

# Does Trade Liberalization Trigger Technology Upgrading? : Evidence from Indian Manufacturing Plants

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## Abstract

This paper studies the impact of trade liberalization on plant level productivity in Indian manufacturing industries during the period from 1998 to 2007. To guide empirical work, I introduce a model that explains the decision of heterogeneous firms to export and to engage in R&D. This model assumes that incumbent exporters improve their productivity with a reduction of trade costs because of technology upgrading. To identify this process, I conduct comparative statics analysis on the average of exporters' productivity without a reallocation of production factors, and it shows that the average productivity increases with trade liberalization. An empirical test of the model reveals that the average total factor productivity of incumbent exporters increases when trade costs decrease. Their average productivity increases 8 to 12 percentage points for 1 percentage point decrease in export tariff. This result suggests that exporters try to upgrade their technology when their profit increases with a reduction of trade costs.