

Publication

Age-Biased Technological and Organizational Change: Firm-Level Evidence and Management Implications

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This paper examines the question, whether the growing use of new technologies and decentralized forms of work organization affects the age structure of workforces within firms. The initial idea behind this relationship is that technological and organizational change may not only be skill-biased, but also age-biased. Based on human capital theoretical explanations that mainly focus on skill obsolescence in association with the need to acquire new skills, the hypothesis of an age-biased technological and organizational change (ABTOC) is derived and tested econometrically using German firm-level data. The empirical results show that the adoption of technological and organizational innovations decreases the firms' demand for older workers and increases the demand for younger workers. Hence, ABTOC is found to be at the expense of older workers. Since ABTOC does not fit to the current development in terms of age-specific labor supply, this paper also suggests human resource management practices that encourage firms to combine the use of new technologies and organizational forms with an ageing workforce.

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