

Innovation from Emerging Markets

In recent years, emerging markets have come to represent the largest share of global GDP and have made gains in economic development and political influence. In turn, emerging-market companies have taken on a new level of importance in driving innovation, local development, and global competition. Advancing an integrative view that captures the diversity of innovation among companies in emerging markets, this book highlights the rapid evolution of emerging markets from imitators to innovation leaders. Building upon research conducted by the Emerging Multinational Research Network (EMRN) in collaboration with several universities in North and South America, Europe, and China, this rich and expansive collection includes studies of innovation in regions yet to receive focused analysis in the field. The authors also re-examine dominant theories of innovation and capability creation based on a broad range of case studies and research insights. Offering a taxonomy of emerging-market innovations, this collection reveals the unique drivers, types, and outcomes of innovation in emerging markets.

FERNANDA CAHEN is Assistant Professor of Management at FEI University Center, Brazil, and Visiting Researcher at the University of Southern California – Marshall School of Business. She is a member of the Emerging Multinationals Research Network (EMRN) under the Emerging Markets Institute at the S. C. Johnson School of Management, Cornell University. She coedited the book *Startups and Innovation Ecosystems in Emerging Markets: A Brazilian Perspective* (2019).

LOURDES CASANOVA is Senior Lecturer and Gail and Roberto Cañizares Director of the Emerging Markets Institute, Cornell University. She is the coauthor of *The Era of Chinese Multinationals: Competing for Global Dominance* (with Anne Miroux, 2020), *Entrepreneurship and the Finance of Innovation in*

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Emerging Markets (2017), and *The Political Economy of an Emerging Global Power* (2014) and also the coauthor of the EMI reports (<https://ecommons.cornell.edu/handle/1813/66953>).

ANNE MIROUX is Faculty Fellow at the Emerging Markets Institute, Cornell University, and former Director of the Technology Division in the United Nations Conference on Trade and Development (UNCTAD). She is the coauthor of *The Era of Chinese Multinationals: Competing for Global Dominance* (with Lourdes Casanova, 2020) and also the coauthor of the EMI reports (<https://ecommons.cornell.edu/handle/1813/66953>).

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FERNANDA CAHEN

FEI University Center

LOURDES CASANOVA

Cornell University

ANNE MIROUX

Cornell University



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Contributors

Editors and Authors – Emerging Multinationals Research Network (EMRN):

Veneta Andonova – Dean and Associate Professor of Business Strategy, School of Management, University of Los Andes, Colombia. Previously Associate Professor at the American University in Bulgaria. EMRN member.

Fernanda Cahen – Assistant Professor of Management at FEI University Center and Visiting Researcher at the University of Southern California. EMRN member.

Lourdes Casanova – Senior Lecturer and Gail and Roberto Cañizares Director, Emerging Markets Institute, Cornell S. C. Johnson College of Business, Cornell University. EMRN leader.

Anabella Davila – Professor of Strategic Human Resource Management and Strategy and Management in Latin America at the EGADE Business School, Monterrey Institute of Technology, Mexico. EMRN member.

Diego Finchelstein – Assistant Professor at the University of San Andrés (Argentina) and a researcher at the National Scientific and Technical Research Council (CONICET), Argentina. EMRN member.

Juana García Duque – Assistant Professor at the University of Los Andes, Colombia. Visiting Scholar, Harvard University. EMRN member.

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xvi LIST OF CONTRIBUTORS

Moacir de Miranda Oliveira Jr. – Full Professor and Head of the Business Administration Department at the University of São Paulo, Brazil. EMRN member.

Anne Miroux – Faculty Fellow at the Emerging Markets Institute at Cornell University and former Director of the Technology Division in the United Nations Conference on Trade and Development (UNCTAD), United States and Switzerland. EMRN member.

Invited authors:

Felipe Borini – Associate Professor at the Business Department, the University of São Paulo – (FEA-USP), Brazil.

Kristin Brandl – Assistant Professor at the University of Victoria, Peter B. Gustavson School of Business, Canada.

Yu Chen – Associate Professor at the Chinese Academy of Science and Technology for Development (CASTED), the Institute of Science and Technology Statistics and Analysis, China.

María Emilia Correa – 2019 Fellow in the Advanced Leadership Initiative at Harvard University. Board member of the for-profit companies Colbún, Córpora, and Explora in Chile and for the not-for-profit Fundación Bancolombia and Fundación Gaia in Colombia.

Peter Gammeltoft – Professor of International Business at the Department of International Economics, Government and Business, Copenhagen Business School, Denmark.

Victor Ragazzi Isaac – Professor at the Centro Universitário Senac – Campos do Jordão. PhD in International Business from the Superior School of Advertising and Marketing (ESPM), Brazil.

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Itiel Moraes – Assistant Professor at the Federal University of Western Bahia, Brazil, and member of the GLORAD Center for Global R&D and Innovation, Brazil.

Ram Mudambi – Frank M. Speakman Professor of Strategy at the Fox School of Business, Temple University, and the Executive Director of the Temple CIBER, United States.

Ravi Ramamurti – University Distinguished Professor of International Business and Director, Center for Emerging Markets, Northeastern University, Boston.

Max von Zedtwitz – Professor of International Business and Innovation at CBS Copenhagen Business School, Southern Denmark University, and Kaunas University of Technology; Director of GLORAD Center for Global R&D and Innovation, Lithuania and Denmark.

Zhaohui Xuan – Professor at the Chinese Academy of Science and Technology for Development (CASTED), Director of the Institute of Science and Technology Statistics and Analysis, China.

Unless otherwise noted, the names of the editors and authors are listed by alphabetical order

Foreword

Ravi Ramamurti

For the two centuries since the Industrial Revolution, technological and other breakthrough innovations have occurred in industrialized Europe and North America and then diffused to other parts of the world. After World War II, a few other countries, such as Japan and South Korea, joined the exclusive club of cutting-edge innovators. But since 2000, a number of emerging economies have started to produce innovations of their own. In our work on reverse innovation, Vijay Govindarajan and I argued that we may be at the cusp of a new era in which important innovations could emanate from emerging economies and then diffuse to the rest of the world, including, sometimes, to industrialized countries.

The initial wave of innovations from emerging economies, such as China and India, was largely based on process innovations, particularly to make products much more affordable, often at costs that were 80–90 percent lower than in the industrialized countries. Other innovations attempted to make products simpler to use and easier to maintain in the harsh and underdeveloped conditions found in most low-income countries. While accomplishing these results did not usually require technological breakthroughs, it was based on a lot more than the cheap labor in emerging economies. For instance, it also involved new processes and business models that were asset-light and leveraged alliances among multiple partners. Local companies often took the lead in pursuing affordability innovation because they understood the needs of emerging-market customers better than foreign multinational corporations (MNCs), they had a low-cost mindset, and they had no legacy of high-margin products to defend. Foreign multinationals reluctantly joined this kind of innovation to defend their position in rapidly growing emerging economies and to

guard against future challenges by emerging-market firms in the MNCs' own backyards (i.e., developed-country markets).

A decade ago, the full scope of innovation in emerging markets was still unclear. Would these countries ever go beyond affordability innovation to actually developing products and technologies that were new-to-the-world? Could they muster the talent, capital, and ecosystems necessary for such innovation? And so on. The essays in this volume suggest that the answer to these questions is yes. As Casanova, Miroux, and Cahen point out, innovation in emerging markets has expanded in scope, going beyond process and cost innovations to more fundamental technological innovations, based on R&D spending, patenting, and the like. They draw attention to the fact that emerging-market firms are turning from copycats to leaders. This is a very important trend and deserves the attention of management scholars and business leaders everywhere. China, in particular, is taking very seriously the goal of catching up with the West on technology and scientific research. The "Made in China 2025" program, which has generated much controversy in the United States, reflects the scale of China's ambition and strategic intent. China is investing heavily in educational and research institutions and in the R&D programs of Chinese firms, including state-owned enterprises. It has taken several measures to build top talent in key fields, including attracting returnees with deep technical know-how back to China. Its companies are now filing more patent applications than US companies, although the quality of these patents is in dispute. China is producing nearly half as many unicorns – startups with a market valuation of \$1 billion or more – as the United States, and the venture industry is pouring sums comparable to that spent in the United States into Chinese startups. China is also creating ecosystems to support the development and adoption of future technologies, such as autonomous driving or electric vehicles, through imaginative public-private partnerships. Other emerging economies, including Brazil, India, Mexico, and Turkey, are making similar attempts in a more limited and piecemeal fashion, but

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collectively these initiatives could add up to significant challenges to industry leaders in the United States, Europe, and Japan.

Given these trends, this book is timely and comprehensive. It asks all the important questions about innovation in emerging markets and tries to marshal thoughtful answers. It reflects on the past, yet is forward-looking. It includes in-depth studies of key emerging economies, such as Brazil, China, and India, and key industries, such as pharmaceuticals, financial services, and digital businesses. It draws on experts from around the world to grapple with the empirical and analytical issues raised by this new trend. Casanova, Miroux, and Cahen are to be congratulated for assembling an excellent team of scholars and academics to tackle different aspects of this important phenomenon. This volume adds greatly to our understanding of where innovation is heading in emerging markets and how companies and policy makers should respond to these developments. Scholars and practitioners everywhere should give it a careful reading.

Acknowledgments

This book was born out of the discussions in the Emerging Multinational Research Network (EMRN), a group of scholars who started meeting in 2014 under the auspices of the Emerging Markets Institute (EMI) at Cornell S. C. Johnson College of Business, Cornell University, and in collaboration with the University of Los Andes in Colombia; Monterrey Institute of Technology in Mexico; University of São Paulo and FEI University Center in Brazil; and University of San Andrés in Argentina.

The book became global when experts in innovation from the Chinese Academy of Science and Technology for Development (CASTED) in China, Copenhagen Business School in Denmark, Kaunas University of Technology in Lithuania, Temple University in the United States, and the University of Victoria in Canada joined the project in late 2018. The book also benefits from numerous exchanges and enriching discussions among a global team of eighteen scholars from nine different countries who contributed chapters to the book.

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The book also benefited from discussions at Cornell University, especially with Andrew Karolyi, deputy dean of the college, and also members of the advisory council at EMI, especially Rob Cañizares, Henry Renard, and Timothy Heyman, and in particular from the EMI team. Founded in 2010, Cornell University's Emerging Markets Institute at the Cornell S. C. Johnson College of Business provides thought leadership on the role of emerging markets – and emerging-market multinationals – in the global economy.

The Institute brings together preeminent practitioners and academics from around the world to develop the next generation of global business leaders and create the premier research center on the role of emerging markets in the global economy.

And last but not least, the authors are indebted to their families, who have supported us through this busy period. This book is also theirs.