University Ranking Model: Depicting teaching quality as a critical factor

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Abstract:

Global university ranking systems rely heavily on research output and research quality just like it does on reputational surveys. During the last two decades, universities have shown more inclination to hire PhD faculty members having sound research credentials. This global effect of over-reliance on research has actually undermined the actual spirit of teaching and learning. Consequently universities are more concerned with their prestige compared to what they actually contribute in teaching and learning. Similarly employers and policy makers rate ranking, prestige and reputation of university on top. Research output is so much publicized in universities that it shadows actual teaching quality. Teaching and learning aspect is over-shadowed by research in almost all global ranking systems. How much difference a university creates starting from admission of students till graduation is generally missing in measurement of academic quality by ranking bodies.

Dill and Soo (2005, p. 507) have argued that 'Empirical research suggests that the correlation between research productivity and undergraduate instruction is very small and teaching and research appear to be more or less independent activities'. Astin (1996) notes that research and teaching have negative correlation as substantial time is consumed in research activities, and as a result sufficient time is not given to students for teaching and advising, commitment to student development, use of active learning techniques in the classroom.

Following a constructive critique on two main global ranking systems, this paper suggests a university ranking model which is likely to provide more realistic picture of university quality.

Key words: Teaching-Research nexus, Reputational rankings, Measuring teaching quality

Body text:

1. Significance of university rankings:

The process of globalization has almost changed life. Higher education has also undergone dynamic changes along with the process of globalization. Internationalization of higher education is the main offshoot of this process. Obviously the business world is most affected by globalization. Business organizations like to attract the finest minds and the best-equipped future leaders. Universities are the chief source of talented people and supply workforce to world's leading companies. This targeting is not limited to indigenous talent; rather the companies are endeavoring to draw right people and right partners from all over the world to further their business objectives. Consequently, what we term as internationalization of education,

encompasses competition for best faculty, the brightest students, lucrative research contracts. The idea of 'World Class University" is gaining importance in government, employers, investors, alumni, students, applicants and universities themselves. It goes without saying that without measuring the quality, it is difficult to identify which universities may qualify for a world-class university. The main objective of ranking of universities is to actually disseminate information amongst stakeholders about high quality education providers. Most of the ranking systems prevalent today have started off with the sole notion of identifying world-class universities. Of course the methodologies and the processes of these rankings are different but underlying philosophy is the same. Today, even in the under developed nations, university ranking has become common in higher education. Parents, applicants, employers and Alumni are convinced about university rankings.

2. Critique on global ranking systems:

For the sake of discussion and critical analysis, this paper depicts two main global ranking systems i.e. Times Higher Education Supplement (THES) Rankings and Shanghai Jiao Tong University (SJTU) Rankings. Although these two represent two very different purposes, the focus of both rankings is quite comparable: both place the heaviest emphasis on research prestige as measured by quality faculty, amount of university resources, and publication citations (Dill, 2006).

Global ranking systems especially SJTU and THES-QS ranking systems have strong tilt towards research output, number PhD faculty, characteristics of student intake and reputation of the university. Peer review of THES is heavily biased towards university reputation and it may also become whimsical approach as the experts/peers rate universities primarily through their own judgment. The negative impact is that universities already enjoying good repute keep on hitting top 10 or 100 every time, and it becomes very difficult for new comers to break through this barrier. This methodology may hold good for ranking only best known universities/HEIs.

'Rankings are also heavily biased towards input measures like educational expenditures per student, student/faculty ratio, faculty salaries, percentage of faculty with the highest degree in their field, research productivity, size of library or admission selectivity' (Dill and Soo, 2005). Measures like student selection at the time of admission like high scores in international tests do not really determine as to what value has actually been added by the university. Thus, this measure, when included in ranking system, may have prejudicial affect on results.

3. What is missing/insignificant?

The direct measure of teaching quality and student learning has not been given the due importance which it deserves in most of the global ranking systems. Although teaching and learning is very important part of process and it directly influences the value-addition, yet its direct measure in ranking systems is either missing or leaves lot to be desired. Dill and Soo (2005) argue that ranking should focus on whether research is linked with student learning, and input measures like faculty, students, and resources should be given minimal weight. THES-QS global ranking gives 40% weight to peer review which is actually conducted through surveys. That's probably why that top 10-20 universities are consistently getting top ranks over a period of time. The negative effect of this sort of reputational ranking is that employers and other related stakeholders may rely heavily on value of degrees from top ranking universities, without actually measuring the learning or real value-addition in knowledge and skills of graduates.

Kuh (2003) argues that alternative to input indicators would be measures of the teaching and educational process. Marginson (2007, p.140)) states that 'Regardless of whether ranking based on reputational data or not, any system of global rankings tends to function as a reputation maker that entrenches competition for prestige as a principal aspect of the sector and generates circular reputational effects that tend to reproduce the pre-given hierarchy. Reputational rankings are the worst form of ranking, in that they generate the least public goods and most public bads, and the most selective distribution of private goods. At the same time, they are accessible, appear credible and are easy to generate'. It is then quite understandable that students are more concerned with the status of their degrees than what they learn.

4. Teaching-Research nexus:

Global rankings rely heavily on research just like it does on reputational surveys. During the last two decades, universities have shown more inclination to hire PhD faculty members having sound research credentials. The Higher Education Commission (HEC), Pakistan has gone to the extent of fixing number of research papers in selected journals as one of the eligibility criteria for professorial rank. This resulted in shunting out professionals working in industry from entering in professorial ranks. This tilt towards research has produced a competition, especially in Pakistan regarding number of PhD faculty members in a particular university. It is more acute in private sector universities. Brand images of universities are now relying heavily on PhD faculty and their research work. This global effect of over-reliance on research has actually undermined the actual spirit of teaching and learning. Consequently universities are more concerned with their prestige compared to what they actually contribute in teaching and learning. Similarly employers and

policy makers give preference to the repute and status of the university instead of gauging the value-addition made by the institution of higher learning.

Dill and Soo (2005, p. 507) have argued that 'Empirical research...suggests that the correlation between research productivity and undergraduate instruction is very small and teaching and research appear to be more or less independent activities'. Astin (1996) notes that 'research and teaching have negative correlation as substantial time is consumed in research activities, and as a result sufficient time is not given to students for teaching and advising, commitment to student development, use of active learning techniques in the classroom.' Research output is so much publicized in universities that it shadows actual teaching quality. For instance best research papers are replacing best teachers, and as a result a new trend is emerging in at least Pakistani universities that teaching and research tracks are different and so would be the pay packages with much of the bounty going to active researchers. We see that in both THES and SJTU rankings research output heavily outweighs the aspect of quality of teaching. So if teaching-research nexus is small or negative as inferred by the aforesaid researches then the methodology of university ranking systems, which gives lot of weight to research, needs to be revisited.

5. Evolving a university ranking model:

Now, how to cover up the missing aspects like teaching quality and student learning in a ranking model? Of course it is not easy to measure teaching quality and student learning; that is why this paper has projected the idea of 'evolving' a ranking model; and this also needs to be tested. First of all let us try to tackle measurement of teaching quality. Marsh (1987) reports, that 'there is agreement between lecturers and students on the characteristics of good teaching in higher education.' Ramsden (1991) says that student evaluation of teaching quality is a direct measure of consumer satisfaction, provided systematic student evaluation procedures are in place. One of the ways is to devise an evaluation instrument which focuses upon the effectiveness of teaching and impact on student learning rather than information about individual teachers' performance. Students are probably the best judges to ascertain the quality of teaching as it directly affects their learning. 'Students are rarely misled into confusing 'good performance' with effective teaching' (Marsh, 1987). The Course Experience Questionnaire (CEQ) designed by Paul Ramsden (Ramsden, 1991), identified five scales/indicators upon which teaching quality could be measured. These scales have also been tested in 13 HEIs on undergraduate students of final year. These are:

a) *Good teaching*: Teaching staff here normally give helpful feedback on how you are going.

b) *Clear Goals*: You usually have a clear idea of where you are going and what's expected of you in this course.

c) *Appropriate Workload*: The sheer volume of work to be got through in this course means you can't comprehend it at all thoroughly (negative).

d) *Appropriate Assessment*: Staff here seem more interested in testing what we have memorized than what we have understood (negative).

e) *Emphasis on Independence:* Students here are given a lot of choice in the work they have to do.

Following ranking model is suggested which incorporates the critical factor of 'teaching quality'; however, to ascertain teaching quality it is proposed to initially follow Paul Ramsden's indicators mentioned above.

Table 1: Proposed ranking model: Criteria

Indicators	***Weight***
Teaching Quality	30%
Research	20%
Graduate Employability	20%
Faculty	10%
Facilities	10%
Faculty/Student ratio	5%
Alumni winning foreign scholarships	5%

6. How to measure teaching quality?

This is actually the measure of student learning and its primary determinant would be student evaluation of course/study undertaken. For university ranking, final year students or students in their final semesters are to be chosen in determining teaching quality. It will be a two pronged assessment:

- Evaluation by Students: 20%
- Evaluation by Alumni: 10%

The instrument (based on Paul Ramsden's CEQ ,1991) of both the aforesaid evaluations is outlined as under:

Table 2: Survey Instrument

Sr.	Criteria	Scale
1.	*Good teaching:* Does teaching faculty here normally give helpful feedback on how you are going?	1 2 3 4 5
2.	*Clear goals:* Do you usually have a clear idea of where you are going and what's expected of you in this course?	1 2 3 4 5
3.	*Appropriate Workload:* Does the sheer volume of work to be got through in this course mean you can't comprehend it at all thoroughly (negative)?	1 2 3 4 5
4.	*Appropriate Assessment:* Does teaching faculty here seem more interested in testing what you have memorized than what you have understood (negative)?	1 2 3 4 5
5.	*Emphasis on Independence:* Are students here given a lot of choice in the work they have to do?	1 2 3 4 5

The feedback is measured on a scale of 1-5. Score of each criterion given above shall be added, and termed as Total Value (TV); then TV is divided by total number of responses multiplied by maximum scale score i.e. 5; and then this figure is multiplied by assigned weight to arrive at a numeric figure/score in these criteria. Mathematically it can be written as:

{TV/ [total number of responses*5]} *{assigned weight}

It can be exemplified as under, suppose there are total 250 responses from final year students in all with following distribution:

85 give 4 score in i); 66 give 3 in ii); 45 give 5 in iii); 40 give 2 in iv) 14 give 3 in v):

TV=85*4+66*3+45*5+40*2+14*3=885

Total number of responses*5=250*5=1250

Score= [885/1250]*20=14.16 out of 30

Measurement of rest of the criteria may not be as intricate as that of teaching quality, so universities may rely on their own methodology.

7. Conclusion:

From the foregoing discussion it is clear that the real aspect of teaching quality and student learning is either missing or it is overshadowed by factors like research and reputation. An effort has been made to make up this deficiency by suggesting a university ranking model, also providing an instrument to measure teaching quality; however this model needs to be tested before adopting.

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