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Abstract: Using German establishment data, this study finds that the share of blue-collar workers, an outdated production technology and a high-wage policy increase the probability that employers regard the threat of dismissal as a suitable incentive. A participatory HRM policy, the incidence of a works council and difficulties in filling vacancies decrease the probability.

JEL Classification: J30, J50, J60, M50.

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1. Introduction

The threat of dismissal plays a crucial role in efficiency wage theory (Acemoglu and Newman 2002, Kwon 2005, Shapiro and Stiglitz 1984). Employers provide incentives to exert effort by threatening to dismiss workers who are caught shirking. However, survey studies by Agell and Lundborg (1995) and Bewley (1999) suggest that employers often avoid disciplining workers through the threat of dismissal. This gives rise to the question as to what factors lead employers to regard the threat of dismissal as a suitable or less suitable way to motivate workers.

This study uses German establishment data to answer the question. Econometric examinations on the threat of dismissal are extremely scarce (see Kraft 1991 for an exception). While studies on the determinants of incentive schemes have been increasingly common in the last decades, these studies usually examine schemes such as piece rates, profit sharing and employee share ownership (e.g., Booth and Frank 1999, Kruse 1996).

2. Hypotheses to Be Tested

Hypotheses. Employers tend to regard the threat of dismissal as a suitable incentive if

(1) it is coupled with a high-wage policy.

(2) production is characterized by less complex and menial tasks.

(3) they do not rely on workers' voluntary cooperation.

(4) they can easily find new hires to replace dismissed workers.

(5) the termination of employment relationships is less heavily regulated.

The threat of dismissal is only effective in deterring workers from shirking if workers have something to lose. Thus, employers pursuing a high-wage policy should find it more attractive to use the threat of dismissal.

Furthermore, the threat of dismissal is only effective if there is some probability that shirking is detected. The ability to detect shirking requires that workers are (usually more or less imperfectly) monitored. Workers can be more easily monitored if they perform less complex tasks (Jirjahn 2006).

The threat of dismissal should fit a personnel policy based on coercion rather than a personnel policy based on reciprocal gift exchange. Reciprocal gift exchange involves voluntary cooperation. The threat of dismissal can undermine workers' willingness to cooperate as it is likely to be perceived as an expression of hostility and distrust (Fehr and Falk 2002). Thus, the threat of dismissal provides rather counterproductive incentives if employers motivate workers by reciprocal gift exchange.

The employers' view towards the threat of dismissal should also depend on the costs of replacing dismissed workers by new hires. These costs are lower if employers face no labor shortages and, hence, can easily replace dismissed workers.

Finally, restrictions imposed by labor market institutions should play a role. The threat of dismissal is more credible if employers can immediately dismiss workers who are caught shirking. Restrictions imposed by labor market institutions limit the flexibility to dismiss shirkers and, thus, reduce the incentive effects of dismissal threat. As a consequence, employers should be more likely to regard the threat of dismissal as a suitable incentive scheme if they face less regulation of the termination of employment relationships.

3. Data and Variables

The study uses the Hanover Panel, a panel with representative data from manufacturing establishments with at least 5 employees in the federal state of Lower Saxony (Gerlach et al. 2003). Interviews were conducted by Infratest Sozialforschung, a professional survey and opinion research institute. The data were collected on the basis of a questionnaire in personal interviews with the owner or top manager. The Volkswagen Foundation provided financial support. The important advantage of the data set is that wave 1 (1994) and wave 4 (1997) provide information on the managers' view towards the threat of dismissal. Thus, our analysis is based on a panel with two waves of observations.

Table 1 and 2 show variable definitions and descriptive statistics. The dependent variable is based on managers' assessment of dismissal threat as a way to motivate workers. Managers respond on a 4-point Likert scale ranging from 1 (not suitable at all) to 4 (very well suited). The descriptive statistics confirm that employers are often reluctant to discipline workers through the threat of job loss. Only 5.6 percent of the managers regard the threat of dismissal as well suited or very well suited to motivate workers.

In order to test hypothesis 1, the estimates include an ordered variable indicating if management regards it as important to motivate workers by paying wages above the level specified in collective agreements. This variable is available for both establishments covered and establishments not covered by collective agreements. In Germany, even uncovered establishments typically use industry-level collective agreements as a reference point when deciding about their remuneration policy.

Hypothesis 2 is tested by including the share of blue-collar workers. Building from studies on skill-biased technological change (Berman et al. 1998), we assume that a high share of blue-collar workers is an indicator of less complex tasks. The vintage of the production technology is also taken into account. To the extent skill-biased technological change is incorporated in technologies of a more recent vintage, older production technologies entail rather menial tasks.

An ordered variable for a participatory HRM policy is taken into account in order to examine hypothesis 3. The variable indicates if management regards it as important to motivate workers by giving them greater scope for decisions. A participatory HRM policy aims at fostering workers' commitment and voluntary cooperation.

Hypothesis 4 is tested by including a dummy equal to 1 if management has difficulties in filling vacancies. Finally, in order to examine hypothesis 5 we use within-country variation in the restrictions employers face. This within-country variation is captured by a dummy for the presence of a works council. Works councils provide a highly developed mechanism for establishment-level codetermination. Several of their rights are directly related to hiring and firing decisions implying reduced flexibility in the termination of employment relationships (Addison et al. 2001). The creation of a works council depends on the initiative of the establishment's workforce.

A series of control variables capture establishment size, establishment age, industry affiliation, further characteristics of the workforce, and the year of observation.

4. Results

Table 3 provides the results of a random effects ordered probit regression. Managers of establishments with a larger size and a higher share of part-time employees tend to have a more positive assessment of the incentive effects of dismissal threat.

Most importantly, the results provide broad support for our hypotheses. Managers in establishments with a high share of blue-collar workers and an outdated technology tend to have a more positive view towards the incentive effects of dismissal threat. This conforms to the hypothesis that the threat of dismissal is more effective if workers perform less complex tasks.

Furthermore, a high-wage policy increases the probability that managers have a more favorable assessment of the threat of dismissal. This fits the hypothesis that the threat has a higher effectiveness if workers have something to lose.

Giving workers greater scope for decisions reduces the probability of a positive assessment. This finding provides evidence for the hypothesis that the threat of dismissal fits a personnel policy based on coercion rather than a personnel policy based on voluntary cooperation.

Managers who face no difficulties in filling vacancies tend to have a more positive assessment of the incentive effects of dismissal threat. This supports the hypothesis that the threat is more credible if the employer can easily replace workers.

Finally, the incidence of a works council is a negative determinant. The finding fits the hypothesis that institutional restrictions on the employer's flexibility to terminate employment relationships make the threat of dismissal a less effective incentive.

5. Conclusions

The shirking variant of efficiency wage theory assumes that the threat of dismissal is a crucial incentive to motivate workers. However, empirical evidence shows that employers often avoid motivating workers through dismissal threat. This study identifies the rather limited set of circumstances leading employers to regard the threat of dismissal as a suitable incentive for motivating workers. The findings suggest that a high share of blue-collar workers, an old production technology, low employee involvement and a high replaceability of current workers by new hires increase the probability that an employer regards the threat of dismissal as a suitable incentive. The results also indicate that the threat of dismissal is more effective if employers face less institutional restrictions on their flexibility to terminate employment relationships. Finally, supporting the “carrot and stick view” of efficiency wage theory, the threat of dismissal appears to be a more suitable incentive if it is coupled with a high-wage policy.

References

Acemoglu, D. and A.F. Newman. 2002. "The Labor Market and Corporate Structure," *European Economic Review* 46: 1733–1756.

Addison, J.T., C. Schnabel and J. Wagner. 2001. "Works Councils in Germany: Their Effects on Firm Performance," *Oxford Economic Papers* 53: 659–694.

Agell, J. and P. Lundborg. 1995. "Theories of Pay and Unemployment: Survey Evidence from Swedish Manufacturing Firms," *Scandinavian Journal of Economics* 97: 295 – 307.

Berman, E., J. Bound and S. Machin. 1998. "Implications of Skill-Biased Technological Change: International Evidence," *Quarterly Journal of Economics* 113: 1245 – 1279.

Bewley, T.F. 1999. *Why Wages Don't Fall During a Recession*. Harvard University Press.

Booth, A.L. and J. Frank. 1999. "Earnings, Productivity, and Performance-Related Pay," *Journal of Labor Economics* 17: 447–463.

Fehr, E. and A. Falk. 2002. "Psychological Foundations of Incentives," *European Economic Review* 46: 687–724.

Gerlach, K., O. Huebler and W. Meyer. 2003. "The Hannover Firm Panel (HFP)," *Schmollers Jahrbuch* 123: 463–470.

Jirjahn, U. 2006. "A Note on Efficiency Wage Theory and Principal-Agent Theory," *Bulletin of Economic Research* 58: 235–252.

Kraft, K. 1991. "The Incentive Effects of Dismissals, Efficiency Wages, Piece Rates and Profit Sharing," *Review of Economics and Statistics*: 451–459.

Kruse, D.L. 1996. "Why Do Firms Adopt Profit Sharing and Employee Ownership Plans?" *British Journal of Industrial Relations* 34: 515–538.

Kwon, I. 2005. "Threat of Dismissal: Incentive or Sorting?" *Journal of Labor Economics* 23: 797–838.

Shapiro, C. and J.E. Stiglitz. 1984. "Equilibrium Unemployment as a Worker Discipline Device," *American Economic Review* 74: 433–444.

Table 1: Distribution of Managers' View towards the Threat of Dismissal

Threat of dismissal as a long-run incentive to motivate workers	*Percent*
Not suitable at all	69.57
Not that suitable	24.83
Well suited	4.69
Very well suited	0.91

N = 1,321.

Table 2: Definitions and Descriptive Statistics of the Explanatory Variables

Variable	*Definition*	Mean
Ln(size)	Log of number of employees.	4.168
Ln(size) squared	Log of number of employees squared.	19.08
Part-time workers	Proportion of part-time workers.	0.074
Women	Proportion of female workers.	0.287
Blue-collar workers	Proportion of blue-collar workers.	0.627
University graduates	Proportion of university graduates.	0.036
Completely obsolete technology	Dummy equals 1 if management regards the establishment's production technology as completely obsolete.	0.045
Obsolete technology	Dummy equals 1 if management regards the establishment's production technology as obsolete.	0.249
Age	Dummy equals 1 if the establishment was created before 1960.	0.659
Delegation of decisions	Ordered variable indicating whether management regards it as important to motivate workers by giving them greater scope for decisions. The variable ranges from 1 "not important" to 4 "very important".	3.005
Codetermination	Dummy equals 1 if the establishment has a works council.	0.587
High-wage policy	Ordered variable indicating whether management regards it as important to motivate workers by paying wages above the level specified in collective agreements. The variable ranges from 1 "not important" to 4 "very important".	2.656
Labor shortage	Dummy equals 1 if the employer has problems in filling vacancies.	0.190
1994	Dummy for the year 1994.	0.617
Industry dummies	Three broad defined dummies for industrial sectors in manufacturing.	----

N = 1,321.

Table 3: Determinants of Threat of Dismissal

Explanatory Variables	*Random Effects Ordered Probit*
Ln(size)	0.6115 [0.0418] (0.1948)***
Ln(size) squared	-0.0632 [-0.0043] (0.0215)***
Part-time workers	0.7972 [0.0544] (0.4262)*
Women	-0.1942 [-0.0132] (0.2231)
Blue-collar workers	0.5352 [0.0365] (0.2799)**
University graduates	0.7895 [0.0538] (0.8767)
Completely obsolete technology	0.3276 [0.0223] (0.1938)*
Obsolete technology	0.0724 [0.0049] (0.0969)
Age	-0.0065 [-0.0005] (0.0957)
Delegation of decisions	-0.1681 [-0.0115] (0.0591)***
Codetermination	-0.2662 [-0.0182] (0.1191)**
High-wage policy	0.1004 [-0.0068] (0.0551)*
Labor shortage	-0.2110 [-0.0143] (0.1166)*
1994	-0.2171 [-0.0148] (0.0784)***
Industry dummies	Included

Number of observations = 1,321. Number of establishments = 847. Standard errors are in parentheses and marginal effects are in square brackets. Marginal effects are calculated on the probability of regarding the threat of dismissal as well suited or very well suited. *** Statistically significant at the 1% level; ** at the 5% level; * at the 10% level.