COMPARISONS OF CHINA’S EDUCATION IN SCIENCE AND TECHNOLOGY TO THE DEVELOPED WORLD

Xincai Tan and Xiu-Tian Yan
CAD Centre, DMEM, University of Strathclyde, 75 Montrose Street, Glasgow, G1 1XJ, UK.
Email: xincai.tan@strath.ac.uk;

Abstract: Education in science and technology (EST) has played a critical role in state construction and economic development in China. This paper presents the facts of education in China and it aims to establish a correlation between the reported economic development and education progress. Through statistical approach and associated techniques it gives an insight to the effect of EST on economical development based on case studies. Comparisons of relevant data have been carried out between China and globe. It is believed that China will make greater efforts to develop EST to match the WTO’s challenges.

Key words: China, economic development, education, science and technology.

1. INTRODUCTION

The People’s Republic of China (China) plays more and more important role in the world economy since she became the 143rd member of the World Trade Organisation (WTO) [1]. Splendid achievements in science and technology in China have been achieved nurturing of the state leaders, some world-class scientists and engineers, and promoting the state’s economy. Education in science and technology (EST) has a very significant influence on construction and modernization of China. There have been a number of investigations into education [2] and economic development [3,4] in China. Few reports are found dealing with the effects of EST on the national
administration and development. Thus this paper presents comparisons of China’s educational facts with international data; and discusses the effects of EST on the state leaders, export and import, as well as industrial productions; and then considers WTO’s challenges to China’s EST; and finally concludes with some suggestions for China’s EST.

2. CHINA’S EDUCATION

Fig.1 shows a comparison of educational data between China and the lower-middle-income group (LMIG) [5] of the world in the year 2002, as an octagon with eight main factors. For illiteracy, percentage of population age 15 and over in China is about 14%, while the average percent of the LMIG 13%. Urban population in China is relatively lower than the average of the LMIG, that is, percentage of urban population to total population in China is 38%, whereas that of the LMIG is 49%. Trained teachers in primary schools in China are up to 97.39% and the average value for the LMIG is 94.6%. Primary teacher-pupil ratio in China is the same as for the LMIG, 1:21. Public expenditure per student for tertiary education in China is much higher, although those for primary and secondary are relatively lower.

![Fig.1 A comparison of China’s education with the Lower-middle-income group in the world for year 2002. Data sources in [5].](image)

In China, public expenditures per student for primary, secondary and tertiary are 6.1%, 12.1% and 85.8% of Gross Domestic Product (GDP) per