Index

Titles of publications are in *italics*.

Abetti, P.A. 157
Abramovsky, L. 329
absorptive capacity 322
and new firm growth 153
academic research
  impact of knowledge transfer activities 311–13, 314
  rates of return 321–2
see also university–industry interactions
academic researchers
  incentives for university–industry collaboration 286–7, 306–8
  and knowledge transfer activities 300–309
Acs, Z.J. 165
active users 6, 213–15
Adner, R. 189, 191, 193, 194, 196
adopter characteristics 231
adopter–innovation compatibility 232
adopter typologies 229
adoption of world class manufacturing (WCM) 227–46
advergaming 213
adversity, entrepreneurial response to 160–62
agent-assist mechanisms to promote adoption 238
Agrawal, A. 282, 300, 301, 312, 329
Ahuja, G. 71, 72, 188
AIM (Alternative Investment Market) 130
Albu, M.A. 258
Allen, R.C. 66
Allen, T.J. 67, 386
Alternative Investment Market (AIM) 130
Amabile, T.M. 259
ambitious entrepreneurship 146
AMIRA International 111–15, 118–19
Anderson, N.R. 260
Anderson, P. 204, 388
Apax 81
application-domain-driven selection 193–4, 195–6
appropriability and openness 68–70
ARC (Australian Research Council)
  Linkage schemes 108
Armington, C. 165
Arundel, A. 328
Arup 222
Arvato 211, 217, 222
Audretsch, D.B. 152, 327
Australia
  AMIRA International 111–15
  innovation 106–21
  InnovationXchange Network (IXC) 115–18, 119
Australian Research Council (ARC)
  Linkage schemes 108
Autoio, E. 165
Balconi, M. 300, 315
Bang & Olufsen 217, 218
Baron, J.N. 163
barriers to innovation 179–86, 254–6
countering 186–94
established firms 179–86
Bartlett, F.C. 252–3
BASF, future modelling 212
Baumol, W. 1
Bayh–Dole Act, effects on academic research 321
BBC, user involvement in development 214–15
Becher, T. 305
Beise, M. 321
Bell Labs and semiconductor development 150–51
benchmarking clubs 245
Bercovitz, J. 305, 307, 322, 330
BERD (business expenditure on R&D) 20
Australia 107
international comparisons 24–7
internationalization, UK 27, 30–32
by sector, UK 24–7
Bessant, J. 223
Biglaiser, G. 342
Blainey, G. 106
Blair government, support for innovation 130–34
BMW 213, 221
Bond, E.U. 255
boundary-spanning 67, 307
Bower, J.L. 185–6, 190
breakthrough innovation 388
in established firms 177–98
see also discontinuous innovation
Breschi, S. 285, 312, 326
bridges for external inventors 221–2
British Broadcasting Corporation 214–15
British Technology Group (BTG) 129
broadcast mechanisms to promote adoption 235–7
Bruce, R.A. 260
Brusoni, S. 258
BT, scouting unit 210–11
BTG (British Technology Group) 129
Burt, R. 205
Business and Organizational Climate Index (BOCI) 261
Business Expansion Scheme 129
business growth 153–63
Business Link Grants and Support Directory 137
business models and commercializing research 349
Business Start-up Scheme 129
Calderini, M. 312
Cameron, K.S. 256
Canon 183
cargo cults 80
Carnegie Mellon Survey 323
Cattani, G. 194
Chandler, A.D. 65
Chandler, G.N. 157
Chandy, R. 178, 192
Chesbrough, H. 62–3, 64, 65, 68, 69, 70, 71, 72–3, 110, 121, 205–6, 275, 331, 339–40, 348, 349, 360
Christensen, C.M. 185–6, 190, 192, 204, 216
Clark, K. 204
cognitive insight 253
cognitive psychology 252–3
Cohen, M. 203
Cohen, S.I. 67
Cohen, W.M. 182, 276, 279, 285, 310, 323
collaborative Internet technologies (Web 2.0) 370–78
collaborative partnerships, academic researchers 301–4
Coloplast 222, 215
commercialization, impact on research 312
communications technologies and knowledge communities 364–78
communities of practice 365–70
benefits 368–9
evolution of 367–8
performance characteristics 369–70
Community Innovation Surveys (CIS), indicators 257
complexity and innovation adoption 232–3
concept models 211
Concorde project 128–9
Connect and Develop model, Proctor and Gamble 110
Conservative government, innovation support 129–30
contracting, university–industry relations 277
cooperative research centres (CRCs) 108–9
CoPs, see communities of practice 365–70
Corning 194
corporate blogging 372
corporate entrepreneuring 220–21
corporate venturing units 190–91, 219–20
Cosh, A. 110
Council of Industrial Design 127
CRCs (cooperative research centres) programmes 108–9
Creative Climate Questionnaire (CCQ) 260
creativity, encouraging 186–8, 223; see also search strategies
CSIRO 112
cultural norms, effect on researchers 305–6
cultural resistance to innovation 183–4
cumulative learning model 289
customer commitment as barrier to innovation 185–6

D’Este, P. 301, 306
Dahlbom, B. 364
Darwin, H. 151
Dasgupta, P. 311, 338
David, P.A. 311, 338
Day, G. 204
deep diving 215–16
deliberate diversity and discontinuous innovation 222
Democratizing Innovation 67
Department of Trade and Industry (DTI)
innovation support strategy 134, 135–6
knowledge transfer policies 298–9
desktop search 371
development activities, sourcing knowledge for 285–8
Diabetes 2020 process, Novo Nordisk 212
diffusion 335
policy interventions 235–46
WCM techniques 228–35
diffusion curves 228–9
diffusion theory 229–31
discontinuous innovation challenges 204–6
search strategies 206–23
see also breakthrough innovation
Discontinuous Innovation Laboratory 209
Disney, R. 86
Dodgson, M. 73, 364, 384
Dominiquini, J. 255
Dosi, G. 325
Dougherty, D. 183
Douthwaite, B. 234
drop-out firms, effect on productivity 86
DTI, see Department of Trade and Industry
DuPont and open innovation 65
e-science 361–3
ECF (Enterprise Capital Funds) 130
economic performance, US 82–4
Edison laboratory and open innovation 65
Einarsen, S. 259
EIRMA report on collaborative research 346
emerging economies
patent activities 41
scientific publications 32–3, 36–8
employment growth in new firms 154–8
Empson, T. 157
endogenous entrepreneurship 150
Engineering and Physical Sciences Research Council (EPSRC) 301–3
Enterprise Capital Funds (ECFs) 130
enterprise hubs 138
Enterprise Investment Scheme 129
entrepreneurial ambition 146
entrepreneurial economy 145–6
entrepreneurial management 158–63
entrepreneurship indicators 146
international comparisons 146–8
in the knowledge economy 145–64
and young firm growth 146
environmental context and innovation adoption 234–5
EPSRC (Engineering and Physical Sciences Research Council) 301–3
Erez, M. 256
established firms
and breakthrough innovation 177–98
innovation barriers 179–86
Etzkowitz, H. 338, 339
European Union
Lisbon Strategy 81
R&D support 2
Eveland, J.D. 228
expenditure on R&D, UK 19–20, 22–7
experimentation and creativity 188
explicit knowledge 366
exploitation alliances 286
exploitation as innovation strategy 206
exploration 207
exploring multiple futures 211
external knowledge sourcing 276–8
external knowledge and open innovation 71–2, 348–9

Fabrizio, K. 328–9
Fagerberg, J. 251
Farr, J.L. 228
FCI (Finance Corporation for Industry) 127
Feldman, M. 305, 307, 322, 325, 326, 327, 330
fifth-generation model of innovation 7–8, 66, 339
Finance Corporation for Industry (FCI) 127
Finke, A. 252
Finkelstein, S. 184
firm growth 153–63
growth determinants 154–7
process-based model 159–60
firm performance, effect of university–industry interaction 324–5
firm size, and university–industry interaction 324
firm–university interactions, see university–industry interactions
Fleming, L. 188
flexibility, new firms 158–9
Flood, P.C. 254
Florida, R. 315
Fontana, R. 323
foreign affiliates
business R&D 27, 30–32
patent activity 45–7
Foss, N.J. 121
Franzoni, C. 312
Freel, M.S. 258
Freeman, C. 3, 4, 344
Friedman, J. 305

Gamechanger programme, Shell 211
Gann, D. 384
Gardiner, P. 3–4
Garnsey, E. 159, 160, 161, 162, 194
Gartner, ‘Hype Cycle Report’ 370

Garud, R. 195
Gassmann, O. 70
Gavetti, G. 183, 204
genplore model of innovation 252
geographic proximity and university–industry interaction 152, 320–32, 392
George, G. 203, 324
GERD (gross domestic expenditure on R&D) 19–20
international comparison 22–4
by sector 24–7
Geroski, P.A. 85
Gertler, M. 325
Geuna, A. 311, 328
Gibbons, M. 338
globalization, effect on search behaviour 6
Godin, B. 338
Goe, W.R. 305
Gompers, P. 157
Gongla, P. 267
Google 376–8
GOVERD (government expenditure on R&D) 20
UK 24, 27
governance of external knowledge sourcing 277
government role in university technology transfer 339
government support for innovation 125–41
Gregory, R.G. 106
grid computing 361–3
Griffith, R. 21
growth, see firm growth
Grundfos 222

Hall, B.H. 95, 285
Hannan, M.T. 163
Hargadon, A. 204, 205, 386
Harrison, R. 21
Harrison, T.M. 365
Helfat, C.E.C. 68
Henderson, R. 184, 204, 300, 301, 312, 321
Henkel, J. 69
HERD (higher education expenditure on R&D) 20
UK 24, 27
heterogeneity of academics 300–309, 391
Hewett, T.T. 253
high-tech producing sectors and US productivity 84
Hildreth, P.M. 369
Hill, C.W.L. 259
Hinloopen, J. 258
Hollenstein, H. 258
homophilic learning 233
Hoppe, H.C. 342
Horton, A.M. 338
Hounshell, D.A. 65
Houston, M.B. 255
Howells, J. 306, 342
HP, encouraging creativity 188
Hughes, A. 110
Hugo, O. 160, 161
‘Hype Cycle Report’ 370
IBM 184
ICFC (Industrial and Commercial Finance Corporation) 127
ICL 128
ICT and collaboration enablement 360–79
idea generators 223
idea hunters 209–11
incentives
for collaboration, academic researchers 286–7, 306–8
lack of, as barrier to innovation 184–5
incorporation and new firm growth 157
incremental innovations 180
indicators
organizational level of innovation 258
science and technology system 19–22
individual-driven selection 189–91, 195–6
individual-level barriers to innovation 255–6
Industrial and Commercial Finance Corporation (ICFC) 127
Industrial Design, Council of 127
Industrial Reorganisation Corporation (IRC) 128
Industry Forums, UK 239–43, 244
Industry and Trade 66
information and communication technologies 360–79, 392–3
information sources for innovation 89–94
innocentive.com website 384
innovation
Australia 106–21
barriers, see barriers to innovation
changing nature of 137–8
definitions 3–4, 228
diffusion 335
impact of knowledge transfer activities 310–11
measurement 256–9
types 180–81
UK government support 125–41
see also open innovation
Innovation Benchmarking Survey, (CBR/IPC) 87–8
innovation models
fifth-generation 7–8, 66, 339
linear 19
InnovationXchange 115–18, 119
innovativeness indicators 258
institutional influence on technology transfer 304–6, 314
integration skills development 308–9
intellectual property and open innovation 64, 69–70
and university knowledge transfer 350
intermediaries and university knowledge transfer 350–51
internal ventures 189, 190
internationalization of business R&D 27, 30–32
Internet as source for innovation 212–13
interventions to promote innovation adoption 235–46
organizational-level 256
intrapreneurship 220–21
investment in R&D, UK 22–32
Investors in Industry (3i) 129
Inzelt, A. 258
IRC (Industrial Reorganisation Corporation) 128
IXC Australia 115–18, 119
Index

Jaaffe, A. 326
Jansen, E. 157
Jensen, R. 305
Jones, G.R. 259
Jones-Evans, D. 343

Kaemmerer, W.F. 260
Kasper Instruments 183
Katila, R. 71, 72
Katz, J. 327–8
Kenney, M. 305
KEYS instrument 259–60
Kimble, C. 369
Kivimaki, M. 260
Klepper, S. 178
Kline, S.J. 66
knowledge as source of entrepreneurial opportunities 149–53
knowledge economy and entrepreneurship 145–64
knowledge flows and communities of practice 365–70
knowledge production acceleration, impact on search behaviour 6
knowledge-rich regions and entrepreneurial activity 152–4
knowledge sources for innovation 89–94
knowledge spillover theory of entrepreneurship (KSTE) 150
knowledge spillovers 149–50
knowledge transfer 297–315, 335–53 barriers to 343
impact on academic research 311–13, 314, 391–2
impact on innovation 310–11 and innovation models 338–40 models 338
researcher involvement 300–309 UK initiatives 298–9 see also university knowledge transfer offices
knowledge value chain models 338
Kogan, M. 305
KSTE (knowledge spillover theory of entrepreneurship) 150
Kubicek, H. 364

Lach, S. 342
Lampert, C.M. 188
Langlois, R.N. 121
Laursen, K. 69, 71, 72, 258, 323, 330 lead-user-driven selection 192–3, 195–6
Lee, J. 311, 327
LEGO 214, 217
Lehmann, E. 152
Lehtoranta, O. 258
Lemon, M. 256
Lester, R.K. 95
Levin, R.C. 69
Levinthal, D.A. 182–3, 189, 191, 193, 194, 196, 203, 276
Leydesdorff, L. 339
licensing university–industry collaboration 279, 281–4, 288
US universities 97
linear model of innovation 19
Link, A.N. 305, 324
Lisbon strategy 2, 81
Lissoni, F. 285
Lizzeri, A. 342
Loewe, P. 255
Lundquist, G. 345
Lundvall, B. 325
mainstream resources, mobilizing 217–18
Malmberg, A. 325
Mansfield, E. 289, 310, 311, 321, 327
market developments, impact on search behaviour 6
Markides, C. 85, 205
Marshall, A. 66
Martin, B. 322
Maskell, P. 325
MasterClass programmes 239–43, 245
Mathisen, G.E. 259
McLaughlin, P. 256
measurement of innovation 256–9 of organizational climate 259–61 of organizational culture 261 of knowledge transfer 351
Menlo Park and open innovation 65
Menon, T. 72
Metcalf, B. 215
Metcalfe, S. 66
Methe, D.T. 178
Meyer-Krahmer, F. 280, 306, 322
Microsoft and US productivity 84
Ministry of Technology, UK 128
mobilizing mainstream resources 217–18
Moore, G.A. 229
motivations for collaboration, academic researchers 286–7, 306–8
Motohashi, K. 325
Mowery, D. 321
Musser, J. 373

National Enterprise Board (NEB) 128
National Research Development Corporation (NRDC) 127
Naveh, E. 256
Nayyar, P. 195
NEB (National Enterprise Board) 128
Nelson, R. 106, 203, 322, 343
Netscape 376–8
New Labour, support for innovation 130–34
Newell, A. 252
NHS Institute for Innovation and Improvement 217
Nipper, M. 214
Nokia, corporate venturing 219
‘Not Invented Here’ syndrome 348
Novo Nordisk 212, 217, 218
Novozymes 220–21
Noyons, E.C.M. 308
NRDC (National Research Development Corporation) 127

O’Reilly, C.A. 183, 190
O’Reilly, T. 373, 377
O2, trend-scouting 210
observability of an innovation, and adoption 232
open innovation 61–75, 109–11, 339–40, 360
and appropriability 68–70
Australia 110–11
challenges 119–20
and external sources of innovation 71–2
history of 64–8
and intellectual protection 69–70
and relationships 70–71
types 68–72
and university knowledge transfer 347–51
open source software 214
operational routines 203
organizational characteristics and WCM adoption 231
organizational climate 259
measurement 259–61
organizational culture 259
measurement 261
organizational inertia as barrier to innovation 182–3
organizational knowledge, and new firm growth 153–4
organizational learning capacity (OLC) 263
organizational learning and innovation 261–3
organizational-level barriers to innovation 256
Owen, G. 128
Owen-Smith, J. 305
Ozdenoren, E. 342
P&G, web-based use brokering 222
P2P (peer-to-peer) technologies 371
Panagopoulos, A. 284
PARC (Xerox) 151
partnering, university–industry relations 277
patent activity
academic researchers 300
and BERD 44–7
as indicator of technological performance 21–2, 40–47
US universities 85, 97
Payne, R. 261
peer-assist mechanisms to promote adoption 238–9, 245
peer-to-peer technologies (P2P) 371
Penrose, E.T. 148, 150, 160
Perrow, C. 182
Persaud, A. 258
personal knowledge search applications 371
personal-level growth determinants, new firms 154, 157
Pfeffer, J. 72
Pheysey, D. 261
Philips Research, encouraging creativity 188
Pielke, J. 338
pilot-scale testing 216
Piore, M.J. 95
podcasting 371
Polaroid 183
policy implications, UK science and technology performance 50–52
policy initiatives
knowledge transfer, UK 298–9
to promote innovation adoption 235–46
venture capital, US 97–8
Porsche 110
Porter, M. 345
Powell, W.W. 275, 289, 305
Prahalad, C.K. 216
probe and learn prototyping 216–17
process-based model of firm growth 159–60
process characteristics and innovation adoption 233–4
Proctor & Gamble 110, 210, 213
productivity growth, US 82–4
prototyping 216–17
psychological contracts 253–4
psychological models of innovation 252–4
public space function of universities 95
Quinn, R.E. 256
R&D expenditure
Australia 107
and scientific publications 38–40
UK 19–21, 138
R&D intensity 20–21
Radical Innovation Hub, Novozymes 220, 221
Realising Our Potential: A Strategy for Science, Engineering and Technology 130
really simple syndication (RSS) 371
Reckitt Benckiser 218
recombinant innovation 187–8, 205
Rees, J. 324
Regional Venture Capital Funds (RVCFs) 130
regions
knowledge-rich 152–4
and innovation support, UK 138
relationships and openness 70–71
relative advantage and innovation adoption 232
research, see academic research
research collaboration 301–4
research partnerships 279, 283–5, 288–9
research services 279–80, 286
researchers, see academic researchers
resistance to innovation 183–4, 251–64
resources sector innovation, Australia 106
Rickards, T. 260–61
risk aversion as barrier to innovation 184–5
Rizzuto, C.R. 367
Roger, A. 338
Rogers, E.M. 229, 232, 233, 335
Romijn, H.A. 258
Rosenberg, N. 66
Rosenbloom, J.L. 165
Rothwell, R. 3–4, 7–8, 66, 338, 339
RSS (really simple syndication) 371
RVCFs (Regional Venture Capital Funds) 130
Sahota, P.S. 256
Salter, A. 69, 71, 72, 258, 322, 323, 330, 334
Sanford, S.H. 184
SAP Inspire 219–20
SBIR (Small Business Innovation Research) programme 97–8
scenario planning 211
Schantz, M. 342
Schartinger, D. 280, 322
schema theory 253
Schilling, M.A. 253
Schmoch, U. 280, 306, 322
Schoemaker, P. 204
Schumpeter, J.A. 177–8, 181, 188, 339
Science Policy Research Unit (SPRU), University of Sussex 257
science and technology, UK 17–52
scientific impact, UK 50
scientific performance, UK 32–40, 50
scientific publications
as indicator of scientific activity 21
Index

international comparison 32–5
and R&D investment 38–40
world growth trends 35–8
Scott, S.G. 260
scouting for innovative ideas 209–11
search behaviour
changing contexts 5–7
and innovative performance 72
search capability development 208–23
search phase, breakthrough innovation 187–9
search routines 203
search strategies 187–9, 206–23
Second Life website 213
sectoral productivity growth, US 83
selection environment 206
selection phase, breakthrough innovation 189–94
self-help mechanisms and innovation adoption 237–8
SFLG (Small Firm Loan Guarantee) 129
Sharkie, R. 254
Sharma, A. 188–9
Shell, ‘Gamechanger’ programme 211
Siegel, D.S. 305, 343
Siegel, R. 157
Siegel, S.M. 260
Siegel Scale of Support for Innovation (SSSI) 260
Silberman, J. 305
Simon, H.A. 72, 252
Simonin, B.L. 263
Simons, K. 178
Situational Outlook Questionnaire (SOQ) 260
skunk works 189–90, 191
Small Business Innovation Research (SBIR) programme 97–8
Small Firm Loan Guarantee (SFLG) 129
Small Firms Merit Awards for Research and Technology (SMART) 129
small, high-tech countries, patent activity 41
SMART (Small Firms Merit Awards for Research and Technology) 129
Smith, K. 257
Smith & Nephew 215–16
social collaboration tools and Web 2.0 370–78
Soete, L. 3
sources of knowledge for innovation 89–94
South Africa, peer-assist modes of intervention 245
SPEC (Stanford Project on Emerging Companies) 163
spin-offs 151, 189, 190
role in productivity 81–2, 84–7
SPRU (Science Policy Research Unit), University of Sussex 257
SSSI (Siegel Scale of Support for Innovation) 260
Stahl, H. 321
stakeholder-oriented UKTOs 344–5
Stam, E. 162
Stanford Project on Emerging Companies (SPEC) 163
start-up capital and new firm growth 157
start-ups
effect on productivity 84–7
international comparisons 146
see also spin-offs
Stephan, P.E. 152, 312
strategic routines 203
Stuart, R.W. 157
Subramanian, A. 258–9
supplier characteristics and innovation adoption 233
survivor contribution to productivity 86–7
Swann, P. 258
tacit knowledge and communities of practice 366–7
Tang, H.K. 258
Team Climate Inventory (TCI) 260
Team Factor Inventory (TFI) 260–61
technological opportunities, accessing 276–8, 281–5
technological performance, UK 40–47, 50
technological speciation 193
Technology, Ministry of, UK 128
technology transfer models 338; see also knowledge transfer
technology transfer offices (TTOs) 336, 392
effect on researchers 305
Teece, D.J. 158
Tellis, G.J. 178, 192
Teo, H.H. 263
Tether, B.S. 257
TFI (Team Factor Inventory) 260–61
Thatcher government, innovation support 129–30
Think, Play, Do 384
3i (Investors in Industry) 129
3M 188, 218
Thursby, J.G. 282
Tornatzky, L.G. 228
transaction costs and open innovation 120–21
trialability and innovation adoption 232
Tripsas, M. 183, 204
Trott, P. 338
Tübke, A. 157
Tushman, M.L. 183, 190, 204, 388
U-boat projects, BMW 221
UKTOs, see university knowledge transfer offices
Unilever
corporate venturing 219
deep diving 215
United Kingdom
firms sources of knowledge 91–4
government support for innovation 125–41, 239–43, 298–9
investment in R&D 22–32
knowledge transfer policies 298–9
manufacturing firms, contribution to productivity 86–7
science and technology policy 50–52
scientific performance 32–40, 47–50
technological performance 40–50
United States
economic performance 82–4
firms, sources of knowledge 91–4
start-ups 84–7
venture capital 97–8
entrepreneurship 146–8
universities
government support for innovation 134, 135
and the innovation system 87–97, 139
patent activity, US 85, 97
research funding, Australia 107
as source of knowledge 89–94
types of knowledge sourced by industry 274–5, 276–7
university–industry interactions 61, 94–6, 273–90, 390–92
and geographic proximity 152, 320–32, 392
impact on academic research 311–13, 314
impact on innovation 310–11, 324–5, 336
incentives 286–7, 306–8
and innovation policy 81
joint publication 324
modes of collaboration 275, 279–81
modes of governance 277
researcher attitudes to 300–309
support for 335–53
types of knowledge sourced 274–5, 276–7
see also knowledge transfer
university knowledge transfer offices (UKTOs) 336–7, 340–43
and open innovation 347–8
stakeholder-oriented 344–5
use brokers 221–2
user activity and context for search behaviour 6
user-driven innovation 67–8
user-driven selection 192–3, 195–6
USPTO patents 43
Utterback, J.M. 188, 204
Val Looy, B. 312
value chain model, university knowledge transfer 345–6
Vanhaverbeke, W. 188
venture capital, US 97–8
Venture Capital Trusts (VCTs) 130, 134
Virtual Innovation Agency, BMW 213
Von Hippel, E. 67–8, 245
von Zedtwitz, M. 70
Wagner, R.M. 364
Wal-Mart, and US productivity 83–4
WCM (world class manufacturing techniques) adoption 227–46
Web 2.0 technologies 372–8
web-based innovation brokers 221–2
Webasto 222–3
Wendling, L. 218
Wenger, E. 367
West, M.A. 228, 255, 260
Wikis 370–71
Winter, S. 203
within firms effect 86
work experience, effect on new firm growth 157
world class manufacturing techniques (WCM) adoption 227–46
Wright, M. 346
Xerox 151, 181
Xerox Technology Ventures (XTV) 191
Yale Survey 323
Zahra, S.A. 203
Zappan, J.P. 365
Zollo, M. 203
Zucker, L. 152, 324
Zwick, T. 255