PERFORMANCE OF INDIAN CHEMICAL SECTOR:
POST REFORM PERSPECTIVE

Abstract

In this dissertation an attempt has been made to study the performance of Indian Chemical sector in the domestic economy as well as in the global market during the post-reform period. At the age of globalization the imposition of uniform patenting practices all over the globe is propagating a switch from process to product patent and protection of trade related intellectual property rights (TRIPs). This places a special challenge to the Chemical sector where the processes were mostly adopted through reverse engineering and where forward and backward linkages are not necessarily confined within the geographical boundary of the nation. The post-WTO safety measures in terms of TBT (technical barriers to trade) are also targeting this sector in terms of health and environmental safety standards and norms of sustainability. In spite of all these barriers Indian Chemical industry is an important player in the Indian manufacturing sector and especially in the post-reform period its presence in the global market has also become more visible at least in some specific directions of commodity trade. So, the questions that we are trying to answer here are how India is coping with these challenges in the production front and what factors are promoting international competitiveness in India’s favor.

By applying the DEA technique here an assessment of the overall efficiency, nature of inefficiency, geographical concentration, type of product diversification and pattern of technological heterogeneity for different types of Chemical producing registered factories of India has been carried out with disaggregated unit level ASI data for four alternate years starting from 1999-2000 till 2005-06. In the global market an analysis of constant market share (CMS) establishes the significant increase in price competitiveness of Indian Chemical export between 1991 and 2006. Whether this price competitiveness is leading to greater access to market share was our next question. Here an analysis of revealed comparative advantage (RCA) for different sub-group of chemical products was carried out separately for the developed (OECD) and the developing (Non-OECD) world by using WITS-COMTRADE database. Along with RCA the pattern of Multilateral Intra Industry Trade (MIIT) has also been considered simultaneously to check whether India is supplying low-value intermediate products or high-value finished products to the rest of the World. Finally, we have concentrated on a specific group of Chemical firms of India to study the connectivity between global participation and technology up-gradation by constructing a longitudinal panel of observations collated from the CMIE-PROWESS database. So, the final question that has been raised is related to the combined contribution of all these changes in enhancing total factor productivity of the Indian Chemical sector in the post-reform, post-WTO period. To answer that question applying Malmquist Index an analysis of productivity decomposition has been carried out.