Total Factor Productivity Growth in Indian Manufacturing Firms: Issues and Evidences

Abstract

The growth of manufacturing sector has been considered as one of the key drivers of economic growth. Pertinent to its importance in the economic growth process, it is always imperative to identify the factors which affect the productivity growth of this sector. In this regard, this study tries to measure and identify the factors affecting the productivity growth of Indian manufacturing firms during the period 1997-98 to 2012-13. This study uses Levinsohn-Petrin method to measure the total factor productivity growth of manufacturing firms. The econometric methods like Fully Modified Ordinary Least Square (FMOLS), Generalized Method of Moments (GMM), Panel Quantile Regression have been used to examine the role of firm specific factors, financial constraint, product market competition and international openness in determining the total factor productivity growth of the Indian manufacturing companies. The study finds that size, disembodied technological intensity, embodied technological intensity play the significant role in the productivity determination. Financial constraint has been found to have a significant role in determining productivity growth of Indian manufacturing firms. The study finds that while product market competition plays a positive significant role in productivity determination of both the firm and industry, it has a negative relationship with productivity dispersion. International openness has been found to exert a significant impact in the determination of productivity growth of Indian manufacturing firms. The results are robust across the different sub-sectors within the manufacturing sector in India. These findings have the implications for the corporate managers and policy makers to formulate an appropriate corporate and industrial policy to enhance the productivity of the manufacturing companies in India.

Keywords: Manufacturing sector, total factor productivity growth, Levinsohn-Petrin method, panel FMOLS method, product market competition, international openness.