Performance of Small and Medium Enterprises, SMEs: a global comparison

Nordin Haji Mohamad
Institut Sains Matematik
Universiti Malaya.
Email: nordinhm@um.edu.my; nordinhm@gmail.com

Fatimah Said
Fakulti Ekonomi dan Pentadbiran
Universiti Malaya.
Email: fatimahs@um.edu.my

ABSTRACT

Small and Medium Enterprises (SMEs) form the backbones of most economies, developing as well as developed. It provides significant contribution in terms of number of enterprises, employment, output and exports. The purpose of this paper is to investigate the comparative performance of SMEs with reference to adoption and adaptation of technology. To do this, we utilize the Data Envelopment Analysis (DEA) methodology of Malmquist Total Factor Productivity, TFP index. TFP measures the overall efficiency with which products are produced due to non-physical change such as improvement and advancement in the quality of inputs (education, skills and expertise, technology, etc). Improvement in TFP will enable the economy to generate a larger output from the same available resources, and hence shifting it to a higher frontier. The technological change component of productivity growth captures shifts in the frontier technology and can be interpreted as providing a measure of innovation or adoption of new technology. Technical inefficiency, on the other hand, is measured by the difference between the frontier output and the realized output. Thus decomposition of TFP growth into technical efficiency improvement (adaptation or catching up) and technological change is therefore useful in distinguishing innovation or adoption of new technology by 'best practice' firms from the diffusion of technology. Data on SMEs from 42 selected economies (29 European Union and 13 APEC countries) for the period 2004–2008 are utilized in the study. Results obtained are analyzed and discussed, and some policy implications are suggested.

Keywords: Small and medium enterprises, data envelopment analysis, Malmquist total factor productivity, technical efficiency, technological change.

1. Introduction

It is well accepted that small and medium enterprises, SMEs are one of the principal driving forces in economic development and are deniably very important to the economy of a country. Micro enterprises and SMEs are the engine of the European economy (European Commission 2005). They are essential source of jobs, create entrepreneurial spirit and innovation in the European Union and are thus crucial for fostering competitiveness and employment. In the enlarged European Union of 25 countries some 23 million SMEs provide around 75 million jobs and represent 99% of all enterprises.