

EIBA | European
International
Business
Academy

Volume **13**
PROGRESS IN INTERNATIONAL
BUSINESS RESEARCH

TRIBUTE VOLUME:
LORRAINE EDEN

International Business in the Information and Digital Age



EDITED BY

Rob van Tulder • Alain Verbeke • Lucia Piscitello

INTERNATIONAL BUSINESS
IN THE INFORMATION AND
DIGITAL AGE

PROGRESS IN INTERNATIONAL BUSINESS RESEARCH

Series Editors: The European International
Business Academy (EIBA)

Recent Volumes:

- Volume 1: Progress in International Business Research – Edited by Gabriel R. G. Benito and Henrich R. Greve
- Volume 2: Foreign Direct Investment, Location and Competitiveness – Edited by John H. Dunning and Philippe Gugler
- Volume 3: New Perspectives in International Business Research – Edited by Maryann P. Feldman and Grazia D. Santangelo
- Volume 4: Research on Knowledge, Innovation and Internationalization – Edited by Jorma Larimo and Tia Vissak
- Volume 5: Reshaping the Boundaries of the Firm in an Era of Global Interdependence – Edited by José Pla-Barber and Joaquín Alegre
- Volume 6: Entrepreneurship in the Global Firm – Edited by Alain Verbeke, Ana Teresa Tavares-Lehmann and Rob van Tulder
- Volume 7: New Policy Challenges for European MNEs – Edited by Rob van Tulder, Alain Verbeke and Liviu Voinea
- Volume 8: International Business and Sustainable Development – Edited by Rob van Tulder, Alain Verbeke and Roger Strange
- Volume 9: Multinational Enterprises, Markets and Institutional Diversity – Edited by Alain Verbeke, Rob van Tulder and Sarianna Lundan
- Volume 10: The Future of Global Organizing – Edited by Rob van Tulder, Alain Verbeke and Rian Drogendijk
- Volume 11: The Challenge of BRIC Multinationals – Edited by Rob van Tulder, Alain Verbeke, Jorge Carneiro and Maria Alejandra Gonzalez-Perez
- Volume 12: Distance in International Business: Concept, Cost and Value – Edited by Alain Verbeke, Jonas Puck and Rob van Tulder

PROGRESS IN INTERNATIONAL BUSINESS RESEARCH
VOLUME 13

INTERNATIONAL BUSINESS IN THE INFORMATION AND DIGITAL AGE

EDITED BY

ROB VAN TULDER

Erasmus University, The Netherlands

ALAIN VERBEKE

*University of Reading, United Kingdom; Vrije Universiteit
Brussel, Belgium; University of Calgary, Canada*

LUCIA PISCITELLO

Politecnico di Milano, Italy



United Kingdom – North America – Japan
India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2019

Copyright © 2019 Emerald Publishing Limited

Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-78756-326-1 (Print)

ISBN: 978-1-78756-325-4 (Online)

ISBN: 978-1-78756-327-8 (Epub)

ISSN: 1745-8862 (Series)



ISOQAR certified
Management System,
awarded to Emerald
for adherence to
Environmental
standard
ISO 14001:2004.

Certificate Number 1985
ISO 14001



INVESTOR IN PEOPLE

CONTENTS

List of Contributors ix

Preface – Lorraine Eden – A Tribute xi

Introduction: International Business in the Information and Digital Age – An Overview of Themes and Challenges
Rob van Tulder, Alain Verbeke and Lucia Piscitello 1

Chapter 1 The Fourth Industrial Revolution: Seven Lessons from the Past
Lorraine Eden 15

PART I IB TRENDS AND THEORY IN THE INFORMATION AGE

Chapter 2 International Production and the Digital Economy
Richard Bolwijn, Bruno Casella and James Zhan 39

Chapter 3 IB and Strategy Research on “New” Information and Communication Technologies: Guidance for Future Research
Christopher Hazlehurst and Keith D. Brouthers 65

Chapter 4 The Changing Face of International Business in the Information Age
Jakob Müllner and Igor Filatotchev 91

Chapter 5 The Effects of Global Connectivity on Knowledge Complexity in the Information Age
John Cantwell and Jessica Salmon 123

**PART II
ENTREPRENEURIAL STRATEGIES IN
THE INFORMATION AGE**

- Chapter 6 Blockchain Ventures and International Business**
Andre Laplume 141
- Chapter 7 Internationalisation through Digitalisation:
The Impact of E-commerce Usage on Internationalisation in
Small- and Medium-sized Firms**
Jonas Eduardsen 159
- Chapter 8 Global Competitors? Mapping the
Internationalization Strategies of Chinese Digital
Platform Firms**
Kai Jia, Martin Kenney and John Zysman 187
- Chapter 9 New Digital Layers of Business
Relationships – Experiences from Business-to-business
Social Media**
Susana Costa e Silva and Maria Elo 217

**PART III
FUNCTIONAL STRATEGIES IN THE
INFORMATION AGE**

- Chapter 10 The Changing Structure of Talent for Innovation:
On Demand Online Marketplaces**
Keren Caspin-Wagner, Silvia Massini and Arie Y. Lewin 245
- Chapter 11 Expanding International Business via Smart
Services: Insights from ‘Hidden Champions’ in the Machine
Tool Industry**
Bart Kamp 273
- Chapter 12 Additive Manufacturing and Global Value Chains:
An Empirical Investigation at the Country Level**
*Filippo Buonafede, Giulia Felice, Fabio Lamperti
and Lucia Piscitello* 295

**PART IV
INDUSTRY 4.0**

Chapter 13 <i>Amazon and Alibaba: Internet Governance, Business Models, and Internationalization Strategies</i> <i>Xinyi Wu and Gary Gereffi</i>	327
Chapter 14 Industry 4.0 Technologies and Internationalization: Insights from Italian Companies <i>Maria Chiarvesio and Rubina Romanello</i>	357
Chapter 15 On the Role of Clusters in Fostering the Industry 4.0 <i>Marta Götz and Barbara Jankowska</i>	379
Chapter 16 Internationalisation of Science Parks: Experiences of Brazilian Innovation Environments <i>Jurema Tomelin, Mohamed Amal, Aurora Caneiro Zen and Pierfrancesco Arrabito</i>	391
<i>Index</i>	409

This page intentionally left blank

LIST OF CONTRIBUTORS

<i>Mohamed Amal</i>	Regional University of Blumenau, Brazil
<i>Pierfrancesco Arrabito</i>	Federal University of Rio Grande do Sul, Brazil
<i>Richard Bolwijn</i>	UNCTAD, Switzerland
<i>Keith D. Brouthers</i>	King's College London, UK
<i>Filippo Buonafede</i>	Politecnico di Milano, Italy
<i>John Cantwell</i>	Rutgers Business School, USA
<i>Bruno Casella</i>	UNCTAD, Switzerland
<i>Keren Caspin-Wagner</i>	Duke University, USA
<i>Maria Chiarvesio</i>	University of Udine, Italy
<i>Lorraine Eden</i>	Texas A&M University, USA
<i>Jonas Eduardsen</i>	Aalborg University, Denmark
<i>Maria Elo</i>	University of Turku, Finland
<i>Giulia Felice</i>	Politecnico di Milano, Italy
<i>Igor Filatotchev</i>	King's College London, UK
<i>Gary Gereffi</i>	Duke University, USA
<i>Marta Götz</i>	Vistula University, Poland
<i>Christopher Hazlehurst</i>	King's College London, UK
<i>Barbara Jankowska</i>	Vistula University, Poland
<i>Kai Jia</i>	University of Electronic Science and Technology of China, China
<i>Bart Kamp</i>	Orkestra-Basque Institute of Competitiveness and Deusto University, Spain

<i>Martin Kenney</i>	University of California, USA
<i>Fabio Lamperti</i>	Politecnico di Milano, Italy
<i>Andre Laplume</i>	Michigan Technological University, USA
<i>Arie Y. Lewin</i>	Duke University, USA
<i>Silvia Massini</i>	The University of Manchester, UK
<i>Jakob Müllner</i>	Vienna University of Economics and Business, Austria
<i>Lucia Piscitello</i>	Politecnico di Milano, Italy
<i>Rubina Romanello</i>	University of Udine, Italy
<i>Jessica Salmon</i>	Siena College, USA
<i>Susana Costa e Silva</i>	Universidade Católica Portuguesa, Portugal
<i>Jurema Tomelin</i>	Univille University, Brazil
<i>Rob van Tulder</i>	Rotterdam School of Management, Erasmus University, The Netherlands
<i>Alain Verbeke</i>	University of Reading, UK; Vrije Universiteit Brussel, Belgium; University of Calgary, Canada
<i>Xinyi Wu</i>	Duke University, USA
<i>Aurora Caneiro Zen</i>	Federal University of Rio Grande do Sul, Brazil
<i>James Zhan</i>	UNCTAD, Switzerland
<i>John Zysman</i>	University of California, USA

PREFACE

LORRAINE EDEN – A TRIBUTE

The Progress in International Business Research (PIBR) series is an initiative of the European International Business Academy, in collaboration with Emerald Group Publishing. Since 2014, each volume has been dedicated to an International Business (IB) scholar, who has made important and lasting contributions to the scholarly IB community, both in intellectual and institutional building terms. The first two tribute volumes were dedicated posthumously to pinnacle leaders and beloved figures in the IB field, who had unexpectedly passed away at the height of their influence, namely Daniël van den Bulcke (University of Antwerp, Belgium) and Alan M. Rugman (University of Reading, UK). The subsequent two volumes were dedicated to institution builders who are still very active in the field, namely Louis T. Wells (Harvard University, USA) and Rosalie Tung (Simon Fraser University, Canada). In the latter cases, these scholars were selected because their scholarly oeuvre represented an almost perfect fit with the corresponding research volume's theme, respectively advances in IB research on emerging markets (with a focus on the 'BRIC (Brazil, Russia, India and China)' countries) and distance (with a focus on its cultural and institutional dimensions). The PIBR series aims to publish collections of papers on subject matter that is not necessarily considered 'mainstream' at the time of research, or that requires novel ways of approaching it. The selection of tribute volume awardees also signals the Editors' appreciation for innovative, out-of-the-box thinkers in the IB research area.

Following this tradition, the present volume in the PIBR series also covers a relatively new area of research, namely the interaction between multinational enterprises (MNEs) and the digital and information age. This includes, on the one hand, an account of the role that MNEs can have in shaping the new age. On the other hand, the 'maturing' of the Internet creates challenges as well as opportunities for established, emerging and new MNEs, often independently of company size or home country. This volume brings together creative contributions from mainstream IB scholars, and includes work from scholars in adjacent disciplines, such as economic geography, international relations and political science, strategic management and technology studies. IB as a scholarly discipline always faces a challenge when addressing major societal and technological developments; in particular, those that involve multilevel and multimethod research, and placed at the interface between company strategies and government regulation. Studying the 'fourth industrial revolution' is a prime example of such a challenge.

IB studies that cover the interface between technology, regulatory regimes and business strategy in a rigorous fashion, demand that scholars combine qualitative and quantitative insights in a robust manner.

This is where the life-long contributions of Lorraine Eden deserve particular praise. She has contributed immensely to scholarly inquiry into novel and intellectually challenging IB phenomena, and this is the first reason for this tribute. Lorraine Eden is presently a Professor of Management and holds the Gina and Anthony Bahr Professor in Business at Texas A&M University (USA). She is also associated as a Faculty Member with the Bush School of Government and Public Service at the same institution. Her research interests lie, in her own words: ‘at the intersection of economics, international business and public policy’. Her current and past research interests have focused primarily on two areas: Transfer pricing (the pricing of transactions among related parties) and strategies of MNEs to cope with institutional distance, liability of foreignness and the challenges of ‘hot spots’ (e.g., conflict zones, corrupt economies, tax havens). Her books include *Taxing Multinationals* (1998), *Multinationals in North America* (1994), *Retrospectives on Public Finance* (1991), *Multinationals and Transfer Pricing* (1985, 2017) and *The Economics of Transfer Pricing* (2018). Lorraine Eden’s 170+ scholarly publications have earned more than 11,000 citations on Google Scholar. In the period 2005–2015, she ranked fourth as most productive scholar among Management faculty and the 13th most productive scholar among Business School faculty in terms of articles published in 24 ‘journals of distinction’. Her most influential publications (in terms of citations) cover four very different areas of research. These papers signal her broad scholarly interests and willingness to collaborate with other researchers: more than 3,500 citations for an *AMJ* paper on emerging economies (Hoskisson, Eden, Lau, & Wright, 2000), 1,400 citations for a *JIBS* paper on IB methods (Chang, Van Witteloostuijn, & Eden, 2010), and more than 500 citations for both a book chapter (Elsevier) contributing to the literature on distance and liability of foreignness (Eden & Miller, 2004), and for an *AMR* article on government corruption and MNE strategies (Rodriguez, Uhlenbruck, & Eden).

The second reason to pay tribute to Lorraine Eden is her life-long engagement in support of creating a vibrant, global disciplinary community of IB researchers. She has done this in many capacities. First, as an active participant in the annual meetings organised by the Academy of International Business (AIB), over a period spanning decades. She was elected as the AIB fellow as early as 2004, in part because of her lead role in stimulating female participation in the IB research community, for instance, by founding the Women in the Academy of International Business network. Second, as the editor-in-chief of *JIBS*, the top-ranked journal in the field of international business, whereby she consolidated

the status of *JIBS* as a recognised ‘A’ level outlet in the broader management sciences. Third, as the 2017–2018 president of the AIB, a scholarly association in which she also held a Vice President position during the period 2000–2002. As the AIB President elect, she was instrumental in developing Codes of Ethics for the AIB Membership, the AIB Leadership and the AIB journals. These codes outline standards of professional and ethical conduct and procedures for handling violations thereof. In an increasingly complex and volatile world, IB scholars must abide by the most stringent possible norms of professional conduct and ethical behaviour, whereby criteria of scientific integrity are paramount. Lorraine Eden is owed a depth of gratitude for her trailblazing role in this discourse.

The third reason to pay tribute to Lorraine Eden is her unrelenting focus on the societal responsibilities of the IB teacher and scholar, whereby she has never shied away from addressing controversial areas of MNE involvement. At Texas A&M, she teaches courses on transfer pricing and MNEs. Her Transfer Pricing Aggies programme has trained more than 300 masters- and PhD-level students. Over 100 graduates have used this training as a platform to pursue transfer-pricing careers. More generally, she has been actively involved in establishing linkages between academia and society, by participating in a large number of high-level advisory committees and networks. As one example, in 2015, she acted as a member of the E15 Task Force on Trade and Investment, an expert task force within the E15 Initiative on Strengthening the Global Trade and Investment System for Sustainable Development. Particularly relevant for the topic of the present PIBR volume has been her recent (2014–2016) membership of the Research Advisory Network to the Global Commission on Internet Governance. This is a joint project of The Centre for International Governance Innovation and Chatham House (the Royal Institute of International Affairs), on the future of multistakeholder Internet governance. Her technical paper for the Task force (Eden, 2016) established clear linkages among digitisation, foreign direct investment and sustainable development. Lorraine Eden’s oeuvre of policy-oriented papers, written during the past 35 years, provides a wealth of genuine insight on the complexity of policy processes and the impact of public policy, and much of this insight remains as relevant today as when these pieces were first composed.

Lorraine Eden’s paper prepared for this volume (Chapter 1) shows in a very personal manner how her scholarship developed over the years and how she managed to relate her research to relevant societal themes and to her service to the wider IB community. We hope that Lorraine Eden’s account of her personal journey, which truly reflects the philosophy of ‘service above self’, may inspire the coming generation of IB scholars to follow in her footsteps.

The Editors,
Rob van Tulder, Alain Verbeke and Lucia Piscitello

REFERENCES

- Chang, J., Van Witteloostuijn, A., & Eden, L. (2010). Common method variance in international business research. *Journal of International Business Studies*, *41*(2), 178–184.
- Eden, L., & Miller, S. (2004). Distance matters: Liability of foreignness, institutional distance and ownership strategy. In M. Hitt, & J. Cheng (Eds.), *The evolving theory of the multinational firm*. Advances in International Management (Vol. 16). Amsterdam, The Netherlands: Elsevier.
- Eden, L. (2016). Multinationals and foreign investment policies in a digital world. In E15Initiative, International Centre for Trade and Sustainable Development and World Economic Forum, Geneva. www.e15initiative.org.
- Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal*, *43*(3), 249–267.
- Rodriguez, P., Uhlenbruck, K., & Eden, L. (2005). Government corruption and the entry strategies of multinationals. *Academy of management review*, *30*(2), 383–396.