

Vertical Specialization and Economic Integration in East Asia

Edited by Daisuke Hiratsuka and Yoko Uchida

March 2008

**Institute of Developing Economies
JETRO**

Vertical Specialization and Economic Integration in East Asia

Edited by Daisuke Hiratsuka and Yoko Uchida

March 2008

**Institute of Developing Economies
JETRO**

Published by Institute of Developing Economies
3-2-2 Wakaba Mihama-ku Chiba-shi Chiba 261-8545 JAPAN

©Copyright in 2008 Institute of Developing Economies, Japan External Trade Organization

All rights are reserved. No part of this publication may be reproduced in any form or by
Any means without written permission of the Institute.

Contents

Preface

Daisuke Hiratsuka

Chapter 1

Vertical Specialization in East Asia: Some Evidence from East Asia Using Asian International Input-Output Tables from 1975 to 2000

Yoko Uchida···1

Chapter 2

Corporate Activities and the Spatial Structure of Production/Distribution Networks in East Asia

Fukunari Kimura···29

Chapter 3

Parts and Components Trade and Production Networks in East Asia -A Panel Gravity Approach-

Kazuhiko Yokota···45

Chapter 4

Vertical Production Networks in East Asia: Evidence from Survey of Japanese Firms

Hiromichi Ozeki···60

Chapter 5

Production Fragmentation and Networks in East Asia Characterized by Vertical Specialization

Daisuke Hiratsuka···91

Chapter 6

Vertical Specialization in Laos-Laos' Participations in Global Production Network-

Souknilanh Keola···117

Chapter 7

Relevance and Consistency of the Competitiveness Indicators

Hiroki Nogami···133

Contributors

Daisuke Hiratsuka

Director-General, Development Studies Center, Institute of Developing Economies, JETRO

Souknilanh Keola

Development Strategies Studies Group, Development Studies Center, Institute of Developing Economies, JETRO

Fukunari Kimura

Professor, Faculty of Economics, Keio University

Hiroki Nogami

Director in Charge, International Exchange and Training Department, Institute of Developing Economies, JETRO

Hiromichi Ozeki

Director in Charge, Development Studies Center, Institute of Developing Economies, JETRO

Yoko Uchida

Microeconomic Analysis Group, Development Studies Center, Institute of Developing Economies, JETRO

Kazuhiko Yokota

Research Associate Professor, International Center for the Study of East Asian Development

Preface

Since the early 1990s, the volume of the world trade has grown rapidly. The increase in trading intermediate goods has been cited as a possible factor explaining world trade growth. In East Asia, the volume of the trade has had significant growth and the striking fact is that intermediate goods trade in East Asia deepens much more than that in the world. Intermediate goods trade increases as a result of vertical production network in which production processes are sliced into many stages and location of production stages are stretching across countries. This phenomenon is called as vertical specialization, production fragmentation, and production networks. It is pointed out that East Asia is the region which hosts the most such production system from the fact that it increases intermediate goods trade significantly. In order to investigate the phenomenon in East Asia, we conducted a project “Vertical Specialization and Economic Integration in East Asia” at the Institute of Developing Economies, Japan External Trade Organization (JETRO).

This is an interim report of the project and contains seven chapters. Chapter 1 calculates vertical specialization indices, and finds that vertical specialization is increasing in East Asia. Chapter 2 proposes the concept of four layers of fragmentation: local, sub-regional, regional and world, and intend to bridge geographical distances and the nature of transaction in terms of intra-firms vs. arm’s-length as well as technological/managerial conditions. Chapter 3 studies the structure of parts and components trade in East Asia, and measures the impact of production networks and free trade agreements on East Asia’s bilateral part and component trade. Chapter 4 investigates vertical production networks by examining behavior of Japanese firms. Chapter 5 discusses the characteristics of production fragmentation in East Asia by using case study results. Chapter 6 discusses the possibility of extension of vertical production networks in Laos. Chapter 7 measures competitiveness and discusses the linkage between competitiveness and resources.

This research project will be continued next fiscal year (April 2008 to March 2009). We aim to provide proper policies in order to increase international intermediate goods trade, consequently, promote economic integration in the region in the final reports. We hope that this report will be helpful for the reader to understand cause of the increase in intermediate goods trade and vertical specialization in East Asia.

Daisuke Hiratsuka
Director-General
Development Studies Center
Institute of Developing Economies
JETRO