The impact of results-oriented pay systems on pay satisfaction and organizational performance

Hulkko-Nyman, Kiisa; Hakonen, Anu; Kira, Mari; Sweins, Christina and Ylikorkala, Anna
Helsinki University of Technology, Helsinki, Finland

The aim of this paper is to test a theoretical model explaining individual and organizational outcomes of results-oriented pay systems. Keywords: Results-oriented pay, contingency theories, knowledge of pay, pay satisfaction

Introduction

Results-oriented pay (ROP) systems are currently used in every third Finnish private sector company and they cover more than half of private sector employees (Confederation of Finnish Industries, 2004). Public sector workplaces have started to implement results-oriented pay systems as well, even though such systems are much less common there. Results-oriented pay systems are predicted to become even more widespread in all sectors. (Hakonen et al., 2005.) By results-oriented pay systems we mean bonus plans rewarding employees for performance or for work outcomes. Results-oriented pay systems are not determined through collective bargaining, and, in this sense, they are independent of base pay systems. (Hulkko et al., 2005.)

Results-oriented pay is expected to e.g. enhance productivity and decrease unwanted employee turnover. However, there are some conflicting findings on whether these goals are reached, and more research is needed especially at the company level. Some studies find a clear connection between ROP and a company's higher productivity (Jenkins et al., 1998; Snellman et al., 2003). These studies are mainly econometrical in nature and address company as a measurement unit. In some studies, a clear link has been established between ROP and performance measures, such as the quantity of output (Jenkins et al., 1998; Stajkovic and Luthans, 1997). Other studies state that only some of the systems have positive effects such as increased willingness to invest an extra effort to work (Nurmela et al., 1999). These studies belong mainly to the field of organizational psychology and they focus on the individual level.

There is a growing need to understand results-oriented pay systems and their effects in organizations. This is both because of the increasing use of these systems and the conflicting findings in the academic literature on the effects of such systems. In addition, there seems to be a lack of a midrange theory of rewarding, as suggested by Robert L. Heneman (2000).

The aim of this paper is to test a theoretical model explaining individual and organizational outcomes of results-oriented pay systems (figure 1). In particular, experienced satisfaction with ROP and perceived impact of ROP systems on organizational performance are studied. The model builds on three theoretical propositions. The first underlying theoretical proposition is that positive ROP outcomes (such as higher ROP satisfaction and organizational performance) can be reached only if employees are familiar with the pay system (the knowledge-of-pay proposition). Secondly, for positive ROP outcomes to emerge, employees should be able to recognize the link between pay system and organizational goals (i.e., the contingency proposition). Thirdly, employees need to assess a pay system fair both in procedural and distributive sense (the organizational-justice proposition). Based on these propositions, we formulate more specific hypotheses.

We hypothesize that the knowledge of a results-oriented pay system is necessary for a person to feel satisfied with the system and be willing to work for system targets. Knowledge of pay is also needed, so that employees can assess the fit between ROP and organizational goals and can make judgments on the fairness of the ROP processes.

Hypothesis 1: Knowledge of ROP is positively related to the assessments of fit between organizational goals and the pay system and to the perceived fairness of the system.
Hypothesis 2: Knowledge of ROP affects via assessed fit and experienced fairness the experienced satisfaction with ROP and employees' assessments on the impact ROP has on organizational performance.
Hypothesis 3: Knowledge of ROP is also directly connected with higher satisfaction with ROP and perceived impact that ROP has on organizational performance.

The perceived fit between ROP and organizational goals and the experienced fairness of ROP processes impact positively the experienced satisfaction with ROP and the assessment on the influence of ROP on organizational performance. Satisfaction with ROP is also hypothesized to impact positively the way in which ROP affects organizational performance.
Hypothesis 4: Perceived fit between ROP and organizational goals is connected with a higher experienced ROP satisfaction and with a higher perceived impact of ROP on organizational performance.

Hypothesis 5: Perceived fairness of a ROP system is connected with a higher satisfaction with ROP and with the assessment of positive effects of ROP on organizational performance.

Hypothesis 6: Experienced ROP satisfaction impacts positively employees’ assessment on how ROP affects organizational performance.

We will control three factors that, based on earlier research, are likely to impact employees’ satisfaction with ROP systems and affect organizational performance: i.e., sector, ROP system type and the amount of bonuses received. Sector is controlled for because the ROP systems vary greatly according to sector. Public sector organizations tend to have low maximum bonuses, and the bonuses are paid mainly for achieving operational goals. Results-oriented pay is also a new practice in the public sector and certain amount of a “honey-moon effect” may be present. ROP system types are divided into two main categories. First there are the collective systems where bonuses are paid for collective results either in company level or group level. Second there are ROP systems paying for individual performance. We expect the perceptions of ROP systems to vary according to the ROP system type. The amount of bonuses received in the previous year is also controlled for. The basic underlying assumption is that larger bonuses create more satisfaction with ROP systems and action to fulfill their goals.

Control variables:
* sector
* ROP plan type
* amount of bonuses received

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**Figure 1** Theoretical model of the study

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**Data and methods**

The unit of analysis is the individual employees who responded to the survey. The study is cross-sectional. The data of the study (N=1897) were collected with a questionnaire from 18 organizations operating in Finland during 2003-2007. In the sample, there are altogether 32 different results-oriented pay systems in use.

We measured knowledge of ROP with five items (alpha = .75). The items included statements such as “I am familiar with the indicators that determine my bonuses”. The fit between ROP system and organizational goals was measured with single item “In my opinion the ROP system fits well the present goals of our organization”. Perceived procedural fairness of ROP usage was measured with 11 items (alpha = .95) adapted from Moorman (1991). The items included statements such as “When decisions concerning ROP are made, the management bases decisions on exact information”. ROP satisfaction was measured with six items (alpha = .91), four adapted from Sturman and Short (2000) and two added by us. The items included statements like “I am satisfied with my most recent bonus” and “I am satisfied with the bases determining my bonus”. The perceived ROP impact on organizational performance was measured with six items (alpha = .86). We asked respondents to evaluate results-oriented pay effects on the following dimensions: customer satisfaction, quality of service and products, efficiency of operations, business success, implementation of strategy, and development of operations.
The summed variables mentioned above were analyzed with factor-analysis and scale reliability was measured (Cronbach’s alpha). Correlations between independent and dependent variables were analyzed. The model was analyzed with hierarchical regression analysis. SPSS work package was used.

**Results**

Table 1 presents the means, standard deviations, correlations, and Cronbach’s alpha coefficients. ROP knowledge, procedural fairness in ROP usage, and evaluated fit between ROP and organizational goals all are positively and significantly associated with the dependent variables, i.e., ROP satisfaction and ROP impact on organizational performance. ROP satisfaction is also positively and significantly associated with ROP impact on organizational performance.

Table 1
Scale means, standard deviations, intercorrelations, and Cronbach’s alpha coefficients

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Results-oriented pay knowledge</td>
<td>3.40</td>
<td>0.90</td>
<td>0.33**</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Procedural fairness in ROP usage</td>
<td>3.19</td>
<td>0.95</td>
<td></td>
<td>0.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ROP fits well the present goals of our organization</td>
<td>3.40</td>
<td>1.15</td>
<td>0.31**</td>
<td>0.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Satisfaction with ROP</td>
<td>3.19</td>
<td>0.95</td>
<td></td>
<td>0.31**</td>
<td>0.31**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. ROP impact on organizational performance</td>
<td>3.40</td>
<td>1.15</td>
<td>0.31**</td>
<td>0.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Amount of bonus received (% of yearly pay)</td>
<td>4.46</td>
<td>4.74</td>
<td>0.24**</td>
<td></td>
<td>-0.07*</td>
<td>0.10**</td>
<td>0.10**</td>
<td>0.09</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed), * correlation is significant at the 0.05 level (2-tailed).

Regression results indicate that the inclusion of independent variables explains a significant amount of variance in satisfaction with ROP ($R^2=.45$). 42 percent of the ROP satisfaction variance is explained by the ROP knowledge, perceived fit between ROP and organizational goals, and fairness of ROP usage. Sector, ROP system type, and amount of bonus received explain only three percentage of the variance. Especially, the perceived procedural fairness in ROP usage explains a notable share of the variance.

Regression results for evaluated ROP impact on organizational performance indicate that ROP knowledge, fairness of ROP usage, and evaluated fit between ROP and organizational goals explain 29 percentage of variance. The inclusion of ROP satisfaction does not add much power to the explanation. Perceived fit explains a notable share of the variance.

**Conclusions**

In the organizations studied, 32 different results-oriented pay systems were in use. The results show that the knowledge of ROP, strategic fit between pay system and organizational goals, and fair system implementation have all impact on ROP outcomes. The model, however, explains ROP satisfaction to a higher degree than organizational performance. It seems only natural that pay perceptions explain pay satisfaction to a higher degree, since the link is theoretically and practically much more direct than the link between pay perceptions and performance.

The results also indicate that each of the proposed independent variables has a role in determining ROP outcomes; strength of the role varies depending on the outcome variable. The procedural fairness in a ROP system is the strongest determining variable for ROP satisfaction. This supports the earlier research on the link between procedural fairness and satisfaction. Perceived fit is the strongest determining variable explaining ROP impact on organizational performance. This finding supports the contingency proposition predicting the link between reward systems and organizational goals leading to better organizational outcomes.

Our research has both practical and theoretical implications. Results-oriented pay needs to be communicated effectively, designed strategically and implemented wisely in order to gain pay system satisfaction and organizational performance outcomes. Theoretically knowledge of pay systems strengthens its' position as a determining variable for pay system outcomes.