A STUDY ON PERCEPTION OF ACADEMICIANS AND ADMINISTRATORS TOWARDS RANKING AND ACCREDITATION SYSTEMS IN INDIA

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Abstract

For quality assessment of a Higher Education Institution (HEI), the ranking and accreditation systems have become popular method and being used as an acceptable tool, especially for last 20 years or so. This paper attempts to evaluate the perception about ranking and accreditation systems to better understand whether these systems have created qualitative environment in Indian context. For this purpose, the response of academicians, academic administrators and senior managers of Indian HEIs have been sought through Questionnaire. Their responses have been examined with the help of various statistical tools and analysis of the same has been presented in this paper. This study reveals that the ranking and accreditation systems are having significant impact on the performance outcomes of Indian Higher Education Institutions. The outcome of the study has a relevance to stakeholders be it students, parents, educational administrators, academic fraternity, government, investors in higher education and society at large.

Keywords: *: Perception; Ranking; Accreditation; Higher Education*

Introduction

The quality of education plays a significant role in fostering the country's economic growth. According to The assessment is done by comparing the performance of the HEIs. The assessment tools have also become vital in the current ages that the Government uses to measure the HEIs' status on a global level. According to Ellen Hazelkom (2007), despite criticisms of

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methodology or concept, HEIs are taking the results of League Tables and Ranking Systems (LTRS) very seriously and using them to inform institutional decision-making and to make changes. This is not surprising given the fact that respondents firmly believe that rankings are influencing reputation, status, stakeholders and policymakers (p 21).

The evaluation of quality of higher education in India has been emphasized by the National Policy of Education 1986 and the Programme of Action (POA) 1992. Subsequently, recognizing the importance of Institutional assessment, the National Assessment and Accreditation Council (NAAC) had been established in 1994 by the University Grants Commission (UGC). To further strengthen the evaluation process, the Ministry of Human Resource and Development (MHRD) launched, the National Institutional Ranking Framework (NIRF) on 29th September 2015 to rank the Higher Education Institutions. (NIRF, 2020a)

Ranking and Accreditation Systems

Ranking and accreditation systems ensures Higher Education Institutions meet the expected standards and promotes a healthy competition among the institutions to sustain and enhance their quality. An overview of Ranking and Accreditation Systems has been highlighted in Table 1 to understand their certain important aspects.

Table-1 An Overview of Ranking and Accreditation Systems

Accreditation	Ranking
Some Important National and International Accreditation Bodies: National Assessment and Accreditation Council (NAAC), India National Board of Accreditation (NBA), India Indian Council of Agricultural Research (ICAR), India Accreditation Board for Engineering and Technology (ABET), USA AACSB Business and Accounting Accreditation.	Some Important National and International Ranking Agencies: National Institutional Ranking Framework (NIRF), India Times Higher Education (THE), UK Quacquarelli Symonds World University Ranking, UK Academic Ranking of World Universities (ARWU), China
NAAC - A five-year comprehensive assessment of the institution as a whole.	NIRF - A yearly affair.

Accreditation	Ranking
NAAC - Absolute grade is given	NIRF - Relatively graded with other institutions
It is a one-time (five-year) event in NAAC. Accredited institutions can report their yearly performance.	It 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 parameters.

The paper of Chahal Mukesh, (2015) discusses the initiatives taken by the government to raise level of education in India. The author identifies and discusses the issues /challenges such as Lower level of teaching quality, Financing of higher education, Traditional methods of teaching, Privatization, Inadequate facilities and infrastructure and Quota system and suggestions such as Student-Centred Education and Dynamic Methods, Examination Reforms, International Cooperation, to increase Quantity of Universities, Cross Culture Programmes etc. in the field of Higher Education in India (pp. 67 - 74).

The Status of Indian Universities under various International Ranking Systems is given below in Table-2, which shows that no Indian University could get rank among top 100 Universities in the world.

Table 2: Ranks of Indian Universities under various International Ranking Systems

Ranking Agency	Status of Indian Universities
Times Higher Education (THE), UK	World University Rank 2020: Total 36 Universities in top 1000 out of which no university in top 200, 6 Universities in top 500; and rest 30 Universities in 501 to 1000 range. Indian Institute of Science, Bangalore and IIT Ropar be in "301-350" in World IIT Indore be in "351-400" in World IIT Bombay, IIT Delhi and IIT Kharagpur, be in "401-500" in World (THE, 2020a)

Ranking Agency	Status of Indian Universities
Quacquarelli Symonds World University Ranking, UK	World University Rank 2020: Total 24 Universities in top 1000 out of which 3 universities in top 200, 6 Universities in top 500; and rest 15 Universities in 501 to 1000 range. IIT Bombay at 152 rank in world IIT Delhi at 182 rank in world IISc Bangalore at 184 in world (QS WUR) (2020a)
Shanghai Ranking by Shanghai Jiaotong University, China	World University Rank 2019: Total 16 Universities in top 1000 out of which no university in top 200, 1 University in top 500; and rest 15 Universities in 501 to 1000 range. Indian Institute of Science (IISc) Bangalore "401-500" in World IIT Madras "501-600" in World IIT Kanpur and University of Calcutta be in "601-700" in World (ARWU)(2020a)

According to Mittal Prabhat, (2018) to make the Indian higher education a world class, India needs to increase public financing for research and innovations, enhance the infrastructure in terms of physical settings and equipments and above all needs a greater attention to its existing talented teachers and researchers to save them from hopeless future in Indian Universities (p 68).

Criteria and Process for Ranking Systems

Ranking procedure has been in practise for the past decade marking its first appearance in 2003. Each ranking committee has its own criteria and methodology based upon the country's culture, skills in demand, etc. The criteria considered for raking is evaluated using certain indicators like student strength, median salary, etc. The following outlines various ranking system's criteria.

- National Institutional Ranking Framework (NIRF): NIRF is an Indian government initiative to improve the quality in higher education. The NIRF provides a process to rank the institutions across the country. The criteria include, Teaching Learning & Resources with a ranking weight of 30%, Research and Professional Practice with a ranking weight of 30%,

Graduation Outcomes with a ranking weight of 20%, Outreach and Inclusivity (OI) with a ranking weight of 10% and Perception (PR) with a ranking weight of 10%. The following flowchart shows the process involved in NIRF.(NIRF, 2020b)

- Times Higher Education (THE), UK: The British Times Higher Education (THE) magazine, UK publishes annually university ranking namely 'Times Higher Education World University Rankings' (THE WUR). THE WUR had been started in 2004 and it provides the definitive list of the world's best universities. The criteria include, Teaching – the learning environment (30%), Research – volume, income and reputation (30%), Citations – research influence (30%), International diversity - staff, students and research (7.5%) and Industry Income – knowledge transfer (2.5%) (THE, 2020b)

- Quacquarelli Symonds World University Ranking, UK: The British Quacquarelli Symonds (QS) Company, UK publishes annually university ranking namely 'QS World University Rankings' (QS WUR). The criteria include, Academic Reputation (40%), Employer reputation (10%), Faculty/Student ratio (20%), Citations per faculty (20%), International staff ratio (5%) and International student ratio (5%).(QS WUR) (2020b)

- Academic Ranking of World Universities (ARWU): The Shanghai Ranking Consultancy publishes annually university ranking namely Academic Ranking of World Universities (ARWU), also known as Shanghai Ranking (by Shanghai Jiaotong University, China). The league table was originally compiled and issued in 2003 by Shanghai Jiaotong University. The criteria include, Quality of education (10%), Quality of faculty (40%), Research output (40%) and Per capita performance (10%). (ARWU)(2020b)

Criteria and Process for Accreditation Systems

The degradation of quality in majority of institutions created few islands of excellence. In the early 1990s accreditation system was proposed to keep a check on the quality factors in India.

- National Assessment and Accreditation Council (NAAC): NAAC was established in 1994 for evaluating the quality of higher education in India by the UGC. The main function of NAAC is to assess and accredit (i.e., recognize) institutions of higher learning, universities, colleges etc. The criteria for NAAC are, Teaching-Learning and Evaluation, Research, Consultancy and Extension, Infrastructure and Learning Resources,

Student Support and Progression, Governance, Leadership and Management and Innovations and Best Practices.(NAAC) (2020)

- National Board of Accreditation (NBA): National Board of Accreditation (NBA) was established in the year 1994by AICTE. NBA accredits programs at graduate and post graduate level. It does not accredit any institution. The programmes to be accredited should be offered by an educational institution which has been formally approved as an educational Institution by the AICTE or the concerned regulatory authority. The criteria being evaluated are, Institutional Mission, Vision and Programme Educational Objectives, Programme Outcome, Programme Curriculum, Students' Performance, Faculty Contributions, Facilities and Technical Support, Academic Support Units and Teaching-Learning Process, Governance, Institutional Support and Financial Resources and Continuous Improvement in Attainment of Outcomes.(NBA)(2020)

- Indian Council of Agricultural Research (ICAR), India: For quality assurance, an Accreditation Board was established in 1996 by the Indian Council of Agricultural Research (ICAR), which developed a new system of accreditation involving various university communities and accreditation experts. It is comprehensive, rigorous and periodic and comprises of self-study by the institution and peer review of the concerned institution. The criteria being evaluated are, Governance, Academic Support, Research Support, Extension Support, Faculty and staff Development, Student Development, Infrastructure, Financial Resource Management and Accomplishments. (ICAR) (2020)

- Accreditation Board for Engineering and Technology (ABET): ABET accrediting college and university programs in the disciplines of applied science, computing, engineering and engineering technology at the bachelor's and master's level. It is recognized by The Council for Higher Education Accreditation (CHEA), USA. The criteria being evaluated are, Students, Program Educational Objectives, Student Outcomes, Continuous Improvement, Curriculum, Faculty, Facilities, and Institutional Support. (ABET) (2020)

Literature Review

The detailed review of literature establishes the importance of ranking and accreditation and emphasizes the Challenges /Issues before Indian Universities, Poor Performance of Indian Universities in global ranking, efforts made to improve ranking of Indian Universities, Initiatives taken by the

government to raise the level of education system and the parameters and processes adopted by Various ranking and accreditation bodies.

However, the researcher could not find any study which comprehensively explore, examine and study the perception of Stakeholders especially academicians, academic administrators/ Senior Managers of Indian Higher Education about ranking and accreditation systems. Therefore, it is a high time to explore this area to know the perception of academicians, academic administrators/ Senior Managers of Indian Higher Education towards ranking (NIRF Ranking) and accreditation (NAAC) systems in India and the challenges faced by them so that new ways may be explored to improvise the status of Indian Higher Education.

Statement of the Problem

Since the last couple of years, there has been much hue and cry about quality in Indian higher education. Not only the students and the academicians but also media, politicians and the policy-makers have all expressed concern about the poor quality of education in higher education sector. The research paper of Vidya Rajiv Yeravdekar, Gauri Tiwari, (2014) explain reasons of India's non-appearance in global rankings of higher education institutions. It has been pointed out that the phenomenon of global rankings is situated in a centre-periphery paradigm. It is very likely that global rankings will continue to be dominated by trans-Atlantic universities (p74).

The popularity of world ranking is growing day by day and there has been a growing concern that Indian universities are not able to figure in the top hundred universities of the world. Some of the universities which figure in the world ranking are almost at the bottom of the world ranking. This is a disturbing trend for the government as they want to project India as a strong nation not only in terms of high growth potential but also in terms of a vibrant higher education system to sustain the growth possibilities in the future. There is increasing desire for acquiring a position of Indian universities in the world ranking and it is a leading discourse in present Indian higher education scenario.Therefore, to understand the current scenario, the present study has focused on exploring the perception of academicians, academic administrators and senior managers of Indian HEIs towards ranking and accreditation systems and challenges faced by them.

Need of Study

Based on the literature review, it has been observed that there is huge diversity in purpose, methodology and theoretical approach of various

rankings and accreditation systems and their effect on various stakeholders on dimensions such as national/international which results in diversity in HEIs strategic and operational decisions. It has also been felt that there is a need to develop a strategic approach at policy level towards rankings and accreditation systems in India which will lead alignment in governance and others of HEIs and achievement of desirable outcomes.

Objective of the Study

To study the perception of academicians, academic administrators/Senior Managers of Indian Higher Education Institutions towards Ranking and Accreditation Systems.

Research Methodology

To fulfil the aim and objectives of any study and answer the research questions, a proper research framework needs to be adopted for carrying out the study successfully. The following research framework has been used in this study, which gives an overview of the present study. More than 300 participants from 172 HEIs have submitted their responses. It comprises the procedure for conducting the study, techniques and instruments used for research methodology.

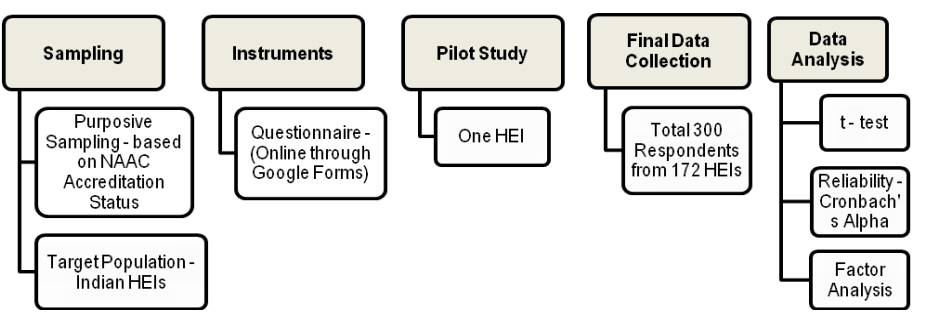

Figure 1: Research Framework

- Method of Data Collection: In the present study data has been collected through primary method. For primary data, a questionnaire was prepared, keeping in view of the objective of the study. The same was pre-tested and in the light of the findings of pre-test, the same was revised.
- Research Design: Single Cross-Sectional Descriptive Research Design was applied in the study. In such research designs, the sample is drawn only once and data are also collected only once. The findings of the study are described and discussed in detail.

- Population: Population consists of the academicians, academic administrators and senior managers of Indian Higher Education Institutions across 29 States and Union territories of India.

- Sample unit: The sample unit consists of the respondents who are in Teaching / Non-Teaching field and working in universities and colleges of Indian Higher Education and having the awareness regarding Ranking and Accreditation Systems.

- Sample size: In the present study, the size of sample is 300 academicians, academic administrators/ Senior Managers working in universities and colleges of Indian Higher Education.

- Sampling Technique: Samples have been taken based on Judgement / Purposive Sampling of Non probability Sampling Method.

- Tools of presentation and analysis: The data collected for the study was given statistical treatment. Different tools have been used for presentation of data. Mainly t-test of two independent samples was applied in order to assess the significant difference in the opinion of respondents of two categories, namely, male and female; teaching and non-teaching; and two categories of respondents based on the type of HEIs. SPSS software is used for analysis of data. From SPSS factor analysis is used for extracting the factors and analyzing the variables. For demographics, frequency and percentages are used. Factor Analysis of Principal Components with Variax Rotation was applied to reduce the 36 items of measuring scale on “Ranking and Accreditation of HEIs” into few dimensions/factors. Six factors/ dimensions were extracted.

The study has been undertaken during Jan to March 2020 to get the opinion of the academic administrators working in the HEIs on Ranking and Accreditation Systems. A Questionnaire was prepared for getting the opinion on 5 point Licker Scale. The Questionnaire was prepared after doing the extensive review of literature in the study area. The pretesting of the questionnaire was done on 35 respondents and in the light of the findings of the pre-test, the same was revised. The validity of the questionnaire was also ascertained, by sending the copy of the questionnaire to 5 experts. The opinion on the items of the questionnaire were almost the same of all experts. The minor change in the language of the items were suggested and the same were incorporated. The final Questionnaire was sent to 2000 academicians, academic administrators and senior managers of Indian Higher Education Institutions through email. With great efforts and three times reminders to academicians / administrators, only 314 respondents sent the filled in

questionnaire. The 14 Questionnaires were found incomplete and these were discarded and finally the sample size remain 300.

The data collected on the perception of respondents pertaining to Ranking and Accreditation systems in Higher Education in India with the help of scale entitled "Ranking and Accreditation Scale". First of all, the reliability of the scale was determined with help of Cronbach's Alpha, Kaiser- Meyer-Oklin (KMO) and Bartlett's Tests were administered in order to assess the adequacy of the sample for factor analysis. After this, factor analysis of principal components with varimax rotation was applied in order to extract the factors.

- **Background Information of Respondents:**

The background information of the respondents was also gathered and presented in Table 3 and Table 4. There are only three background variables which are as follows:

1) Gender (i.e., Male and Female Respondents)
2) Profession (i.e., Teaching and Non-Teaching Respondents)
3) Type of University (i.e., Various University Respondents)

Table - 3 Background Information of Respondents (N=300)

Background Information	Number	Percentage
Gender:		
— Male (1)	222	74%
— Female (2)	78	26%
Profession:		
— Teaching (1)	223	74.3%
— Non-Teaching (2)	77	25.6%
Type of University:		
— Central University & Institution of National Importance (1)	79	26.3%
— Others (2)	221	73.7%

Source: Author's calculations based on primary data

Table – 4 HEI wise Summary of Responses Received

Type of HEIs	No. of HEIs	No. of Responses received
Central University	29	52

Type of HEIs	No. of HEIs	No. of Responses received
Institute of National Importance	18	27
Deemed University	28	51
Private University	28	39
State University	57	97
Other Institution	11	16
Anonymous		18
Grand Total	**172**	**300**

Source: Author's calculations based on primary data

Limitations of the Study

The primary limitation was the small sample size. 2000 senior Academic Administrators / Sr. Managers / Faculty members / Scientists across India were requested to answer the questionnaire. This request was followed by four reminders in a gap of 15 days of each reminder. The researcher also made request to the concerned persons on the available telephone numbers for doing the needful. After awaiting three months, responses were received about 300 from renowned Academic Administrators /Sr. Managers/Faculty/ Scientists, representing a 15% response rate, from more than 172 Higher Education Institutions.

Data Analysis

Reliability Statistics: Cronbach's Alpha: Likert Scale was prepared to access the perception of the respondents about the ranking and accreditation of HEIs. Five points rating to each item of the scale are: 1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree and 5 for strongly agree.

Reliability of data has been checked to see whether data is authentic or reliable for research. The reliability of the scale was determined with the cronbach's alpha statistics. The value of cronbach's alpha comes as .947 with 36 items of the scale. This value appears to be very high as the minimum value for a scale to be reliable is .70. The Table 5 of reliability is given below:

Table – 5 Reliability Statistics

Cronbach's Alpha	No of Items
.947	36

Source: Author's calculations based on primary data

- **Factor Analysis**

Factor Analysis was carried out with Varimax Rotation in order to reduce the number of items of the scale to minimum. The Factor Analysis extracted 6 factors or dimensions from the total 36 items. The Factor Analysis also produced KMO and Bartlett's test, table 6.

Table – 6 Kaiser-Meyer-Oklin (KMO) and Bartlett's Test

	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.936
Bartlett's Test of Sphericity	Approx. Chi-Square	5718.022
	df	630
	Sig.	.000

Source: Author's calculations based on primary data

The Table 6 indicates that the value of KMO is .936 which means that the sample for carrying out factor analysis is adequate. The required minimum value of KMO is 0.60. The Table 6 also indicates that Bartlett's test of sphericity is significant which may mean that there is no significant relationship among the factors. It may be concluded from above that the 6 factors extracted could be used for further analysis.

The Factors, the items of the factors and respective factor loadings are mentioned in the table 7

Table – 7 Factors, Name of Items under Each Factor with Loadings

Factor	Total 36 Questions	Statements	Factor Loading
Factor 1 Globalization and Quality Environment	9	• these systems push Higher Education Institutions (HEIs) to improve quality	.802
		• these systems make every HEI to look into its shortfalls and lead to Institutional development	.789
		• these systems increase the credibility of Indian higher	.767

Factor	Total 36 Questions	Statements	Factor Loading
		education system	
		• these systems are helping academic administrators to make informed choices	.693
		• these systems helps Indian HEIs to improve their global ranking and accreditation	.651
		• these systems provide enough clarity about quality parameters of higher education	.650
		• these systems force HEIs to provide facilities which benefit the students	.626
		• these systems are prompting curriculum review and improving the quality of academic programs	.533
		• these systems are motivating internationalization of Indian higher education	.453
Factor 2 Research, Patents and Professional Practices	8	• number of publications during last 3 years in WoS, Scopus, PUBMED, have increased	.696
		• these systems have motivated HEIs to set individual targets for faculty members and departments in the area of research	.647
		• the appointment of research oriented faculty have increased in HEIs	.640
		• the resource allocation (funding, infrastructure etc) towards research have	.634

Factor	Total 36 Questions	Statements	Factor Loading
		increased in HEIs	
		• these systems push patents filing	.582
		• these systems have increased research focus of the Institution	.542
		• annual research funding earnings and annual consultancy earnings have raised due to these systems	.511
		• faculty members are being rewarded for publications in highly-cited journals and citation per faculty has improved	.509
Factor 3 Academic Reforms and Graduation Outcome	6	• the percentage of graduating students and placement through campus with high salary have increased	.770
		• the percentage of graduating students selected for higher studies into top Universities has increased	.729
		• total students enrolled from other countries have increased due to ranking and accreditation systems	.661
		• small class sizes, a good level of individual supervision and faculty student ratio has improved	.623
		• these systems have increased publishing quality	.461
		• HEI's ability to help industry with innovations, inventions	.459

Factor	Total 36 Questions	Statements	Factor Loading
		and consultancy has increased	
Factor 4 Institutional Policy and Governance	6	• these systems push HEIs to make changes in the size, composition, role and responsibilities of governing bodies	.772
		• these systems force HEIs to use digital governance methods for decision-making and resource allocation	.714
		• these systems push HEIs to make changes in their governance structure for greater autonomy, accountability, transparency, efficiency, equity, participation, and effectiveness	.714
		• these systems encourage, HEIs to increase compensation of academic administrators and faculty members	.687
		• HEIs have modified its policies such as recruitment, admission etc. according to ranking and accreditations parameters	.600
		• these systems inspire institutions to recruit and retain higher quality faculty	.595
Factor 5 Financial Resource Management	4	• separate categorization for central, private and state institutes may give fair chance to all HEIs in NIRF ranking	.588

Factor	Total 36 Questions	Statements	Factor Loading
		• funding agencies are using these systems as a tool to allocate funds	.544
		• these systems foster collaborations such as research partnerships, student and faculty exchange programs, and alliances	.479
		• these systems encourage expenditures and create significant financial burdens for HEIs	.452
Factor 6 Student Development and Funding	3	• these systems bring difference in job opportunities	.690
		• these systems encourage students to concentrate more on best Institutions	.531
		• these systems motivate HEIs to increase the source of funding through alumni or donors	.451

Source: Author's calculations based on primary data

- **Comparison of Dimensions of Ranking and Accreditation Scale for Heis between Teaching & Non-Teaching Respondents**

An attempt has been made to compare the dimensions/factors of ranking and accreditation scale between Teaching & Non-teaching respondents. The value of each dimensions varies from 1 to 5, 1 being strongly disagree, 5 being strongly agree. The t-test of two independent samples has been applied to access the difference between the Teaching & Non-teaching respondents:

The results of the analysis are presented in Table 8 and the description and discussion of the analysis of each dimension is given below:

i. Globalization and Quality Environment (Factor 1)

Globalization of higher education implies the mobility of students, institutions, teachers, and programs crossing national boundaries. Quality Environment in higher education refers to the satisfaction of the students, their parents, Staff members and society at large with the education and facilities provided to them by the HEI. According to Massimiliano Vaira, (2004), higher education institutions are experiencing a deep institutional change in their task environment triggered by globalization process. This process has given and is giving rise to a world economy and world polity structures that redefine institutional as well as organizational arrangements, ends and means, deemed rational and appropriate to operate in the global environment. (P 502).

The t-value in the table 8 indicates that there is no significant difference in the opinion of Teaching and Non-Teaching respondents (t= 0.474, not significant). It implies that the perception of Teaching and Non-Teaching respondents about 'Globalization and Quality Environment ' variable is almost the same, as is evident from the mean values of Teaching respondents (Mean = 3.62) and Non-Teaching respondents (Mean = 3.66). It is further noted from the table 8 that both the mean values are approaching option 4 (Agree), it implies that both the respondents on an average agree in their views that mobility of students, institutions, teachers, and programs could be increased, crossing national boundaries and be positively affected on account of ranking and accreditation systems.

ii. Research, Patents and Professional Practices (Factor 2)

Faculty members are expected to make their knowledge and expertise available to benefit of society and industry. Here, Research and Professional Practice refers to the conduct and work of faculty members in Higher education. However, Shortage of quality teaching faculty in HEIs is one amongst the many issues presently confronting the higher education system in the country. According to Stefano Nigsch and Andrea Schenker-Wicki (2013), international accreditations are positively related to research performance, while other approaches to quality management do not exhibit any significant relationship to ranking positions. These results point to the importance of specific standards required by AACSB and EQUIS accreditations such as having a coherent strategy and employing highly qualified personnel (p 668).

The t-value in the table 8 indicates that Teaching and Non-Teaching respondents are having no significant difference in their opinion on 'Research, Patents and Professional Practices' (t = 1.006, not significant). The mean values show that the mean in case of Teaching respondents (Mean = 3.38) is

approaching option 4 (i.e., Agree). It implies that the Teaching respondents on an average agree that the 'Research, Patents and Professional Practices' of HEIs could be affected on account of Ranking and Accreditation Systems. On the other hand, the mean value of Non-Teaching respondents (Mean = 3.47) is also moving towards the option 4 (i.e., Agree). It may be concluded that all the respondents agree in their opinion that the 'Research, Patents and Professional Practices' of HEIs could be affected on account of Ranking and Accreditation Systems.

iii. Graduation Outcome and Academic Reforms (Factor 3)

The Graduation Outcome is considered as student's overall satisfaction after completing a programme from an Institution which also includes academic experience, professional development, quality of mentoring, and available career opportunities, i.e., finding appropriate placement in Industry, Government or taking up higher studies. Academic Reforms include initiatives for improvement in Teaching Learning Practices. According to Imanol Ordorika & Marion Lloyd, (2014), After just a decade, or several in the US context, the rankings have established themselves as a new sort of gatekeepers of higher education, a form of bureaucratic certification that has become the norm in both the private and public sectors (Post et al. 2013). This widespread adoption of international rankings has occurred through a complex process of consensual and, at the same time, reluctant acquiescence. So entrenched is the paradigm that governments from around the world, and across the political spectrum, have seized on their universities' relatively weak showing in the rankings to justify bold higher education reforms (p 399).

The t-value in the table 8 indicates that Teaching and Non-Teaching respondents are having significant difference in their opinion on 'Academic Reforms and Graduation Outcome' variable (t = 2.020, significant at .05 level). It means that the perception of the Teaching and Non-Teaching respondents is not the same as is evident from their mean values. The mean value i.e., 3.25 in the case of Non-Teaching respondents is approaching option 4 (Agree), whereas the mean value (i.e., 3.05) of Teaching respondents is just little more than 3 (i.e., Neutral).

iv. Institutional Policy and Governance (Factor 4)

The Institutional Policy refers how the Higher Education Institutions are organised and operated in a society. It also includes the essential values, characters, and distinctive elements of an Institution. Governance variable of Higher Education comprise the systems and procedures under which

Institutions are directed and controlled. A robust system of governance is vital in order to enable HEIs to operate effectively and to discharge their responsibilities as regards to transparency and accountability to all stake holders. According to Zinaida Fadeeva, Yoko Mochizuki (2010),the mainstream ranking and assessment systems are powerful guiding systems for higher education institutions (HEIs) and, if modified, could be a significant force for transformation towards a more sustainable future (p 249).

The average of the opinion of Teaching and Non-Teaching respondents about 'Institutional Policy and Governance' variable comes to 3.28 and 3.27 respectively. The difference in mean values is not significant as is evident from the t-value in the Table 8 (t = 0.075, not significant). It is also observed from the table 8 that both the mean values are moving toward option 4 (Agree). Therefore, it may be inferred that almost all the respondents agree that 'Institutional Policy and Governance' of HEIs could be affected on account of Ranking and Accreditation Systems.

v. Financial Resource Management/Allocation (Factor 5)

Resource Management/Allocation is the process of managing and assigning assets in a manner that supports an Institution's strategic goals. Resource allocation suggests to distribute the available resources to get maximum output and giving the priorities to the most effective course of action.

The t-value in the table 8 indicates that there is no significant difference in the opinion of Teaching and Non-Teaching respondents (t=1.269, not significant). The mean values in case of Teaching and Non-Teaching respondents are 3.44 and 3.53 respectively. It means that both the mean values are nearing option 4 (Agree), therefore, it may be concluded that all the respondents on an average agree that 'Financial Resource Management/Allocation' variable of HEIs' could be affected on account of Ranking and Accreditation Systems.

vi. Student Development and Funding (Factor 6)

Funding of Higher Education refers to monetary assistance provided to the Institution by the Govt., Alumni or any other agency. Funding to HEIs is one of the important measures by which it can grow fast and compete with world's reputed Institutions. According to N Sundarajan, 2019, the governance framework and the availability of financial resources are definitely essential because they condition the degree of autonomy of research universities (p 9).

The t-value in the table 8 indicates that there is no significant difference in the opinion of Teaching and Non-Teaching respondents (t=1.307, not significant).

The mean values in the case of Teaching and Non-Teaching respondents are 3.35 and 3.47 respectively. It means that both the mean values are nearing option 4 (Agree), therefore, it may be concluded that all the respondents on an average agree that 'Student Development and Funding' of HEIs' could be affected on account of Ranking and Accreditation Systems.

The results of the analysis are presented in Table 8, given below:

Table – 8 Comparison of factors/dimensions of ranking and accreditation scale for HEIs between Teaching & Non-Teaching Respondents

Factors / Dimension	Teaching (N = 223)		Non-Teaching (N = 77)		t-value
	Mean	SD	Mean	SD	
Globalization and Quality Environment	3.62	0.690	3.66	0.616	0.474NS
Research, Patents and Professional Practices	3.38	0.708	3.47	0.590	1.006NS
Graduation Outcome and Academic Reforms	3.05	0.760	3.25	0.685	2.020*
Institutional Policy and Governance	3.28	0.787	3.27	0.662	0.075NS
Financial Resource Management/Allocation	3.44	0.588	3.53	0.532	1.269NS
Student Development and Funding	3.35	0.735	3.47	0.583	1.307NS

* Significant at .05 level NS Not Significant

Source: Author's calculations based on primary data

Mean and Standard Deviation of Factors/Dimensions of Ranking and Accreditation Scale (Total Sample)

It is observed from the calculations, the mean value is the maximum in the case of Globalization and Quality Environment dimension (Mean = 3.63), followed by Financial Resource Management/Allocation dimension (Mean = 3.46), and Research, Patent and Professional Practices, and Student

Development and Funding dimension. The mean value is lowest in the case of Graduation Outcome and Academic Reforms. The mean value is 3.28 in the case of Institutional Policy and Governance.

Table 9 Mean and Standard Deviation of Factors/Dimensions of Ranking and Accreditation Scale (N = 300)

Factor/Dimension	Mean	S.D.
Globalization and Quality Environment	3.63	.671
Research, Patents and Professional Practices	3.40	.680
Graduation Outcome and Academic Reforms	3.10	.746
Institutional Policy and Governance	3.28	.756
Financial Resource Management/Allocation	3.46	.575
Student Development and Funding	3.38	.700

Mean and Standard Deviation of Factors/Dimensions of Ranking and Accreditation Scale are presented in the following Bar Chart in descending order:

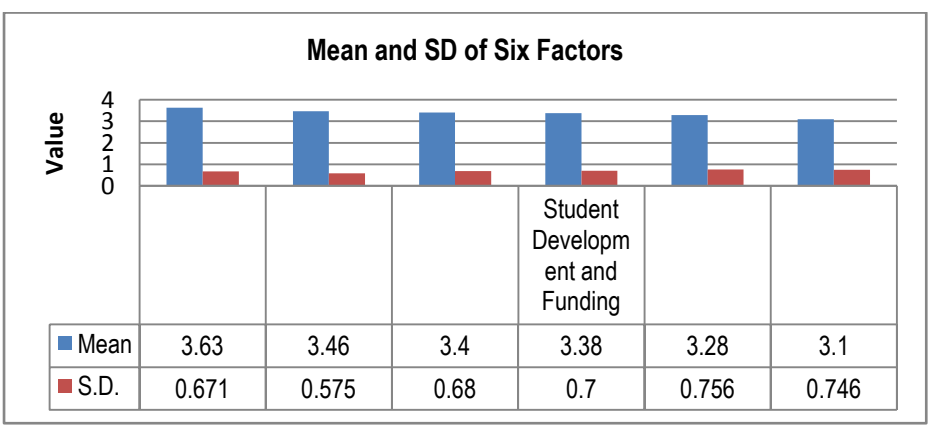

Figure: Mean and SD of Six Factors

Findings

Perception is an important dimension / aspect to measure any construct. Equally important is the context in which the perceived beliefs are recorded. In the context of University Ranking and Accreditation in Indian Education System, the perceived beliefs of the respondents (Academicians,

administrators etc.) provide a credible measurement of University Ranking and Accreditation Systems.

The results of this study indicates that the Teaching respondents of Indian Higher Education context have a favourable positive inclination towards two aspects namely 'Globalization and Quality Environment' and 'Financial Resource Management/Allocation' (mean values 3.62 and 3.44 respectively), while for other aspects they are mildly inclined towards agreement on these dimensions. It is implied that 'Globalization and Quality Environment' and 'Financial Resource Management/Allocation' are vital to other dimensions as quality and financial resources are prerequisites for Research, Infrastructure, Graduation Outcome and Academic Reforms and Student Development.

The findings also indicate that among the Non-Teaching respondents which include administrators at middle/senior level, management people etc., 'Globalization and Quality Environment'; 'Financial Resource Management/Allocation'; 'Research, Patents and Professional Practices'; 'Student Development and Funding' are relatively more important dimensions (3.66, 3.53, 3.47 and 3.47 mean values respectively). Since, Non-Teaching stakeholders are also accountable to students, parents and community at large, they perceive dimensions such as quality, international appeal, research output, and student development as ingredients of Institutional development.

It can be concluded that among Teaching and Non-Teaching respondents there is a broad positive consensus towards the importance of University Ranking and Accreditation Systems in India. However, the results also reflect that a higher degree of inclination, awareness and understanding of University Ranking and Accreditation Systems is required for enhancing the higher education system in India.

Research/Policy Implications

The present study has studied respondents from recognized HEIs who have been involved in academic administration. A similar study of other stake holders / respondents of HEIs such as students and parents, can be conducted to understand and compare their perspective with academic administrators about ranking and accreditation systems. The outcome of study could also be compared to that in other countries to check the presence of ranking and Accreditation factors in other countries internationally, especially in the developing countries to find out the geographical influences. A similar study for respondents of recognized schools affiliated to different boards can also be conducted.

References

1. ABET (2020): Accreditation Board for Engineering and Technology, Access date Feb 14, 2020, URL: http://www.abet.org/about-abet/
2. ARWU (2020a): Academic Ranking of World Universities, Access date: Feb 14, 2020, URL: http://www.shanghairanking.com/ARWU2019.html
3. ARWU (2020b): Academic Ranking of World Universities, Access date: Feb 14, 2020, URL: http://www.shanghairanking.com/aboutarwu.html
4. Chahal Mukesh, (2015), Higher Education in India: Emerging Issues, Challenges and Suggestions, International Journal of Business Quantitative Economics and Applied Management Research, Volume 1, Issue 11, April 2015, pp. 67 - 74.
5. Ellen Hazelkom, (2007), The Impact of League Tables and Ranking Systems on Higher Education Decision Making, Higher Education Management and Policy, Volume 19, No. 2.
6. ICAR (2020): Rathore N.S., Venkateshwarlu G., Tripathi K.P. (Eds), (2017), Guidelines for Accreditation of Higher Agricultural Educational Institutions in India, Indian Council of Agricultural Research (ICAR), Access date Feb 18, 2020, URL: http://www.icar.org.in/sites/default//files/GUIDELINESFORACCREDITATIONFINALBOOK.pdf
7. Imanol Ordorika & Marion Lloyd, (2014), International rankings and the contest for university hegemony, Journal of Education Policy, 2015, Vol. 30, No. 3, 385–405 pp. 385–405.
8. Massimiliano Vaira, (2004), Globalization and higher education organizational change: A framework for analysis, The International Journal of Higher Education Research, 48, Pp 483–510.
9. Mittal Prabhat, (2018), World university rankings: Challenges for Higher Education System in India, Administrative Development: A Journal of HIPA, Shimla, Volume V (2), p. 63 –68
10. N Sundarajan, (2019), Governance in Higher Education Institutions: Analysis of Universities World Over, University News, 57(22), June 03-09, pp 03–09.
11. NAAC (2020): National Assessment and Accreditation Council, Accessed Date Feb 14, 2020, URL: http://www.naac.gov.in
12. NBA (2020): National Board of Accreditation, Access date Feb 14, 2020, URL: https://www.nbaind.org/
13. NIRF, (2020a): National Institutional Ranking Framework, Access date Feb 16, 2020, URL: https://www.nirfindia.org/Home
14. NIRF, (2020b): National Institutional Ranking Framework (NIRF), Access date Feb 16, 2020, URL: https://www.nirfindia.org/Parameter

15. QS WUR (2020b): Quacquarelli Symonds World University Rankings, Access date Feb 14, 2020, URL: http://www.qs.com/about-us/
16. QS WUR, (2020a): Quacquarelli Symonds World University Ranking UK, Accessed Date Feb 14, 2020, URL: https://www.topuniversities.com/university-rankings/world-university-rankings/2020
17. Stefano Nigsch and Andrea Schenker-Wicki, (2013), Shaping performance: do international accreditations and quality management really help? Journal of Higher Education Policy and Management, Vol. 35, No. 6, 668–681.
18. THE, (2020a): Times Higher Education, Accessed Date Feb 14, 2020, URL: https://www.timeshighereducation.com/cn/student/best-universities/best-universities-india#
19. THE, (2020b): Times Higher Education, Access date Feb 14, 2020, URL: https://www.timeshighereducation.com/world-university-rankings/about-the-times-higher-education-world-university-rankings
20. Vidya Rajiv Yeravdekar, Gauri Tiwari, 2014, Global Rankings of Higher Education Institutions and India's Effective Non-Presence: Why Have World-Class Universities Eluded the Indian Higher Education System? And, How Worthwhile is the Indian Government's Captivation to Launch World Class Universities?Procedia - Social and Behavioral Sciences 157 (2014), pp. 63 - 83.
21. Zinaida Fadeeva, Yoko Mochizuki, 2010, Higher education for today and tomorrow: university appraisal for diversity, innovation and change towards sustainable development, Sustain Sci (2010) 5, Pp 249–256.