The Challenge of Establishing World-Class Universities

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Tertiary Education Coordinator
Istanbul, 27 May 2011

The search for excellence
my university is…
more world-class than yours
natural lab experiment:  
U. of Malaya vs. NUS

- early 1960s: 2 branches of University of Malaya
- today, stark difference:
  - THES: NUS #34, UoM not in top 200
  - SJTU: NUS 101-151, UoM not in top 500
outline of the presentation

• defining the world-class university
• the path to becoming a world-class university
• lessons of experience

how do you recognize a world-class university?

• everyone wants one
• no one knows what it is
• no one knows how to get one

Philip G. Altbach
defining the WCU

- self-declaration

the Cambridge MBA

WORLD CLASS
A 1-year MBA with international students, faculty and corporate connections. A global perspective on business practice.

What will you bring?

worldclass@jilms.cam.ac.uk
www.jilms.cam.ac.uk
defining the WCU

• self-declaration
• reputation
• rankings
top 50 universities (2010)

ARWU: 2010
- CANADA, 2
- JAPAN, 2
- UK, 5
- WESTERN EUROPE, 6
- USA, 35

THES: 2010
- CANADA, 3
- JAPAN, 3
- WESTERN EUROPE, 5
- AUSTRALIA, 5
- OTHER ASIA, 6
- USA, 20
- UK, 8

Characteristics of a World-Class University
Alignment of Key Factors

Concentration of Talent
- Students
- Teaching Staff
- Researchers

Abundant Resources
- Public Budget Resources
- Endowment Revenues
- Tuition Fees
- Research Grants

Dynamic Knowledge & Technology Transfer
- University
- Knowledge & Technology
- Transfer

Leading-Edge Research
- Supportive Research Framework
- Academic Freedom
- Leadership Team

Autonomy
- Strategic Vision
- Culture of Excellence

Favorable Governance

Source: Elaborated by Jamil Salmi
concentration of talent

• teachers and researchers
• incoming students
• undergraduate / graduate students

balance

weight of graduate students

<table>
<thead>
<tr>
<th>University</th>
<th>Undergraduate Students</th>
<th>Graduate Students</th>
<th>Share of Graduate Students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard</td>
<td>7,002</td>
<td>10,094</td>
<td>59</td>
</tr>
<tr>
<td>Stanford</td>
<td>6,442</td>
<td>11,325</td>
<td>64</td>
</tr>
<tr>
<td>MIT</td>
<td>4,066</td>
<td>6,140</td>
<td>60</td>
</tr>
<tr>
<td>Oxford</td>
<td>11,106</td>
<td>6,601</td>
<td>37</td>
</tr>
<tr>
<td>Cambridge</td>
<td>12,284</td>
<td>6,649</td>
<td>35</td>
</tr>
<tr>
<td>LSE</td>
<td>4,254</td>
<td>4,386</td>
<td>51</td>
</tr>
<tr>
<td>Beijing</td>
<td>14,662</td>
<td>16,666</td>
<td>53</td>
</tr>
<tr>
<td>Tokyo</td>
<td>15,466</td>
<td>12,676</td>
<td>45</td>
</tr>
</tbody>
</table>
concentration of talent

- teachers and researchers
- incoming students
- undergraduate / graduate students balance
  - but involving undergraduate students in research
- international dimensions

international dimensions

- foreign students
  - Harvard (19%), Cambridge (18%)
- foreign faculty
  - Caltech (37%), Harvard (30%), Oxford (36%), ETH Zürich (60%)
- incoming faculty
abundant resources

• dependence on government funding
  – US able to spend 3.3% of GDP ($54,000 per student) – 1/3 public 2/3 private
  – Europe (E25) only 1.3% ($13,500 per student)

• endowments
## Comparison of US and UK Endowment Levels

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University</td>
<td>25,662</td>
<td>Cambridge</td>
<td>6,327</td>
</tr>
<tr>
<td>Yale University</td>
<td>16,327</td>
<td>Oxford</td>
<td>5,767</td>
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<td>Stanford University</td>
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<td>Edinburgh</td>
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<td>Princeton University</td>
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<td>Manchester</td>
<td>204</td>
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<tr>
<td>University of Texas</td>
<td>12,163</td>
<td>Glasgow</td>
<td>164</td>
</tr>
</tbody>
</table>

### abundant resources

- government funding
- endowments
- fees
- research funding
favorable governance

• freedom from civil service rules (human resources, procurement, financial management)

• management autonomy
  – flexibility and responsiveness with power to act

• selection of leadership team

• independent Board with outside representation
U. Of Malaya vs. NUS

- talent
  - UM: selection bias in favor of Bumiputras, less than 5% foreign students, few foreign professors
  - NUS: highly selective, 43% of graduates students are foreign, many foreign professors

U. Of Malaya vs. NUS (II)

- finance
  - UM: $385 million, $14,000 per student
  - NUS: $1 billion endowment, $1,200 million, $39,000 per student
U. Of Malaya vs. NUS

- governance
  - appointment of VC highly political in Malaysia: 10 VCs until 2008 (Prime Minister statement)
  - more professional in Singapore (5 VCs)
  - UM: restricted by government regulations and control, unable to hire top foreign professors
  - NUS: status of a private corporation, able to attract world-class foreign researchers
    - 52% of professors (9% from Malaysia)
    - 79% of researchers (11% from Malaysia)

outline of the presentation

- defining the world-class university
- the path to becoming a world-class university
the path to glory

• upgrading existing institutions
• mergers
• creating a new institution

upgrading approach

• less costly
• challenge of creating a culture of excellence
• focus on governance
mergers approach

China, Russia, France, Denmark, Finland, Ireland

potential synergies – 1+1=3

clash of cultures

creating a new institution

UCSD University of Astana Olin College of Engineering, KAUST, MMU, PSE, U of Luxembourg, Singapore

higher costs

higher costs

getting the right culture from the beginning

creating a deep tradition of research
who takes the initiative?

• role of the State
  ➢ favorable regulatory framework
  ➢ funding
    • stability over the years

who takes the initiative? (II)

• role of the institutions
  ➢ leadership
  ➢ strategic vision
  ➢ culture of excellence
evolution of Nokia income

outline of the presentation

- defining the world-class university
- the path to becoming a world-class university
- lessons of experience
political & economic stability, rule of law, basic freedoms

telecommunications & digital infrastructure

governance & regulatory framework

vision, leadership & reform capacity

location

diversification, articulation & information mechanisms

resources & incentives

quality assurance & enhancement
common mistakes / elements of vulnerability (II)

- delayed appointment of leadership team (lack of ownership)
- capital costs covered, but little attention to operational costs and long-term financial sustainability
financing needs

- education infrastructure
- support infrastructure
- operation
- research

common mistakes / elements of vulnerability (II)

• delay in building local leadership team (lack of ownership)
• capital costs covered, but little attention to operational costs and long-term financial sustainability
• foreign professors without building local capacity
• small is still beautiful

E. F. Schumacher
"Small Is Beautiful: Economics as if People Mattered"
importance of sequencing

- concept to strategic plan
- governance arrangements to implementation
- academic plan to physical infrastructure
- QA and accreditation
conclusion

Upgrading & Fixing Universities

A Reference for the Rest of Us!

Covers maintenance, troubleshooting, add-ons, and more

FREE eTips at dummies.com

Dr. Lauritz Holm-Nielsen
looking at the past

looking at the future
a word of caution

- danger of homogenization
Ernest Boyer
(Scholarship Reconsidered)

We need a climate in which colleges and universities are less imitative, taking pride in their uniqueness. It’s time to end the suffocating practice in which colleges and universities measure themselves far too frequently by external status rather than by values determined by their own distinctive mission.
a word of caution

- danger of homogenization
  - dare to be different
- need for diversified tertiary education system
  - universities and non-universities institutions
- not all institutions “world-class”
- world-class tertiary education system

money is not enough

- the most expensive universities in the world are not world-class
  - George Washington U (Washington DC)
  - Kenyon College (Ohio)
  - Bucknell U (Pennsylvania)
  - Vassar College (NY)
  - Sarah Lawrence College (NY)
it’s all about alignment

Characteristics of a World-Class University
Alignment of Key Factors

Source: Elaborated by Jamil Salmi
danger of complacency
World Class University Recipe

Lots of Talent

Plenty of Resources

A Touch of Governance

Allow to simmer for a Long Time