

Global ranking of universities requires realigning of number of research publications for academic recruitments and promotions

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Universities in Bangladesh are in real and direct competition with all overseas universities in improving global ranking. To attain the rightful place in the ranking of our universities the leaders, policy makers, and academics in the higher education sector must come up with realistic and effective policies, strategies, and methods, and implement them across all universities. There is no alternative to changes to the research requirement in the recruitment and promotion of university academics to face the challenging reality of the global race of ranking based on performances of universities.

Ranking of universities at the international level are led by several organisations. Despite some common performance factors, different ranking agencies assess performances of universities based on their own criteria and hence these standards vary from one ranking agency to another. However, the performance in research is arguably the key and common index for all ranking agencies. Hence it is a good starting point to discuss how and where to improve university performances.

University ranking requirements

In 2003, the *Academic Ranking of World Universities* (ARWU), also known as the Shanghai Ranking, published the annual world university rankings using multifactor indicators. The first global ranking was originally compiled and issued by Shanghai Jiao Tong University, China. This ranking emphasizes predominantly on research output and quality, highly cited researchers, publications in high-impact journals, and number of Nobel laureates.

The second agency of ranking of universities is the UK based higher education analytic firm *Quacquarelli Symonds* (QS) established in 2004. The popularly known QS ranking evaluates performances of universities based on institutional and employer reputation, faculty/student ratio, citations of publication per faculty, international faculty and student ratios.

Although initially worked together with QS, *Times Higher Education* (THE) World University Rankings started in 2009. Their ranking assesses performance based on teaching, learning environment, research, citations, international outlook, and industry income.

The *Best Global Universities* published by U.S. News & World Report Best Global Universities Ranking started ranking of US universities in 1983. In 2014 they first published its inaugural global ranking, assessing 500 universities in 49 countries. This ranking agency focuses on research performance and global reputation, with indicators including global research reputation, regional research reputation, publications, books, conferences, normalized citation impact, total citations, number of highly cited papers, and international collaboration.

The Netherlands based *CWTS Leiden* Ranking started global ranking of universities in 2006. They rank performance of universities based exclusively on bibliometric indicators such as the number of publications, citations per publication, and collaboration.

Key role of research in ranking

From the criteria of assessment of performance indicators for global ranking of universities by different agencies it is very clear that research is at the heart of all the agencies. Under the broad heading of research comes the publication of papers, citations per faculty, impact of publications, research funding or income, Nobel laureate, and international collaborations. Hence, to improve the performance of universities in global ranking the number one priority is research development and promotion.

Only good researchers with strong track record of producing best quality research outputs could conduct high quality research and enhance research reputation, citation, collaboration, impact, and training to create new generation of researchers. So, every teacher in the universities must strive to be a successful, productive, and impact making researcher for excelling in the profession and contributing to the reputation of her/his institution. Academics who are not research active may become less valuable, if not redundant, to the universities due to the global push for achieving higher international ranking. The bar for the research achievements will continue to grow higher and higher in the years to come.

Academic promotions in Bangladesh

Like any other professionals, university teachers are entitled to have career progression through regular academic promotions as part of recognising their significant achievements. The criteria of academic promotion of university teachers varies from university to university and country to country. But in Bangladesh, there are some specific guidelines for the academic recruitments promotions provided by the University Grants Commission (UGC) and Ministry of Education. However, the actual practice of academic promotions at different universities may not be based on the same promotion criteria.

Promotion formally recognises the growth, achievement and development of academics in terms of enhanced knowledge, teaching skills, research contributions and professional services. Normally, an academic seeking promotion should be already performing at the level for which s/he is applying. This process ensures natural progression of teachers in their career trajectory.

Research in university academic promotions

Traditionally teaching experience and research performance were the key considerations of academic promotion in universities. In the recent years, the emphasis on the achievement in research is getting more importance in university promotions, especially at the rank of associate professor and full professor. There is a growing and direct impact of global ranking on the shift in attributing higher weights on research publications for the promotion of senior academics.

In the western universities, only research leaders in a specific field, evidenced by high quality research publications in top rated journals and international reputation among the professional peers qualify to be full professor. Since the university ranking is a global competition, any nation taking the challenge to succeed in the race must put higher emphasis in research for academic promotion so that their faculties are comparable with those in the rest of the world.

Current research requirements for promotions

As per a letter of UGC issued in April 2021 on the Ministry of Education approved guidelines for academic appointments and promotions at different levels of university faculties the follow research publication (along with teaching) requirements are stated:

- (a) For promotion (or appointment) as an assistant professor the academic must have at least *three* published journal (peer reviewed) articles in which at least one as the first author.
- (b) For promotion (or appointment) as an associate professor the academic must have at least *six* published journal (peer reviewed) articles in which at least two as the first/corresponding author, and three as an assistant professor. At least one of the six publications must be in an indexed journal with impact factor.
- (c) For promotion (or appointment) as a full professor (grade 3) the academic must have at least *twelve* published journal (peer reviewed) articles in which at least three as the first/corresponding author, and six as an associate professor. At least two of the six publications must be in an indexed journal with impact factor.

Grade 3 full professors require two more peer-reviewed journal publications to become grade 2, but there is no research requirement for the grade 2 professor to become grade 1 professor.

Proposal to realign the publication requirements

The current promotion criteria for research publications are solely based on the number of publications in peer reviewed journals for each academic level. However, for associate and full professor there is a requirement of one and two indexed journal publications, respectively.

The criteria of research are silent about the number of co-authors in journal publications. So, every co-author of any journal publications could claim equivalent to a single author publication. A more sensible and rational way to distribute weights to the co-authors of journal publications is to divide the credit equally (to make it simple and easy) to the authors, assuming each of them contributed equally to the paper. So, if there are two co-authors in a published paper each will receive $\frac{1}{2}$ of a publication, for three co-authors $\frac{1}{3}$ of publication, and so on. Thus, if one academic has three publications, one single author, one two-authors, and one four-authors, then his/her number of publications is $1 + \frac{1}{2} + \frac{1}{4} = 1\frac{3}{4}$, less than 2, not 3. Lack of clarity on this is confusing and could create potentially serious misunderstanding.

The requirement of peer-reviewed journal is a good start knowing that some peer-reviewed journals could be highly controversial. Also, there are blinded and non-blinded peer-reviewed journals. At the age of lots of predatory online commercial journals, the matter of peer-review requires further clarity. One way to overcome this ambiguity is to make indexed peer-review, not just peer-review, for all publications. To be more specific and avoid controversy the journals should be indexed in prestigious professional databases such as ISI, Scopus etc.

As the world is moving towards the global ranking of universities, to make our research more valuable and our researchers more competitive and prestigious, we should reward academics who publish in high impact journals, not just indexed journals. We should introduce the requirement of publishing in Q1 (if not D1) journals at least for some of the publications to be used for promotions. As an example, for promotion to assistant professor, out of a minimum of three peer-reviewed publications at least one should be in a

Q1 journal. Similarly, for promotion to associate professor at least three articles and that for full professor (grade 3) at least 6 articles must be published in Q1 journals. For grade 2 and 3 full professors an additional 2 and 4 Q1 journal publications, respectively, should be required.

Since the performance of universities are measured by the citations of their research publications, promotion criteria should be linked with the number of citations of the academics. For promotion to assistant professor, there must be at least 25 citations, and for associate professor at least 100, for grade 3 professor at least 200, for grade 2 professor at least 400, and for grade 1 professor at least 500 citations.

Similarly, the H-Index should be introduced in the promotion criteria to ensure our academics select good journals to publish their research papers that will help increase citations and raise up their H-Index. An H-Index of 3 for promotion to assistant professor, 6 to associate professor, 9 to grade 3 professor, 10 to grade 2 professor and 12 to grade 1 professor.

I believe Bangladeshi academics and researchers deserve much better recognition of their talents and achievements to stand along side their global peers. The key stakeholders in the higher education sector may consider the above proposals as a basis to revisit the promotion criteria for our university academics so that our national contribution to the global knowledge creation gets its rightful place and our future generation of academics benefits from the strong foundation of our research development and promotion.

Obviously, the above research publication criteria may not fit every discipline, and appropriate adjustments of the criteria would be required in consultation with the specific discipline experts.

Availability of resources and appropriate remuneration and reward for high achievers in research should be made available to ensure the continuing dedication of the productive researchers. A cultural shift in the higher education sector is essential for our academics to excel in their research innovation, supervision, mentorship, and collaboration. Agreement on realistic and achievable policies and adoption of appropriate promotion criteria to fit in the changing higher education world would help our universities to achieve higher ranking.

In this article, I have only covered the research publications criteria for academic appointments and promotions excluding research supervision, competitive grants, collaboration, industry engagement etc. Moreover, I have not considered the teaching related criteria including development of programs and courses, innovation, delivery and assessments, teaching evaluation, team management, and services to the university, profession leadership, editorial role, and community contributions. Those important factors could be covered in a separate article.

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