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Management of Rankings: Systems, Policies and Strategies

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Importance of rankings

- International and national **students** consider rankings in choosing their university besides other factors such as peer and family opinion, entry scores, subject choices, and financial circumstances.
- Certain **families** now insist that their children study at a “ranked” higher education institution, if not the most highly ranked to which they can realistically be admitted.
- Even globally mobile **faculty members** consider rankings in choosing their visit places.
- Many governmental organizations and HE institutions tend to base their education, research **policies, strategies and decisions** on rankings.



University Rankings

- At different levels (university, college, department, field and so on)
- By different organizations (magazines, newspapers, websites, governments, academics, commercial organizations and so on)
- At national, regional and global scales
- On the basis of various combination of different factors
 - **Size** (number of students and faculty), **internationalization** (number of international students, faculty, volume of international collaboration), **industrial linkage**, **number of awards**, **research output** (volume and quality of scholarly work), **reputation** (graduate employability)



Major international ranking compilers

| Ranking | Compiler/publisher | Organization type |
|--|--|--------------------------|
| Academic Ranking of World Universities | Shanghai Ranking Consultancy | Commercial |
| QS World University Rankings | QS Quacquarelli Symonds Ltd | Commercial |
| Professional Ranking of Global Higher Education Institutions | Mines ParisTech | Institution |
| Ranking Web of World Universities | Webometrics | State research institute |
| Performance Ranking of Scientific Papers of World Universities | Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) | Government |
| <i>Times Higher Education</i> World University Rankings | Times Higher Education and Thomson Reuters | Commercial/Media |
| High Impact Universities | (Affiliated with) University of Western Australia | Institution |
| U-Multirank | CHERPA Alliance/European Commission | Government |

<https://wayback.archive-it.org/10611/20160908173836/http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/images/rankings-figures.jpg>



University Rankings (cont.d)

- According to International Rankings Expert Group (IREG), there are currently 21 global rankings.
- Initially started with 200 universities, Times Higher Education Rankings now feature around 1500 universities worldwide.
- Andrejs Rauhvargers (Global University Rankings and Their Impact , 2011): The number of global university rankings is likely to keep growing, although they will become **more specialized** (UI Green Campus Metric, THE University Impact, Webometrics).



How did rankings start?

- 2003: First World Academic University Ranking System (Shanghai Jia Tong University)
 - To supply a benchmark to measure China's progress
 - To figure out which Chinese university deserves more resources
 - Criteria: The number of faculty/alumni who won Nobel Prizes or Fields Medals, number of highly cited researchers, and so on.
 - No French or German universities in the top 20...
 - Social Sciences and Humanities? Liberal arts colleges?



QS (Quacquarelli Symonds) and THE (Times Higher Education)

- 2004: QS and THE started World University Rankings as partners
- 2009: THE withdrew from the partnership (disagreement on reputation measurement)



Methodologies

- Not only different ranking systems have different methodologies, but these methodologies also change over time.
- Descriptions of the methodologies of most global league tables are simplified and rarely allow a reader to follow the actual calculation of the scores of individual indicators and the composite final score.

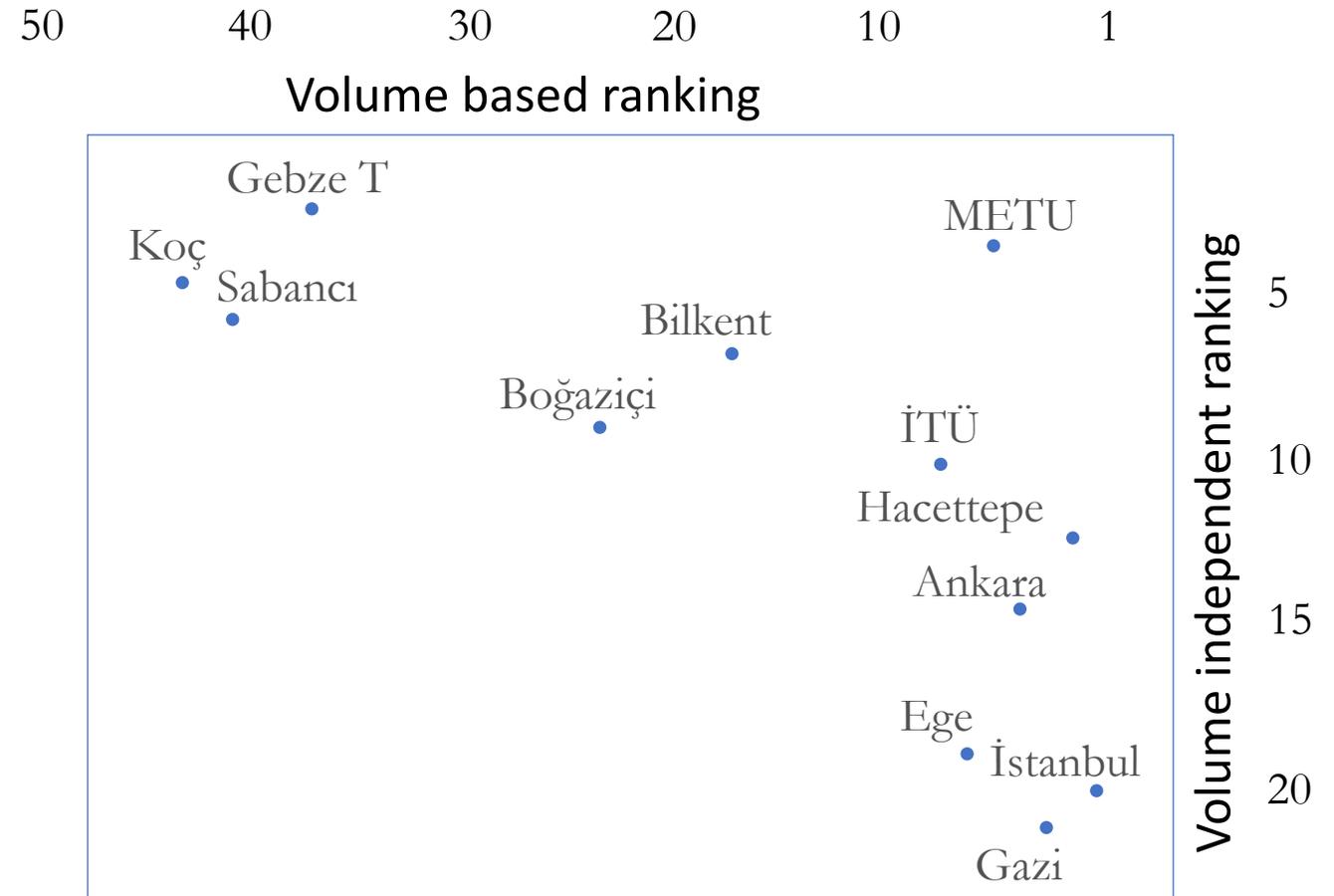




URAP

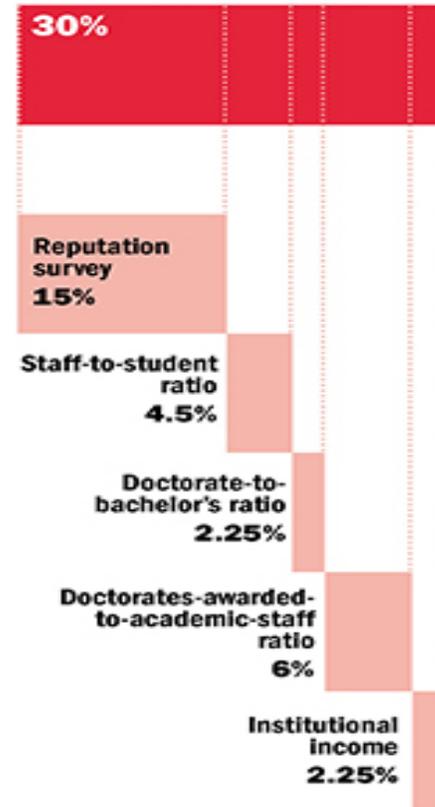
- Developed by METU
- Based on objective criteria:
 - High quality publications
 - Citations
 - PhD students
 - etc.

Effect of Volume

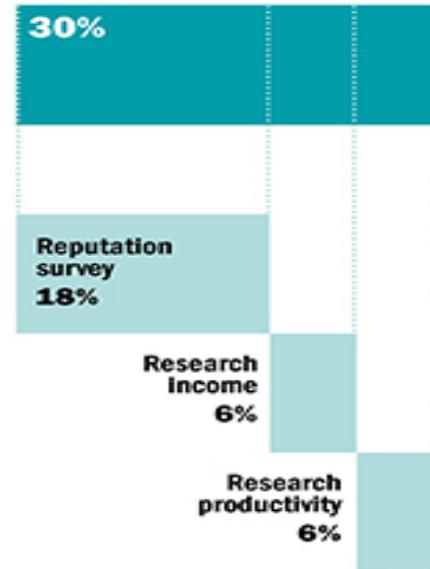


THE 2018-2019 WUR Methodology

Teaching (the learning environment)



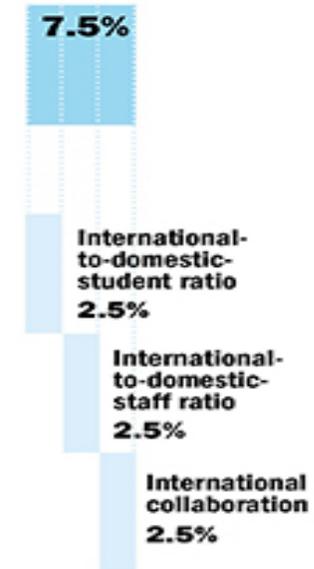
Research (volume, income and reputation)



Citations (research influence)



International outlook (staff, students, research)



Industry income (knowledge transfer)



QS 2019 World University Ranking Methodology

- Academic Reputation (40%)
- Employer Reputation (10%)
- Faculty/Student Ratio (20%)
- Citations per faculty (20%)
- International Faculty Ratio (5%)
- International Student Ratio (5%)



Academic Reputation Measurement

- THE: %33 (By inviting the authors of randomly selected publications from the region according to the percentage of total publications. If the responses are not enough, 2nd round of the survey is conducted. If the responses are still not enough, an estimated value is used for evaluation.)
- QS: %50 (Any academician can become a respondent. The list is sent by the university.)
- 2017 Results:
 - Cambridge (QS:2, THE:4)
 - NUS (QS:11, THE:27)
 - Nanyang TUS (QS:50, THE:81-90)
- “The more reputation related criterion you use, the less accurate your ranking becomes.” Philip G. Altbach (Boston College)



Methodological Changes in Rankings

- THE changed the ranking methodology for several times.
- In 2010-11, Alexandria University of Egypt ranked higher than Harvard and Stanford Universities. The reason behind the ranking was a Mathematician who was cited by his peers and who was excessively self-citing.
- A similar situation occurred in Turkey for 2016-2017 rankings.



THE-WUR Methodological Changes (cont.d)

- 2015-16: **CERN papers** with more than 1,000 authors were excluded because they were having a disproportionate impact on the citation scores.
- 2015-16: **Scopus** database instead of **Web of Science** (in 2014: 400, 2015: 801, 2016: 981, 2017: 1102 universities were included in the rankings with new selection criteria)
- 2015-16: **Normalized citation effect** was calculated instead of the average citation effect for universities.
- 2016-17: **Book and book chapters** were taken into consideration
- **Limits** were defined for publications in field rankings
- etc.



Bias in Rankings

- Of the world's 17,000+ universities, **only 1% are the focus** of the “world university rankings” published by three of the most prominent “ranking systems”
 - The top 200 ranked schools tend to be **older (200+ years)** establishments, focusing mostly on **scientific research**, with around **25,000 students and 2,500 faculty**; and **annual budgets exceeding 2 billion USD**.
- Imanol Ordorika and Marion Lloyd (UNAM):
 - **domestic-language research is clearly ignored** in favour of English (articles published in English still represent a minority of the research production of some universities, but they comprise the majority of articles registered in ISI and Scopus”, the main bibliographic databases used in the rankings.
 - the primacy of scientific research in current rankings systems minimizes **social sciences and the humanities...**
- THE and QS: counting **international** lecturers and students is a biased measurement for national universities.



Methodological Flaws

- Quing Zha (2016): “university rankings are largely based on **what can be measured** rather than what is necessarily relevant and important to the university”
 - Such as “**research expenditures** (grants and contracts) as the prime measure of scientific accomplishments rather than the **importance and impact** of scientific discoveries or the depth of the ideas,”
 - Do not measure **teaching quality**
 - “Rankings are often **sensitive to relatively small changes** in weighted functions and such small changes can alter the ranking results from year to year without requiring substantial changes in a university.”



Outcomes of National Policies - China

- Chinese universities supported by directives including Project 211 and Project 985, together with huge national investment outranks universities from other countries.
 - In THE 2019 WUR, 72 Chinese universities were among the top 1000
 - In THE 2017 WUR, 4 universities were among the top 200, increasing to 7 in 2018 and 2019.



Outcomes of National Policies - France

- France's programme of university mergers is paying off:
 - **Paris Sciences et Lettres – PSL Research University Paris**, a 2010 merger of numerous institutions, climbed 31 places to 41st t this year, becoming the first French university to feature in the top 50 universities since 2011.
 - **Sorbonne University** (a merger of Pierre and Marie Curie University and Paris-Sorbonne University) has joined the list at 73rd place – making it the highest-ranked newcomer in the table.



Outcomes of National Policies - Russia

- Russia initiated 5-100 project to support 21 universities to compete globally
 - THE WUR for 2019 featured 35 Russian universities, increasing from 27 last year.
 - The current leaders are the Lomonosov Moscow State University, Moscow Institute of Physics and Technology, and Higher School of Economics.



Outcomes of National Policies - Singapore

- National University of Singapore (NUS) gained the top spot as Asia's number 1 university, ranking 23rd and Nanyang Technological University (NTU) was placed at 51st.
- Criticisms:
 - Prime Minister Lee Hsien Loong emphasized that universities' KPI should not be about ranking positions, but **how well they serve Singapore**.
 - Pang Eng Fong and Linda Lim:
 - **Extensive focus on internationalization**, results in the sidelining of Singaporean academics, causing a **brain drain**.
 - **The increasing focus on research** creates a two-track system within the universities, between **faculty with high-research output**, and seemingly inferior **teaching faculty** (with low research output)



Impact of Rankings on Institutional Strategies

- Despite their many shortcomings, biases and flaws ‘rankings enjoy a **high level of acceptance** among stakeholders and the wider public because of their **simplicity and consumer-type information**’ (AUBR Expert Group, 2009).
- **63% of universities have based strategic decisions on improving their rankings** (UNESCO, Rankings and Accountability in Higher Education Report, 2013).



Impact of Rankings on Institutional Strategies

- European University Association (EUA) Universities use data from rankings for analysis, strategic planning and policy making.
 - 60% of surveyed European university representatives say rankings play a role in their **institutional strategy**, while 75% use rankings in **marketing and publicity materials**.



Negative Impact of Rankings

- **Both society and policy makers** tend to judge all higher education in the world by the **standards that rankings** use to detect the top *research* universities, rather than applying one of the core principles of quality assurance – the ‘**fitness for purpose**’ principle.
- Thus, one ‘unwanted consequence’ of global league tables is that HEIs **with other missions** than that of being top research universities may have to re-justify their profile at a time when **mission differentiation** is at the top of higher education agendas across Europe.



Impact of Rankings on National HE Policies

- Ellen Hazelkorn, 2011, argues in her book “[Rankings and the Reshaping of Higher Education](#)” that :
 - In some countries (Mongolia, Qatar, Kazakhstan etc.) rankings determine student eligibility for **government scholarships**, academic partners for **collaboration**, even **immigration status**.
 - Determination of **academic collaboration** (Brazilian universities allow collaboration only with universities in the top 500)
 - **Acception of immigrants** (Netherlands, immigration law favors foreigners who have graduated from the top 150 universities; in Denmark, graduates of the top 20 face easier entry requirements, Russia recognizes degrees for international academics and expatriates with degrees from top 300 universities).
 - **Support for universities** (after an independent audit, Russia elected 15 universities to be eligible for additional funding. Germany, France, Japan and Singapore have introduced similar programs to improve their higher education systems and build world-class universities).
- Turkish Council of HE provides **scholarship** for PhD abroad only for one of the top 500 universities.



Commonly Adopted Policies and Strategies by Universities

- Open access
- Internationalization
- Promoting publications in Q1,Q2 journals which are expected to receive more citations
- Promoting and supporting high budget/impact research projects
- Increasing PhD graduates, postdoctoral research fellows
- Recruiting highly cited researchers, Nobel prize/Field Medal winners
- Hiring services from ranking providers



Research Questions

- What other ranking systems are likely to emerge?
- Can those systems compensate for the deficiencies of the current ones or elevate them even further?
- Should there be restrictions and regulations on commercial and other ranking providers?
- How can the society be protected against negative impacts of them?



Final Words...

Rankings can be **managed** by following the right policies and strategies as the ranking systems require, but **academic leadership** is putting forward the right policies and strategies for the university, not necessarily aligned with the ranking systems.

