

## ABSTRACT

The role of multinational corporations (MNCs) in the economic growth and development of host country industry has been a matter of debate for several decades. The proponents often argue that technology being a public good, MNCs cannot capture all the quasi-rents due to their productive activities. Thus, a large share of the host countries' benefits from MNCs may come in the form of 'spillovers' of knowledge to domestic firms that are competitors, suppliers, or customers of MNCs. The present study is an attempt to estimate these spillovers benefits of technology transfer for Indian manufacturing firms before and after the 1991 liberalisation. The study has significance relevance in the present policy scenario, as MNCs have given access to many 'core' sectors.

The statistical results quantifying spillovers show that:

- in the pre-1991 period, the spillovers results vary across subgroups. For the 'scientific' subgroup, only those firms benefit that engage in R&D activity, whereas in the 'nonscientific' subgroup, evidence are mixed.
- in the post-1991 period, there are clear evidence of spillovers for local firms irrespective of the sectors to which they belong, provided they complement the spilled knowledge with their own R&D.

In order to verify the statistical results and to fathom the significance of different channels of spillovers, the next part of the thesis carries out a specific case study of an important segment of Indian machine tool industry (IMTI) viz., Computer Numerically Controlled (CNC) lathe. Besides complementing the statistical work, it also looks into the recent criticism of the traditional framework, which argues that in the framework, the firm behaviour is driven by exogenous changes in its environment and it has no control over it. The case study not only gives a more refined description of the firm's interaction with its environment, but also it is Schumpeterian in its interpretation of the process of technical change. The case study develops a framework, where the firms in a sector can be considered as a 'social organisms' existing within changing environment. The technical change and competitiveness of the firms is the interplay of four important

factors i.e., pressure from the user industry, support from the component suppliers, rivalry among competitors and pressure (and incentives) from the state.

The thesis then investigates into the factors leading to technical change in CNC lathe segment in terms of the framework. The primary survey of firms finds that 'externalities' or 'non-market mediated' factors such as presence of competing firms and products, pressure from user industry, worker suggestions and professional journals etc. play a very significant role in inducing technical change in the segment.