

STUDY OF DELHI UNIVERSITY COLLEGES RANKED IN TOP 100 BY NATIONAL INSTITUTIONAL RANKING FRAMEWORK DECEMBER, 2019

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Introduction

Education has always been given due importance in India with its foundation in metaphysical, epistemological and the axiological outlook of great educational philosophers like Rabindranath Tagore, Mohandas Karamchand Gandhi, Sri Surobindo, Jiddu Krishnamurthi etc. they very efficiently conceptualised the education system in terms of nature, extent, and scope. The Constitution of India through its Fundamental Rights and Directive Principles of State Policy has entrusted upon the citizens, the right to education (Right to Education Act 2009). This indeed made the country to see a new beginning in the field of education.

Obtaining quality education is the foundation of sustainable development. The setting up of All India Council for Technical Education, AICTE in 1945 and University Grants Commission, UGC in 1956 speaks volume about the vision and responsibility of our leaders and planners in those early years. The challenge to maintain quality education becomes difficult when the institutions have to face competition from within and outside the country. Education must essentially comply with certain standards of compliance. These standards are provided by regulatory agencies.

As the institutions are working on all area of quality improvement for survival, sustenance and for establishing distinct standards in the highly competitive market, it is increasingly becoming important that these educational institutions undergo explicit quality evaluation and assurance processes. This proves conducted by national quality assurance organisations accredits the institution and assigns a rank that augments its current position or gives direction for future improvement. The ranking and recognition through accreditation add to the prestige of an educational institution and be beneficiary of funding, increased enrolment of students, improved public image and perception.

NIRF, National Institutional Ranking Framework is a framework which was approved by the Ministry of Human Resource development and was introduced on 29th September 2015. This

framework ranks various educational institutions all over the country in different categories based on teaching standards, research work, placements and outreach programmes, among other parameters. These categories are classified into Engineering, Pharmacy, Management, Colleges, Medical, Law, Architecture and Overall Universities. The methodology used by the framework considers various parameters approved by the Core Committee to rank universities and institutions around the country.

Ranking promotes competition among the institutions and drive them to strive for excellence. As ranking is an extremely challenging task, highly experienced experts are required who have great knowledge of higher education system in India and has full commitment for this cause. This culture is important as provides several insights to all about major areas such as faculty development, student needs and focus areas, placement improvements, infrastructure requirements, library and laboratory needs etc.

On the basis of several categories, 16-18 parameters which are organised into five major groups, have been taken into account and being ranked for evaluation and streamlining processes to create efficiencies. The parameters have been designed considering certain technicalities and details and are accepted globally by serving as pointers to ambience for teaching, learning and research. The five parameters according to which the institutions and universities are ranked are elaborated in detail.

Parameter 1: Teaching, Learning & Resources (TLR)

This parameter which accounts for a ranking weight of 0.40 tests various colleges on the following sub parameters:

- Student Strength which includes Doctoral students as well and carries 20 marks.

The formula used is “ $SS = f(NT, NE) * 20$ ”

Where, SS refers to the student strength, f (NT, NE) are the functions determined by NIRF, NT refers to the total sanctioned strength of under graduate and post graduate approved intake in the institution and NE is the total number of enrolled students in all under graduate and post graduate programs of the institution.

- Faculty Student ratio with emphasis on permanent faculty carries 30 marks.

The formula used is “ $FSR = 30 * [20 * (F/N)]$ ”

Where, FSR refers to the Faculty student ratio, F is the parameter which considers regular full time faculty in the previous year in the respective institution and N is nothing but NT referred in the previous point.

- Combined metric for Faculty with PhD and Experience carries 20 marks.

The formula used is “ $FQ = 10 * (FRA/75)$, $FRA \leq 75\%$ and $FQ = 10$, $FRA > 75\%$ ”

Where, FQ refers to the combined metric for Faculty with PhD and Experience and FRA is the percentage of Faculty with PhD with respect to total number of faculty required or actual faculty whichever is higher in the previous year.

- Financial Resources and their Utilisation has been given weightage of 30 marks.

The formula is “ $FRU = 10p (BT) + 10\min (4*BC/BT, 1) + 10\min (4*BO/3BT, 1)$ ”

Where, FRU refers to Financial Resources and Utilisation, BT considers the amount spent on an average per student out of annual expenditure in the previous three years excluding the expenditure on buildings or infrastructure etc., BC is the amount spent on an average out of annual capital expenditure per student which includes the amount spent on academic activities and resources. This amount can be spent on library resources, workshops, new equipment for laboratories, studios, other identified academic activities excluding expenditure on buildings etc., BO is the operational expenditure per student spent on faculty resources and staff salaries and the function p is the percentile fraction.

(Source “www.nirfindia.org”)

Parameter 2: Research and Professional Practice (RP)

This parameter which accounts for a ranking weight of 0.15 tests various colleges on the following sub parameters:

- Combined metric for Publications carries 70 marks.

The formula used is “ $PU = 30 * p(P/F)$ ”

Where, PU refers to the combined metric for publications, P refers to the number of publications which is include on the basis of weighted average of the largest numbers given in Web Science, Scopus, FT 45, PUBMED in two resources over the previous 3 years, F is the number of faculty members which is considering nominal number and is calculated on basis of an FSR of 1:10.

- Combined Metric for Quality of Publications carries 30 marks.

The formula used is “ $QP = 15 * p(CC/P) + 12.5 * p(NCI) + 12.5 * p(TOP@%P)$ ”

Where, QP refers to the quality of publications which includes combined metric for publications , CC refers to the citation count which includes total citations in past 3 years, P is the total number of publications over the period computed for PU, CC is equal to $(0.45CCW + 0.45CCS + 0.1CCI)$, NCI is the normalized citation index which includes average of past 3 years and is equal to $(0.5NCIW + 0.5NCIS)$ and TOP25 refers to the citations in top 25 percentile which considers the average of past 3 years and is equal to $(0.5TOP25PW + 0.5TOP25PS)$.

(Source “www.nirfindia.org”)

Parameter 3: Graduation Outcomes (GO)

This parameter which accounts for a ranking weight of 0.25 tests various colleges on the following sub parameters:

- Combined percentage for Placement, Higher Studies and Entrepreneurship has been given weightage of 40 marks.

The formula used is “ $GPHE = 30 * (Np/100 + Nhs/100) + 10p3$ ”

Where, GPHE refers to the combined % for placement, higher studies and entrepreneurship, Np refers to the percentage of graduating students at both under graduate and post graduate level. It includes the students those who are placed either through campus placement or centralised

placement and number is included on an average of past 3 years, Nhs includes the percentage of graduating students at undergraduate and postgraduate level, who have been selected for higher studies in the past 3 years and their number is included on average basis , p3 is equal to p(NE) and NE is the number of sustained spin-off companies set up over past 5 years period.

- Metric for University Examinations carries 40 marks.

The formula used is “ $GUE = 15 * \min[(Ng/80),1]$ ”

Where, GUE refers to the metric for university examinations and Ng is the percentage of students included as a fraction of approved intake and are taken on an average of past 3 years, this number includes those students who have passed the respective university examinations in a stipulated time for the program in which they were enrolled.

- Median Salary carries 20 marks.

The formula used is “ $GMS = 20 * p(MS)$ ”

Where, GMS refers to the median salary and MS is the median salary of graduates from an institution.

(Source “www.nirfindia.org”)

Parameter 4: Outreach and Inclusivity (OI)

This parameter which accounts for a ranking weight of 0.10 tests various colleges on the following sub parameters:

- Region Diversity parameter includes Percentage of Students from other States/ Countries carries 30 marks.

In this parameter more weightage is given to students from other states as compare to students from other countries. The formula used is $RD = 25 * \text{fraction of total students enrolled from other states} + 5 * \text{fraction students enrolled from other countries}$.

- Percentage of Women carries 30 marks.

The formula used is “ $WD = 10 * (NWS/50) + 10 * (NWF/20) + 5 * (NWA/2)$ ”

Where WD refers to the percentage of women, NWF is the percentage of female faculty, NWS refers to the percentage of students and NWA refers to the number of female members at senior administrative positions which includes deans, head of the Institute , department heads etc.

- Economically and Socially Challenged Students carries 20 marks.

The formula used is “ $ESCS = 25 * (necs/50)$ ”

Where, ESCS refers to the students who are economically and socially challenged and Necs is the percentage of students who are economically and socially challenged.

- Facilities for Physically Challenged Students carries 20 marks.

The formula used is “ $PCS = 20\text{marks}$ ”

Where, PCs refers to the facilities for physically challenged students.

(Source “www.nirfindia.org”)

Parameter 5: Perception (PR)

This parameter which accounts for a ranking weight of 0.10 tests various colleges on the following sub parameters:

- Peer Perception includes Employees and Research Investors which carries 100 marks.

To fulfil the requirements of this parameter a survey is conducted with a large category of professionals from reputed organisations, also with officials of funding agencies in government sector as well as private sector and institution heads of NGOs. The lists are then obtained from institutions and a comprehensive list is then prepared on the basis of several criterias where various sectors, regions etc. are taken into account and these lists are updated periodically.

(Source “www.nirfindia.org”)

As seen above, each parameter is assigned a certain weightage. Various sub-heads also have an assigned weightage distribution within each group. These weightages are decided considering the specific discipline in mind. Since NIRF was launched in the year 2015, the weightage distribution has never been consistent and changes every year. The institutions are required to collect to collect relevant data which is easily available from third party sources and is also easily verifiable. A suitable metric then computes a core under each sub-head. The final score is calculated on the basis of weights allocation done to each heading and a maximum of 100 value can be attained.

An Online Data Capturing System is used by NIRF to capture relevant data of registered institutions. The data is submitted by the registered institutions in this system using relevant authentication credentials provided by NIRF. The system sought required data in a particular format which helps in computing ranking of metrics for each parameter and verifies for consistency of data.

Research Methodology

National Institutional Ranking Framework (NIRF) for the year 2019 was released on April 9, 2019 by Shri Ramnath Kovind, President of India. The NIRF rankings was released for 9 categories including into Engineering, Pharmacy, Management, Colleges, Medical, Law, Architecture and Overall Universities In our research paper a study of NIRF rankings for college category has been taken into account. A comparison was done for 27 colleges of University of Delhi which secured a ranking in top 100 colleges in India in the year 2019. The results have been compared with their respective scores on various parameters in the year 2018. The purpose of this is to analyse and interpret how and where the colleges focused particularly keeping in mind the various parameters in NIRF ranking that hence led to an increase in their ranks from the year 2018 to the current year 2019.

Table A.1 in the Appendix shows the top 27 colleges of University of Delhi that were included in top 100 colleges of India according to the NIRF report 2019.

Tables A.2 to A.5 show comparison of the scores obtained by these top 27 colleges of University of Delhi in the years 2019 and 2018 in parameters discussed below, the respective change in these scores over the past one year and its weighted implications.

Analysis and Interpretation

- The first criteria Teaching, Learning & Resources carries the maximum weightage. In the previous two years it is observed that the colleges have improved their ranking by increasing their FSR i.e. Faculty Student Ratio with emphasis on Permanent faculty and also by increasing their faculty with PhD and experience. Atma Ram Sanatan Dharam College is a top scorer in this parameter in the year 2019. Also colleges like Gargi, Shri Venkateswara, Jesus and Mary College, Maitreyi and Shyam Lal College have substantially improved their ranks from the previous year by improving their scores on this parameter. Improvement in the operational expenses per students can also increase the rankings of colleges in this parameter.
- The second criteria Research & Professional practice carries third highest weightage. In the previous two years it is observed that the colleges have improved their ranking by increasing their PU i.e. Combined metric for Publications. Hence focus should be made on increasing the number of publications in Scopus, Web of Science, PUBMED, FT 45 over the previous 3 years. Miranda house is the leader in terms of scoring in this parameter, followed by Deen Dayal Upadhyay College and Sri Guru Teg Bahadur Khalsa College in the year 2019. Also colleges like Miranda, Hansraj, Atma Ram Sanatan Dharma, Deen Dayal Upadhyaya, Kirori Mal College, Shri Venkateshwara College, Shri Guru Teg Bahadur Khalsa College and Keshav Mahavidyala have substantially improved their ranks from the previous year by improving their scores on this parameter.
- The third criteria Graduation Outcomes carries second highest weightage. In the previous two years it is observed that the colleges have improved their ranking by increasing their GUE i.e. Metric for University Examinations. Hence focus should be made on ensuring increase in percentage of students which is a fraction of approved intake and is averaged over past 3 years who have passed the respective university exams in a stipulated time for the program in which enrolment was made. Lady Shri Ram College has the highest score in this parameter followed by Jesus and Mary College in the year 2019. Also colleges like Lady Sri Ram, Hansraj, Deen Dayal Upadhyaya, Shri Venkateshwara College, Shri Guru Teg Bahadur Khalsa College, Shyam Lal College and Shivaji College have substantially improved their ranks from previous years by improving their scores on this parameter.
- The fourth criteria Outreach & Inclusivity carries the minimum weightage. In the previous two years it is observed that the colleges have improved their ranking by increasing their RD i.e. Region Diversity and PCS i.e. Facilities for physically challenged students. Hence focus should be made to increase the fraction of total students enrolled

from other states as well as students enrolled from other countries. Hansraj College has the maximum score in this parameter in the year 2019. Also colleges like Hindu College, Atma Ram Sanatan Dharma College, Lady Irwin College, Jesus and Mary College, KeshavMahavidyalaya, Hansraj College and Sri Ram College of Commerce have substantially improved their ranks from previous years by improving their scores on these parameters.

- The fifth criteria Perception also carries the minimum weightage but it plays a significant role in determining ranking. Some colleges have although a low score in Research and Professional practices, but since they scored exceptionally high in perception their overall rank is higher than others. St. Stephens College has the highest score in this parameter in the year 2019. Also, in the previous two years it is observed that the colleges like St. Stephens & Hindu have substantially increased their perception over the past years and hence improved their overall ranking.

Conclusion and Recommendations

- Apart from increasing their ranks by emphasising on Faculty Student Ratio and Faculty with PhD and Experience, the operational expenses per student can be improved in terms of expenses on activities like seminars, and conferences. Also keeping a record of our total sponsorship amounts event-wise which are spent on all academic and cultural fests can lead to a substantial increase in operational expenses per student, there on leading to a much higher rank of the college.
- In order to increase the score in this parameter, the enrolment to Ph.D. by new faculty members should be emphasized. Also quality publications by faculty members should be increased. The college authorities can award such initiatives by faculty members to initiate the same.
- In order to improve the score for this parameter access to systematic data and information regarding admission to higher educational institutions of ALUMNI is needed as it forms a major part of the graduation outcomes. Also data related to placements of outgoing students is needed. Hence, institutionalisation of ALUMNI database in a systematic manner is needed.
- In order to improve the score in this parameter it is necessary to enhance the facilities provided by college for physically challenged.
- A look at the top colleges best practices and various aspects of perception like Peer perception, public perception & competitiveness can help in increasing the score in this parameter.

Scope of further Research

Best practices incorporated in different departments can be accepted and combined together in another research paper. The inputs from this paper can be then used to improve rank of respective institutions.

An inter- college team can be made to suggest various best practices incorporated by different colleges for different stakeholders so that each college can improve their overall ranking. This association will mutually benefit all the colleges and help the University of Delhi in achieving a higher rank in the coming years while competing with different universities of India.

Another area of research can be comparison of different ranking parameters and frameworks which will help in designing new framework suitable as per individual needs and facts. The size of institutions, specialised fields of study calls for specialised ranking systems. Also there is need for specialised ranking framework for management and commerce institutions.

References

- <https://www.nirfindia.org>
- Didham RJ, Paul OM (2015) The Role of Education in the Sustainable Development Agenda: Empowering a learning society for sustainability through quality education. In Achieving the Sustainable Development Goals: From agenda to action, Institute for Global Environmental Strategies