The Road to Academic Excellence

The Making of World-Class Research Universities

Philip G. Altbach and Jamil Salmi Editors

B 378454



Contents

Preface		xiii
Acknowledgme	ents	xvii
About the Authors		xix
Abbreviations		xxv
	Introduction Philip G. Altbach and Jamil Salmi	1
	Annex IA Summary of the Methodology of the Three Leading International Rankings References	7 8
Chapter 1	The Past, Present, and Future of the Research University Philip G. Altbach	11
	The 21st-Century Global Context	12
	Historical Background	14
	The "Spirit" of the Research University	15
	The Language of Science and Scholarship	17
	A Special Kind of Professor	18

	Governance and Leadership	20
	Basic versus Applied Research	21
	The California Master Plan for Higher Education	22
	The Present Circumstances of the	
	Research University	24
	Current and Future Challenges	26
	The Future of the Research University	28
	Note	29
	References and Other Sources	29
Chapter 2	Building World-Class Universities in China:	
	Shanghai Jiao Tong University	33
	Qing Hui Wang, Qi Wang, and Nian Cai Liu	
	National Perspectives and History	34
	Overview of SJTU and Its Practices	36
	Strategic Plans and Goals	37
	Governance Structure and Management Reform	42
	Improvement of Faculty Quality	45
	Encouragement of Academic Discipline	
	Development and Research Excellence	48
	Promotion of Internationalization Strategies	52
	Diversification of Financial Resources	56
	Conclusion	57
	Notes	58
	References	59
Chapter 3	The Rise of Research Universities:	
	The Hong Kong University of	
	Science and Technology	63
	Gerard A. Postiglione	
	Key Factors for HKUST	64
	The HKUST Context	69
	Basic Characteristics of HKUST	70
	Students and Academic Staff Members	72
	HKUST's Inauguration and Commencement	74
	Elements of HKUST	78
	Conclusion	90
	Notes	96
	References	98

Chapter 4	A World-Class Research University on the Periphery: The Pohang University of Science and Technology, the Republic of Korea Byung Shik Rhee	101
	The Korean System of Higher Education The Background of Building a	103
	New University	105
	Early Development of POSTECH	107
	Governance and Leadership	109
	Institutional Management	110
	Research and the University-Industry Link Curriculum, Teaching and Learning, and	111
	Student Life	113
	The Academic Profession	115
	Internationalization	116
	Finance	118
	Government Support and Control	119
	Changing Environment and	
	Emerging Challenges	121
	Conclusion	124
	Notes	125
-	References	126
Chapter 5	The National University of Singapore and the University of Malaya: Common Roots and	
	Different Paths	129
	Hena Mukherjee and Poh Kam Wong	
	Postseparation Policy Environment	131
	Language Policy	134
	Financing	136
	Challenges Facing University Management	
	and Administration	138
	Secondary Schooling and Preparedness for	
	Tertiary Education	143
	Undergraduate, Graduate, and	
	International Students	144
	Development of Academic Faculty	149
	Development and Management	
	of Research	153

	Performance Measures and Indicators	
	of Success	156
•	Lessons Learned	161
	References	163
Chapter 6	Toward World-Class Status? The IIT System	
	and IIT Bombay	167
	Narayana Jayaram	
	The IIT System	168
	IIT Bombay: A Case Study	179
	Conclusion: Whither the IIT System?	187
	Notes	191
	References	192
Chapter 7	The Rise, Fall, and Reemergence of the	
	University of Ibadan, Nigeria	195
	Peter Materu, Pai Obanya, and Petra Righetti	
	Influence of Nigeria's Political, Economic, and Social Trends on the Evolution of	
	the University	198
	Attempts at Revitalizing the University	210
	Development of Academic Faculty	217
	Financing	218
	Conclusion	223
	References	226
Chapter 8	Private and Public Pathways to World-Class	
	Research Universities: The Case of Chile	22 9
	Andrés Bernasconi	
	Chile's Political Economy of Higher Education	2 31
	The Paradigm of the Research University	235
	The University of Chile	238
	The Pontifical Catholic University	
	of Chile	245
	Conclusions	252
	Notes	258
	References	259

Chapter 9	The Long Road toward Excellence in Mexico: The Monterrey Institute of Technology Francisco Marmolejo	261
	A Brief Historical and Contextual Analysis of	
	the System	262
	The Foundation and History of ITESM	264
	Differentiation at ITESM between the	
	Flagship Campus and the System	270
	Accreditation at ITESM and Support of	
	Its Research	272
•	Fostering or Hindering the Research Enterprise?	273
	Governance	274
	Finances	276
	Becoming a Research University: Why,	
	Who, and How?	277
	The Academic Model of ITESM:	
	Panacea or Predicament?	283
	ITESM as an Elitist Institution	283
	International Dimensions at ITESM	284
	Conclusion	285
	Annex 9A ITESM: A Brief History	288
	Notes	288
	References	2 90
Chapter 10	Establishing a New Research University:	
	The Higher School of Economics,	
	the Russian Federation	2 93
	Isak Froumin	
	Where Does HSE Stand Today?	294
	Background to the Establishment of a	
	New University	295
	Building New Social Sciences and Economics	296
	HSE Establishment and Its Transformation	
	through Competition	300
	Toward a Research University Model	310
	Happy Ending or New Challenges?	318
	Conclusion	319
	References	319

Chapt	ter 11 The Road to Academic Excellence:	
	Lessons of Experience	323
	Jamil Salmi	
	Testing the Model: Common Themes	32 6
	Paths of Development	333
	Importance of the Tertiary	
	Education Ecosystem	335
	Conclusion	340
	Annex 11A Age of the Top-Ranked	
	Universities (2010 Academic Ranking of	
	World Universities)	343
	Annex 11B Main Characteristics of	
	Each Institution	343
	Annex 11C Key Elements of the	
	Strategic Approach Followed by	
	Each Institution	344
	Annex 11D Main Funding Sources of	5.45
	Each Institution	345
	Notes	346
	References	346
Index		34 9
Figure		
I. l	Characteristics of a World-Class University:	
	Alignment of Key Factors	4
7.1	Enrollments in First Degrees and Postgraduate	23.4
	Degrees at the University of Ibadan, 1948–2009	214
7.2	Number of Collaborations per Region or Agency	216
7.3	Academic Staff at the University of Ibadan	218
7.4	Budget and Total Expenditures for the University	210
7 5	of Ibadan, 2000/09	219
7.5 7.6	Expenditure Patterns over the Past 10 Years	220
7.0	Major Sources of Revenue for the University of	221
7.7	Ibadan, July 2005–June 2006	221
1.1	Major Sources of Income and Required Estimated Budget for University of Ibadan	222
11.1	Understanding How the Ecosystem Influences	~~~
11.1	the Performance of Top Research Universities	336
	and remonitance of Top Research Universities	550