A Study of Methodology for Ranking of Academic Institutions in India through NIRF

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Abstract

The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29th September 2015. The parameters broadly cover "Teaching, Learning and Resources," "Research and Professional Practices," "Graduation Outcomes," "Outreach and Inclusivity," and "Perception". In each parameter, percentile score using the log-function has been derived, which gives - where the Very few institutions have got the accreditation, whereas ranking is open to all. Ranking is a reflection of the yearly performance of the institutions. The overall score can take a maximum value of 100. The institutions can then be rank-ordered based on their scores.

Keywords: NIRF, Institutional Ranking, Teaching, Learning & Resources (TLR), Research and Professional Practice (RP), Graduation Outcomes (GO), Outreach and Inclusivity (OI), Peer Perception

Introduction

The National Institutional Ranking Framework (NIRF) was launched in 2015 to rank higher educational institutions in the country based on objective criteria to promote competitive excellence in the higher educational institutions. NIRF recently invited applications for India Rankings 2021, the Sixth edition of this annual exercise. (Ministry of Education, 2021)

This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations broad understanding arrived at by a Core Committee set up by MHRD, to

identify the broad parameters for ranking various universities and institutions. The parameters broadly cover "Teaching, Learning and Resources," "Research and Professional Practices," "Graduation Outcomes," "Outreach and Inclusivity," and "Perception".

The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29th September 2015. India Rankings – 2016 based on this framework were released on 4th April 2016.

Parameters (NIRF, 2021)

Teaching, Learning & Resources (TLR)

- Student Strength including Doctoral Students (SS)
- Faculty-student ratio with emphasis on permanent faculty (FSR)
- Combined metric for Faculty with PhD (or equivalent) and Experience (FQE)
- Financial Resources and their Utilisation (FRU)

Research and Professional Practice (RP)

- Combined metric for Publications (PU)
- Combined metric for Quality of Publications (QP)
- IPR and Patents: Published and Granted (IPR)
- Footprint of Projects and Professional Practice (FPPP)

Graduation Outcomes (GO)

- Metric for University Examinations (GUE)
- Metric for Number of Ph.D. Students Graduated (GPHD)

Outreach and Inclusivity (OI)

- Percentage of Students from Other States/Countries (Region Diversity RD)
- Percentage of Women (Women Diversity WD)
- Economically and Socially Challenged Students (ESCS)
- Facilities for Physically Challenged Students (PCS)

- Perception (PR) Ranking

Peer Perception
- Academic Peers and Employers (PR)

Comparison with Accreditation and Importance of Ranking (Framework, 2021)

Accreditation is a 5-year comprehensive assessment of the institution as a whole. Ranking is a yearly affair. Accreditation gives absolute grade; ranking is relative to the other institutions similarly placed.

Accreditation is a one-time (5 year) event. Accredited Institutions can slip in their yearly performance. Stakeholders are interested in knowing whether the institution is doing better or worse at the end of each year. Ranking is an Annual Report Card to the Nation and to the stakeholders on what has been done by the institution in the last one year, on the given performance. Very few institutions have got the accreditation, whereas ranking is open to all. It is due to this reason that across the Countries, there is both accreditation and ranking. There is a possibility that an institution which had a bad accreditation grade gets a good rank and vice versa. The institutions can slip or do better after they got their accreditation. Ranking is a reflection of the yearly performance.

The score is a relative score, not absolute. Therefore a statement that 'The institution with fail marks is ranked in the top 100', is incorrect. This is NOT an absolute score. In each parameter, percentile score using the log-function has been derived, which gives - where the Very few institutions have got the accreditation, whereas ranking is open to all. It is due to this reason that across the Countries, there is both accreditation and ranking.

The institutions have given this data certifying that it is correct. Even then, the data has been checked with reference to the data validations that have been built in. For example, if the annual fee is Rs. 10 lakh, and the institution is claiming that 80% of the students are from economically backward sections, there is an apparent inconsistency. The

NIRF checks such data with the institution and other regulator data. Most of the data pertaining to the research, which has a large weightage, is taken from third party and authentic sources like Scopus or Web of Science. This data is certainly valid and correct. We must understand the NIRF score as a reflection of where the institution is standing vis-a-vis other institutions in the similar category.

Salient Features of Methodology for Ranking of Academic Institutions in India (HRD, 2021)
- Methodology is based on developing a set of metrics for ranking of academic institutions, based on the parameters agreed upon by the core committee.
- These parameters are organized into five broad heads, and have been further elaborated into suitable sub-heads. Each broad head has an overall weight assigned to it. Within each head, the various sub-heads also have an appropriate weight distribution.
- An attempt is also made to identify the relevant data needed to suitably measure the performance score under each sub-head. Emphasis here is on identifying data that the institution can easily provide or is easy to obtain from third party sources and easily verifiable, where verification is needed. This is important in the interest of transparency.
- A suitable metric is then proposed based on this data, which computes a score under each sub-head. The sub-head scores are then added to obtain scores for each individual head. The overall score is computed based on the weights allotted to each head. The overall score can take a maximum value of 100. The institutions can then be rank-ordered based on their scores.

Methodology of Ranking illustrated below (HRD, 2021)
1. Teaching, Learning & Resources (TLR): 100 marks
- Ranking weight: 0.30
- Overall Assessment Metric:
 TLR = SS (20) + FSR (30) + FQE (20) + FRU (30)

• Component metrics based on:

A. Student Strength including Ph.D. Students: SS

B. Faculty-Student Ratio with emphasis on permanent faculty: FSR

C. Combined metric for Faculty with PhD (or equivalent) and Experience: FQE

D. Financial Resources and Their Utilisation: FRU

2. Research and Professional Practice (RP): 100 marks

• Ranking weight: 0.30

• Overall Assessment Metric:

 RP = PU (40) + QP (40) + FPPP (20)

• The component metrics explained on following pages.

A. Combined Metric for Publications: PU

B. Combined Metric for Quality of Publications: QP

C. Footprint of Projects, Professional Practice and Executive Development
Programs: FPPP

3. Graduation Outcome (GO):100 marks

• Ranking weight: 0.20

• Overall Assessment Metric:

• GO = GPH (40) + GUE (20) + GMS (40)

• The component metrics are explained on the following pages:

A. Combined metric for Placement and Higher Studies: GPH

B. Metric for University Examinations: GUE

C. Median Salary: GMS

4. Outreach and Inclusivity (OI): 100 marks

• Ranking weight: 0.10

• Overall Assessment Metric: OI = RD (30) + WD (30) +ESCS (20) + PCS (20)

• The component metrics are explained on following pages:

A. Percentage of Students from other States (Region Diversity): RD

B. Percentage of Women (Women Diversity): WD

C. Economically and Socially Challenged Students: ESCS
D. Facilities for Physically Challenged Students: PCS

5. Perception (PR) – 100 marks
• Ranking weight: 0.1
• Overall Assessment Metric: PR = 100
• Component metrics are explained in the following pages:
A. Peer Perception: Employers & Academic Peers: (PR)

Conclusion
The parameters broadly cover "Teaching, Learning and Resources," "Research and Professional Practices," "Graduation Outcomes," "Outreach and Inclusivity," and "Perception". All efforts will be made to display the raw data on the NIRF website after due processing by NIRF for cross-checking by the institution. Emphasis here is on identifying data that the institution can easily provide or is easy to obtain from third party sources and easily verifiable, where verification is needed. NIRF, by itself or with the help of other suitably identified partner agencies will also undertake authentication of data, wherever felt necessary, and where feasible.

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