The Challenge of Establishing World-Class Universities

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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
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@jims.cam.ac.uk
www.jims.cam.ac.uk
defining the WCU

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

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

**THES: 2010**
- USA, 20
- UK, 8
- WESTERN EUROPE, 5
- AUSTRALIA, 5
- OTHER ASIA, 6
- CANADA, 3
- JAPAN, 3
looking at the past
Characteristics of a World-Class University
Alignment of Key Factors

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>
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<th></th>
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</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

• getting the right culture from the beginning

• creating a deep tradition of research
conclusion
a word of caution

✓ danger of homogenization

✓ need for diversified tertiary education system

✓ universities and non-universities institutions

✓ not all institutions “world-class”

✓ world-class tertiary education system
ecosystem

- telecommunications & digital infrastructure
- location
- diversification, articulation & information mechanisms
- resources & incentives
- political & economic stability, rule of law, basic freedoms
- vision, leadership & reform capacity
- governance & regulatory framework
- quality assurance & enhancement
money is not enough

v 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
danger of complacency
World Class University Recipe

Lots of Talent

Plenty of Resources

A Touch of Governance

Allow to Simmer for a Long Time