If Ranking is the Disease, Is Benchmarking the Cure?

Jamil Salmi Global Tertiary Education Expert Hong Kong, 20 June 2019



International students The International Office

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University ranking



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Every year, international surveys are published in the attempt to benchmark universities around the world against each other. The methodology in the rankings vary, but often include peer reviews, research articles published in important research magazines, number of nobelprizes won etc.

Sometimes, individual surveys adjust their metholody which can explain why the results can vary quite a bit from year to year.

University of Copenhagen's placement on rankings	World	Europe
QS World University Rankings (2011)	52	13
THE World University Rankings (2011)	135	52
Academic Ranking of World Universities - Shanghai (2011)	43	9
Leiden Ranking* (2011)	46	7
Leiden Ranking** (2011)	129	46

* Based on total number of publications

** Based on "Mean Normalized Citatation Score"

大 排 名及 Q 際 地 位

World University Rankings 世界大學排名



Quacquarelli Symonds (QS) World University Rankings 2019 2019年QS世界大學排名



Quacquarelli Symonds (QS) Asian University Rankings 2019 2019年QS亞洲大學排名



Times Higher Education World University Rankings 2019 2019年泰晤士高等教育 世界大學排名

World University Subject Rankings in which HKU Ranked among the Top 20 位列世界大學學科排名首二十位的港大學科

QS World University Rankings by Subject 2018 2018年QS世界大學學科排名







Civil & Structural Engineering 土木及結構工程

outline

- uses and abuses of rankings
- from rankings to benchmarking









Ranking Web of World Universities



ranking systems in 2019

Region	National and International Ranking Systems
Eastern Europe and Central Asia	Albania (A), Bulgaria (A), Czech Republic (A), Hungary (B), Kazakhstan (A, B), Latvia (C), Lithuania (A), Macedonia (A), Poland (C), Slovakia (B), Romania (B/C), Russia (B, IB), Turkey (B), Ukraine (B/C)
East Asia and Pacific	Australia (B), China (B, C, IB), Hong Kong (C), Japan (B, C), Malaysia (A), New Zealand (A), South Korea (B, C), Taiwan (B, IB), Thailand (A), Vietnam (A)
Latin America and the Caribbean	Argentina (A), Brazil (A), Chile (C), Colombia (B), Mexico (B, C), Peru (B)
Middle East and North Africa	Israel (C), Tunisia (A)
North America	Canada (B, C, B/C), United States (C)
South Asia	India (A, B/C), Pakistan (A)
Sub-Saharan Africa	Kenya (A), Nigeria (A)
Western Europe	France (IB), Germany (B/C, C), Ireland (C), Italy (C), Netherlands (A, IB), Portugal (C), Spain (B, C, IC), Sweden (C), Switzerland (B/C), United Kingdom (A, B, IC)

who prepares the rankings?



ultimate measure of performance?

or

dangerous distraction?

a thin line between love and hate

- disagreement with principle
- criticism of methodology
- boycotts
- court actions (New Zealand, Holland)

methodological problems

- validity of criteria
 - research bias & hard sciences (and medicine)
 - peer evaluations
 - English language publications

Anglo-Saxon bias



methodological problems

- validity of criteria
 - research bias & hard sciences (and medicine)
 - peer evaluations
 - English language publications
- validity of weights given to the various indicators
- statistical robustness

a false precision

"Could there not...be a move...away from the <u>false precision</u>? Could you not do away with rank ordering and overall scores, thus admitting that the method is not nearly that precise and that the difference between #1 and #2 - indeed, between #1 and #10 - may be statistically insignificant?"

Stanford University President to Editor of U.S. News (1996)

Playing With Numbers?

let us buy a sports car (Car and Driver ranking)







let us buy a sports car (Car and Driver ranking)

- 21 variables, 235 evaluation points
 - Porsche Caiman: 193
 - Chevrolet Corvette: 186
 - Lotus Evora: 182
- price = 20% weight
 - Chevrolet Corvette: 205
 - Porsche Caiman: 195
 - Lotus Evora: 195

methodological problems (cont.)

- do all the indicators taken together actually measure quality?
- do the score differences reflect actual quality differences?
- are the rankings comparing the same types of institutions and programs?

absolute achievement vs. value added



achievement



danger of rankings

- changes guided by rankings criteria
 - priority given to top students (equity concern) and/or foreign students
 - resource allocation (research)
- fraud in data presentation or survey participation, payment of students

TIMES

From The Times

Kingston University students told to lie to boost college's rank in government poll



GU Abry/The Times

Red Queen effect



meet my son Yacine...



so should we just get rid of rankings?



outline

- uses and abuses of rankings
- from rankings to benchmarking











what is benchmarking?

- comparing the performance of one's tertiary education system to that of other systems
 - competitors
 - good practices

elaborating the theoretical framework

- distinction between performance and health of system
 - how good are the system's actual outcomes?
 - does it operate under conditions known to lead to high performance?
- definition of outcomes / outputs / results
- identification of determinants and causality relationships
 - informed by empirical evidence




Airplane Parts Definitions

and Function

Glenn Research Center





Characteristics of a Well-Performing University Alignment of Key Factors



Source: Elaborated by Jamil Salmi

accelerating factors

- leadership and vision
- internationalization
- being a niche institution and / or offering niche programs
- curriculum, pedagogical and managerial innovations
- strategic planning and benchmarking

sequence of causal links within universities



Performance Indicators (institutional level)

Dimension	Number of Indicators
Inclusion & Equity	2
Learning Achievement	6
Labor Market Outcomes	1
Research Results	5
Technology Transfer Results	3
Total	17

Health Indicators

Dimension	Number of Indicators
Inclusion & Equity	6
Quality of Teaching & Learning	12
Relevance	3
Internationalization	5
Research	9
Service to the Community & Technology Transfer	6
Governance & Management	5
Financing	2
TOTAL	48

2019

results

drivers of performance

2010

criteria for choosing comparators?

- internal characteristics
 - mission / philosophy / values
 - types of programs (niche)
 - research / teaching / learning philosophy
- characteristics of the environment

finding the data

- existing databases
- ad-hoc surveys
- field visits
- partnerships
 - countries
 - organizations

steps for benchmarking & strategic planning

- what and how are we doing now?
 - the right thing? is it relevant?
 - is it effective and efficient (value for money)?

- what has changed in the environment?
 - competition (domestic & international)
 - resources
 - regulatory framework

steps for benchmarking & strategic planning

- where do we want to go?
 - what sort of institution do we want to be (aims, values and mission)?
- how do we get from where we are to where we want to be?
 - action plan (tasks, resources, structures)
 - incentives
 - strategic partnerships



Characteristics	Ranking	Benchmarking
Unit of Analysis	Country / university / program	Tertiary Education Institution or Tertiary Education System
Purpose of Exercise	Hierarchical ranking / Reputational competition	Comparison to identify strengths and weaknesses for improvement purposes
Degree of Comprehensiveness	Research / internationalization focus	Considers all missions of TEIs (education, research, technology transfer, regional engagement)
Ease of Use	One number summarizes the results	Need to consider multiple indicators
Diagnosis of factors	Limited to the criteria imposed by the ranker	Systematic quantitative and qualitative analysis of data, indicators and reports
Choice of Comparators	Imposed by the ranker	Selected by the benchmarking team
Weight of Indicators	Relative importance of indicators determined by the ranker	Relative importance of indicators determined by benchmarking team
Transparency	Reliance on published and verifiable data as well as reputational surveys	Reliance on published and verifiable data
Objectivity	At risk with reputational surveys and arbitrary weights	Linked to choice of indictors
Users	General public	Analysis tailored to needs of individual institution or government
Participation of Subject	Possibility of opting out	Decision to opt in

lessons

- rankings = one among many QA and accountability instruments
- national and international comparisons help to assess strengths and areas for improvement
- benchmarking useful to assess strength of tertiary education systems and individual institutions