Economic Development and Capital Shallowing in Thailand

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The Thailand economy during the period 1950-1990 achieved a high annual compound growth of the gross domestic product at 6.5%. The objectives of this paper are first to identify the capital shallowing, that is, the phenomenon of decreasing capital-labor ratio, in the manufacturing sector during the industrialization period in Thailand, and second explain this phenomenon by the labor-using techonlogical progress.

The capital-labor ratio for the manufacturing industry was found to have decreased during the 1960's and from the late 1970's to the 1980's, using the time-series data. Also, the same phenomenon has been detected in the industrial census data since 1964. Using the statistical model embodying the hypothesis of labor-using technological progress, the capital shallowing has been explained by the two different sets of data, the time-series data and the industrial census data.

The Thailand case of capital shallowing for the manufacturing industry resulted from the fact that the industrial production technologies introduced from the developed countries were adjusted for the factor endowment conditions in Thailand, that is, the relative abundant labor and the relative scarce capital, by the labor-using technological innovation.