

Title : Measuring Comparative Advantage in Thailand's
Industrial Sectors by Using The CAI Index
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ABSTRACT

This study attempts to measure comparative advantage in ten industrial sectors in Thailand during the period of 1974-1994 by using the comparative advantage index (CAI) introduced by Saito, 1999. It assumes that there are different production technologies and perfect capital mobility across developed countries and developing countries. In fact, this approach analyzes the impact of different technological progress on comparative advantage in producing traded commodity.

The comparative advantage index was really derived from “the Ricardian measure” and “the Hicksian measure”. In other words, the index was able to measure the differences in labor productivity (Ricardian measure) and total factor productivity (Hicksian measure). Moreover, the index was possible to represent the source of comparative advantage; the wage effect or the productivity effect.

This study focused on measuring comparative advantage in ten selected industrial sectors (at 3-digit classification of ISIC) for 11 countries (including developed countries and developing countries). These countries are following as Australia, Germany, the U.K., USA, Japan, Korea, Singapore, Malaysia, Indonesia, Philippines, and Thailand.

The empirical result, in this study, found that there was a substantial improvement in comparative advantage in electric machinery and transport equipment in Thailand during the period 1974-1994. However, in this period, Thailand seemed to lose a comparative advantage relative to other countries in textile and clothing, footwear, and furniture.

In ASEAN developing countries, Thailand seemed to have a comparative advantage in five industrial sectors: food and beverage, paper, rubber, electric machinery, and transport equipment. The result of the index indicated that the source of comparative advantage in these industrial sectors for Thailand was mainly determined by the productivity effect, but not the wage effect. It implied that the way to keep Thailand competitive, relative to ASEAN developing countries, was to improve its labor productivity.

In this study, there was no exact evidence that differences in relative labor productivity were closely related to (i) differences in relative rates of technical progress in light industries and (ii) differences in relative capital-labor ratio in heavy industries, Saito (1999), between developing countries and developed countries.

Finally, the analysis of CAI result indicates that the development in technology level in developed countries had helped to keep their competitiveness or reduce their comparative dis-advantage such as in the case of food and beverage, footwear, furniture, and rubber.