

# Chapter 11

## The Impact of Labour Flexibility and HRM on Innovation

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### ABSTRACT

*We investigate the impact of labour relations (including use of flexible labour and certain HRM practices) on a firm's innovative output. Using firm-level data for the Netherlands, we find that active HRM practices such as job rotation, performance pay, high qualification levels of personnel, as well as making use of employees with long-term temporary contracts contribute positively to innovative output, the latter being measured by the log of new product sales per employee. Furthermore, firms that retain high levels of highly qualified personnel are more likely to introduce products that are new to the market (other than only 'new to the firm'). Our findings contribute to the growing literature on determinants of innovative performance.*

### INTRODUCTION

It tends to be generally recognized that firms need to be innovative in order to sustain their competitive advantage (e.g. Brown and Eisenhardt, 1997; Cohen and Levinthal, 1990; Leonard-Barton, 1995; McGrath, 2001; Tsai, 2001). Innovation can be regarded as a business process which creates unique and perceptive ideas that are being pushed towards commercial success (e.g. Verloop, 2004).

With the increasing availability of firm-level data such as through the European Community Innovation Survey (CIS) exercise by the European Commission, econometric studies of determinants of innovative behaviour are growing in recent years. This literature focuses on determinants of innovation such as market structure, firm size, (regional and international) knowledge spillovers, R&D collaboration, conditions for appropriation of innovation benefits, and others. By lack of good data on firm level labour relations within the CIS questionnaire, there are only sparse studies on the latter. This is

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regrettable, as labour relations can be expected to have a significant impact on innovation, among others through their influence on knowledge processes (see e.g. David 1997, Trott 1998)

The role of personnel for enhancing creativity and innovation is also recognized by Amabile et al. (1996). An OECD (1997) study indicates that the key of the innovative process is the flow of technology and information among people, enterprises and institutions. Individuals are the carriers of knowledge. Among others, knowledge diffusion can take place via mobile personnel. Furthermore, literature on the impact of labour relations on innovation suggests that active Human Resource Management (HRM) policies might be rewarding for a firm's innovation and productivity growth (e.g. Kleinknecht et al., 2006; Verburg 2005). As empirical evidence is still sparse, we investigate the nexus between labour relations and innovative output by conducting an empirical study among firms in the Netherlands.

## **LABOUR RELATIONS IN THE NETHERLANDS**

Among enterprises in the Netherlands, we find a fairly wide spectrum of different types of labour relations and HRM practices. One end of the spectrum covers typically 'Rhineland' enterprises with internal labour markets that offer their personnel good wages, fair protection against dismissal, and long-term commitments. The other end of the spectrum includes enterprises that follow Anglo-Saxon practices; the latter employ lots of labour on fixed-term contracts, labour hired temporarily from temporary work agencies or freelance workers, i.e. self employed entrepreneurs that have no personnel.

There is a strand of literature that suggests that 'Rhineland' practices are more conducive to labour productivity growth (e.g. Buchele and Christiansen, 1999 for evidence from macro data; Kleinknecht et al., 2006 for evidence from firm-

level data). The rationale is that a longer-term commitment between the firm and its employees may function as an investment into 'social capital'; i.e. into loyalty, trust and commitment. The latter will diminish the probability of opportunistic behaviour such as the stealing of a firm's properties or leaking to competitors of crucial trade secrets or new technological knowledge. Moreover, one can argue that, in a Schumpeter II innovation model, the quality of a firm's products and/or its efficient process performance crucially depends on the long-run historical accumulation of (incremental) technological knowledge. Much of this knowledge is 'tacit'. Other than publicly documented and codified knowledge, tacit knowledge is defined as 'un-codified', ill-documented and idiosyncratic; tacit knowledge is based on personal experience (e.g. Polanyi, 1966). The continuous and long-run accumulation of knowledge, and of 'tacit' knowledge in particular, is favoured by continuity in personnel, i.e. by keeping people in the firm for longer time periods. A longer stay with the same employer will also enhance a firm's readiness to invest in education and training.

Against this one can argue that 'Anglo-Saxon' practices might be favourable to a firm's innovation potential. With higher rates of labour turnover, firms have a high inflow of fresh people with new ideas, skills and networks. Moreover, less productive people can be more easily replaced by more productive ones, and the threat of firing might prevent shirking. Easier hiring and firing could also help to keep wages low and allow for a more flexible re-allocation of labour. Moreover, it has been argued that innovation might be difficult to implement among (long) tenured employees due to their lack of openness to new products and processes (e.g. Ichniowski and Shaw, 1995). From this viewpoint, one could argue that some flexibility of labour is needed for innovation, especially for radical innovation.

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