## The Effects of Human Resource Management Practices on Firm Productivity –Evidence from Finland<sup>1</sup>

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**Extended abstract:** Evidence from the around the world suggests that human resource management (HRM) practices, such as increased employee participation in decision making and compensation systems that relate employee compensation to firm or group performance, have become increasingly common (e.g. for the US, Blasi and Kruse 2006; Freeman et al, 2009; for the UK, Pendleton and Robinson, 2008; for Japan, Kato 2006, and for Finland, Kalmi and Kauhanen, 2008). Accompanying these trends there has been an outpouring of research that investigates the impact of HRM practices for enterprise performance. And there is an enormous variation in the specific methods used and the focus of that literature. Thus some literature examines varying combinations of HRM practices --e.g. Freeman et al construct indices based on 8 practices while other studies focus on one practice, such as stock options-e.g. Sesil et al 2002. While most studies use firm level analysis (e.g. Robinson and Pendleton, 2008) others are case studies (e.g. Bartel et al 2004). Nevertheless, there does seem to be an emerging consensus that there is a positive association between packages of HRM and business performance. However for various reasons such conclusions may be premature-many studies have at least one potentially serious problem that might give pause before accepting conclusions.

For one thing, often the underlying data used in firm level studies are not representative. Some studies do not use objective performance measures (e.g. WERS). Some studies do not conduct their empirical analysis that is derived from a strong conceptual framework (ad hoc regressions rather then a production function). Several studies do not distinguish the impact on performance of practices that were only recently adopted. Finally many studies have a large potential for measurement error either because there is a failure to include all relevant HRM practices and omitted HRM practices cannot be assumed to be time invariant. Also other factors which are likely to have implications for enterprise performance and which cannot be assumed to be unchanging during the study period may have been neglected, notably changes in ICT (which has found to be important by

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Brynjolfsson and Hitt, 2000), ownership by families and foreigners (e.g. Bloom and van Reenen, 2007). In this paper we respond to all of these potential problems.

The central aim of this paper is to present the first empirical evidence on the nature and effects of human resource practices (HRM) in the Finnish manufacturing sector. Especially, we examine the effects of employee involvement EI and financial participation FP practices on firm productivity. In the analysis, we use a new survey data set on a range of HRM practices during 2002-2005 that is broader than in most studies. Specifically we include several components in the indices of EI and FP practices. This breadth of coverage will enable us to construct a greater range of HRM indices than have been used in other work. We are also able to take special note of policies that were recently introduced—(while literature points to it being best to view HRM policies as investments, few studies take the age of the plan into account.) Importantly, our data are based on a representative random sample of the manufacturing firms in Finland who had 50 or more employees in 2005. The survey includes data on HRM practices and employee participation of 398 firms, which is 38% of the firms in the population. An important feature of the survey data set is that it can be linked to data on firms' financial statements. Together these combined data constitute an unusual panel that allows us to analyze the effects on firm productivity of HR practices separately and in combination in for the population of the Finnish manufacturing firms.

Furthermore, we also look at whether the inclusion of information on ICT practices that previous work has been found to be important in affecting business performance, affects the impact of HRM practices on enterprise productivity. In addition, we investigate whether the impact of HRM practices are modified once several control variables found to be important in previous work, notably competition, family and foreign ownership, are taken into account. Novel to the literature, we also control for possible measurement errors in variables in our novel HRM survey data set (following Bloom and van Reenen, 2007).

Based on our preliminary production function estimates we find that firm productivity: (i) is enhanced by some individual practices, notably decision-making consultative committees and profit sharing schemes, but other individual practices have no statistically significant effects; (ii) is positively associated with indices of EI or FP practices considered alone; (iii) is positively combinations of FP and EI; (iv) is positively associated with ICT and foreign ownership.

**JEL Codes:** M54, J53, L23

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