

## **Human Resource Management and Labour Demand Dynamics in Belgium. A Microeconomic Analysis Using Employers Data.**

**Claire DUPONT** Claire.Dupont@umh.ac.be and **Laurent ARNONE** Laurent.Arnone@umh.ac.be  
**Benoît MAHY** Benoit.Mahy@umh.ac.be and **Severine SPATARO** Severine.Spataro@umh.ac.be  
Centre de Recherche Warocqué - Université de Mons-Hainaut - Place du Parc, 20 ; 7000 Mons

Human Resource Management practices are investigated since a long time (see for example Sekiou, Blondin, Fabi, Besseyre des Horts or Chevalier (1993), Storey (1995) or OECD (1999)). But the impacts of HRM practices are often studied from firm performance (Becker and Gerhart (1996), Cerdin and Som (2003), Hiltrop (1996), Mac Mahan, Bell and Virick (1998), Storey (2002)) or wage formation (Forth and Milward (2004)) points of view. There seems that few studies investigate the relation between a large set of HRM practices and labour demand. For example, Cahuc and Dormont (1997) estimate the relation between profit sharing, which can be considered as one practice of HRM, and labour demand behaviour. In Belgium, Goos and Konings (2001) test for the presence of another HRM practice, that is to say rent-sharing, but without relating to labour demand behaviour.

In this paper, we want to shed some light on labour demand behaviour by estimating HRM potential effects on it. We also think interesting to do it from an employment policy point of view, as (some) HRM practices can be stimulated or not by the government. We for example think about the recent law established in Belgium to encourage employee's participation to firm stocks.

We first consider different kinds of HRM practices and the way they can influence labour demand through different explaining channels : labour productivity (Forth and Milward (2004), Hiltrop (1999), Pfeffer (1998), Bartel (1994)), labour costs and adjustment costs (Huselid (1995), Sekiou et al. (1993)), firms product market power through innovation (authors speak for example of firms ability to retain talent (Hiltrop (1999)), or firms labour market power. Assuming that HRM could improve specific skills and, thereby, favour oligopsonistic power by firms.

First and considering arguments from above mentioned authors, we decided to group and to measure HRM practices in three domains :

- the first one involves practices to encourage employees well-being in order to make them more involved in their job : we want to measure the relative intensity of quality circles, team-working, participation to decision from workers located at a lower hierarchy level, briefing groups, flexible working time practices, job rotation among workers on the workplace and training;
- the second groups practices that are related to the existence of financial incentives in the firm : different kinds of productivity related wages, profit or capital sharing, payments in kind, payments of overtime;
- the third one concerns internal labour market rules with respect to internal promotion system, the existence of career plans, social advantages, security offered by the labour contract.

Data related to these variables are generally not available in Belgian datasets. So we built a questionnaire that we sent to human resource managers inside the firms to obtain this information.

By the way, we also question employers for potential monopsonistic behaviour at the firm level, in order to possess better proxies to capture for this behaviour than the ones Mahy and Paindavoine (2004) had to estimate when they tested for monopsonistic behaviour among Belgian firms and given that they were then not able to question firms.

We should receive a sufficient number of answers to make our econometric estimations. If this happens not to be the case, we will alternatively determine fewer HRM practices indicators from the so called "Belfirst" Belgian employers dataset.

In order to estimate the potential effect of these variables on labour demand behaviour, we first specify labour demand dynamics assuming two potential situations firms can encounter on the product market, monopolistic competition (Nickell and Wadhvani (1991), Bresson and Pirotte (1996), Wulfsberg (1997), Dhyne and Mahy (2002)) or, as an alternative, production constrained by demand (Hamermesch (1989), Bresson, Kramartz and Sevestre (1992), Bresson and Pirotte (1996)), together with the assumption of quadratic and symmetric adjustment costs for labour, which is quite acceptable when people consider homogeneous labour (Dhyne (2001)). We precisely specify the basic following relation for the monopolistic

competition case : 
$$\text{Log}L_{i,t} = d1.\text{Log}L_{i,t-1} + d2.\text{Log}L_{i,t-2} + \sum_{j=0}^2 (\beta_{1j} \log \text{pdm}_{i,t-j} + \beta_{2j} \log w_{i,t-j}) + g3t + a_i + e_{it}$$

where  $L_{i,t}$  is labour demand of firm  $i$  at time  $t$ ,  $\text{pdm}$  its market share,  $w$  its wage,  $g3t$  a fixed effect to control for the time period source of heterogeneity and  $a_i$  a fixed effect to control for firm unexplained source of heterogeneity. Data for these variables can be build from the "Belfirst" dataset. That is to say that, in terms of data, we have to match data coming from the Belfirst dataset together with data from our sample.

We then enlarge this first relation adding above mentioned firms heterogeneity variables as exogenous variables influencing labour demand, in a direct way or through other exogenous variables. The latter case can for example appear if HRM practices like training improve labour skills and innovation and therefore affects the market share of the firm.

Within the enlarged specifications, we also test for different effects when HRM practices appear together. Our estimations concern the period from 1998 to 2003. The estimation technique we use on variables in first differences – in order to eliminate the firms fixed effects – and we use the GMM method proposed by Arellano and Bond (1991).