www.elsevier.com/locate/rie

Vertical technology transfer and the welfare implications of patent protection

Arijit Mukherjee, Chiranjib Neogi

PII: S1090-9443(14)00017-9
DOI: http://dx.doi.org/10.1016/j.rie.2014.04.001
Reference: YREEC585

To appear in: *Research in Economics*

Received date: 22 November 2011
Accepted date: 2 April 2014

Cite this article as: Arijit Mukherjee, Chiranjib Neogi, Vertical technology transfer and the welfare implications of patent protection, *Research in Economics,* http://dx.doi.org/10.1016/j.rie.2014.04.001

Vertical technology transfer and the welfare implications of patent protection*

Arijit Mukherjee

Loughborough University and CFGE, UK, CESifo, Germany, and RCIE, City University of Hong Kong, Hong Kong

and

Chiranjib Neogi

Indian Statistical Institute, Kolkata, India

Previous revision: August 2013
This revision: February 2014

Abstract: Significant amount of vertical technology transfer occurs between developed and developing country firms, and many trading companies from developing countries create competition in the developed countries, yet the literature on intellectual property rights did not pay much attention to these aspects. In a Cournot oligopoly with vertical technology transfer, we show that patent protection in the developing country raises developed-country welfare if the following three conditions hold together: (i) patent protection in the developing country deters entry in the final goods market, (ii) the marginal cost difference between the incumbent and the entrant final goods sellers is sufficiently small, and (iii) the marginal cost difference between the incumbent and the entrant developing-country producers is sufficiently high. We also show that patent protection in the developing country always creates higher developing-country welfare if no developing-country firm enters the final goods market. We also discuss the implications of Bertrand competition on our results.

Keywords: Entry; Patent; Vertical technology transfer; Welfare

JEL Classification: F12; F23; L13; O34

Correspondence to: Arijit Mukherjee, School of Business and Economics, Sir Richard Morris Building, Loughborough University, Loughborough, Leicestershire, LE11 3TU, UK
Email: A. Mukherjee@lboro.ac.uk; Fax: +44-1509-222723

* We thank an anonymous referee for helpful comments and suggestions. The usual disclaimer applies.