether risk preference moderates the effect of control by pay on attitudinal and behavioural outcomes. Our study extends previous research in this area in three main ways. We focus directly on the degree to which the employee is controlled by pay, as opposed to assessing the simple presence of pay variability, which may or may not produce pay motivation (Fisher, 1978; Ingalens & Rousel, 1999). Secondly, we collected data from respondents in a diverse set of industries, jobs and employees. Thirdly, we develop and empirically investigate theoretical links with multiple outcomes: withdrawal intentions, pay satisfaction and organizational citizenship behaviour (OCB).

Control by pay and risk

A prescription of many theories of organizational control is the use of pay for performance (PFP) as a control mechanism. A starting-point in these theories is that employees are motivated by self-interest. For example, agency theory (e.g. Eisenhardt, 1989) and transaction cost economics (e.g. Chiles & McMackin, 1996) focus on mechanisms for and costs of aligning the interests of the employees and owners of the organization (Eisenhardt, 1989). Monitoring is one option, though is often not viable due to logistical and cost concerns, particularly in some modern organizational forms, which may include electronic or 'virtual' relationships (Wiesenfeld, Raghuram, & Garud, 1999). Having the employee bear some of the risk of the organization's performance, in the form of PFP, is another means of deterring conflict of interest. PFP attempts to accomplish the goal of aligning employer and employee interests by providing monetary incentives to motivate employees to be productive.

In addition to producing pay motivation, PFP can affect the degree of risk the employee perceives (Sitkin & Pablo, 1992) as pay variability transfers risk from the organization to the employee (Wiseman *et al.*, 2000). For example, situational constraints such as inadequate time or task information, lack of materials and supplies, inadequate tools/equipment, or insufficient help from others, can adversely affect an employee's performance (O'Connor *et al.*, 1984; Peters & O'Connor, 1980). At the group and organizational level, rewards are often linked to measures not under the complete control of employees, such as customer satisfaction or the organization's financial performance (Heery, 1996).

Theories of organizational control, such as agency theory, generally assume that employees are risk averse and that risk therefore represents a downside to the use of pay as a control mechanism (Eisenhardt, 1989). However, some formulations of agency theory (e.g. Wiseman & Gomez-Mejia, 1998), as well as other research on risk and organizations, recognize risk preference as a significant *variable* as opposed to a constant (e.g. Chiles & McMackin, 1996; Judge, Thoresen, Pucik, & Welbourne, 1999). Thus, an employee who is highly motivated by pay may view the risk associated with PFP negatively, while another may not.

Risk preferences

Individual risk preference serves as a component of several theories of decision making, including expected utility, non-expected utility and prospect theory (Lopes, 1994). Researchers have used these theories to help develop and modify organizational theories of control, including agency theory (e.g. Eisenhardt, 1989; Wiseman & Gomez-Mejia, 1998), integrations of agency theory and organizational theory (Eisenhardt, 1985), and transaction cost economics (e.g. Chiles & McMackin, 1996).

Several studies of the effectiveness of pay systems have directly or indirectly provided evidence of the consequences of a mismatch between risk preferences and the amount of risk the employee bears. Brown and Huber (1992) studied an organization consisting of 101 bank employees that switched from a fixed pay system to an earnings at risk plan that reduced base pay and increased employee risk and uncertainty with respect to total pay. Overall, employees were significantly less satisfied with their pay, including those whose pay stayed the same or increased under the new pay system. A study by Shirom, Westman, and Melamed (1999) of blue-collar workers, who as a group may tend toward risk aversion, found that pay variability was associated with employee emotional distress. In a series of studies by Yukl, Latham, and associates, employee risk preference was a factor in explaining the preference for, and productivity under, continuous (low risk) versus variable (high risk) reinforcement schedules in diverse samples (Latham & Dossert, 1978; Yukl & Latham, 1975; Yukl, Latham, & Pursell, 1976). In a study at the managerial level, Bloom and Milkovich (1998) examined the role of risk in the structure of managerial compensation and its relationship to organization performance. They found that high-risk organizations that relied on incentive pay exhibited poorer performance than high-risk firms that did not emphasize incentive pay. Their results suggest that incentive pay in high-risk organizations may induce risk averse managers to act conservatively, thus negatively affecting firm performance.

Interaction between risk preferences and control by pay

The findings discussed above suggest that attitudes toward risk may moderate the relationship between control by pay and outcomes. An area of research that has explored issues of the match between risk and compensation practices is the perspective of person-organization (P-O) fit, which involves the compatibility between a person and organization in which they work (Kristof, 1996). It has been operationalized in a number of ways, including congruence between individual preferences or needs and organizational systems and structures (e.g. Bretz, Ash, & Dreher, 1989; Cable & Judge, 1994; Turban & Keon, 1993). As discussed in Kristof (1996), this perspective has theoretical foundations in the theory of work adjustment (Dawis & Lofquist, 1984), and has been used in previous empirical research as a basis for P-O fit (Bretz & Judge, 1994).

An underlying assumption of the P-O fit research on risk and pay is that risk preferences represent an individual difference variable that, as mentioned above, may have substantial variance across participants in a given context (Cable & Judge, 1994; Weber, Anderson, & Birnbaum, 1992). Cable and Judge (1994) found that risk-averse job seekers were more attracted to organizations with non-contingent pay systems than were risk takers. Gomez-Mejia and Balkin (1989) found that risk-averse individuals in the hi-tech sector experienced greater withdrawal cognitions in contexts of high pay variability.

Our research builds on previous research on risk and pay systems in several ways. First, the mere existence of pay variability in an organization does not necessarily translate into control by pay. Factors affecting individual pay motivation in the presence of PFP include pay importance (Nash & Carroll, 1975), the degree to which the organization succeeds in making pay motivation an element of culture (Lawler, 2000), and the degree to which the individual perceives a link between effort and performance, and performance and pay (e.g. Igalens & Rousel, 1999). The latter may be especially relevant in contexts in which the incentive system is firm- or group-based, is individual-based but is poorly designed, or where pay varies as a function of individual merit as assessed through subjective performance appraisal. In these instances, employees may not perceive an adequate 'line of sight' to be motivated by the PFP plan (Milkovich & Newman, 2002).

Secondly, we study a broad population of employees, and measure risk preferences at the individual level. Research discussed above suggests that different employee groups may have very different preferences regarding risk. To make generalized inferences about the effects of risk in pay systems, a study must incorporate a broad sample of employees.

Thirdly, we specify multiple outcome variables. Though withdrawal cognition (which has been studied previously in the context of pay risk) is an important outcome, turnover may not be a viable option for many employees, as a variety of factors may make it difficult for an employee to change employers (Allen & Meyer, 1990). This highlights the importance of studying other outcome variables, as turnover may be only one, and perhaps not the worst from an organizational standpoint, outcome resulting from a mismatch between pay risk preferences and control by pay. In addition to withdrawal cognitions, we investigating effects on pay satisfaction and organizational citizenship behaviour.

Withdrawal cognitions

One alternative for a risk averse individual to manage risk is actively to attempt to avoid it (MacCrimmon & Wehrung, 1986). An alternative for an individual who desires more risk would be to seek it. One way to accomplish these objectives is by quitting, and joining an organization that presents a different level of risk in the pay system.

Historically, models of employee turnover (e.g. Griffeth & Hom, 1995; Steers & Mowday, 1981) have recognized that consistency between employee preferences and organizational policies is a more distal or indirect determinant of employee withdrawal cognitions and turnover. Within these models, this consistency is a more proximal or direct antecedent of work attitudes such as job satisfaction or organizational commitment, which then leads to withdrawal cognitions.

Though previous research has shown that a match between risk preferences and the pay system affects the attractiveness of an organization to job seekers and intentions to join the organization (Cable & Judge, 1994), it is reasonable to assume that mismatches may occur due to such factors as the lack of employee alternatives at the time of job search, lack of employee understanding of the compensation system at the time of hire and changes in the organizational pay system. Previous research has in fact shown that the lack of a match between risk preferences and organizational pay variability affects withdrawal cognitions in the hi-tech sector (Gomez-Mejia & Balkin, 1989). Our study focuses on control by pay directly, and assesses whether this finding generalizes to a broader sample of organizations and employees.

Hypothesis 1. Individual risk aversion will moderate the effect of control by pay on withdrawal cognitions, such that the effect of control by pay on withdrawal cognitions will be more positive (or less negative) the more risk averse the employee.

Contingent pay satisfaction

Most models of pay satisfaction, a facet of job satisfaction, are discrepancy models, with pay satisfaction a function of the difference between what the individual perceives should be received and what is received (Heneman, 1985). Extensions of the basic discrepancy model have incorporated concepts of pay fairness or justice. This research suggests that preferences regarding the degree to which pay is a control device, in addition to the amount received, affects pay satisfaction.

Miceli and Lane (1991) incorporated employee preferences regarding the bases for pay increases in their model of within-job pay system satisfaction, arguing, among other things, that religious, cultural and personality factors may affect these preferences. Experimental research by Yukl, Latham, and associates (e.g. Latham & Dossert, 1978; Yukl & Latham, 1975; Yukl *et al.*, 1976) discussed earlier provides results consistent with the theorizing of Miceli and Lane (1991) and theoretical work on risk aversion by Lopes (1987). This research suggested that cultural, religious and related need factors explain why some participants (e.g. tree planters) showed aversion to a variable reinforcement schedule (which implies risk), while more risk-seeking participants (beaver trappers and college students) showed preference for a variable reinforcement schedule. Interestingly, this result held up even when risk-averse participants who experienced the variable reinforcement schedule received a significant risk premium, in the form of payment beyond expected value based on probability of reward.

Research on dimensions of pay referents shows that employee needs, particularly financial, are a significant referent used by individuals in determining pay satisfaction (e.g. Blau, 1994). Thus, from a met needs perspective, we hypothesize that a mismatch between risk preferences and control by pay will affect contingent pay satisfaction.

Hypothesis 2. Individual risk aversion will moderate the effect of control by pay on contingent pay satisfaction, such that the effect of control by pay on contingent pay satisfaction will be more positive (or less negative) the less risk averse the employee.

Organizational citizenship behaviour

Organizational citizenship behaviour (OCB), a form of extra-role behaviour, is discretionary behaviour in organizations that is not explicitly or directly recognized by the formal reward system and in the aggregate contributes to organizational effectiveness (Organ, 1988). Since OCBs are discretionary, employees face no formal sanctions for failing to engage in them. Furthermore, when firms clearly specify behaviours and outputs that will be rewarded, organizations risk discouraging behaviours that are not explicitly rewarded (Morrison, 1996), such as OCBs. This may explain in part why previous research has found that the stronger the link between pay and performance, the less OCB (e.g. Deckop, Mangel, & Cirka, 1999; Morrison, 1996).

However, when employee and organizational values are aligned, employees may view PFP and the resultant control by pay less as a short-term *quid pro quo* and more as an element of a broad, long-term social exchange relationship. Deckop *et al.* (1999) found that the strength of the pay for performance link had a negative impact on OCB for employees low in value alignment with the organization, but not for employees

high in value alignment. They suggested that PFP may be an aspect of mutual organization–employee investment (Tsui, Pearce, Porter, & Tripoli, 1997), which contributes to a social, as opposed to an economic, exchange relationship between employer and employee. In a social exchange relationship, employees are not as concerned about the short-term *quid pro quo* represented by a pay contingency and are thus more likely to engage in OCBs (Moorman, 1991).

Based on the assumption of higher-value alignment between risk-preferent employees and high control by pay, more risk-preferent employees are predicted to be more likely to engage in OCBs when control by pay is high versus low. In contrast, risk-averse employees may not see control by pay as representing organizational support, as the pay system clashes with their risk/security needs. Control by pay for these employees is predicted to result in less OCB for these employees, as the incentive to focus on tasks that contribute to in-role performance is not offset by a social exchange considerations.

Hypothesis 3. Individual risk aversion will moderate the effect of control by pay on OCB, such that the effect of control by pay on OCB will be more positive (or less negative) the less risk averse the employee.

Method

Sample

Data were collected during the summer and autumn of 1999 from a sample of working evening graduate and undergraduate business students from two universities in the northeastern part of the US. The average tenure of respondents in their organizations was 4.5 years, and 94% of respondents worked more than 20 hours per week. Respondents on average were in the range of 30–40 years of age, and their average salary was between \$30,000 and \$40,000. These demographic data, in total, suggest a sample of mostly full-time employees who are established in their organizations and occupations.

A wide range of occupations and organizations were represented in the sample. Occupationally, 34% of respondents identified themselves as professional, 15% office/clerical, 12% technical, and 12% managerial. The remaining respondents were divided among sales, service; and ‘other’. Major industries represented included banking/finance (15%) and health care (13%).

These demographic data indicate that surveying working, evening students provides an effective way to get access to employees from a wide variety of occupations. In contrast to a sample from one organization or occupation, our sample of working students increases the chances of obtaining substantial variance in employee risk preferences and control by pay, and in the degree of match between risk preference and control by pay. Thus, in comparison with previous research on employee risk preference and pay, we feel more confident in generalizing our results to a wide range of organizations, occupations and hierarchical levels.

Surveys were distributed during classes with the permission of the instructors. Participation of the respondents was voluntary and respondents were assured that their responses would be confidential. The survey consisted of two parts, an employee survey and a supervisor survey. Respondents completed one or the other part. Respondents were instructed to complete the supervisor survey if they were supervisors, and the employee section if they were not. Respondents were instructed

to give the other part of the survey to two subordinates if they completed the supervisor survey or to their immediate supervisor if they completed the subordinate survey. Those giving surveys to subordinates were asked to select, if possible, one good performer, and one who was not. Our goal was to ensure adequate variance on the outcome variable of OCB, since OCB is generally correlated with in-role behaviour. Each response, irrespective of the initial contact in class (supervisor versus subordinate), was counted as an independent response. We provided both subordinates and supervisors envelopes that were addressed and stamped, which allowed respondents to return surveys directly without involving the supervisor or subordinate whom originally gave them the survey. The two parts of the survey had a common serial number, which was used to match the employer and supervisor parts of the survey. The supervisor survey provided our outcome data on OCB.

The surveys were first pilot tested with 31 employed undergraduate business students. Based on the comments of these respondents, minor changes were made to the instructions to increase clarity.

The number of surveys that were administered was 357. From these, we obtained 157 matched employee-supervisor dyads, for a response rate of 44%. Due to listwise deletion of missing data, the actual sample size was 127 matched surveys.

Measures

Withdrawal cognitions

We used a 3-item measure of withdrawal cognitions based on work by Hom and Griffeth (1991). A sample item is 'I am thinking about quitting my job soon'.

Contingent pay satisfaction

We adapted the 4-item 'lump-sum bonus satisfaction' scale developed by Sturman and Short (2000). They developed the scale in the style of and to complement the Pay Satisfaction Questionnaire (Heneman & Schwab, 1985). Their empirical analysis revealed that lump-sum bonus satisfaction was a separate dimension of pay satisfaction. We modified their scale slightly by substituting the term 'pay adjustment' for lump-sum bonus, to reflect a more general orientation to PFP. A sample item is, 'I am satisfied with my recent pay adjustments'.

Organizational citizenship behaviour

A composite, 18-item OCB scale was developed for our survey, though not specifically for this study. Supervisors rated subordinates on their OCB. The scale was developed on a 'target' basis, with three subdimensions: OCB-Organization, OCB-Supervisor, and OCB-Co-worker. It combines elements of OCB scales developed by Moorman and Blakely (1992), Van Dyne, Graham, and Dienesch (1994) and Williams and Anderson (1991). A sample item is, 'This employee defends the organization when other employees criticize it'.

Control by pay

We measured control by pay by adapting Fisher's (1978) 'control by pay' scale. Our scale contained four items and assesses the degree to which the individual is motivated to work hard as a result of the organization's pay system. A sample item is, 'My organization's pay system makes me want to work hard all the time'.

Risk aversion

We used the 6-item risk aversion scale developed by Cable and Judge (1994), also used by Judge, Thoresen, Pucik, & Welbourne (1999). Cable and Judge developed it based

on the original scales developed by Gomez-Mejia and Balkin (1989) and Slovic (1972). A low score on the scale means low risk aversion, and a high score means high risk aversion. A sample item is, 'I am not willing to take risks when choosing a job or a company to work for'.

Control variables

Our controls include organizational justice, locus of control, employee earnings, union membership, age, education, and gender.

We controlled for justice perceptions and the employee's locus of control because both represent potential alternative explanations for our findings. Arguably, justice perceptions could affect control by pay. Justice perceptions have also been shown to be related to all three outcome variables (Colquitt, Conlon, Wesson, Porter, & Ng, 2001). Excluding perceptions of justice could therefore bias coefficient estimates associated with control by pay. We measured three forms of organizational justice—procedural, interactional and distributive. Scales for procedural justice (seven items) and interactional justice (six items) were taken from Moorman (1991). Distributive justice was assessed with the 6-item Distributive Justice Index developed by Price and Mueller (1986). Our overall justice scale was a summation of the three individual scales (we also conducted analyses with the three dimensions specified separately; results related to our hypothesis tests were virtually identical).

Locus of control is conceptually related to risk preference (Hale, 1987). Though it is not of direct interest in this study, we controlled for it to help isolate the specific effect of risk preferences. We measured it by a 5-item scale based on Spector's (1988) 16-item work locus-of-control scale. Due to survey length constraints only five items could be used.

Employee earnings, as a proxy for wealth, is likely correlated with risk preferences (March, 1987), and possibly correlated with our outcome variables, particularly contingent pay satisfaction. To measure earnings, employees were asked to indicate in which of 10 categories their yearly earnings fit, from 'less than \$20,000' (=1) to 'over \$100,000' (=10). Union membership may be correlated with both risk preferences and control by pay, as well as with our outcome variables. Employees were asked to indicate, in a yes/no question, whether they belonged to a union (0=yes, 1=no). Employee age, education and gender are commonly specified control variables in studies of satisfaction, OCB, performance and turnover intentions. Employee were coded into one of six age categories, from 'less than 20' (=1) to 'greater than 60' (=6), and one of two education categories, undergraduate (=0) or graduate (=1). Gender was coded 1=female and 2=male. We also considered including as a control variable whether the respondent in class was a student or supervisor. Results were virtually identical with this control included, so we do not include it in the reported results.

All the scales in the employee survey had a Likert-type 7-point response format. Responses for all employee scales (except distributive justice) ranged from 'strongly disagree' (=1) to 'strongly agree' (=7). The distributive justice responses ranged from 'extremely unfair' (=1) to 'extremely fair' (=7). The format for the OCB scale was a 5-point Likert-type response, from 'never true' (=1) to 'always true' (=5).

Results

Table 1 contains means, standard deviations, correlations and reliabilities of study variables. Scale reliabilities all exceeded the cut-off of .70 for scale development suggested by Nunnally (1978) with the exception of locus of control ($\alpha=.68$), a control

variable. Intercorrelations among independent variables is low, suggesting that multicollinearity is not a problem in this study.

We tested our hypotheses using moderated regression analysis (Aiken & West, 1991). Along with the control variables, we specified control by pay, risk preference, and in the final step, the control by pay, risk preference interaction. The significance level of the coefficient of the interaction indicates whether the addition of the interaction term contributes a statistically significant increment to R^2 (Aiken & West, 1991), and is the appropriate test of significance of the interaction in hierarchical regression (Aiken & West, 1991; Cohen & Cohen, 1983). A significant interaction thus would be evidence that employee risk preference moderates the effect of control by pay on our outcome variables.

Table 2 presents regression results. The effect of the interaction of control by pay and risk preference is statistically significant, in the predicted direction, for withdrawal intentions ($p < .01$, $R^2 \Delta = .055$), contingent pay satisfaction ($p < .05$, $R^2 \Delta = .015$), and OCB ($p < .05$, $R^2 \Delta = .025$). Thus, all three of the study's hypotheses are supported.

The significant interactions mean that the degree to which respondents' risk preferences match the degree to which they are controlled by pay affects withdrawal intentions, contingent pay satisfaction and OCB, as predicted. Specifically, the more risk averse the employee, the greater (or less negative) the effect of control by pay on turnover intentions, and the less risk averse the employee, the more positive (or less negative) the effect of control by pay on contingent pay satisfaction and OCB. Figure 1 presents plots of these relationships in graphical form. Following the method of Cohen and Cohen (1983), for each dependent variable, the effect of control by pay is plotted at one standard deviation above the mean of risk aversion (high-risk aversion) and one standard deviation below the mean of risk aversion (low-risk aversion). For withdrawal intentions, the coefficient estimate of control by pay is .13 at one standard deviation above the mean of risk aversion, and $-.42$ at one standard deviation below the mean of risk aversion. For contingent pay satisfaction, the coefficients are .17 and .44 respectively, and for OCB the coefficients are $-.43$ and .24 respectively.

Several of the control variables had significant effects, though in most cases the magnitude of these effects varied considerably across equations. Interestingly, employee earnings had a consistent (and positive) effect on only one outcome variable, OCB. A possible explanation for this is that higher-level jobs may have more discretion built in, hence more opportunity for OCB. Earnings was not significantly related to contingent pay satisfaction, a result that stands in contrast to studies that have assessed affects of pay level on other forms of pay satisfaction (Heneman, 1985).

One additional set of analyses (available upon request from the first author) was conducted to assess whether contingent pay satisfaction is better specified as a mediating variable, rather than an outcome variable. Netemeyer, Boles, McKee, & McMurrian (1997), in a study of effects of P-O fit on OCB, presented the plausible argument that job satisfaction mediates the relationship between P-O fit and OCB. This is consistent with prior conceptualizations that have viewed pay satisfaction as an antecedent of outcomes such as performance, turnover and OCB (Deckop, 1992; Heneman, 1985).

To address this issue, we tested whether contingent pay satisfaction mediates the relationship between the match of control by pay and risk preference and the other outcome variables in the study. We conducted a test of mediation consistent with that proposed by Baron and Kenny (1986), and compared coefficients, between equations, of the main effects of control by pay and risk preference, and the interaction term,

Table 1. Pearson correlations and descriptive statistics

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Withdrawal cognitions	9.21	5.68	(.90)										
2. Contingent pay satisfaction	17.11	5.69	-.35	(.90)									
3. OCB	55.60	10.84	-.09	.16	(.90)								
4. Control by pay	16.96	5.07	-.30	.46	.01	(.83)							
5. Risk aversion	19.39	6.57	.17	-.05	.01	-.06	(.82)						
6. Justice	93.14	19.28	-.49	.60	.16	.45	-.02	(.95)					
7. Locus of control	32.25	4.92	-.25	.29	.18	.25	-.24	.21	(.68)				
8. Earnings	3.36	1.73	-.06	.08	.20	.11	-.12	.01	-.03				
9. Union membership	.92	.27	.06	.17	.07	-.00	-.26	.09	-.05	.03			
10. Age	2.68	.91	-.10	-.04	.05	-.09	-.03	-.07	-.08	.32	-.23		
11. Education	1.35	.48	.09	.07	.12	-.20	-.01	-.00	-.03	.17	.09	-.05	
12. Gender	1.55	.50	.07	.04	-.14	.09	.08	.01	-.17	.15	-.09	-.14	.14

Note. N = 127, coefficient alphas appear on the diagonal. Correlation >.23, $p < .01$. Correlation >.18, $p < .05$.

Table 2. Regression results

Independent variable	Dependent variable		
	Withdrawal intentions	Contingent pay satisfaction	OCB
Intercept	36.78** (7.15)	-21.82** (6.56)	10.73 (15.73)
Earnings	-.09 (.27)	.03 (.25)	1.52* (.60)
Union membership	2.48 [†] (1.71)	3.48* (1.57)	2.57 (3.77)
Age	-.66 (.52)	.53 (.48)	-.11 (1.15)
Education	.42 (.93)	1.45* (.86)	2.30 (2.05)
Gender	.74 (.91)	.46 (.83)	-3.71 [†] (2.00)
Justice	-.12** (.03)	.12** (.02)	.07 (.06)
Locus of control	-.14 (.09)	.22* (.09)	.45* (.21)
Risk aversion	-.59** (.24)	.41* (.22)	1.09* (.52)
Control by pay	-.96** (.24)	.71** (.27)	.89 [†] (.65)
Risk aversion, control by pay interaction	.04** (.01)	-.02* (.01)	-.05* (.03)
R ²	.37**	.47**	.17*
Adjusted R ²	.32	.43	.09
F	6.93	10.36	2.31

[†] $p < .10$; * $p < .05$; ** $p < .01$.

Note. $N = 127$. Values are unstandardized coefficients, standard errors in parentheses.

with and without contingent pay satisfaction specified as an independent variable. The comparisons revealed almost no differences, suggesting that contingent pay satisfaction does not act as a mediating variable. Netemeyer *et al.* (1997) also found that job satisfaction did not mediate the relationship between P-O fit and OCB.

Discussion

From a control perspective, a goal of PFP is to motivate employees to work toward company objectives, and thus control them through pay. Our results generally support the positive moderating impact of risk aversion on the relationship of control by pay to withdrawal intentions, and the negative moderating impact of risk aversion on the relationships of control by pay to both contingent pay and OCB. Overall, this suggests that organizations should consider employee risk preferences when considering the likely effectiveness of a PFP plan.

Our results shed light on underdeveloped aspects of agency and other theories of organizational control that incorporate risk preference in their formulation. Risk, in the form of PFP, is generally modelled as a condition to avoid for the risk-averse agent, or to compensate for by use of a pay premium (Balkin, Markman, & Gomez-Mejia, 2000). The assumption is that if agents experience more risk than they desire, all else equal, they will engage in behaviours detrimental to the firm (Bloom & Milkovich, 1998). Most agency theory research is silent on what the specific nature of these behaviours may be. The outcome variable in most agency theory research is the nature of the

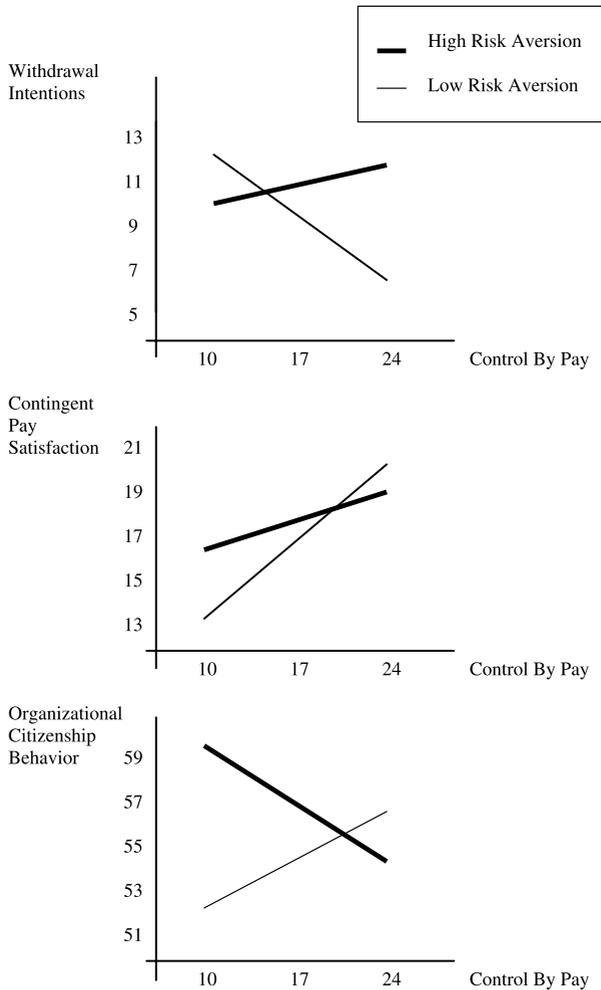


Figure I. Interaction effects.

employment contract (Eisenhardt, 1989), or less commonly, firm performance (e.g. Bloom & Milkovich, 1998). We find support for theoretical and empirical linkages to three attitudinal/behavioural outcomes, suggesting that more research at this ‘micro’ level is warranted.

As mentioned, theories of organizational control that incorporate risk preferences usually assume that the employee is risk averse, and that risk is a negative outcome of PFP and should be managed accordingly. We relax this assumption of risk aversion, and treat risk as an individual difference variable. Our results provide evidence that positive outcomes will result when employees who are more risk preferent are controlled by pay. Thus, the general assumption in agency theory (and other control theories) that all employees are risk averse may not be appropriate, and could lead to erroneous conclusions.

In our theory development and hypothesis formulation, we treated control by pay as a unidimensional construct. However, there is theory and research to suggest that

individual reactions to potential gain are qualitatively different from reactions to potential loss. Conceptual and empirical research based on prospect theory (Kahneman & Tversky, 1979) suggests that individuals will exhibit behaviour that evidences risk aversion if they frame the problem as a potential gain, and behaviour that evidences risk preference if they frame the problem as a potential loss (Sitkin & Pablo, 1992; Sitkin & Weingart, 1995). Implications of prospect theory have been extended to the decision-making behaviour of executives (Wiseman & Gomez-Mejia, 1998). As employers continue to increase the use of earnings at risk plans for lower level employees, and thus expose these employees to potential loss (Lawler, 2000), implications of prospect theory should be extended to a broader population of employees. One potential aspect of this for future research would be to treat risk preference as a more situational variable dependent on the problem frame.

From a compensation design perspective, the results of our study suggest, consistent with Cable and Judge (1994), that employers should consider the use of risk preference as a selection criterion. At minimum, employers should incorporate pay system information into their realistic job preview (Breaugh, 1983). Employers tend to focus heavily on pay and benefit levels when they communicate their reward system to applicants. Our results suggest that it may also be important to communicate the degree of compensation risk to potential employees. Further, knowledge of employee risk preferences may have direct bearing on an employer's choice of pay level and compensation expense. Risk-averse employees may be willing to make a sacrifice in pay level in favour of a less risky pay package. Conversely, a significant premium in pay level may be necessary to not only attract, but also to retain and motivate employees who are required to take on more risk than they prefer (Cable & Judge, 1994; Weinberger, 1997).

Employers should also consider the risk preferences of current employees when considering implementing or strengthening the degree to which they wish PFP to control behaviour (Weinberger, 1997). Since one size may not fit all when it comes to PFP and risk, an option would be for organizations to provide flexible or 'shared choice' pay systems to employees (Milkovich & Newman, 2002). Similar to flexible benefits systems, shared choice entails providing employees' input into their pay mix. Employees would have the option, for example, to select more or less risky forms of pay, with the ultimate payout equivalent in terms of expected economic gain given risk considerations (Weinberger, 1997). A system such as this was implemented in the US at Coca Cola, to help reduce turnover. Employees were offered a trade off of getting more cash, at the expense of fewer stock options (Mackay, 2000). While considerations such as this are now commonly accepted when executive pay contracts are negotiated (Wiseman *et al.*, 2000), our results suggest that a broader range of employees should have a voice in choosing the risk characteristics of their pay package.

Another option would be for employers to attempt to change employee risk preferences. For example, based on our study's findings, an increase in the variability of pay should be accompanied by an effort to influence risk-averse employees to be more tolerant of risk. To our knowledge, there is little or no existing research that suggests directly how an organization might accomplish this, other than, consistent with prospect theory, if it can induce employees to frame variable pay as a loss versus gain. Future research should address this particular issue, and more broadly, how an organization's culture can be managed to affect risk preference.

Limitations

Despite the demographic heterogeneity of our sample, the generalizability of this study's findings to other samples, particularly from one organization, needs to be tested. While withdrawal cognitions are a strong predictor of turnover behaviour (Griffeth, Hom, & Gaertner, 2000), withdrawal cognitions are not the same as leaving one's organization/job. We did not control for the respondents' experience with pay for performance plans. Lack of experience with such plans may result in an incorrect assessment of the riskiness of the plan, potentially affecting control by pay. Future research should consider specifying experience with PFP as a control variable.

We specified contingent pay satisfaction as an outcome variable. Pay satisfaction is a commonly specified variable in compensation research, and thus our results add to the cumulative knowledge of antecedents of pay satisfaction. However, this construct implicitly incorporates respondents' reactions to both the magnitude and the method of the pay adjustment. In our study, however, our theoretical concern is more with the method of pay adjustment (i.e., the degree to which it is based on performance). Since research suggests that procedural, as opposed to distributive justice, is a more powerful explanation of employee attitude and behaviour in many contexts (e.g. Greenberg, 1996), future research should consider assessing employee reactions to the method of pay adjustment, as opposed to the magnitude.

We also must be cautious about making causal inferences. Given the cross-sectional study design, it is possible our outcome variables, especially contingent pay satisfaction and withdrawal cognitions, could affect control by pay perceptions.

Another possible concern is method bias, given that most of the study variables were measured from the same source. There are several bases on which to conclude, however, that method bias did not significantly affect our results. First, though gathering data from the same source can inflate correlations between independent and dependent variables, there is no reason to believe that it would make it more likely to observe interaction effects falsely (Cummins, 1972; Schriesheim, 1980), which form the basis of our hypothesis tests. Secondly, our data on OCB were obtained from the employee's supervisor, thus making method bias an unlikely explanation for the results related to Hypothesis 3. Thirdly, we conducted Harman's one-factor test, which involves factor analysing the independent and dependent variables in our study to determine if one common factor emerges, or one factor explains the majority of the covariance between independent and dependent variables (Podsakoff & Organ, 1986). Either outcome would suggest method bias. In our test, five factors emerged, with the first factor explaining only 35% of variance, thus suggesting that common method variance is not a problem in our study (please contact the first author for a copy these results). However, R^2 values were significantly higher for the two outcome variables measured from the same source (withdrawal intentions and contingent pay satisfaction), suggesting some possibility of method bias. Though as discussed above this should not affect our tests for moderation, method bias may have affected results for some of the control variables.

Overall, the results of our study suggest that employee risk preferences should be an important consideration in compensation research and design. Prior research has already made significant progress in understanding the affects of risk and risk preferences at the executive level. Extending this theorizing and empirical testing to all employees appears warranted.

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