

mistakenly termed “decentralized”), but really no radical sustainable improvement has come about in the lives of the majority of the people. To me the book is a curious and unstimulating reflection of mainstream scholarship.

Shashi Ranjan Pandey
Land Tenure Center,
University of Wisconsin, Madison

Technology Choice in Developing Countries: The Textile and Pulp and Paper Industries. By Michael A. Amsalem, Cambridge, Mass: MIT Press, 1983. 240 + xvi pp.

The issue of technology choice in the manufacturing sector of developing countries is important for several reasons. The absorptive capacity of other sectors — especially agriculture — is limited. In many countries the record of employment generation is a poor one, despite rapid industrialization since the late 1960s. Moreover, as more countries adopt outward-looking policies, international competitiveness requires the adoption of efficient technologies which accord with the exporting countries’ relative factor endowments. Although there is already a very large literature on the subject, a careful and thorough study — as this book is — is to be welcomed.

The purpose of this book is to examine technology choice in the manufacturing sectors of Brazil, Colombia, Indonesia and the Philippines. The author seeks to establish whether alternative technologies exist; whether, if there are differences, they require significantly different quantities of factor inputs; and what factors underlie the selection of technologies. To narrow the focus, the analysis is conducted with reference to the textile and pulp and paper industries. This choice of industries is very appropriate, since the two differ in important respects. Textiles is an “old” industry in which labour costs are a substantial proportion of total costs, a wide range of technologies is available and most can be purchased “off the shelf”, and much of the industry has relocated to developing countries. None of these characteristics apply fully to the pulp and paper industry.

The author begins with a review of the main issues in technology choice, followed by a brief (rather too brief) review of existing studies. An adaptation index is developed, as a means of assessing technology differences between countries. Discussion of the firm survey and some conceptual issues complete the chapter. Next, in Chapter 2, there is a very detailed review of production and technology characteristics in the two industries.

Chapters 3 and 4 examine the textile industry. The author demonstrates convincingly that a wide range of textile technologies does exist at each of the major stages of production (see, for example, Table 3.3, pp. 62–63). He also concludes that there is considerable modification of technology: “In 95 of this study’s 110 technology observations in developing countries the technology chosen was more labour-intensive than the U.S. optimum at identical scale of production.” But in many cases, these technologies are more capital-intensive than the socially optimal ones. Why? The familiar factor-price-distortion argument is one factor, but there are others, including lack of information, the effects of risk, and the absence of competitive market pressures.

In a similar vein, the author then analyses the pulp and paper industry. Industry attributes dictate a somewhat different approach, however. Scale rather than relative factor

prices appears to be the most important determinant of production technology, although in many of the firms examined the scale was such that it was not the only factor. Since a number of the firms had custom-built plants, the nature of the entire investment project was an important consideration in the technology choice.

Picking up this book the reader might wonder whether there is anything left to say on the subject. The author's policy recommendations (manipulating factor prices, disseminating more information), moreover, are hardly new. What is of value are the two very detailed industry case studies, and the book's lucid and comprehensive exposition. Nevertheless, it is not always clear whether the data base (much of which was compiled by the World Bank's IFC) is completely reliable. One wonders, also, whether the author had first-hand experience in any of the countries concerned, and whether sufficient allowance has been made for product quality differences between the different technologies. But, overall, this book is well worth reading for anyone with an interest in the subject.

Hal Hill

*Economics Department, Research School of Pacific Studies
Australian National University*