

# How to score goals

**Riccardo Peccei, Helen Bewley, Howard Gospel and Paul Willman**  
look at the effects of disclosure of information to employees.

**D**isclosure of information by firms to their employees has been widely accepted by academics as good management practice, resulting in higher employee satisfaction and commitment and, thereby, to better organisational performance. In the past, there has been no general requirement in this country for firms to disclose such information, though there are broad requirements in specific areas, such as health and safety. But now the European Directive on Information and Consultation has introduced such a general requirement, which will progressively come into force from early next year onwards.

We still, in fact, know little about the effects of disclosure on the performance of firms. Such empirical work as has been done specifically on the organisational, as opposed to individual, outcomes of disclosure, for example in the United States and Japan, has been somewhat contradictory. So, in this research, we used the 1998 Workplace Employee Relations Survey (WERS98) for the UK to test competing explanations of the impact of information disclosure on two measures of organisational performance: labour productivity and product/service quality.

One argument is that it is good management practice, bringing benefits to the firm, to keep employees informed on a range of issues relating to their jobs and broader organisational matters. Within the literature this idea is often embedded in wider arguments about the impact of “high commitment”, “high involvement”, or “high performance” human resource (HR) practices. This is not the place for a detailed review of that literature, but two points about it should be noted.

The first point is that studies in this area do not, by and large, make a clear distinction between process and content: between the various communication mechanisms used in organisations and the actual information disclosed to employees. Even the few studies that focus explicitly on the content of what is disclosed often treat it as part of a broader bundle of HR practices, rather than look at the impact that disclosure itself has on outcomes.

Our specific interest here is in the extent to which management disclosure of different types of information to employees, either directly or through their representatives, affects

key aspects of organisational performance. We focused on the disclosure of three main types of information to employees at the level of the establishment: (1) the overall financial and staffing position of the establishment; (2) specific production, quality and operational targets set for the

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establishment; and (3) feedback on the achievement of these targets.

A further interest is in the theoretical links between information disclosure and performance outcomes. Central to the HRM literature is the idea that information disclosure contributes to organisational performance by helping to align individual and organisational goals and by helping to enhance general levels of employee identification and integration at work. The theory, in other words, is that the development of organisational commitment (OC) has a positive impact on organisational performance by increasing employees' willingness to exert effort on the job and to behave at work in ways that benefit the organisation.

There may be other factors than higher organisational commitment that help to account for the positive effects of disclosure in performance. Goal-setting theory, for example, suggests that providing employees with systematic information about performance targets and providing feedback on the achievement of goals can help to heighten motivation and focus employee effort. Similarly, certain strands of job design theory suggest that providing employees with fuller information about their work environment, including the position and operation of the organisation, may help to enhance the meaningfulness of work, thereby contributing to employee motivation and, ultimately, to performance.

These are two "universalistic" theories of how information disclosure to employees can have a positive effect of performance, one working through higher organisational commitment and the other not. Some academics, however, have argued that the impact of information disclosure on organisational performance is likely to be "contingent" on a series of other factors. Thus it may be affected by levels of organisational commitment. In addition, Kleiner and Bouillon found that, in the US, the provision of information by firms was positively correlated to the level of employee benefits and wages, but not to productivity. In Japan, however, Morishima found that information disclosure was related negatively with labour costs but positively with profitability and productivity.

Such contrasting results may be attributable to differences in study methods or sampling, or to institutional arrangements, or to cultural differences between the US and Japan. However, following Kleiner and Bouillon, Morishima formulates a theoretical explanation in terms of the underlying negotiating games between employers and employees. The first (Japanese) game involves "goal alignment", in which disclosure operates to bring the parties closer together on the basis of shared understanding and information in what one might broadly characterise as "integrative bargaining". The second (US) game, based on asymmetry of information, essentially involves bargaining over residual rents and is characterised by "distributive bargaining".

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In the Japanese case one might expect higher levels of disclosure to have a positive impact on the negotiating process and, perhaps, on production and financial performance. In the US case there are strong incentives for management to limit voluntary disclosure, because employees in possession of greater information simply use it to extract for themselves a greater share of residual rents, resulting in higher wages but lower profitability and also, possibly, lower productivity.

We build on these ideas and extend them to notions of organisational commitment. We treat the extent of workforce commitment to the organisation as a key factor that may affect the impact of information disclosure on performance outcomes. There are, however, different ways in which OC may moderate the impact of disclosure on outcomes. Here we focus on two possibilities.

The first possibility is that information disclosure has a positive impact on organisational performance only, or primarily, when levels of OC amongst the workforce are already high. This is because committed employees are more likely to use any additional information they obtain from management for the benefit of the organisation. Employees who are less committed are more likely either to ignore the information or to use it for their own benefit. When levels of commitment amongst the workforce are low, therefore, disclosure is likely to have either a negative or no effect on organisational performance.

The second possibility is that the benefits of disclosure are greater in situations where the workforce is less committed to the organisation. In this view, committed employees, unlike ones who exhibit low levels of OC, can already be expected to exert a high level of effort on behalf of their organisation, irrespective of the amount of information they are provided with by management. Here disclosure is likely to have less effect on their behaviour and performance than on that of less committed employees, who may interpret the increased provision of information as a sign of management goodwill and cooperation and reciprocate accordingly.

A final distinction might be made between unionised and non-unionised workplaces. To the extent that residual claims games and overt conflicts of interest are more likely in unionised than in non-unionised establishments, disclosure could be expected to have a generally more limited impact on performance outcomes in the former. By the

# Methodology

The dataset used for the analysis is the WERS98 cross-section. This contains information on 2,191 British workplaces with 10 or more employees and consists of interviews with management, 918 workplace representatives and a survey of 28,215 employees. By weighting the data, the sample can be made representative of the population of British workplaces surveyed. Data from both management and employees were used in the present analysis. We controlled for variations between establishments in terms of size, sector and a range of other characteristics.

Probit, ordered probit and ordinary least squares models were fitted to the data, depending on the nature of the dependent variable under consideration and probability weights were used throughout. The sample was divided into union and non-union workplaces, depending on whether a union was recognised for the purpose of negotiating pay and conditions. Union strength was measured by whether union representatives negotiated with management at the establishment on nine issues (pay or conditions of employment, recruitment or selection of employees, training, payment systems, grievances handling, staffing or manpower planning, equal opportunities, health and safety, and performance appraisals). The sample mean on this variable was used to distinguish between strong and weak union contexts.

Our two main dependent variables (the overall level of workplace labour productivity and product/service quality) were derived from the WERS98 Management Questionnaire. This asked managers to rate their labour productivity and quality of the product/service on a 5-point scale, ranging from "A lot better than average" to "A lot below average". As these responses are not evenly distributed between the five categories, we considered whether the response was "above average",

"average", or "below average". It was then possible to fit a probit model to these two dependent variables.

Our main intervening variable was the average level of employee organisational commitment at the workplace (OC). This was measured with three items from the Employee Questionnaire. These asked respondents to rate, on a five-point "strongly disagree" to "strongly agree" Likert scale, the extent to which they shared the values of the organisation, their feeling of loyalty to the organisation and the extent to which they felt proud to tell people where they worked. Responses to the three items were first combined into an overall OC scale (coefficient alpha = .83) and then aggregated across each workplace to give a measure of average employee commitment within each establishment. An ordinary least squares model was then fitted to this intervening variable. In separate analyses, this measure of organisational commitment was also used as a predictor of labour productivity and product/service quality.

The three main variables for disclosure of information were all derived from the Management Questionnaire. Managers were asked whether they regularly gave employees or their representatives information about internal investment plans, the financial position of the establishment, or staffing plans. The variable for disclosure of general information was based on the responses to these three questions and indicates the total number of issues on which management shared information with employees. The variable for disclosure of performance targets measures the extent to which managers were prepared to supply operational-type information to employees or their representatives. Managers were asked whether they set targets for sales/fees/budgets, costs, profits, labour costs, productivity, product/service quality, labour turnover, absenteeism, and training. They were

further asked whether employees or employee representatives were informed of these targets. The variable for disclosure of targets was constructed from the responses to two similar questions, which asked managers whether they kept records on the same set of nine issues used to determine strength of union presence and whether they shared information on these records with employees. The variable for disclosure of performance results was constructed from these two questions to indicate those establishments that kept records on at least one of these issues and shared the information that they collected with employees.

To test the contingency hypotheses, three composite multiplicative variables were constructed from information in the WERS98 survey. To reduce multicollinearity, all the multiplicative interaction term variables were mean-centered. The first set comprised a series of contextual variables, including whether the workplace was in the private or public sector and the industrial sector in which the establishment operated. The second set comprised a number of key structural and industrial relations characteristics of the establishment, including its size and age, the gender and skill composition of the workforce, the extent of industrial conflict in the past year and whether a union was recognised for purposes of negotiating pay and conditions. The third set included a series of management variables, covering key areas of human resource policy and practice. These included whether the establishment had a strategic HR plan, whether it had a range of contingent pay, selection, communications, equal opportunities and family-friendly practices in place, and whether there was an emphasis on multiskilling and on decentralised job design. Relevant statistics for the control variables are available from the authors.

## In theory, organisational commitment has a positive impact

same token, in unionised settings, the impact is likely to be weaker where unions are stronger.

Table 1 provides a summary of the core variables for "organisational commitment" and "information disclosure" used in our study to test our main "universalistic" and "contingency" hypotheses. These are shown for the sample as a whole and for union and non-union establishments separately. The extent of disclosure varied considerably, depending on the particular type of information involved. Thus management provided information on performance targets in 82% of establishments, but feedback on the achievement of targets in only 19%. The breakdown shows that management was significantly more likely to disclose all

types of information in union than in non-union establishments. In contrast, average levels of employees' organisational commitment tended to be significantly higher in non-union than in union workplaces.

The results of the regression analyses used to test the hypotheses are shown in Table 2. To save space, only the results for the sample as a whole are shown and the results for the control variables are not included in the Table. These results are available from the authors.

Equation 1 in Table 2 shows the impact of the three disclosure variables on organisational commitment, while equations 2 and 3 show the impact of both the disclosure

**Table 1. Descriptive data**

Percent of establishments where management disclosed:	Total sample	Non-union Sub-sample	Union Sub-sample
	%	%	%
Full range of general info.	40	33	60 ***
Performance targets info.	82	78	92 ***
Performance results info.	19	14	32 ***
Mean level of employee OC	3.62	3.64	3.57 ***
(N)	(937)	(444)	(493)

Note: \*\*\* Difference between non-union and union sub-samples significant at  $p < .001$ .

**Table 2. Tests of hypotheses for total sample: regression results**

Equation No.	1	2	3	4	5
Independent variables	OC	Labour prod.	Prod./serv. quality	Labour prod.	Prod./serv. quality
Disclosure of general information	-.007 (.028)	.027 (.087)	-.094 (.089)	.046 (.085)	-.087 (.087)
Disclosure of performance targets	.277*** (.079)	.033 (.237)	.338 (.240)	-.028 (.246)	.347 (.247)
Disclosure of performance results	-.027 (.066)	-.053 (.181)	.688*** (.178)	-.095 (.183)	.689*** (.175)
Org. commitment		.613*** (.199)	.113 (.203)	.624* (.199)	.160 (.194)
General info x OC				-.172* (.078)	-.079 (.084)
Perf. targets x OC				.007 (.069)	.061 (.064)
Perf. results x OC				.145* (.063)	-.064 (.068)
(N)	(937)	(937)	(937)	(937)	(937)

Notes: Standard errors in brackets. \*\*\*  $p < .001$  \*\*  $p < .01$  \*  $p < .05$

## In Japan information disclosure was positively related to productivity

variables and OC together on labour productivity and product/service quality respectively. Taken together, these first three equations serve to test our “universalistic” hypotheses. Equations 4 and 5 are designed to assess the two “contingency” hypotheses by testing for possible moderator effects in the data. This was done by adding the interactions between the three disclosure variables and OC as predictors in the analysis to show the impact of the relevant interaction terms on labour productivity and product/service quality.

The results from equations 1, 2, and 3 are mixed, but provide at least partial support to both our “universalistic” hypotheses. Equation 1 shows that neither the disclosure of general information by management nor the provision of performance feedback had a significant effect on employee commitment. Equation 3 shows that, in turn, commitment was not significantly related to product/service quality. However, equation 1 shows that the disclosure of performance targets had a positive impact on employee commitment ( $\beta = .277, p < .001$ ) and equation 3 shows that this, in turn, was positively related to labour productivity ( $\beta = .688, p < .01$ ).

Similarly, equation 2 indicates that none of the information disclosure variables had a direct effect on labour productivity. In addition, equation 3 shows that neither the disclosure of general information nor the sharing of performance targets by management had a direct impact on

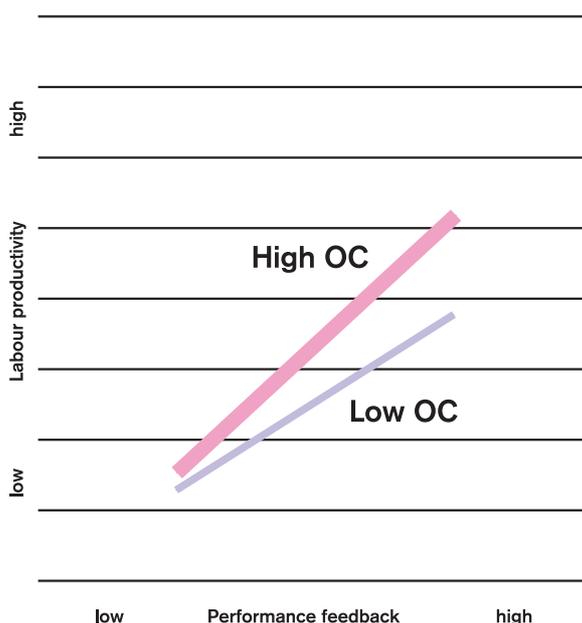
product/service quality. However, management provision of performance feedback to employees was found in equation 3 to have a significant direct positive effect on product/service quality ( $\beta = .689, p < .001$ ).

The results are also mixed in relation to the “contingency” hypotheses, but again provide partial support for them. Only two of the interaction terms in equations 4 and 5 attained significance, both in relation to labour productivity. The interaction between performance feedback and OC in equation 4 is positive and significant ( $\beta = .145, p < .05$ ), suggesting that performance feedback had a stronger positive effect on labour productivity in establishments where there were higher levels of employee commitment. The specific form of this interaction is shown in Figure 1.

In contrast, the interaction between management disclosure of general information and OC in equation 4 is negative ( $\beta = -.172, p < .05$ ). This suggests that general disclosure had a more positive effect on labour productivity in establishments where there were lower levels of employee commitment. The specific form of the interaction is represented in Figure 2, showing that the relationship between disclosure and productivity in this case was shifted in a negative direction.

On the whole, therefore, management provision of general information to employees was found to be negatively and not positively related to productivity. However, this negative

**Figure 1. Performance Feedback x OC Interaction For Labour Productivity**



**Figure 2. General Information x OC Interaction for Labour Productivity**

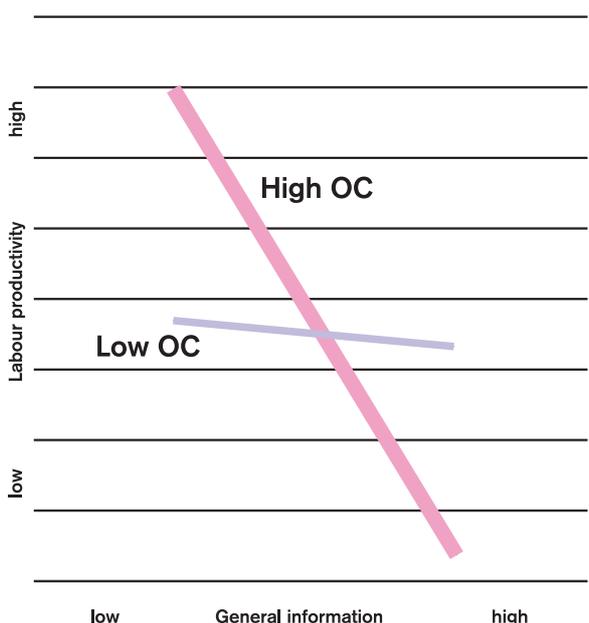
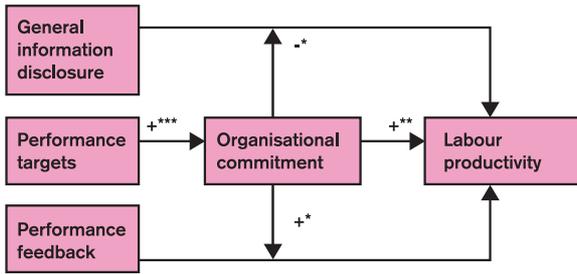
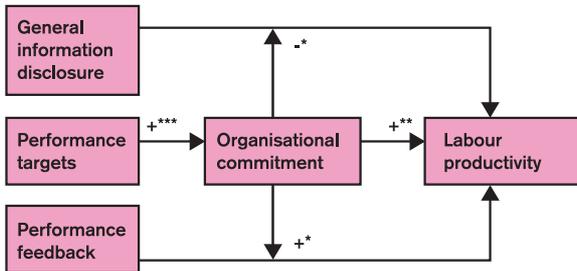


Figure 3. Schematic Summary of Regression Results  
Labour productivity

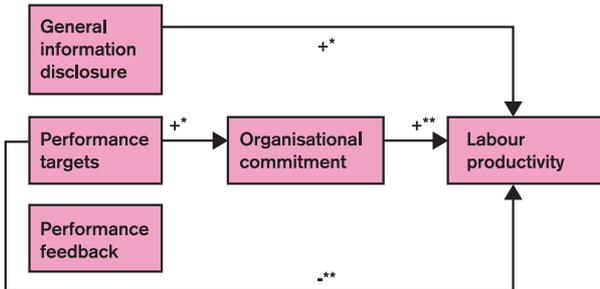
Total sample (a)



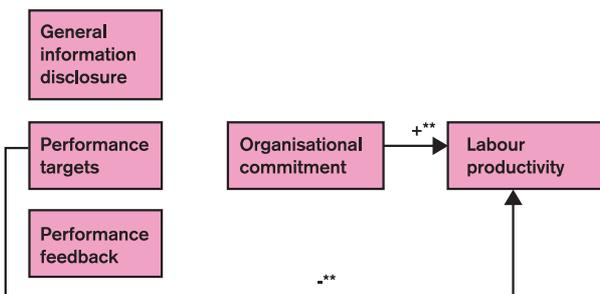
Non-union sample (c)



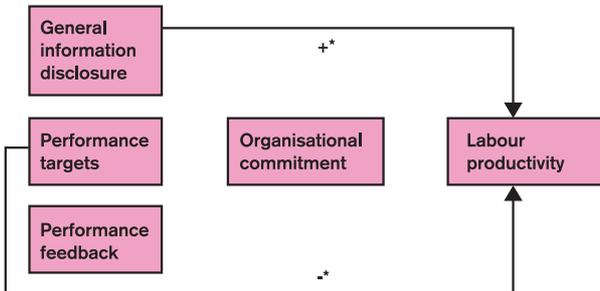
Union sample (e)



Weak union sample (g)

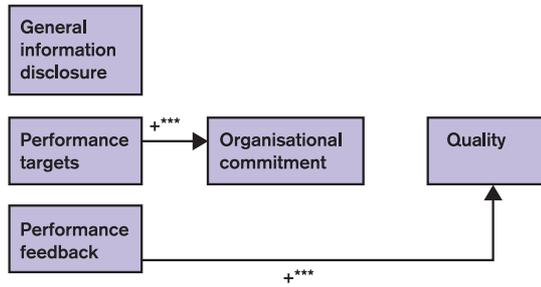


Strong Union sample (i)

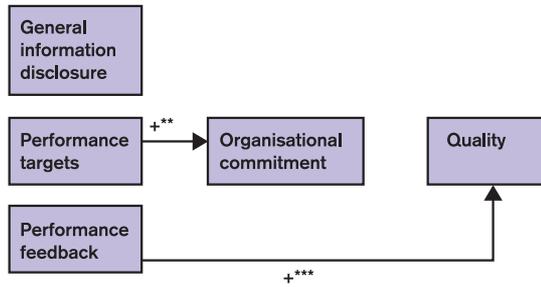


Quality

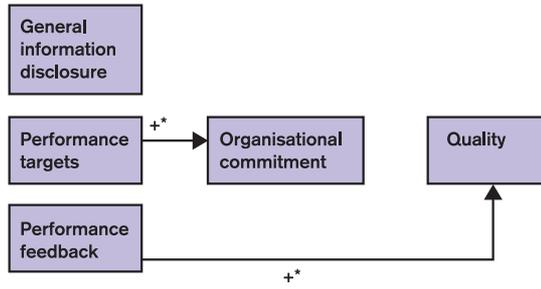
(b)



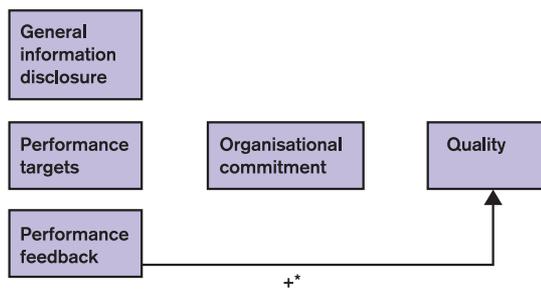
(d)



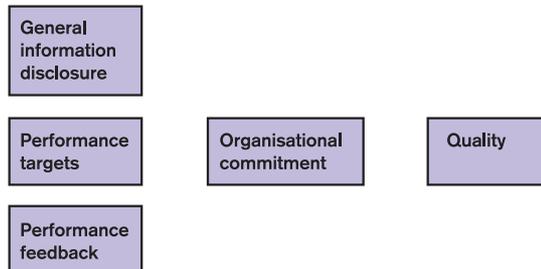
(f)



(h)



(j)



effect was less pronounced in establishments characterised by lower levels of employee commitment.

Figure 3 sets out in schematic form the main results of the regression analyses. 3(a) and 3(b) are a summary for the sample as a whole, in relation to productivity and quality respectively. The lower parts of the Figure give the results for particular sub-samples. The results for the sample as a whole provide selective support for all our main starting hypotheses.

When we tested our hypotheses on non-union and union establishments separately, two main points stood out. First, the results for the non-union sub-sample are virtually the same as those for the sample as a whole (compare (a) and (b) with (c) and (d) in Figure 3). Second, in line with expectations, the results for union establishments are generally weaker than those for non-union establishments. Thus none of the relationships found in the non-union sub-sample emerged as significant in the union sub-sample. Moreover, while the effects found for non-union establishments were also found in the union sub-sample, they were significantly attenuated. Specifically, the positive link between performance feedback and product/service quality was weaker in union settings (compare (d) and (f) in Figure 3).

Similarly, in both union and non-union establishments,

disclosure of performance targets by management had an indirect positive effect on labour productivity through its impact on employee commitment. However, this indirect effect was less pronounced in union settings, where the initial link between disclosure and OC was weaker (see (c) and (e) in Figure 3). In addition, in union settings the disclosure of performance targets had a negative direct impact on productivity, thereby cancelling out its positive indirect effect through commitment. In other words, our results suggest that in union settings, the disclosure of performance targets by management did not have a significant overall effect on labour productivity.

Of all the effects examined, only one was found to be stronger in union than in non-union establishments. This was the impact of general information disclosure on labour productivity. In union workplaces, management disclosure of general information to the workforce had a direct positive impact on productivity, while in non-union establishments the effect was not significant.

For the union sub-sample, we also looked separately at establishments where the unions were weak and where they were strong. The detailed results are summarised in Figure 3 (g) to (j). Here the results are not as clear cut. Contrary to expectations, the impact of information disclosure on outcomes was not consistently weaker in

**One game involves bargaining over residual rents**

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workplaces where unions were stronger. Specifically, where unions were weak there was the same direct positive link between performance feedback and product/service quality that we found in non-union settings. On the other hand, where unions were strong, the impact of performance feedback was not significant. (The same applied in terms of the impact of OC on labour productivity.) However, where unions were strong, general information disclosure by management was found to be positively related to labour productivity and, where they were weak, this relationship (as in non-union settings) was not significant.

Taken as a whole, our findings suggest that the impact of information disclosure on organisational performance is considerably more complex than is commonly assumed in the literature. They indicate that management's systematic sharing of information on performance targets can help to enhance employee commitment and that this, in turn, can have a positive impact on labour productivity. But the evidence is that this effect is indirect and that its impact is affected by the level of employees' organisational commitment.

The provision of feedback on the achievement of operational targets can also have a positive impact on labour productivity. However, our results indicate that, across the sample as a whole, this effect is only found where levels of employee organisational commitment are high. In other words, our analysis suggests that this beneficial effect on labour productivity will be confined primarily to situations where there already is a reasonable degree of alignment between individual and organisational goals.

The results relating to the disclosure of general financial and manpower information by management present a different picture. Across the sample as a whole, the disclosure of such general information seems to have little or no effect on labour productivity, especially where levels of employee commitment are low. However, where commitment is high, general information disclosure tends to be negatively, rather than positively, related to productivity.

One possible explanation for this unexpected result is that, other things being equal, management is more likely to disclose "bad news" to employees with high levels of commitment to the organisation. This would help to account for the stronger negative relation observed between disclosure and productivity at higher levels of commitment. It would also suggest, however, that disclosure may be a function of organisational performance, rather than the other way around, which raises important questions about direction of causality.

It is also worth noting that information disclosure seems to have a much weaker impact on product/service quality than on labour productivity. Specifically, our results for the total sample show that, of the three types of disclosure

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### **The impact is weaker where unions are stronger**

examined, only the disclosure of information on operational performance outcomes has a significant impact on quality. The impact in this case is positive and direct, thereby lending support to the idea that information disclosure can have a beneficial effect on organisational performance independent of its impact on employee commitment.

As we noted at the outset, information disclosure by management tends to be greater in union than in non-union settings. However, these higher levels of disclosure do not necessarily translate into higher levels of either employee commitment or organisational performance. Our results suggest, in fact, that the general pattern of direct, indirect, and moderated benefits associated with disclosure applies primarily to non-union rather than to union establishments. This contrast is especially marked for establishments where unions are strong. On balance, therefore, our results suggest that there are greater direct and indirect benefits to be reaped from information disclosure in non-union than in union settings, but that in union establishments the impact of disclosure is likely to be more neutral than negative.

Equally important, our results indicate that employees' organisational commitment plays a far more important role in non-union than in union settings, either as a mediator or as a moderator of the impact of disclosure on performance outcomes. In union settings, disclosure not only has a weaker positive impact on commitment, but this commit-

ment itself has more limited direct and moderator effects on performance. Taken together, these findings suggest that information disclosure is likely to produce a greater degree of alignment between individual and organisational goals in situations where management has a clearer monopoly of information and where, because of the lack of a union presence and voice, alternative sources of information and competing interpretations of events are less easily available to employees.

These findings have implications for policy makers and legislators, for firms and their information practices, and for trade unions, particularly in the context of the new Information Directive. An implication for management is that there may be an optimal sequence to disclosure. Disclosure of performance targets enhances organisational commitment and can have a positive impact on productivity, but it also affects how employees respond to other types of information disclosure.

To maximise the positive impact of disclosure, firms might wish to start with disclosure of performance targets and then expand the disclosure agenda to include information on performance outcomes. However, in union settings, it may be best for management to focus directly on disclosure of general information. For unions, the most obvious role is in terms of general information. Here disclosure can have a positive impact on organisational performance. However, the findings also suggest that there is scope for unions to play a positive role in conveying operational information that affects employee commitment and labour productivity.

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