Labour Productivity, Export and FDI in a Structural Equation Analysis: Case of Manufacturing Industries of Shandong, China

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Using a set of panel data about 29 2-digit manufacturing industries of Shandong during 1998-2002, this paper examines the determinants of labour productivity, export propensity and FDI presence in a system of equations. The main results of this study are as followings.

With reference to the determinants of labour productivity, (1) physical capital intensity is one the main driven forces. (2) Industries with relative large firm size could benefit from economies of scales and have higher labour productivity. (3) The less state participation, the more market-oriented industrial organisation, and then the higher labour productivity.
(4) The effects of export and FDI on productivity depend on the level of industry concentration. Industries in the highly concentrated sector could learn through export or FDI and results in higher labour productivity.

With reference to the determinants of export intensity, (1) less physical capital intensity and (2) low labour costs appear to reflect the region's comparative costs or advantages. Constrained by possible export costs, (3) industries with large average firm size or (4) in the highly concentrated sector could benefit economies of scale or industry's specific advantage and lead to higher export intensity. (4) FDI presence does facilitate export through international connections (contracts, management skills, etc.), particularly for industries in the less concentrated sector.

Similar to export paten, (1) FDI presence appears to be attracted to industries with less physical capital intensity. This is particular true for FDI from the non-dragon economies other than Hong Kong, Macao and Taiwan. Subjected to possible investment costs and entry barriers, (2) FDI from the non-dragon economies seek to enter industries with relative large firm size and in the less concentrated sector. (3) FDI from the dragon economies like Hong Kong, Macao and Taiwan seems to be mainly attracted by the regional comparative costs/advantages, the low labour costs (low skilled intensity).

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