The Impact of Ranking Systems on Higher Education and its Stakeholders

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Abstract

The arrival of university ranking has changed the landscape of higher education all over the world and is likely to continue to influence further development nationally and internationally. This article provides an overview of rankings systems in which Australian universities feature and it goes on further to discuss the impact ranking systems have on higher education and its stakeholders. It concludes by acknowledging that ranking systems are viewed differently by different stakeholders and hence affect them in different ways. While no one ranking can be accepted as definitive, these ranking systems will remain a part of the higher education system for some time to come.

Keywords*:* University rankings; league tables; higher education; stakeholders

There is a new era in higher education, characterised by global competition, in which university ranking systems have assumed an importance. Their emergence, often controversial and subject to considerable debate, has been met with a lot of scepticism, some enthusiasm and an institutional unease. Regardless, ranking systems are here to stay and it is important to assess their effect on the higher education sector and its stakeholders.

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Overview of ranking systems

There are many standards used to assess excellence in universities but the quality of teaching and research is fundamental (Taylor & Braddock, n.d.). As ranking systems become a standard feature in higher education systems, they are also increasingly accepted as an instrument for undertaking 'quality assurance' (Sadlak, 2006). According to Harvey and Green (1993), quality is, however, relative to the user and circumstances in which it is applied. Ranking systems do not and cannot measure quality in higher education in its entirety, not least because there is still no consensus of what constitutes quality in higher education. Thus ranking systems incorporate the needs of some stakeholders better than others (Marginson, 2006a). In a review of 19 league tables and university ranking systems from around the world, Usher and Savino (2006) also found that ranking systems, with their use of arbitrary weightings, are driven by different purposes and concepts of university quality. Thus different ranking systems, depending on their target audience, would have different notions of quality in higher education.

Ranking systems can be conducted either nationally or internationally, based on institutional-wide or sub-institutional characteristics (Usher & Savino, 2006). While there are currently three institutional ranking systems which compare institutions on a global basis and numerous others on a national basis, there are many others that focus on particular disciplines (e.g., *Financial Times* MBA rankings) or particular qualities of universities (e.g., the *Journal of Black Higher Education's* Racial Diversity Ranking). This section provides an overview of rankings systems in which Australian universities feature (excluding those that focus on particular disciplines and/or programs).

National Rankings

Pioneered by the *US News and World Report* ranking in 1981, ranking systems that compare institutions within national boundaries are prevalent nowadays in many countries, including Canada, China (and Hong Kong), Germany, Italy, Poland, Spain and the United Kingdom (UK) (Usher & Savino, 2006). Universities are also increasingly developing their own ranking systems, such as the *Melbourne*

Institute Index of the International Standing of Australian Universities (Williams & Van Dyke, 2005); and if one has not already been set up for a particular higher education system, it may not be surprising that others may develop it. The ranking of Russia's top 100 universities is an example of one developed by a university outside the country, Huazhong University of Science and Technology (Sadlak, 2006). In Australia, there are three national ranking systems: the *Learning and Teaching Performance Fund*, *Melbourne Institute Index* and *Good Universities Guide*.

The *Learning and Teaching Performance Fund (LTPF)* was announced in 2003 as part of the Australian government's *Our Universities: Backing Australia's Future* initiative. The purpose of the fund was to reward higher education providers that 'best demonstrate excellence in learning and teaching' (DEST, 2005). It is based on seven measures grouped broadly into three categories: student satisfaction, outcomes and success. There have been many criticisms regarding its methodology, which DEST has attempted to address. In 2006 (funding for 2007), a number of changes were incorporated including equally-weighted measures, amendments to a number of measures and outcomes being reported in four broad discipline groups (in contrast to the previous year's institution-wide ranking).

The *Melbourne Institute Index* aimed to take into account research performance and other areas such as research training and teaching (Williams & Van Dyke, 2005). It was based on 36 measures broadly grouped under six categories: quality/international standing of academic staff (40%), quality of graduate programs (16%), quality of undergraduate intake (11%), quality of undergraduate programs (14%), resource levels (11%) and opinions gained from surveys (8%). In 2006, the authors ranked institutions by discipline, using a combination of survey and performance measures that were different from previous years. They maintained that 'while choice of university by undergraduates may be based heavily on the standing of an institution as a whole, for others, such as Ph.D. students and researchers, standing in the discipline is often more important' (Williams & Van Dyke, 2006, p. 1).

The *Good Universities Guide* (*GUG*) was intended as a service to prospective students and does not translate its outcomes into an overall university ranking. It ranked institutions across a number of dimensions to assist students in assessing the strengths and weaknesses of institutions. On each measure, institutions are grouped into five bands. A rating of five stars indicate that the institution is in the top 20% for that measure, four stars put it in the second 20% and so on.

Global Rankings

There are currently three main ranking systems which compare institutions on a global basis, the *Shanghai Jiao Tong University (SJTU)* Academic Ranking of World Universities, *Times Higher Education Supplement (THES)* World University Rankings and the *Newsweek* Global Universities Ranking.

The *SJTU* ranking, first published in 2003, was developed in order to determine the gap between Chinese universities and world-class universities, particularly in aspects of academic or research performance (*SJTU*, 2006). The ranking of top 500 universities is predominantly based upon publication and citation (20% citation in leading Science and Social Science journals, 20% in articles in Science and Nature and 20% in the number of highly cited researchers). Another 30% is determined by alumni and staff with Nobel prizes and Field medals and the remaining 10% is determined by dividing the total derived from the above data by the number of faculty. Hence, according to *SJTU*, 'quality' in higher education is denoted by scientific research and Nobel Prizes. The measures do not attempt to cover aspects such as teaching, community building or internationalisation — it is about research excellence. For many, the *SJTU* ranking has become the 'Achilles heel' of universities' reputation, with a potential to weaken their standing (Marginson, 2006b).

The *THES* ranking began publishing their ranking tables in 2004 in recognition of the increasingly international nature of higher education (*THES*, 2006). Its ranking of the top 200 universities is predominantly based upon opinion surveys (40% from peers and 10% from graduate recruiters). The

remaining 50% includes measures of citations per faculty (20%), faculty per student ratio (10%), international faculty (5%) and international students (5%). The *THES* ranking methodology has attracted much criticism. Nevertheless, the *THES* ranking has now been in existence for the last four years (with a hard copy version that includes a full list of the top 500 universities also published for the first time in 2006) and it would seem that 'quality' in higher education, according to the *THES*, is primarily about reputation (as measured by opinion surveys). While 50% of the index aimed to measure quality in teaching, research and internationalisation, quality in these areas cannot be adequately assessed using student–staff ratios (could be an efficiency measure), citations per faculty (which are skewed toward English-speaking journals in the sciences) and staff and student internationalisation measures (rewards quantity rather than quality).

Published for the first time in August 2006, *Newsweek* claimed that the ranking table took into account 'openness and diversity, as well as distinction in research' (*Newsweek*, 2006). It ranked 100 universities and is effectively a 'cut and paste' of the *SJTU* rankings (50% from highly cited researchers;, articles published in Nature and Science;, articles in Science Citation Index-expanded, Social Science Citation Index, and Arts & Humanities Citation Index) and the *THES* ranking (40% from international faculty; international students; student/faculty score; and citations/faculty); plus an additional indicator of library holdings (10%).

Web Rankings

Recently, league tables have emerged that rank universities according to their presence on the web, such as *G-factor* International University Ranking; *Webometrics* Ranking of World Universities and *4 International Colleges & Universities (4icu)*. The *G-factor* is based solely on the number of links from other university websites and claim that it is an objective form of 'peer review' because 'the millions of academics, administrators and students who create the massive volume of content on university websites collectively vote with their feet when deciding to add a link to some content on another university website'

(Hirst, 2006). *Webometrics,* on the other hand, use a number of indicators (size, visibility and rich files) to rank universities according to their web publication (Cybermetrics Research Group, 2006) while *4icu* ranks universities in each country by web popularity as measured by a number of independent web metrics, including Google™ Page Rank, total number of inbound links and Alexa® Traffic Rank (4icu, n.d.).

Although the ranking systems compare institutions on their web presence, each has positioned itself quite differently. While the *G-factor* and *4icu* seem to target themselves toward providing information to prospective staff and students, *Webometrics* pits institutions against each other on the basis of their web publication and open access initiatives.

The ranking systems described above measure quality of higher education institutions for different groups of stakeholders. The Organisation for Economic Co-operation and Development (OECD), in its policy analysis on higher education, stated that 'governments and higher education institutions do not have a monopoly on the measurement of quality' (OECD, 2006, p. 23). Ranking systems are produced by what each author perceives as constituting quality. Instead of trying to meet the needs of one stakeholder to the detriment of another, a better alternative would be a system of rankings that examine and rank institutions and programs based on each individual's chosen criteria. Such a system has been developed by the Centre for Higher Education Development (CHE) in Germany in association with *Die Zeit*, which allows students to decide their own criteria and weightings (CHE, 2006). By providing a range of useful comparative data that takes account the diversity of university education, such a system could be extended for use by other stakeholders in higher education.

Impact of ranking systems on higher education and its stakeholders

There is evidence to show that ranking systems have significantly impacted on higher education institutions and their stakeholders, whether individually or as a group. These evidence, whether anecdotal

or empirical, have provided sufficient indication of how ranking systems have transformed the higher education landscape.

The credibility of many institutions and senior management within these institutions has been affected due to the emergence of ranking systems. For instance, the University of Malaya, the oldest and one of the top universities in Malaysia, dropped 80 places in the *THES* rankings without any decline in its real performance due to definitional changes. This resulted in a replacement of the Vice-Chancellor and embarrassed the university, which claimed in an advertisement two months shy of the 2005 *THES* results, that it strived to be among the 50 best universities by 2020 (‘University of Malaya 100 years’, 2005).

Some universities have become so concerned about rankings that they have refused to participate. In 1999, the University of Tokyo stated that it would no longer provide data to *Asiaweek* magazine for its annual ranking of universities in the Asia-Pacific. Also opting out were 19 mainland Chinese universities, including Peking University (Bacani, 1999). *Asiaweek* abandoned its ranking shortly thereafter. Recently, a group of eleven institutions in Canada indicated that they would no longer participate in *Maclean’s* magazine annual ranking of universities in that country (Birchard, 2006). *Maclean’s* response was that it would continue to rank these institutions using data from other public sources. This underlines an important development: with the wealth of data that is collected and made public by governments, the willing participation of institutions in rankings is no longer necessary.

Rankings have influenced national governments, particularly in allocation of funding. The *Research Assessment Exercise* (*RAE*) in the UK and the *Performance-based Research Fund* (*PBRF*) in New Zealand were introduced in a bid to ensure that excellence in research is encouraged and rewarded. The *LTPF* is, thus far, the Australian government’s contribution to ranking systems with the *Research Quality Framework (RQF)* to come. In China, despite having repeatedly stressed that it does not support ranking exercises, the Chinese government has identified a group of almost 100 universities, including a more select group, that it believed met certain standards of excellence to receive increased funding in an

attempt to build a network of 'world-class' universities (World Education News and Reviews, 2006). More recently, Switzerland is also considering the introduction of an élite system, which would involve a boost in funding for the universities as a way to maintain their status and improve quality (Australian Education International, 2007).

There is agreement among many ranking researchers and university administrators that ranking systems affect students' decision-making process in selecting a higher education institution (e.g., Bhandari, 2006; Federkil, 2002; Filinov & Ruchkina, 2002; Vaughn, 2002). In their study, Roberts and Thomson (2007) found a strong correlation between league table ranking and the relative quality of students being admitted. They further found that applicants who seek admission to the top universities are more likely to use ranking tables (Roberts & Thomson, 2007). There is also anecdotal evidence that university recruiters are increasingly being questioned by potential students regarding the university's standing in league tables. Further, in the recent Monash audit by the Australian Universities Quality Agency (AUQA), the Audit Panel, in discussions with students, found that Monash's reputation and positions in rankings had been the deciding factor in most students' choice of Monash as their place of study (AUQA, 2006). This was especially so for international students studying in Australian and overseas campuses and those in collaborative teaching partnerships. The increase in the number of students studying in universities, costs of higher education, number of students studying abroad and number of grants by governments and higher education institutions encouraging international student mobility have also increased consumer demand for information. Such information will be seen as most valuable by these stakeholders when presented in a manner that is easy to comprehend and when it provides advice (substantiated or not) regarding the best value for money (Merisotis, 2002).

The *RAE* and *PBRF* evidently have affected staff's decision-making process in selecting a higher education institution as an employer of choice (e.g., **'**Academics allege review trickery', 2004; Grayling, 2004; Illing, 2006). Surveys of employers in the UK and United States (US) also provide evidence that 'reputation of university attended' is one of the top eight attributes that employers look for when recruiting

graduates (‘CollegeGrad.com releases top…’, 2006; Smith, 2006). As the global war for talent becomes more aggressive, an internationally recognised educational institution attached to a résumé is one way of distinguishing oneself from another potential applicant.

University rankings may affect the way the perception of the contribution the university makes to its local community, country and increasingly the world in general. More and more, the community is asking the question — what can a university do for us? In the US, the *Washington Monthly* has ranked US colleges based on community and national service (Washington Monthly, 2006). It claimed to be a guide for all Americans who are concerned whether their higher education institutions are ‘making good use of our tax dollars’, ‘producing graduates who can keep our nation competitive in a changing world’ and ‘doing well by doing good’ (‘The Washington Monthly College Rankings’, 2006).

Despite all the criticisms about methodologies used in ranking systems, they nevertheless seem to be shaping the behaviour of institutions (OECD, 2006). Rankings are influencing the decision-making and planning processes within higher education institutions. As Marginson (2007) noted, universities will adopt institutional policies and strategies in order to optimise their position in ranking systems. In developing the strategic directions of the university for instance, many institutions, directly or indirectly spurred by ranking systems, have now developed mission statements (or visions and goals) to become ‘one of the best universities in the world’ (Monash University, 2005), ‘be among the world’s truly great universities’ (The Ohio State University, 2007) and ‘one of the world’s top-ranked universities in the 21st century’ (Seoul National University, 2006). This would have a flow-on effect on other aspects of university operations as supporting plans and institutional policies, such as in those in finance, facilities and services, are developed to reinforce the strategic directions of the university. Additionally, in closing the quality loop, ranking results are increasingly being used as performance indicators, becoming part of an institution’s evaluation and monitoring processes. This, in turn, assists the development of systematic and practical action in order to effect improvement.

According to Carey (2006), rankings mean the loss of freedom and independence for institutions to control their brand and the terms of their success. Rankings put institutions in a mould and affect institutional diversity, hence affecting the way they operate within and across higher education borders. The Australian Education Minister, Julie Bishop, stated that the development of a diversified higher education sector begins with universities which differ from each other in terms of mission (Bishop, 2006). Similarities in universities' mission statements above would seem to suggest that ranking systems may have indirectly influenced diversity (or lack of) in the higher education sector.

If such foresight has not already been incorporated into the institution's vision, specific areas of the university would have been affected by the emergence of ranking systems. For instance, the increase in global competition for high quality staff and costs of top quality research, coupled with the impact of ranking systems in staff's decision-making process, may affect an institution's human resource policies. This is especially so in the light of the *RQF*. A good standing in various rankings is also now reflected in institutions' marketing materials. The University of Wollongong is an example, with a full page advertisement promoting their standing in the *LTPF* and *GUG* (Hobsons Australia, 2006, p. x).

Conclusion

Clearly, ranking systems measure quality for different groups of stakeholders and hence affect them in different ways. While the selection and choice of criteria may not meet each institution's varying standards, the methodology can only improve. Ranking authors are putting their reputation at risk if the methodology is questionable and contains errors. This may ensure more reliable and valid systems in the future. A set of guidelines, Berlin Principles on Ranking of Higher Education Institutions, has also been established by a group of experts and producers of university rankings known as the International Ranking Expert Group (IREG, 2006). These include guidelines for clarity of purpose, target audience and sources of information. Ranking systems are also being subjected to the critical eyes of academics and education practitioners and there is a plethora of debates regarding their limitations, methodology and impact on the

higher education sector. As they become more prevalent, research into the role ranking systems, such as that of McDonough (Eccles, 2002), play on perceptions and behaviours of key stakeholders (such as potential students and their parents, employers, policy practitioners, community) will become more common and widespread.

While no one ranking can be accepted as definitive, they will remain a part of the higher education system for some time to come because they fulfil a need — academic, commercial or otherwise. A better understanding of the methodology (such as the best choice of indicator measures, their validity as measures of effectiveness and the appropriate statistical model used to rank institutions) and effects of ranking systems need to inform public debate. Users of league tables should exert caution when making comparisons between institutions, treating results as suggestive rather than definitive. It is also the responsibility of ranking authors to adopt good practices and guidelines when developing ranking systems and to highlight the limitations about their use. More and more, institutions are being ranked and compared. This is best carried out based on objective information and in a spirit of collaboration.

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