

Higher Education System: Knowledge, State & Potential

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Abstract

This paper embraces the study of quality parameters of higher education institutions responsible for producing employable graduates and thus resulting in enhanced industry acceptance and eventually employability. The newly introduced National Education Policy announced by the Government of India in 2020 is also being studied and discussed to detail the challenges associated with the Indian Education System, its current stature, and the scope of modifications with an intent to enhance the employability of young graduates. As a case study, the USA education system is studied to understand the unique quality parameters as per the global ranking agencies like THE World Ranking, QS, etc. associated with the employability and quality of education at education institutions.

Key-words: Campus Recruitment, Employability, Higher Education, Industry Connect, NEP- 2020, UNESCO, University Ranking System.

1. Overview

Employability of students is regarded as the most dominant factor for the institutions of higher education across the globe to be focused upon. This at one end is helping the institutions to build trust amongst the student's fraternity for the prosperous kick start of their careers through strong industry connect, on the other hand, it is equally playing a significant role in leveling up the ranking & stature of academic institutions. Academic Institutions & Governments across the nations are joining hands

and proposing newer ideas and propositions to enhance the quality of education and employability of the students of their respective institutions/ country.

Global Standards of Education have been reserved as one of the substantial factors accountable for the progress of any country. At the core, strong emphasis is being laid by governments in enhancing the quality of knowledge being imparted at the Higher Education Institutions across economies. It is the responsibility of educational institutions, policymakers, and the stakeholders to make their student's industry- ready, prepare them for the chores which are yet to get discovered, face the unplanned challenges, (Rana et al, 2013), and most importantly must be equipped with the ever-evolving technologies which give them an added advantage to walk towards the road of success. An additional component that has become a matter of big concern these days is to have an employee with a continuous learning approach, who believes in obtaining knowledge even after joining the industry to keep the label of being obsolete away from them. It has become a matter of big concern to review that the jobs are available in the market, which is practically greater than the number of unemployed people, but due to mismatch of skills set, job seekers are unable to get into the jobs of their choice. Given developing a promising career, students are also investing a good quantity of time and money in obtaining tertiary education upon identifying the competency sets and the career prospects of that course/ university is forecasting (Thomas & Bhasi 2018). Different countries have different orientations and defined formats of education systems, practiced by the Academic Institutions. Some of the Institutions are more than century old and carries big fame and have become the role model for other emerging academic institutions (Goldin and Katz 1999). These institutions also have a legacy of producing employable graduates (Tomlinson, 2012).

Over the years, many institutions have developed and started following the framework of education to be followed at their respective institutions. With the globalization of Academic Institutions, the race to offer better services and quality of education has begun (Litz, 2019). To ease out students to identify the right college befitting their career aspirations, independent ranking agencies emerged and started collating the data in the prescribed format from academic Institutions (Reddy, et al 2016). Basis the criteria and inputs provided, the academic institutions are assessed and ranked. This makes it easier for students to identify the college of their interest and caliber (Agrawal, 2017).

In India, due to lack of adequate & good quality schools & higher education institutions at every nook and corner of the regions resulting in lower enrollments (Hoque 2018). This is directly linked with access to quality education. After a long period of 34 years the Ministry of Education (MOE) in India, announced the reframed and restructured education policy, National Education Policy 2020 on 31st July 2020 (NEP, 2020). The NEP 2020 is extremely ambitious as it aims to increase the

investments from the public towards education and scaling up the GDP from 4.4% to 6% (Paruchuru, Mavuri, Jyothsna, 2020). The NEP 2020 comprises a large number of reforms and envisages having a direct impact on more than 300 million students (Rana et al, 2020). The NEP 2020 covers the entire spectrum of the education system in India in which positive developments are predicted right from early schooling till the doctoral or research driven degree programme (UGC, 2020). The NEP 2020 also encompasses an exclusive consideration and implementation of multidisciplinary programmes and courses (Web Resources, NEP 2020).

Students across disciplines will be permitted to study the subjects which are not directly linked to their area of specialization for example- students from the engineering discipline if interested in learning or studying political science, then may have an option to study such subjects. Beyond this exclusive focus is also laid on research initiatives and giving more freedom to the faculties to attend various development programme and a system of incentivization is also being implanted (NITI AAYOG, 2018). This may act as a method to motivate deserving faculty to devote more time towards research and innovation (Rana, et al 2020).

Firstly, to study various renowned global ranking agencies & their methodologies for ranking any higher education institutions. Secondly to study the United States of America (USA) Higher Education System and identify the competitive advantages of its Higher Education Institutions for producing employable graduates & to do the comparative analysis of important parameters responsible for the quality of education and employability in the US & lastly, to propose measures & policies to enhance the employability through the quality of education at the Higher Education Institutions in India.

In this paper, the research is purely based on secondary research. The information & data is derived from the articles, research publications, journals, country-specific data available on their authentic web domains. The research is centered on the relative evaluation and the accompanying factors which play a substantial role in enhancing the quality of education and employability. Comparative analysis of the Education system in the US is done with the Indian current education system. QS WUS (World University Rankings) 2021 & Employability Ranking 2020 have been studied to discover the key performance indicators of Institutions of Higher Education in the United States.

2. Higher Education & Global Ranking System

National Education Policy- 2020 will be going to replace with globalization and the proliferation of higher educational institutions across the globe, the need to gain excellence in the field

of academia and research has been felt (Rust & Kim, 2015). Universities to compete and become leaders of education systems have started working on the quality of delivery, curriculum, and pedagogy. Parallel to this strong need to contribute into the field and innovation & research was desired. Hence, HEI's started laying strong emphasis on R&D areas as well. For aspiring students, it was becoming difficult to identify the University/ college of their choice which best suits their interest. In the year 2003, the first edition of Shanghai Ranking (ARWU) was released. This played a significant role in bringing in excellence in the offerings by participating Universities, benchmarking against the finest ones, working on performance indicators, infrastructure to the quality of research every aspect has got appropriate consideration and role to play in Ranking systems (Hazelkorn, 2011).

2.1 Comparative Analysis of Top University Rankings

On the regional front to national, national to international & finally global, many private and government-aided agencies have taken an initiative and with a constructive approach have come up with several ranking frameworks and methodologies (Bornmann, Mutz & Daniel, 2013). Some of the most valued Ranking Agencies are Round University Ranking (RUR), Academic Ranking of World Universities (ARWU), Times Higher Education World University Rankings (THEWUR), QS World University Rankings, Tab.1.

Table 1 - Analysis of Renowned Academic Ranking Systems

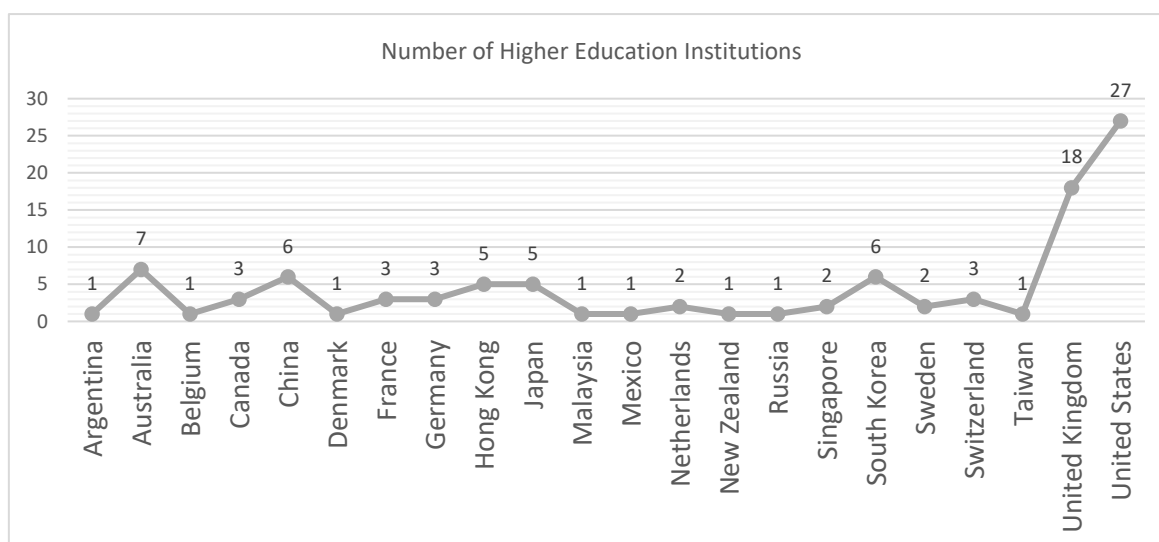
	Round University Ranking	Academic Ranking of World University	Times Higher Education World University Ranking	QS World University Rankings
Year of Inception	2013	2009	2004 (Jointly with QS)	2010 (independently)
Location	Moscow, Russia	Shanghai, China	United Kingdom	United Kingdom
Coverage 2020 (Number of Institutions)	829	82	1500	5500
Quality Parameters & Weightage Given for Ranking				
Teaching	40%	10%	30%	40%
Research	40%	60%	60%	20%
International Diversity	10%	-	7.5%	10%
Financial Sustainability	10%	-	-	-
Alumni of an institution winning Nobel Prizes and Fields Medals	-	10%	-	-
Staff of an institution winning Nobel Prizes and Fields Medals	-	20%	-	-
Industry Income	-	-	2.5%	-
Employer Reputation	-	-	-	10%
Faculty / Student Ratio	-	-	-	20%

Upon studying all the 4 ranking agencies which Top in the Charts and falls under the preference sheet of academic institutions across the globe, all ranking agencies have their own defined set of parameters, in some cases, they are similar to others such as Teaching Reputation or Academic Reputation, Research, Citations, international diversity, etc. where an exclusive focus is laid on Research & publications by RUR, ARWU & THE along with Teaching, on the contrary, QS emphasizes quality of teaching, a little emphasis on research in comparison to other ranking agencies and a dedicated 10% section for employer reputation which is directly linked with the industry connect and the employability of students. In addition to that, the coverage of QS World University Ranking spans over 5500 academic institutions across the globe. In addition to this, QS also mentions about the Faculty/ Student Ratio is again a significant parameter linked to the quality of teaching& learning environment. Therefore, the QS World University Ranking system is being further studied to review the quality of education and factors influencing the employability of university graduates.

2.2 QS World University Ranking

QS World University Ranking 2021 consists of Institutions from 22 countries that have been ranked amongst the Top 100. Out of these 22 countries, the United States consists of the maximum number of Top Ranked Institutions i.e., 27. The country with the second-highest Top Ranked Institutions (amongst Top 100 as per QS) is the UK with 18 Institutions. None of the Institutions from India have been ranked amongst the Top 100 Higher Education Institutions by QS World Rankings 2021 (QS World University Rankings® 2021), Fig.1.

Fig. 1 - Country wise Top Ranked Institutes as per QS World Ranking 2021

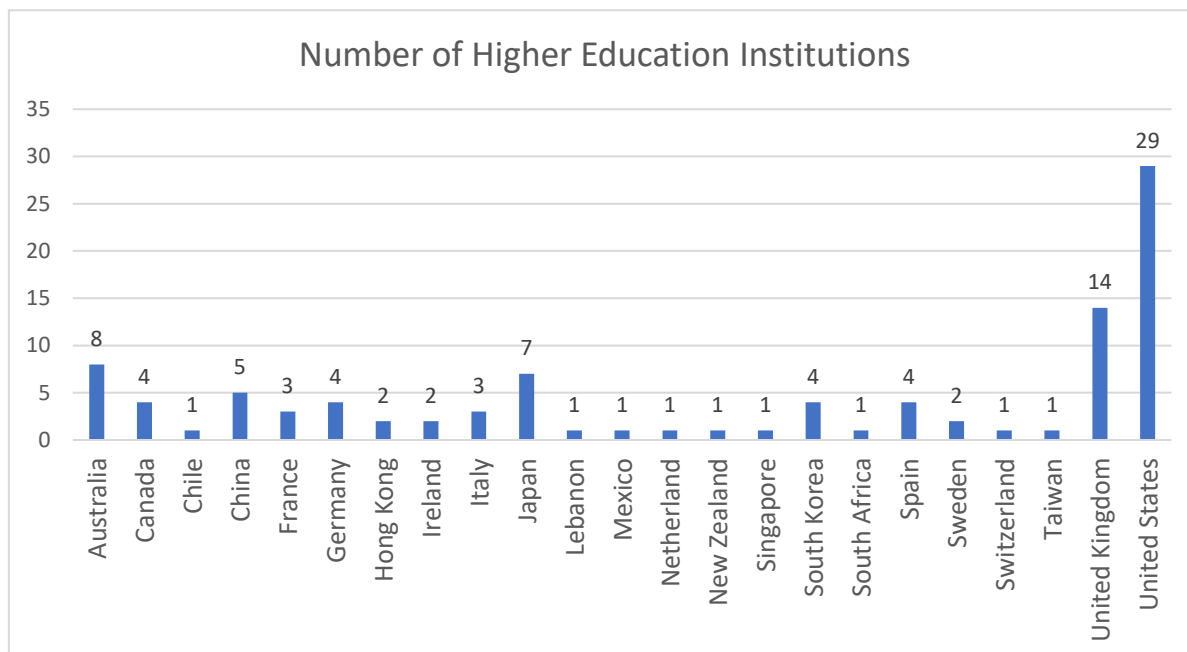


2.2.1 QS Employability Ranking

The QS developed this unique ranking system to make the communities across the globe aware of the graduate outcomes of the various participating academic institutions and their industry acceptance. The method is data-driven and informative. The ranking details upon the employability of students passing out from the academic institutions as a chief parameter of graduate outcomes. The entire process of identifying the institutions with the best graduate outcomes is scored and then ranked based on five crucial parameters/ indicators. This encompasses Employer reputation (30%), Alumni outcomes (25%), Partnerships with Employers per Faculty (25%), Employer/Student Connections (10%), Graduate employment rate (10%)

Based on QS Employability Ranking 2020, the United States is having its 29 Institutions of Higher Education amongst the Top 100, Higher Education Institutions followed by the United Kingdom having 14 Institutes of Higher Education. Again, there is none from India, Fig.2.

Fig. 2 - Country Wise Number of HEI's in Top 100 as Per QS Graduate Employability Rankings 2020



2.3 Analysis of Higher Education System

The United States (US) higher education system is a culmination of the British Undergraduate Education System as well as German Research Universities (Dusdal et al., 2020). The American Higher

Education system is diverse and complex. Standardization of any process, policy, or system would be erroneous (OECD, 2012). Since World War II, the US Higher Education System has been laying extreme focus on massification, with an intent to extend its offerings to every student (Kromydas, 2017).

The United States higher education system signifies the critical aspects of the American character i.e., independence, suspicion of government, ambition, inclusiveness, and competitiveness (Leveille, 2006). In the United States, in post-secondary education, the term University or Colleges are used interchangeably (Heyneman, 2013). In the US there are 2 standard formats of education providers, state-run & privately operated (Loo, 2018). However, in states-run universities or colleges, the Federal government doesn't play any role and managing funds and other institutional tasks, which are completely managed and operated by States Governments only. On the other hand, Private institutions are completely run, managed, and operated on their own (OECD, 2017).

The US Education system promotes Public-Private Partnerships (PPP) which extends a great amount of support and assurance towards the availability of resources as well as connect with the corporate world. Starting from the learning resources, basic infrastructure, PPP helps academic institutions to offer high standards of teaching environment to its faculty, better internships and research facilities for students, a strong and organized environment for industry connect and finally the employment.

3. Quality & Employability Parameters

A set of 5 Parameters have been identified as the key performance areas of any education system to enhance the quality of the teaching-learning environment and the employability of their students. It demonstrates the areas of strength and areas where the exclusive emphasis is required by the government, institute of higher education, or business units towards the development of education systems. The first parameter is Investment on Research & Innovation, second Gross Enrollment Ratio %, third, HDI (Human Development Index), fourth, Availability of Internet (to Support virtual learning), and the final fifth is Skilled Workforce. To arrive at specific & authentic findings, the identified parameters have been validating with the UNESCO IoS reports and a comparative analysis has been done between the US and India to identify the GAPS.

- I. The parameter I, is Investment on Research & Innovation- As per the report by DST, MoS, India, 2019-20, out of the total 40,813 Doctorates in the country, 24,474 (60.0%) Doctorates were from the S&T discipline during 2018-19. India occupies 3rd rank in terms of the number of Ph. D.'s

awarded in Science and Engineering (S&E) after the USA (39,710 in 2016) and China (34,440 in 2015). As per the report by the UNESCO Institute of Statistics, Global spending on R&D has reached a record high of almost US\$ 1.7 trillion, Tab 2.

Table 2 - R&D Spending by Countries as Per the UNESCO Institute of Statistics

R&D SPENDING BY COUNTRY	US	India
R&D spending as % of GDP	2.70%	0.70%
R&D spending in PPP\$	\$476,459.0M	\$47,574.7M
Number of researchers per million inhabitants	4,205	156

II. Parameter II is Gross Enrollment Ratio %- This is the statistical figure developed by the United Nations to identify the number of students enrolled in schools at various levels in different economies. This is currently being utilized by the education sector to identify the weaker sections of the society where there is a need for revamping and avenues to enhance GER, Tab 3.

Table 3 - GER% at Various Levels of Education as per the UNESCO at US and India

Participation in Education	US	India
Pre- Primary Education	72.1	60.7
Primary Education	101.26	112.96 (2017)
Secondary Education	99.28	74.38
Tertiary Education	88.3	28.1

III. Parameter III is HDI (Human Development Index- These are the identified parameters or key achievements that an individual attains during human development over the years. Since it consists of a variety of developmental index, only the selected one associated with the current study have been picked- HDI Indicator (Education), Expected years of schooling (years), Education index, expected years of schooling, female (years), Expected years of schooling, male (years), Government expenditure on education (% of GDP), Mean years of schooling (years), and Pupil-teacher ratio, primary school (pupils per teacher) Tab 4 & Tab 5.

Table 4 - HDI as per UNESCO IoS

Country	HDI	Rank
United States of America	0.926	17
India	0.645	131

Table 5 - HDR (Education) in India and US as per UNESCO

HDI Indicator (Education)	US	India
Expected years of schooling (years)	16.3	12.2
Education index	0.9	0.555
Expected years of schooling, female (years)	16.9	12.6
Expected years of schooling, male (years)	15.7	11.7
Government expenditure on education (% of GDP)	5	3.8
Mean years of schooling (years)	13.4	6.5
Pupil-teacher ratio, primary school (pupils per teacher)	14	33

IV. Parameter IV is Availability of Internet (to Support virtual learning)- in the times of pandemic, this has become the unavoidable rather compulsory support and service to every nation to keep their business, especially schools and colleges and other academic institutions operational (Bhatnagar, 2021). This now falls under the bare minimum essential needs to be made available to every individual of the nation to ensure their learning and growth, Tab 6.

Table 6 - Availability of Internet to the Population as Per UNESCO

Internet Users	US	India
Total % of Population	87.3	34.5

V. Parameter V is Skilled Workforce- only the availability of a skilled workforce plays a significant role in terms of industry acceptance and employment of individuals. Skilling of the workforce is most likely needed to be at the school or higher education level so that upon graduating from the institutions, students can directly enter the industry and start their career, Tab 7.

Table 7 - Skilled Workforce as per UNESCO

Skilled Labour	US	India
Percentage of Labour Force	96.5	21.2

4. Key Finding & Observations

In the United States, a strong focus is laid on Research and Development, Innovation & best teaching practices. Public-Private Partnerships are promoted in the United States to do investments, research, and development. The ratio of PPP in comparison to the contributions made by the Government, Institutions of Higher Education in the direction of Research and Development is higher in the United States. The United States institutions of Higher Education are having an exceptionally sound reputation before the corporate world which enhances their employer reputation. India is having

a higher population in comparison to the US still the number of doctorates produced in India in the area of Science and Technology is less than the United States. At the central level, the United States is spending 2.7% of its total GDP towards Research and Development which is almost four times what India is spending. The proportion of public-private partnerships and its investment in the United States in the field of Research and development is almost 10 times of the Indian investments.

Over 4000 natives of the United States are researchers per million at the United States whereas in India it's only 0.03% of the United States. Gross Enrollment Ratio of India in comparison to the United States at Pre-Primary and Secondary Education Level is on a lower side whereas at Primary Education Level it exceeds. GER% at tertiary education level in India is only 28% whereas in the United States it's more than 88%. On HDI, the United States is ranked 17th with an HDI score of 0.926 on a scale of 1 whereas India is pretty much far, ranked 131 with a score of 0.645. The average years of schooling in the United States are higher than that of India. The student-teacher ratio at primary school in India is 33 whereas in the United States it is 14. In India, only 34.5% of its total population is having access to the internet whereas in the United States more than 87% of its population is having access to the Internet. The United States is a 96.5% of skilled workforce which is far higher than India which is only 21.2% of the total labor force.

India needs to put severe focus on Research & Development Initiatives in the sphere of Science & Technology. This will increase its citations, patents, and investments. The Government in India needs to ensure 100% GER at all levels of education, especially at the tertiary level. People with higher qualifications with sound skills are desired by the industry. The Government in India should promote PPP (Public-Private Partnerships) to increase investments and development in the field of Research and Development. The Government in India needs to invest more in education infrastructure development to provide better facilities and quality education to all. In India, strong investment is needed to increase the ICT infrastructure. Transitioning from physical to digital mode of education demands strong IT Infrastructure and the Internet. Indian Education System needs to incorporate more Vocational Courses to bring skilled workforce in the market to meet out the scarcity of right manpower at the right place.

5. Conclusion

The study aimed to investigate the best systems pursued at Higher Education Institutions of the United States which is enabling them to rank amongst the Top by various ranking agencies. We gathered data from one of the highly acclaimed ranking agency QS, which provides a detailed report

over various parameters identified to rank any institute of higher education. Apart from that various reports by governments, central agencies, organizations like the UNESCO, DST have been collated to add further value to this study. We collected pertinent data from retrievable sources and achieved our objectives centered on inductive and deductive reasoning.

6. Summary

First, an overview of the US Higher Education System was introduced. Second, an abstract on the ranking and the quality indicators/ parameters have been discussed along with the macro elements responsible for quality education and enhanced employability. Third, we summarized various potential changes or developments desired in Indian Education and initiatives that government needs to take. The study reveals the fact that none of the education systems is perfect. At the institute level, major reforms are needed to be taken, however, support of government is inevitable. These are quality parameters adopted & practices by academic institutions to firm their grip on the chosen areas of their expertise such as research, teaching environment, student-teacher ratio, number of Nobel Laureates Produces, Alumni satisfaction and growth, etc. Amongst all, the graduate outcomes associated with employability carry paramount significance which is dominated by employer reputations. Therefore, there is a need for strong Public-Private Partnerships, an Industry -Connect Framework to enhance the quality of education and graduate outcomes.

References

- Agrawal, R. (2017). Ensuring Quality for Accreditation and Ranking of Higher Educational Institutes through Data Mining. *Journal of Environmental Science, Computer Science and Engineering & Technology* 6(3):122-136. DOI: 10.24214/jecet.B.6.3.12236.
- Bhatnagar, A., K., Khanna, U., Rana, A. (2021). Digital Learning Ecosystem at Indian Higher Education System. *Journal of Contemporary Issues in Business and Government*, 27(2), 4360-4375. doi: 10.47750/cibg.2021.27.02.463
- Bornmann, L., Mutz, R. & Daniel, H.-D. (2013). Multilevel-statistical reformulation of citation-based university rankings: The Leiden ranking 2011/2012. *Journal of the American Society for Information Science and Technology*, 64(8), 1649-1658.
- Dusdal, J., Powell, J.J.W., Baker, D.P. et al. University vs. Research Institute? *The Dual Pillars of German Science Production, 1950–2010. Minerva* 58, 319–342 (2020). <https://doi.org/10.1007/s11024-019-09393-2>
- Goldin, C. and Katz, L. (1999). The Shaping of Higher Education: The Formative Years in the United States, 1890 to 1940. *Journal of Economic Perspectives*, Volume 13, Number 1—Winter 1999—Pages 37–62.

H. Khurana, A. Rana, "Leveraging technology to build collaborative learning environment in academic institutes", *In Proceedings of the 2013 IEEE International Conference in MOOC, Innovation and Technology in Education*, MITE 2013, pp 256-260 (2013).

Hazelkorn, E. (2011). *Rankings and the Reshaping of Higher Education*. The Battle for World-Class Excellence. Houndmills, UK: Palgrave MacMillan.

Heyneman, S. P. (2013). The International Efficiency of American Education: The Bad and the Not-So-Bad News. https://www.tc.columbia.edu/cice/pdf/30413_16_1_Stephen_Heyneman.pdf.

Hoque, J. (2018). Quality Concern in Higher Education in India. *EDULIGHT Journal*, Volume 7, Issue 13.

https://www.researchgate.net/publication/331686057_Quality_Concern_in_Higher_Education_in_India

India's R&D expenditure & scientific publications on the rise, <https://dst.gov.in/indias-rd-expenditure-scientific-publications-rise#:~:text=1%2C13%2C825.03%20crore%20in%202017,%25%20and%20South%20Africa%200.8%25>.

K.S. Reddy, En Xie, Qingqing Tang, (2016). Higher education, high-impact research, and world university rankings: A case of India and comparison with China, *Pacific Science Review B: Humanities and Social Sciences*, Volume 2, Issue 1, 2016, Pages 1-21, ISSN 2405-8831, <https://doi.org/10.1016/j.psrb.2016.09.004>.

Kromydas, T. Rethinking higher education and its relationship with social inequalities: past knowledge, present state and future potential. *Palgrave Commun.*, 3, 1 (2017). <https://doi.org/10.1057/s41599-017-0001-8>

Leveille, D. (2006). Accountability in Higher Education: A Public Agenda for Trust and Cultural Change. <https://files.eric.ed.gov/fulltext/ED503070.pdf>

Litz, D. (2019). Globalization and the Changing Face of Educational Leadership: Current Trends and Emerging Dilemmas. *International Education Studies* Vol. 4, No. 3; August 2011. doi:10.5539/ies.v4n3p47

Loo, B. (2018). Education in the United States of America. <https://wenr.wes.org/2018/06/education-in-the-united-states-of-america>

M. Jaiswal, N. Gupta and A. Rana, "Real-time Traffic Management in Emergency using Artificial Intelligence," *In IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO' 2020)*, Noida, India, 2020, pp. 699-702, doi: 10.1109/ICRITO48877.2020.9197856.

National Education Policy 2020.

https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

NITI AAYOG, Strategy for New India @ 75 (2018).

https://niti.gov.in/writereaddata/files/Strategy_for_New_India.pdf

OECD (2012). Assessment of Higher Education Learning Outcomes. Feasibility Study Report. <http://www.oecd.org/education/skills-beyond-school/AHELOFSReportVolume1.pdf>

OECD (2017), The Funding of School Education: Connecting Resources and Learning, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264276147-en>

Paruchuru, M., Mavuri, S., Jyothsna, M. (2020). CHALLENGES FOR ECONOMIC GROWTH IN INDIA – A CRITIQUE. *Journal of Critical Reviews*. ISSN- 2394-5125 Vol 7, Issue 7, 2020. DOI: <http://dx.doi.org/10.31838/jcr.07.07.27>

Pavel, A. P. (2015). Global university rankings - a comparative analysis. *Procedia Economics and Finance* 26 (2015) 54 – 63. 4th World Conference on Business, Economics and Management, WCBEM

QS World University Rankings® 2021. Retrieved from <https://www.topuniversities.com/university-rankings/world-university-rankings/2021>

Rust V.D., Kim S. (2015) Globalization and Global University Rankings. In: Zajda J. (eds) *Second International Handbook on Globalisation, Education and Policy Research*. Springer, Dordrecht. https://doi.org/10.1007/978-94-017-9493-0_11 \

Salient Features of NEP 2020: Higher Education. https://www.ugc.ac.in/pdfnews/5294663_Salient-Featuresofnep-Eng-merged.pdf

Shaurya, S. Som and A. Rana, "IoT Based Educational Model for Better Teaching-Learning Environment," In *IEEE 8th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO' 2020)*, Noida, India, 2020, pp. 824-828, doi: 10.1109/ICRITO48877.2020.9197852.

Thomas, A., Bhasi M (2018). Investment in Higher Education Sector of India: A Review of Related Literature and Preliminary Investigation. *International Journal of Management Studies* V(2(4)):12. DOI:

[https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.18843%2Fijms%2Fv5i2\(4\)%2F02](https://www.researchgate.net/deref/http%3A%2F%2Fdx.doi.org%2F10.18843%2Fijms%2Fv5i2(4)%2F02).

Tomlinson, M. (2012). Graduate Employability: A Review of Conceptual and Empirical Themes. *High Educ Policy* 25, 407–431 (2012). <https://doi.org/10.1057/hep.2011.26>

UNESCO Institute of Statistics, <http://uis.unesco.org/apps/visualisations/research-and-development-spending/>

United Nations Development Programme, Human Development Reports (2020) <http://hdr.undp.org/en/countries/profiles/IND>

United Nations Development Programme, Human Development Reports (2020) <http://hdr.undp.org/en/countries/profiles/USA#>