## Knowledge Exchange and Productivity Spill-overs in Bangladeshi Garment Factories

Andreas Menzel\*<sup>†</sup> CERGE-EI, Prague

November 2017

## Abstract

Productivity spill-overs within firms have commonly been used as a proxy measure for organizational learning. Using novel data from more than 200 production lines in three garment factories in Bangladesh, this paper extends the evidence on such productivity spill-over in two directions. First, I find that spatial distance within firms matters greatly for the strengths of productivity spill-overs, while product complexity matters little. This has important implications for firms in rapidly developing countries such as Bangladesh, as spill-over strength seems less affected when firms upgrade to more complex products, but seems more affected if firms grow larger. Second, I provide evidence from a randomized communication intervention in the three factories to determine the extent to which productivity spill-overs are indeed a measure of knowledge exchange within firms, and not of other types of peer effects, such as competition. In the intervention, randomly selected line supervisors were instructed by their superiors to share production knowledge when their lines were allocated the same garment for production. The intervention increased the strength of the productivity spill-overs between the targeted production lines. It thus supports the view that productivity spill-overs can be used as a measure of knowledge exchange within firms.

Keywords: Learning, Productivity, Firms

JEL Code: D2, L2, M5, O3

<sup>\*</sup>I am grateful to Chris Woodruff and Rocco Macchiavello for their continuous support and advice throughout this project. I furthermore would like to thank Eric Verhoogen, Emily Breza, Jonas Hjort, Steven Levitt, Francois Gerard, Suresh Naidu, Cristian Pop-Eleches, Bernard Salanie, Oriana Bandiera, Florian Englmaier, Robert Akerlof, Clement de Chaisemartin, Sascha O. Becker, Roland Rathelot, Andrew Oswald, Stepan Jurajda, Michal Bauer, Nikolas Mittag, and seminar participants at Columbia University, CERGE-EI, University of Warwick, Urbana Champaign LER, CUNEF, as well as at the RCEA Workshop Rimini 2015, Oxford Young Economist Workshop 2014, PEDL Workshop London 2016, Italian Development Association Summer School 2016, Belgrade Young Economist Conference 2014, and the LMU Workshop Ohlstadt 2014 and 2016 for many useful comments. Financial help by PEDL is acknowledged.

<sup>&</sup>lt;sup>†</sup>Address: R.330 - CERGE-EI, a joint workplace of Charles University and the Economics Institute of the Czech Academy of Sciences, Politickych veznu 7, P.O. Box 882, 111 21 Prague 1, Czech Republic. Email: Andreas.Menzel@cerge-ei.cz