

**Technical Efficiency in the Textile Industry of Bangladesh:
an Application of Frontier Production Function**

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Abstract

The technical efficiencies for the textile industry of Bangladesh have been estimated in this paper. A translog stochastic frontier production function model has been used for the purpose. Panel data of Census of Manufacturing Industries (CMI) published by Bangladesh Bureau of Statistics (BBS) have been used for empirical estimations, over a range of 6 years period from 1988-89 through 1993-94. Making use of the software package FRONTIER 4.1, the model has been estimated by the maximum likelihood (ML) method. The hypothesis of non-stochastic inefficiency could be rejected at 5% level of significance. This justifies use of the stochastic frontier model and the associated ML method of estimation. The overall average technical efficiency is estimated to be 0.80 for the textile industry of Bangladesh under consideration which implies that only 80% of the potential output is being realized currently in this sector. This result is corroborated by findings of other similar studies.

Keywords: Technical Efficiency, Translog Production Function, Stochastic Frontier Production Function, Outer-Bound Production Function, Panel Data, Non-Stochastic Efficiency, Maximum Likelihood (ML) Method.