University rankings – a guide to choose a university?

Jianu (Dumitru), Ionela and Dumitru, Ionut

Academy of Economic Studies Bucharest

6 March 2011

UNIVERSITY RANKINGS – A GUIDE TO CHOOSE A UNIVERSITY?

Ionela Jianu (Dumitru)[1]
Ionuţ Dumitru[2]

Abstract: *In a more and more global world, universities compete for both students and faculty staff. Do university rankings offer a good perspective when it comes to choosing a university, as a student or university professor/researcher? This paper presents an analysis of well-known university rankings, trying to answer to the above mentioned question. It also presents an alternative to such rankings, namely intellectual capital evaluation models.*

Keywords*: university rankings, indicators, intellectual capital*

1. INTRODUCTION

Well known magazines and well as specialized institutions prepare university rankings, following different methodologies. Depending on the methodology, one university may appear among the first in some rankings and at the bottom in the others. University management, students as well as policy makers use them according to their own purposes. This article presents an analysis of some university rankings with great impact in the last few years, and also presents a possible alternative to these rankings.

---

[1] Academy of the Economic Studies Bucharest. Email: ionela_jianu@yahoo.com.

[2] Academy of the Economic Studies Bucharest. Email: ionut.dumitru@fin.ase.ro, dumitruionut@yahoo.com.

2. WELL KNOWN UNIVERSITY RANKINGS

One of the best known university rankings is Academic Ranking of World Universities, compiled by the Shanghai Jiao Tong University from China, whose initial purpose was to present the situation of Chinese universities in comparison with other universities around the world. At the moment, it is used more broadly, by university staff to policy makers. According the ARWU official site, universities are ranked according to several indicators of academic or research performance, including alumni and staff winning Nobel Prizes and Fields Medals, highly cited researchers, articles published in Nature and Science, articles indexed in major citation indices, and the per capita academic performance of an institution.

There are also magazines which prepare university rankings on a yearly basis. In United States of America, U.S. News and World Report compiles a ranking of American universities. The universities are categorized by mission and then data are gathered from the schools in order to compute up to 15 indicators, which are given different weights, based on the judgment of the proponents of the ranking. Business Week (for US) and Financial Times (for Europe) also prepare rankings for business schools.

In Europe, the European Commission has an increasing interest in higher education institutions. University rankings and other tools are developed in order to help university and policy makers make better decisions. Among the criteria used in a 2003 ranking we find the number of publications, number of citations, and citation impact score. The ranking involved only universities from the European Union (European Commission Report, 2003).

In Romania, Ad-Astra Association prepares a ranking of Romanian universities, having as criteria the number of articles published in scientific journals recognized world wide, indexed ISI Web of Science. For the 2007 ranking, data from 2006 were used (Ad-Astra, 2007). The criteria with articles published in journals indexed ISI Web of Science is similar with the one in Shanghai classification. Other criteria from the Shanghai classification would make no sense at the moment for the Romanian universities, since they do not have Nobel Prize or Fields Medal winners as alumni or academic staff.

3. CRITICAL ANALYSIS OF UNIVERSITY RANKINGS

One of the main shortcomings of university rankings is the tendency to generalize, to emphasize as absolute these hierarchies. Any ranking based on the scientific production (the vast majority of them have a lot of indicators for the scientific production) is relative. The relativity derives from the reference system used and the evaluation models. Different systems and different models (therefore different indicators) lead to different results. It is therefore a mistake to generalize these rankings (Jianu and Bratianu, 2007).

Moreover, there may be problems with gathering data. Some of them are provided by the university and checking the correctness of the data would be nearly impossible. In other cases, the same type of data is gathered from many sources. For example, Ad-Astra gathered the same type of data (the number of professors) from many sources (from Cartea Alba a Cercetarii Universitare din Romania, from the university secretarial staff or from university websites).

Goldratt's famous saying "*Tell me how you measure me and I will tell you how I will behave*" (Goldratt, 2006) is applicable also in the academic environment. For years, university professors in Romania were appreciated by the number of books they wrote. Therefore, most of the Romanian university professors had at least one textbook, a situation rarely met in US, for example, where the professors need to write articles in order to promote. Now, the situation has changed also in Romania. The "ISI race" has begun and university professors have shifted their focus from publishing books to publishing articles in journals recognized worldwide, especially those included in ISI indexes (since this is how they are measured now). Moreover, the editors of the Romanian journals are trying to include them in ISI indexes, thus facilitating the access of Romanian professors to publishing in ISI journals. The number of ISI Romanian journals has increased since the popularization and media coverage of the position of Romanian universities according to Shanghai classification. So, the measurement system has also changed the behaviour. That is why, one should be very careful about what measurement system is using. A good measurement system, in line with the strategic objectives of the university leads to an appropriate behaviour. Just following some indicators, with no correlation to the

objectives of the university, may damage the university and its stakeholders instead of helping it to improve.

Universities use institutional rank for publicity purposes, in press releases, official presentations and their websites (OECD, 2007). Being used as a promotional instrument, universities will display those rankings in which they rank well.

Despite these weak points, it is clear that these university rankings do have an impact on various stakeholders, like policy makers, university management, students etc. (OECD, 2007). Therefore, improving rankings and finding alternatives to them would be useful for all university stakeholders.

4. IC alternative

There might be cases when the reader of the ranking does not know too much about the methodology behind the ranking. Intellectual capital evaluation models try to eliminate this shortcoming. Fazlagic (2005) suggests that intellectual capital evaluation models are a better alternative to various rankings of universities, since the final decision of which university is better is left to the reader. Disclosing IC information to the external stakeholders addresses other concerns in universities: improving transparency and reducing isolation from the external world (Sanchez et. Al, 2006). Besides external reporting to stakeholders, another important usage of IC models is internal management improvement.

Austria is by far the country with the greatest experience in the evaluation of the intellectual capital of universities. In 2002, the Austrian Ministry for Education, Science and Art issued a University law (UG 2002), which stipulates that all Austrian universities will have to publish IC reports starting with 2006. According to the 63rd Regulation of the Federal Ministry of Education, Science and Culture on Intellectual Capital Reports, this instrument has the following sections (p.1):

> I.   Scope of application
>
> II.   Intellectual capital
>
> > 1.   Human Capital
> >
> > 2.   Structural Capital
> >
> > 3.   Relational Capital
>
> III.   Core processes

<div style="margin-left: 25%;">

1.   Education and continuing education

2.   Research and development

IV.   Output and impact of core processes

1.   Education and continuing education

2.   Research and development

V.   Summary and prospects

</div>

This model has a narrative part and a key indicators part, thus giving a holistic view of the organization. The key performance indicators are embedded in a process model, leading from input via output to outcome and impact indicators (Perle, 2005).

The evaluation of intellectual capital of universities appeared and enjoys much more attention in Europe than in United States, and the most developed approaches are the ones in the Austrian universities and research centers. But the number of universities interested in such evaluation models is increasing all over Europe. In Spain, the Autonomous University of Madrid has developed an intellectual capital report, with the recommendation to be implemented in Spanish universities. In Denmark, the Department of Optics and Fluid Dynamic of the Risø National Laboratory also published an IC report in 1999. In Germany, the German Aerospace Center DLR started to realize an IC report in 2000, based on the intellectual capital developed by Austrian Research Center (Leitner, 2005).

5. CONCLUSIONS

University rankings are receiving more and more attention lately due to the multitude of such hierarchies, but also to their increased popularization. Despite criticism, they do provide a tool to make comparisons between universities, direct resources, and influence decision making for students, academic staff and policy makers. Intellectual capital evaluation models are a step forward, since they do provide an image of the university, but they leave the final decision on who is better or worth investing in to the reader, not to the rankings makers.

6. REFERENCES

Eliyahu M. Goldratt, Jeff Cox (2006). *The Goal: A Process of Ongoing Improvement. North River Press*, Great Barrington, MA

Fazlagic, A. (2005). Measuring the Intellectual Capital of a University. *In*: *Trends in the Management of Human Resources in Higher Education.* Retrieved June 2006 from www.oecd.org/dataoecd/56/16/35322785.pdf.

Federal Law Gazette of the Republic of Austria, 63rd Regulation of the Federal Ministry of Education, Science and Culture on Intellectual Capital Reports (Intellectual Capital Report Act – ICRA)

Jianu, I., Brătianu, C. (2007) Aspecte privind producŃia stiinŃifică a universităŃilor, *Calitatea. Acces la succes*, Număr special, Septembrie, pp.365-369.

Leitner K-H. Intellectual Capital Reporting for Universities: Conceptual Background and application for Austrian Universities. *Reseach Evaluation.* August 2004. Vol. 13, Number 2.

Leitner K-H. *Intellectual Capital Reporting in Research Organisations and Universities: Background, Development and Experiences of Austrian Organizations*. Paper presented at the 1st Workshop on Visualising, Measuring and Managing Intangibles, Ferrara, Italy, 2005

Metodologia de realizare a clasamentelor universitatilor din Romania (2007), retrieved July 2008 from http://www.ad-astra.ro/universitati/methodology.php

OECD Report – *How Do Ranking Impact on Higher Education* (2007), Retrieved July 2008 from http://www.oecd.org/dataoecd/8/27/39802910.pdf

Perle, C., *Legal Framework for IC-Reporting of Austrian Universities – Status quo and future Perspectives*, in Proceedings of the International Conference Intellectual Capital – Values and Wealth at the dawn of the 21st Century, 2005

Sanchez M.P., Elena S., Castrillo R., (2006), *Intellectual Capital Management and Reporting for Universities: Usefulness, Comparability and Diffusion.* Paper presented at the International Conference on Science, Technology and Innovation Indicators. History and New Perspectives. Lugano 2006. Retrieved from www.ticinoricerca.ch/conference/full_pdf/sanchez_lugano.pdf

Third European Report on Science & Technology Indicators (2003), European

Commission, Retrieved August 2008 from

http://cordis.europa.eu/indicators/third_report.htm