

Cluster-Based Industrial Development

Also by Tetsushi Sonobe and Keiji Otsuka

CLUSTER-BASED INDUSTRIAL DEVELOPMENT: AN EAST ASIAN MODEL

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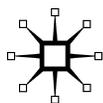
A Comparative Study of Asia and Africa

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and

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Contents

List of Illustrations viii

Preface xiv

1	Introduction: The Scope and Significance of the Study	1
1.1	Why focus on industrial clusters?	1
1.2	Causes of growing and stagnating clusters	4
1.3	In search of key growth drivers	8
1.4	Scope of the study	10

Part I The Role of Traders in Cluster Development

2	Overseas Vietnamese Traders in a Garment Cluster in Vietnam	15
2.1	Historical background and the production system	16
2.2	Characteristics of sample enterprises	21
2.3	Estimation methods and results	29
2.4	Concluding remarks	37
3	Petty Traders in a Garment Cluster in Kenya	39
3.1	Garment clusters in Nairobi	41
3.2	Characteristics of sample enterprises	43
3.3	Estimation methods and results	49
3.4	Concluding remarks	59

Part II The Role of Managerial Human Capital in the Upgrading Process

4	The Product Ladder in the Steel Bar Industry in Vietnam	65
4.1	Historical background and hypotheses	67
4.2	Characteristics of sample enterprises	73
4.3	Estimation methods and results	78
4.4	Concluding remarks	93

5	The Move to the Formal Sector in the Metalwork Industry in Kenya	95
5.1	Metalwork cluster in Nairobi	97
5.2	Characteristics of sample enterprises	102
5.3	Estimation methods and results	108
5.4	Concluding remarks	117

Part III The China Shock and Quality Improvement

6	The Coping Strategy of the Electrical Fittings Industry in Pakistan	121
6.1	An overview of the Sargodha electrical fittings cluster	123
6.2	Quality improvement and testable hypotheses	128
6.3	Characteristics of sample enterprises	133
6.4	Estimation methods and results	137
6.5	Concluding remarks	146
7	The V-Shaped Growth in the Leather Shoe Industry in Ethiopia	148
7.1	A comparative perspective and hypotheses	150
7.2	Characteristics of sample enterprises	152
7.3	Estimation methods and results	161
7.4	Concluding remarks	167

Part IV The Success and Failure of Industrial Development Strategies

8	International Knowledge Transfer in a Garment Cluster in Bangladesh	171
8.1	Historical background and hypotheses	173
8.2	Characteristics of sample enterprises	179
8.3	Estimation methods and results	184
8.4	Concluding remarks	193
9	Misfired Promotion of the Export-Oriented Garment Industry in Ethiopia	195
9.1	Promotion policy and testable hypotheses	197
9.2	Characteristics of sample enterprises	200
9.3	Estimation methods and results	210
9.4	Concluding remarks	217

10	Conclusion: Towards the Design of Effective Industrial Development Policies	220
10.1	Development of industrial clusters: A comparative perspective	222
10.2	Key growth drivers	226
10.3	A model of endogenous development of industrial clusters reconsidered	231
10.4	Strategy for cluster development	234
	<i>Notes</i>	237
	<i>References</i>	245
	<i>Author Index</i>	253
	<i>Subject Index</i>	256

Illustrations

Tables

1.1	An endogenous model of cluster-based industrial development	5
2.1	Types of new enterprises at the time of entry in a garment cluster in Vietnam	22
2.2	General information about employment and production in a garment cluster in Vietnam	23
2.3	General information about managers at the time of entry in a garment cluster in Vietnam	24
2.4	Performance of enterprises by characteristics of managers in a garment cluster in Vietnam 2005	24
2.5	Changes in marketing channels in a garment cluster in Vietnam (%)	26
2.6	Price, material cost, and value added per piece of the product by marketing channel in a garment cluster in Vietnam	26
2.7	Production quantity and real price by marketing channel in a garment cluster in Vietnam	27
2.8	Capital-labor ratio, value added ratio, and subcontracting ratio in a garment cluster in Vietnam	28
2.9	Determinants of the enterprise size in a garment cluster in Vietnam	31
2.10	Determinants of export ratio and subcontracting cost ratio in a garment cluster in Vietnam (Tobit model)	34
2.11	Impact of changes in marketing channel and production organization on the size of enterprise in a garment cluster in Vietnam (2SLS model)	36
3.1	Characteristics of managers by marketplace in garment clusters in Kenya	44
3.2	Importance of traders and outside workshop in garment clusters in Kenya	45
3.3	Characteristics of enterprises by mini-manufacturer and tailor in garment clusters in Kenya in 2003	47
3.4	Percentage of purchases made by traders across locations over time in garment clusters in Kenya	48

3.5	Tobit estimates of the importance of traders in garment clusters in Kenya	54
3.6	Determinants of outside workshop, ratio of electric machines, revenue per product, return on capital, and efficiency in garment clusters in Kenya	56
4.1	Average size of employment and production of sample enterprises by sector in a steel bar cluster in Vietnam	74
4.2	Average real unit prices of products and materials by sector in a steel bar cluster in Vietnam	75
4.3	Percentage of long-term direct procurement of materials from and long-term direct sales of products to outside traders by sector in a steel bar cluster in Vietnam	75
4.4	Average working years of a foreman in a steel bar cluster in Vietnam	76
4.5	Characteristics of proprietors and enterprises by sector in a steel bar cluster in Vietnam in 2006	77
4.6	Determinants of operation size in a steel bar cluster in Vietnam (Heckman two-step model)	82
4.7	Determinants of labor productivity in a steel bar cluster in Vietnam (Heckman two-step model)	84
4.8	Determinants of product prices in a steel bar cluster in Vietnam (Heckman two-step model)	85
4.9	Determinants of long-term direct procurement of materials from and long-term direct sales of products to outside traders in a steel bar cluster in Vietnam (Heckman two-step model)	86
4.10	Determinants of average working years of a foreman in a steel bar cluster in Vietnam (Heckman two-step model)	87
4.11	Panel regression of operation size in $\ln(\text{value added})$ in a steel bar cluster in Vietnam	88
4.12	Panel regression of labor productivity in $\ln(\text{value added}/\text{number of workers})$ in a steel bar cluster in Vietnam	90
5.1	Number of new entrants by period and activity in a metalwork cluster in Kenya	98
5.2	Number of enterprises by previous workplace of entrepreneur and current location in a metalwork cluster in Kenya	100
5.3	Average employment size in 2006 by activity and current location in a metalwork cluster in Kenya	101

5.4	Characteristics of entrepreneurs by enterprise type in a metalwork cluster in Kenya	103
5.5	Marketing and procurement by enterprise type in a metalwork cluster in Kenya	107
5.6	Average number of employees and average annual growth rate of employment by enterprise type in a metalwork cluster in Kenya	108
5.7	Estimates of the effect of entrepreneurs' human capital on employment size in the sample excluding the leavers in a metalwork cluster in Kenya	111
5.8	Estimates of the effect of entrepreneurs' human capital on employment growth in the sample excluding the leavers in a metalwork cluster in Kenya	113
5.9	Determinants of marketing to quality-conscious customers and direct procurement in the sample excluding the leavers, hardware shops, and miscellaneous service providers in a metalwork cluster in Kenya (Tobit regression)	115
5.10	Panel fixed-effects estimates of the effect of moving to the formal sector on employment size, 1998, 2000, 2002, 2005, and 2006 in the sample excluding the leavers in a metalwork cluster in Kenya	116
6.1	The number of new entrants by enterprise type in an electric fitting cluster in Pakistan	127
6.2	Characteristics of companies and entrepreneurs in an electric fitting cluster in Pakistan, 2009	134
6.3	Number of workers, production of differentiated designs, use of imported powder, direct procurement of metal parts, and direct sales by entrepreneur's years of schooling in an electric fitting cluster in Pakistan, 2009	135
6.4	Number of workers, production of differentiated designs, use of imported powder, procurement of metal parts, and direct sales by entrepreneur's prior experience in marketing in an electric fitting cluster in Pakistan, 2009	136
6.5	Determinants of the production of differentiated designs by companies in an electric fitting cluster in Pakistan (Probit model)	140
6.6	Determinants of the use of imported Bakelite powder by companies in an electric fitting cluster in Pakistan (Tobit model)	141

6.7	Determinants of the procurement of metal parts directly from producers in an electric fitting cluster in Pakistan (Tobit model)	142
6.8	Determinants of the direct sales of finished products with outside traders in an electric fitting cluster in Pakistan (Tobit model)	144
6.9	Determinants of enterprise size and growth in an electric fitting cluster in Pakistan (OLS estimation)	145
7.1	Number of sample enterprises, their average sizes, and owners' observable human capital in 2004 by owner type in a leather shoe cluster in Ethiopia	154
7.2	Comparison of nominal annual wage earnings in the urban leather industry in China and in the leather shoe industry in Ethiopia	155
7.3	Price of men's shoes and marketing channels of products and materials in 2004 by owner type in a leather shoe cluster in Ethiopia	159
7.4	Determinants of product pricing, marketing, and input procurement in a leather shoe cluster in Ethiopia	164
7.5	Determinants of enterprise size and growth in a leather shoe cluster in Ethiopia	166
8.1	Growth of the garment industry in Bangladesh	175
8.2	Number of enterprises and export value by sector in Bangladesh, 1995–2005	176
8.3	Number of employees per enterprise by sector in selected years in a garment cluster in Bangladesh	180
8.4	Education and work experiences of entrepreneurs by sector in a garment cluster in Bangladesh	181
8.5	Number of entrepreneurs trained abroad and their operation sizes in 2005 in a garment cluster in Bangladesh	182
8.6	Percentage of traders providing extra services and percentage of value of export through traders in selected years in a garment cluster in Bangladesh	183
8.7	New strategies of traders and knitwear producers and the size of their operation in a garment cluster in Bangladesh	184
8.8	Determinants of the operation sizes of traders and knitwear producers in a garment cluster in Bangladesh	187
8.9	Determinants of sample-making and design re-engineering by traders and the dependence of knitwear producers on intermediation in a garment cluster in Bangladesh	189

8.10	Determinants of own production and export by traders in a garment cluster in Bangladesh	191
8.11	Determinants of the employment of foreign experts by knitwear producers and the value added function in a garment cluster in Bangladesh	192
9.1	Sample size by enterprise type in the garment industry in Ethiopia	202
9.2	Source of initial investment finance and investments by diaspora in the garment industry in Ethiopia	203
9.3	Background attributes of general managers by enterprise type in the garment industry in Ethiopia	204
9.4	Size and labor productivity by enterprise type in the garment industry in Ethiopia, 2004–7	205
9.5	Performance of export-oriented enterprises in the garment industry in Ethiopia, 2007	207
9.6	Upgrading of enterprise capacity in the garment industry in Ethiopia	208
9.7	Composition of operating expenses and supply sources of fabric in the garment industry in Ethiopia, 2004–07	209
9.8	Determinants of employment size, labor productivity, and rent payment of the tailors in the garment industry in Ethiopia	212
9.9	Determinants of employment size and labor productivity of the RTW enterprises in the garment industry in Ethiopia	213
10.1	Major characteristics of industrial clusters in Northeast Asia	223
10.2	Major characteristics of industrial clusters in Southeast and South Asia, and sub-Saharan Africa	225
10.3	A summary of the major determinants of multifaceted innovations and enterprise performance	228

Figures

1.1	An illustration of development patterns of industrial clusters in terms of changing profitability and the number of firms	6
2.1	Production relationship among enterprises in a garment cluster in Vietnam	19
3.1	Location of the study sites in Nairobi	41

3.2	An illustration of the operation and performance of garment enterprise in Nairobi	50
4.1	Marketing channels and production organization in a steel bar cluster in Vietnam	69
6.1	Location of the study site in Pakistan (the diagram on the left is the map of Pakistan and the diagram on the right shows the northern part of Punjab province)	124
6.2	Subcontracting and marketing relationships among firms in an electric fitting cluster in Pakistan	126
6.3	Imports of electrical fittings and related items (in 1,000 US\$) from China, 1999/8 to 2008/9, and price ratio of Pakistani products to their Chinese counterparts	129
7.1	Number of pairs of imported and exported leather shoes and their average prices in Ethiopia, 1997–2006	155
9.1	An illustration of bifurcated industrial development paths	218

Preface

We began our inquiry into the process of cluster-based industrial development in Japan, Taiwan, and China in December 1998, in order to explore why so many clusters in the region have managed to grow successfully. We clearly recognized that a proper understanding of the process by which industrial clusters develop would provide a clue towards designing appropriate policies to facilitate industrialization in developing countries. After completing the eight case studies of successful cluster development in the three East Asian countries, we published our previous book, entitled *Cluster-Based Industrial Development: An East Asia Model* (2006), pointing to the striking similarities in the patterns of industrial development across the eight cases in East Asia. In the preface, we stated: “We are not sure if we have really formulated the East Asian model, because our research on industrial development in other regions is far from adequate..... It is our ultimate aim to establish empirical regularity on cluster-based industrial development through careful case studies across a variety of settings.”

Subsequently, we have conducted additional case studies in the garment and rolled steel products industries near Hanoi, Vietnam; the garment industry in Dhaka, Bangladesh; the electrical fittings industry in Sargodha, Pakistan; the garment and metalworking industries in Nairobi, Kenya; the garment, leather shoe, and metalworking industries in Addis Ababa, Ethiopia; the metalworking industry in Kumasi, Ghana; and the garment industry in Dar Es Salaam, Tanzania. We also attempted to conduct case studies of the garment cluster in Delhi, the metalworking cluster in Colombo, and a few other clusters in Asia, even though we failed to collect useful data. One major aim was to identify the similarities and dissimilarities in the patterns of development among the East Asian, other Asian, and African cases. In particular, we were curious to ascertain why some industrial clusters grow fast while others do not.

We find that, while the process of the formation of industrial clusters is surprisingly similar across all the cases we have studied thus far, the difference in the industry's fate lies in the success or failure of introducing innovations following the formation of an industrial cluster consisting of a large number of enterprises producing low-quality products. We also find that managerial human capital, as well as gaining

technological and managerial knowledge from advanced countries, is the key to success in innovations.

The purpose of this book is to present a “progress report” of our research on cluster-based industrial development based on our eight case studies in Asia and Africa. We would like to emphasize that there are more similarities than dissimilarities in the development pattern between the Asian and African cases. It is particularly encouraging to find that the leather shoe industry in Ethiopia has not only grown spectacularly fast, like many of the clustered industries in East Asia, but also follows what we call the “East Asian Model of Industrial Development,” in which competent entrepreneurs achieve innovations based on technological and managerial knowledge transferred from abroad. The implication is that if we provide appropriate knowledge to potential entrepreneurs in industrial clusters, including those stagnant clusters in sub-Saharan Africa, such industrial clusters are likely to begin growing.

As previously noted, this book still represents a progress report, because, although clear policy implications are derived from our case studies, they have not been rigorously tested. In fact, we have been conducting experiments whereby we provide management training to selected enterprise managers for several weeks in our study sites in Ghana, Kenya, Ethiopia, Tanzania, and Vietnam, in collaboration with the World Bank and Japan International Cooperation Agency. Since the impacts of such training programs cannot be realized immediately, we expect that a few more years will be required to confirm (or disconfirm) the expected impacts.

We are heavily indebted to our former PhD students who have graduated from the National Graduate Institute for Policy Studies (GRIPS). In particular, we would like to express our sincerest gratitude to Vu Hoang Nam, John Akoten, Babur Wasim, and Khondoker Abdul Mottaleb. Two case studies in Vietnam, reported in Chapters 2 and 4, are based on Nam, Sonobe, and Otsuka (2009, 2010); two case studies in Kenya, reported in Chapters 3 and 5, draw on Akoten and Otsuka (2007) and Sonobe, Akoten, and Otsuka (2009), respectively; and a case study discussed in Chapter 7 is based on Sonobe, Akoten, and Otsuka (2010). Furthermore, the PhD dissertations of Khondoker Abdul Mottaleb, entitled “Human Capital and Industrial Development: The Case of the Garment Industry in Bangladesh,” and Babur Wasim, entitled “Cluster-based Industrial Development: The Case of Electrical Fittings Cluster in Sargodha, Pakistan,” provided invaluable input for Chapters 6 and 8, respectively. Obviously this book could not have been completed without the

excellent studies of these former students, and we would like to thank them wholeheartedly.

We are also grateful to our colleagues at the Foundation for Advanced Studies on International Development and GRIPS: Jonna Estudillo, Tatsuo Hatta, Yujiro Hayami, Kei Kajisa, Kaliappa Kalirajan, Yukichi Mano, Tomoya Matsumoto, Yukio Sugano, and Takashi Yamano. In particular, we greatly appreciate the strong encouragement of Prof. Hayami to continue our research on cluster-based industrial development. In addition, we received useful comments from many researchers on various occasions. We would like to thank Olu Ajakaiye, Arne Bigsten, Marcel Fafchamps, Masahisa Fujita, Mulu Gebreeyesus, Koichi Hamada, Alain de Janvry, Khalid Nadvi, John Page, Mark Rosenzweig, Scott Rozelle, Betty Sadoulet, Hubert Schmitz, T. Paul Schultz, Wans Söderbom, John Strauss, Francis Teal, Chris Udry, Yutaka Yoshino, Marilou Uy, Eiji Yamamura, and Xiaobo Zhang; Paul Kandasamy, who carefully edited the manuscript; Mayuko Tanaka, who provided excellent editorial support; and Kengo Igei, who prepared the combined references. We would like to express our deepest appreciation.

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