

Sources of Industrial Leadership

Studies of Seven Industries

Edited by

DAVID C. MOWERY

University of California, Berkeley

RICHARD R. NELSON

Columbia University

CAMBRIDGE
UNIVERSITY PRESS

Contents

Acknowledgments	<i>page vii</i>
List of Contributors	<i>viii</i>
1 Introduction	1
DAVID C. MOWERY and RICHARD R. NELSON	
2 The Evolution of Competitive Advantage in the Worldwide Semiconductor Industry, 1947-1996	19
RICHARD N. LANGLOIS and W. EDWARD STEINMUELLER	
3 Industrial Dynamics and the Evolution of Firms' and Nations' Competitive Capabilities in the World Computer Industry	79
TIMOTHY F. BRESNAHAN and FRANCO MALERBA	
4 The Computer Software Industry	133
DAVID C. MOWERY	
5 Innovation in the Machine Tool Industry: A Historical Perspective on the Dynamics of Comparative Advantage	169
ROBERTO MAZZOLENI	
6 Dynamics of Comparative Advantage in the Chemical Industry	217
ASHISH ARORA, RALPH LANDAU, and NATHAN ROSENBERG	
7 The Pharmaceutical Industry and the Revolution in Molecular Biology: Interactions Among Scientific, Institutional, and Organizational Change	267
REBECCA HENDERSON, LUIGI ORSENIGO, and GARY P. PISANO	
8 Diagnostic Devices: An Analysis of Comparative Advantages	312
ANNETINE C. GELIJS and NATHAN ROSENBERG	
9 Explaining Industrial Leadership	359
DAVID C. MOWERY and RICHARD R. NELSON	
Index	383