Jaringan, Kemitraan dan Kerjasama Internasional menuju Internasionalisasi PT

Purwiyatno Hariyadi
phariyadi.staff.ipb.ac.id

Main Reference:

The World Bank, Washington, DC
World-class university?

- Everyone wants one
- No one knows what it is
- No one knows how to get one

Philip Altbach, Boston College, US on the “World Class University”

World-class university?

- Self-declaration?
- Reputation/Recognition?
- Rankings?
Usual “indicators” of a world class university (1)

- Culture of excellence as a learning organization (meritocracy, exploration and creativity)
- Top notch staff members
- Financially able and well equipped
- Smart partnership with industry and other stakeholders
- Exemplary reputation and credibility (research excellence and quality of graduates)
- High quality student intake

Usual “indicators” of a world class university (2)

- Top graduates
- Leading edge research
- Vigorous technology transfer

results & performance
Usual “indicators” of a world class university (3)

→ key dimensions

→ concentration of talent
→ abundant resources
→ favorable governance

Usual “indicators” of a world class university (4)

→ The Picture

Concentration of Talent

Students
Teaching Staff
Researchers

Abundant Resources

WCU

Favorable Governance

Resources
Public Budget
Endowment
Revenues
Tuition Fees
Research Grants

Research Output

Autonomy
Academic Freedom
Leadership Team
Strategic Vision
Culture of Excellence

Supportive Regulatory Framework
1 Concentration of Talent

- teachers and researchers
- incoming students
- undergraduate / graduate students balance
- international dimensions

### Concentration of Talent

**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>

IPB?
1 Concentration of Talent

international dimensions

foreign students
- Harvard (19%)
- Cambridge (18%)

foreign faculty
- Harvard (30%)
- Oxford (36%)
- Cambridge (33%)

Government funding
- US spends 3.3% of GDP ($54,000 per student)
- Europe (E25) only 1.3 ($13,500 per student)
- Indonesia? BOPTN?

Endowments
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University</td>
<td>28,916</td>
<td>Cambridge</td>
<td>4,000</td>
</tr>
<tr>
<td>Yale University</td>
<td>18,031</td>
<td>Oxford</td>
<td>4,000</td>
</tr>
<tr>
<td>Stanford University</td>
<td>14,085</td>
<td>Edinburgh</td>
<td>3200</td>
</tr>
<tr>
<td>University of Texas</td>
<td>13,235</td>
<td>Glasgow</td>
<td>240</td>
</tr>
<tr>
<td>Princeton University</td>
<td>13,045</td>
<td>King's</td>
<td>200</td>
</tr>
</tbody>
</table>

**Comparison of US and UK Endowment Levels**

**The Importance of Research**

Research → Knowledge-Based Economy

The ability of a society to produce, select, adapt, commercialize, and use knowledge is critical for sustained economic growth and improved living standards.

Knowledge has become the most important factor in economic development.

(OECD, 1988). on the determinants of growth → “underlying long-term growth rates in OECD economics depend on maintaining and expanding the knowledge base”

World Development Report 1998/1999 concurred, stating that “today’s most technologically advanced economies are truly knowledge-based:

→ … creating millions of knowledge-related jobs in an array of disciplines that have emerged overnight”
The Importance of Research

Productivity in Physical and Chemical Science Predicts the Future Economic Growth of Developing Countries Better than Other Popular Indices

Klaus Jaffe1, Mario Caicedo2, Marcos Manzanares1, Mario Gil3, Alfredo Rios3, Astrid Florez1, Claudia Montoreano1, Vicente Davila1

1Centro de Estudios Estratégicos, Universidad Simón Bolívar, Caracas, Miranda, Venezuela; 2Departamento de Física, Universidad Simón Bolívar, Caracas, Miranda, Venezuela; 3Departamento de Matemáticas, Universidad Simón Bolívar, Caracas, Miranda, Venezuela
The Importance of Research

Productivity in Physical and Chemical Science Predicts the Future Economic Growth of Developing Countries Better than Other Popular Indices

Klaus Jaffe, Mario Calcedo, Marcos Manzanares, Mario Gil, Alfredo Rios, Astrid Florez, Claudia Montoreano, Vicente Davila

Abstract
Scientific productivity of middle income countries correlates stronger with present and future wealth than indices reflecting its financial, social, economic or technological sophistication. We identify the contribution of the relative productivity of different scientific disciplines in predicting the future economic growth of a nation. Results show that rich and poor countries differ in the relative proportion of their scientific output in the different disciplines: countries with higher relative productivity in basic sciences such as physics and chemistry had the highest economic growth in the following five years compared to countries with a higher relative productivity in applied sciences such as medicine and pharmacy. Results suggest that the economies of middle income countries that focus their academic efforts in selected areas of applied knowledge grow slower than countries which invest in general basic sciences.

2

The Importance of Research

Productivity in Physical and Chemical Science Predicts the Future Economic Growth of Developing Countries Better than Other Popular Indices

• Middle-income countries that focus on basic sciences, such as physics and chemistry, grow their economies faster than nations that invest in applied sciences, such as medicine or psychology.
• "Investing in basic scientific research seem[s] to be the best way a middle-income country can foment fast economic growth"
• Investment in basic sciences — as indicated by the proportion of published articles in these fields — reveals a rational, decision-making atmosphere within a country and among its leaders, as well as promoting economic growth.
Compared with any standard → need more research funding

Anggaran Riset Nasional Kurang Rp.75 Triliun

Compared with any standard → need more research funding

phariyadi.staff.ipb.ac.id
Compared with any standard → need more research funding

Menurut Andrianto Handojo, Ketua Dewan Riset Nasional (DRN) anggaran riset di Indonesia hanya 0.08 persen dari total Gross Domestic Bruto (GDP). Jika dihitung, angka mencapai sekitar Rp5 triliun per tahun.

Compared with any standard → need more research funding

Indonesia?

<table>
<thead>
<tr>
<th>Country</th>
<th>Research Funding 2008 (%)</th>
<th>1.5% GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico (2007)</td>
<td>0.37</td>
<td>1.09</td>
</tr>
<tr>
<td>Argentina (2007)</td>
<td>0.51</td>
<td>1.44</td>
</tr>
<tr>
<td>Chile (2004)</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>India (2009)</td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>South Africa (2008)</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>Russia (2007)</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>China (2007)</td>
<td>1.44</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>1.18</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>1.35</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>1.84</td>
<td></td>
</tr>
<tr>
<td>Germany (2007)</td>
<td>2.02</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>2.53</td>
<td></td>
</tr>
<tr>
<td>South Korea (2007)</td>
<td>2.77</td>
<td></td>
</tr>
<tr>
<td>Japan (2007)</td>
<td>3.21</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>3.44</td>
<td></td>
</tr>
</tbody>
</table>

Sources: National Main Science and Technology Indicators, 2008/2 - OECD; BraEMCT/A; Chile and India; World Development Indicators, 2008 - The World/ (Graph taken from : Science, Technology and Innovation for National Development: Action Plan 2007 – 2010, Luiz Antonio Rodrigues Elias, Deputy Minister, Ministry of Science and Technology, Brazil)
3 Favorable Governance

- Freedom from civil service rules (human resources, procurement, financial management)
- Management autonomy
- Selection of leadership team
- Independent Board with outside representation

Governance of Higher Education in Indonesia?

Check Out:
UU No 12/2012
Menuju WCU?

• Upgrading existing institutions
• Mergers
• Creating a new institution
• Networking
Established in 1964 with the support of the Ford Foundation.
MUCIA is a not-for-profit consortium of three of America's largest land grant research universities, including Michigan State University, University of Minnesota, and The Ohio State University.

- Extended to Michigan State University, University of Wisconsin, Purdue University, etc.
- Proven excellence in providing instruction, research, and extension programs abroad in a range of academic programs including agriculture, business, education, engineering, law, medicine and the disciplines of the arts and sciences; Sustained experience and commitment to the design and implementation of academic training and professional development programs in the U.S. and abroad.
ASEAN University Network (AUN)

- At the Fourth ASEAN Summit, held in Singapore in January 1992, ASEAN leaders directed that ASEAN should help hasten the solidarity and the development of a regional identity by considering ways to further strengthen the existing network of the leading universities and institutions of higher learning in the region.
- The idea was later developed into ASEAN University Network (AUN).
- ASEAN University Network was established in November 1995 with the signing of its Charter by the Ministers responsible for Higher Education from ASEAN countries, the signing of the Agreement on the Establishment of the AUN by the presidents/rectors/vice-chancellors of participating universities, and the formation of AUN Board of Trustees and a Secretariat headed by an Executive Director.

The main objective of the AUN is to strengthen the existing network of co-operation among leading universities in ASEAN.

- This is done by promoting co-operation and solidarity among ASEAN scholars and academicians, developing academic and professional human resource, and promoting information dissemination among ASEAN academic community.
- The network has brought together the ASEAN countries' individual quest for academic collaborations in the identified priority areas that would deepen understanding of the dynamic ASEAN, and accordingly hasten regional identity and solidarity.
Meetings & Conferences
- These include Board of Trustees Meetings, AUN Rectors’ Meetings and Conferences, ASEAN-China Rectors’ Conferences, ASEAN Plus Three Rectors’ Conferences, IROs Plus Three Meetings, and the ASEAN-ROK Academic Workshop & Conferences.

Faculty Exchanges
- Examples include the Distinguished Scholars Programme, the SEE Forum, and the ASEAN-ROK Exchange Fellowship Programme.

Student Exchanges
- The activities offered include the ASEAN Student Exchange Programmes, ASEAN Studies programmes, Internship Programme, the Educational Forum & Young Speakers Contest, and the ASEAN Youth Cultural Forum.
Erasmus Mundus

- Erasmus Mundus was first introduced in July 2001, when the European Parliament and Council received a Communication by the European Commission on strengthening EU-third country co-operation in higher education.

- Following the positive reception of the Communication, the Commission adopted a programme proposal, Erasmus World, in July 2002.

- On 5 December 2003, the Erasmus Mundus programme Decision was adopted. It entered into force on 20 January 2004.
Political context

• Inspired by the highly successful Erasmus programme (an internal EU programme supporting cooperation and mobility between European higher education institutions), Erasmus Mundus offers a valuable framework for exchange and dialogue between cultures.

• By supporting the mobility of students and academics throughout the world, Erasmus Mundus prepares its participants for life in a global, knowledge-based society.

Networking

Erasmus Mundus

Political context

• The Erasmus Mundus programme has earned political support from governments, policy-makers and higher education institutions all over Europe.

• It is seen as a useful means to respond to the challenges European higher education faces today, in particular the need to stimulate the convergence of degree structures and to enhance the attractiveness of European higher education world-wide.

• These are themes central to the Bologna Process and to national reform of higher education in EU Member States.
Erasmus Mundus

Political context

- Erasmus Mundus also coincides with the Lisbon Strategy, a commitment to making the European Union the most competitive knowledge-based economy in the world and a reference for high quality and excellence in education.
UNTA was established by ten universities,
- Bogor Agricultural University (IPB, Indonesia),
- Brawijaya University (Indonesia),
- University Putra Malaysia and Universiti Malaysia Sabah (Malaysia),
- Kasetsart University and Maejo University (Thailand),
- Thai Nguyen University (Vietnam),
- National Pingtung University of Science and Technology and Ming Dao University (Taiwan), and
- Wehenstephan-Triesdorf University of Applied Science (Germany).

Menuju WCU?

- Who takes the initiative?
  - Role of the Government (National Motives?)
    - Favorable regulatory framework?
    - Funding?
    - Incentives?
  - Role of the HE institutions (University motives)
    - Leadership?
    - Strategic vision?
    - Culture of excellence?
    - Academic excellence?
Menuju WCU?

Who takes the initiative?

- Role of the Government (National Motives?)
  - Favorable regulatory framework?
  - Funding?
  - Incentives?

- Role of the HE institutions (University motives)
  - Leadership?
  - Strategic vision?
  - Culture of excellence?
  - Academic excellence?

Please Check:
http://phariyadi.staff.ipb.ac.id/files/2013/12/PH-IPT-World-Class-University.pdf

Thank You