

Productivity gains from job satisfaction in Europe*

Chiara Peroni and Francesco Sarracino[†]

This study focuses on the link between well-being and productivity by conceptualising well-being as an input to production. Traditional measures of productivity, typically based on ratios of output(s) to inputs to production (such as capital and labour), neglect the role of well-being in production processes. In this article we investigate the link between job satisfaction and labour productivity using combined data from representative surveys and official statistics. Preliminary results suggest that job satisfaction does have a positive, statistically significant impact on labour productivity. This research has several implications. Firstly, it suggests that studies of productivity should regard well-being as a resource in production processes. Secondly, as a policy implication, decision makers should safeguard and promote people's well-being on the working place as an objective per se, and as a way to improve economic outcomes.

Background

Previous studies document an overall positive association between workers' well-being and aspects linked to labour productivity. GALLUP (2017) shows that firms whose employees are more engaged experience less absenteeism, less turnover, less thefts. Interestingly, these firms also report higher customers' satisfaction. Studies also show that happier workers are more pragmatic, less absent, more cooperative and friendly (Bateman and Organ, 1983; Judge et al., 2001), change their job less often and they are more accurate and willing to help others (Spector, 1997). There is also evidence that happier people are more engaged in their work, earn more money, and have better relationships with colleagues and customers (George and Brief, 1992; Pavot and Diener, 1993; Spector, 1997; Wright and Cropanzano, 2000). All these aspects are linked to job performance and labour productivity, although the studies do not directly measure productivity. Oswald et al. (2014) show that in experiments positive shocks to happiness result in significant productivity gains (these gains, however, stem from increased effort rather than from higher precision

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[†]STATEC Research, Centre Administratif Pierre Werner, 13 rue Erasme - B.P.304, L-2013, Luxembourg. Chiara.Peroni@statec.etat.lu.

in executing standardised tasks). In a related article, Proto et al. (2010) observe that productivity is affected by short-run and artificially-induced increases in happiness, as well as by long-lasting shocks such as family bereavement, parental divorce and health problems. Using returns on stocks of firms listed in the “100 Best Companies to Work For in America”, Edmans (2012) establishes a link between job satisfaction and firms’ market value.

These studies document a link between well-being, job performance, firm performance and labour productivity. Studies based on the direct estimation of productivity and well-being from representative data, however, are very limited, primarily because of data limitations. To the best of our knowledge, no representative dataset exists that permits to observe simultaneously workers’ productivity and job satisfaction. Building evidence in this field requires matching firm-level observations with observations on employees’ well-being and working conditions. Studies on combined datasets are also scarce. Notable exceptions are those by Bckerman and Ilmakunnas (2012) and Bryson et al. (2017). These authors report a positive, significant correlation between job satisfaction and productivity using representative employer-employees data for, respectively, Finland and the United Kingdom.

Contribution, data and method

We study the relationship between well-being and productivity using matched data from working conditions and business surveys. Specifically, we construct and analyse a dataset which includes measures of productivity, output and inputs to production, and indicators of job quality and workers’ well-being, and job satisfaction. We use this data to test the hypothesis that well-being has a positive significant effect on labour productivity.

The data on working conditions are sourced from the European Working Conditions Survey (EWCS), whereas the economic indicators are from Eurostat’s Structural Business Statistics (SBS). As the observational units of the EWCS and the SBS are not the same, we combine the dataset by performing statistical matching at the aggregate country-industry level. The individual-level observations on working conditions and job satisfaction from EWCS are aggregated at industry-country level, using the NACE and country codes provided in the dataset. Then, these observations are merged with the SBS data at the NACE 2-digit level. The resulting dataset covers 34 European countries and nearly 11500 industries, and ranges from 2010 to 2019.

We measure workers well-being using subjective and objective measures, namely job satisfaction and a job quality index constructed from the EWCS. The subjective measure of job satisfaction uses answers to the question ”On the whole, are you very satisfied, satisfied, not very satisfied or not at all satisfied with working conditions in your main paid job?” (Individual answers are coded on a scale ranging from 0 to 4). The objective measure of job satisfaction accounts for 6 dimensions of the working environment: income and benefits, working hours and work-life, social

dialogue, skills development and training, stress and safety and ethics. The measure of productivity is labour productivity, compiled from Structural Business Statistics. We also build a measure of Total Factor Productivity. Our basic empirical model consists of a regression of labour productivity on job satisfaction and appropriate control variables.¹

Expected results

Preliminary results show that industries with better working conditions and higher job satisfaction are characterised by higher labour productivity growth. This demonstrates that workers' well-being is not only a desirable goal *per se*, but also contributes to productivity growth, and economic prosperity. Thus, there exists a virtuous circle whereby higher well-being fosters productivity and economic prosperity.

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¹The list of controls includes variables that may affect productivity growth, such as initial productivity level, change in investment, the sector, average number of employees, average age of employees and average level of education of employees.

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