ANALYTICAL RESEARCH ON HIGHER EDUCATION CHALLENGES: EXPANSION, EXCELLENCE AND EQUITY

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ABSTRACT-The education system as a whole is affected with issues of quality, access, availability and equity. The research paper gives an overview of higher education formative dimensions such as enrollment trends (Gross Enrolment Ratio GER), Student Attendance Patterns (Gross Attendance Ratio GAR), the funding system, policy framework for the purposes of higher education, demands facing the universities, meeting higher education needs and demands, research in universities, and policy needs for sustained education delivery. This research aims at discovering insights related to higher education quality, expansion, excellence and equity which are considered as the prime challenges of Indian Higher Education system.

Keywords-Higher Education Quality, GER, Multidimensional Analysis of HE, Student Perception on HE, Challenges of Higher Education.

1. INTRODUCTION

In the last two decades, India has significantly transformed its landscape of higher education. It has created a broad access to high quality and low cost university education for students of all levels. With well-planned expansion and a student-centered, student-centered educational model, India has not only improved its enrollment numbers, but its learning outcomes have drastically improved. A differentiated three-tier university system, in which each level has a different strategic objective, has allowed universities to consolidate their strengths and satisfy different categories of educational needs. In addition, with the effective use of technology, India has been able to resolve the old tension between excellence and impartiality. India has also embarked on a large-scale reform to improve the teacher-student relationship that makes the teaching of an attractive career, increasing the capacity of graduate students in research universities and delineating the titles of studies of teaching suitability.

As a result, today, 70 million students in India are a force to be reckoned with. These include possible thought leaders, researchers and academics, positioned to guide the creation of knowledge. Among them are entrepreneurs and managers of the future, ready for the industry and highly sought after. Our universities today have no shortage of academics ready to be hired as professors, just as our industries are the right talent that can be inserted with a minimum of incorporation.

Despite these advances, Indian higher education institutions are still the best in the world - India has fewer than 25 universities in the top 200. However, India's higher education system is increasingly recognized as The best for the world The promise of excellence and equity made the Indian higher education system worthy of imitation, especially in developing countries that face the same challenges as India in the decades before higher education reforms, but less evident in the pockets of the developed world that is under tremendous pressure to provide higher education in profitable ways.

The higher education system of India is one of the largest systems of higher education in the world that requires a continuous research effort on the different dimensions of research such as the geographic extension of education (or analytical dimension of location), growth models based on the temporal dimension (temporal analysis) and a multitude of products and educational programs (multidimensional data cube analysis). The education system as a whole is affected by problems of quality, access and equity.

Regarding the size of the local analysis, the change is happening much faster in some states than in others. In the last decade, higher education has had a strong growth trajectory. India now has the largest higher education system in the world in terms of number of institutions and the second largest in terms of number of students.

2. QUALITY IN HIGHER EDUCATION

Harvey and Green believed that quality is in the eye of the beholder. They believed that quality was a relative term and that different interest groups perceived it differently and had different views on the quality of higher education. The staff can judge it based on the quality of the content and the programs offered. Students can say that the quality of the student's learning experience and the overall benefit of education are the decisive variables for the quality of higher education. The government can base the perception of quality on the evaluation provided by NAAC or other accreditation and certification bodies. It is believed that the government and other agencies use quality assessment as a means of “control” over the university or college (Harvey & Green, 1993).

Harvey 2007 offered five quality concepts of higher education:
HE Quality as an exceptional performance: it affirmed that the quality is obtained when the implicit standards are exceeded. Quality refers to exclusivity, uniqueness or distinctiveness. This kind of thinking makes quality superlative and obvious, and we do not need to demonstrate quality in HE.

2) Defined quality for perfection and consistency: this means that the quality must focus on the process and that the specifications must be respected perfectly. There must be no defects or faults.

3) Quality defined as fitness for the purpose: the quality must be measured in the goal or purpose meter. In this version, the focus is on effectiveness and efficiency.

4) Quality as value for money: this concept considers quality as a good value for money. This perception says that quality is closely related to responsibility. (Esnault, 1992)

5) Quality as a positive transformation: this definition perceives quality as a change, an improvement and an improvement of added value. He says it is difficult to measure quality compared to established standards. (Harvey, 2007)

The twelfth five-year plan (2012-2017) for higher education refers to three variables defining quality for higher education:
1). Expansion: Increase the capacity of existing institutions, instead of creating many new institutions financed by the government; enable disciplinary diversity, combat distorted growth towards engineering and other technical issues; allowing flexible and competency-based learning; ensure more uniform dissemination throughout the country; alignment with the needs of the economy; and encourage private investment.

2). Excellence: Priority themes include improvements in teaching and learning and a focus on learning outcomes; development of the faculty to improve teaching; greater integration between research and teaching; more international associations in teaching and research; better links between industry and research to stimulate innovation; and linking institutions through networks, alliances and consortia.


3.0 METHODOLOGY
The primary objective of this research is to analyze the challenges and opportunities associated to Higher Education Arena in India. The core objectives of this research paper is analyse the current situation of higher education in India and develop insights into the key challenges such as Availability, Access, Equity and Quality of higher education. For gaining an in-depth understanding of the Higher Education Scenario an in-depth analysis was conducted on secondary data on Higher Education System in India. The focus of this multidimensional analysis was the higher education quality benchmarks and the challenges expressed in the planning commission document. A survey of 2100+ youth in the age group 17 to 23 was conducted for getting an understanding of the Factors affecting Higher Education. The geographic context for this set of research findings is India with special reference to its higher education department. The research method used was qualitative research methods as they enable researcher to develop a deeper understanding of experiences, processes, problems, and events. The secondary research data collection was primarily through review of published data and policy documents available on Higher Education Department web sites. The primary data collection was through semi structured questionnaire for youth survey. Concept built-up was achieved through academic papers and other research reports.

4. MULTI-DIMENSIONAL DATA ANALYSIS, FINDINGS AND DISCUSSION
The General classification for the types of universities and degree providing bodies on the basis of funding pattern may be listed as follows:

<table>
<thead>
<tr>
<th>Type of University</th>
<th>Central University</th>
<th>Central Open University</th>
<th>Institute of National Importance</th>
<th>Misc Central</th>
<th>State Public University</th>
<th>Institute under State Legislature Act</th>
<th>State Open University</th>
<th>State Private University</th>
<th>Deemed University-Government</th>
<th>Deemed University-Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total</td>
<td>43</td>
<td>1</td>
<td>75</td>
<td>13</td>
<td>329</td>
<td>5</td>
<td>13</td>
<td>197</td>
<td>1</td>
<td>32</td>
</tr>
</tbody>
</table>

(Source AISHE Higher Education data 2015-2016)
Another level of education delivery is the number of colleges in the state. This number is augmented by two more statistical indicators as shown in the table 3. The states having more than 2500 colleges are:

Table 2: States having more than 2500 colleges

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>STATES/UTs</th>
<th>No. of College</th>
<th>College per lakh population</th>
<th>Average Enrolment per College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Uttar Pradesh</td>
<td>6491</td>
<td>26</td>
<td>920</td>
</tr>
<tr>
<td>2</td>
<td>Maharashtra</td>
<td>4569</td>
<td>34</td>
<td>628</td>
</tr>
<tr>
<td>3</td>
<td>Karnataka</td>
<td>3555</td>
<td>50</td>
<td>438</td>
</tr>
<tr>
<td>4</td>
<td>Rajasthan</td>
<td>3050</td>
<td>35</td>
<td>551</td>
</tr>
<tr>
<td>5</td>
<td>Andhra Pradesh</td>
<td>2532</td>
<td>45</td>
<td>494</td>
</tr>
</tbody>
</table>

Though UP has highest number of colleges numbering 6491 colleges but still looking at the size of college going population (age 18 to 23) the number is far less than needed. The number of colleges per lakh population is just 26. This says that the probable student strength per college crosses 4000 student load per college. For an effective structure the number of colleges should have been roughly double of the current number. Also on a pan India basis the average enrolment figures per college are a concern that needs immediate research and correction. BiharDelhi, Jharkhand, and West Bengal have less than 10 colleges per lakh of college going population. This translates to a load of 10000+ students per available college which is highly impractical. (Maslen (1997))

If we observe the changes in number of universities over a five year period we see that there was a mediocre change and an aggregate increase of 178 units. This is not a very sizable change and reflects the sentiment that consolidation of existing structure is more important than creation of new universities.

Table 3: Changes in University Numbers over 5 year period

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>India No of Universities</td>
<td>621</td>
<td>642</td>
<td>667</td>
<td>723</td>
<td>760</td>
<td>799</td>
</tr>
</tbody>
</table>

A expansion of the above figures with respect to type of Universities presents the following picture for a better understanding of government policy structure and the driving direction.
The state universities and state private universities take the largest share of the Higher Education System and together constitute 66% of total number of Universities. About 50% of the total number of Universities is concentrated in just 7 states viz: Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, and Uttar Pradesh. A single state having the largest number of universities is Rajasthan with 70 universities. States with less than 5 universities are Chandigarh, Goa, Manipur, Mizoram, Nagaland, Puducherry, and Tripura. In UTs of, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu and Lakshadweep, there are no Universities and in Goa there are only two Universities. For the states where there is a sizable number of universities it is because of presence of private university setups. There are several states where there are very low numbers of private universities such as Tamil Nadu, Maharashtra, Andhra Pradesh, Delhi, Bihar, Telangana, Kerala, Jammu and Kashmir, Manipur, Puducherry, Chandigarh, and Goa. If this situation can change and private university setups can come at these places then there would be a sizable increase in expansion of higher education base. Also there are only one or few central universities per state. The seats offered by such universities are in high demand and none of these central universities should focus on offering a diversified range of education products and programs. Schneider (2017) In the face of an average growth rate of over 9% in the past 10 years, the gross enrollment ratio (GER) in higher education is still stumpy at around 23%. Even if India make it in its five year plan target of target of 30% GER by 2020, 100 million plus competent scholars will still not have places at any of the university or colleges.

India needs to considerably increase the quantity of spaces at universities and enrolment through Massive Open Online Courses (MOOCs). There has to be a simultaneous increase in the types of programs and specializations. The diversity of courses offered by universities and colleges has narrowed in the past ten years and everybody is concentrating only on a few programs such as Engineering and Management, resulting in saturated markets for engineers, technology graduates and MBAs. On the other hand there is a huge demand and low supply for medical colleges. Proper planning and segmentation of society is needed for deciding the right numbers and skills.

Table 4: Type wise change in universities over a five year period

<table>
<thead>
<tr>
<th>State</th>
<th>Central University</th>
<th>Deemed University-Government</th>
<th>Deemed University-Government Aided</th>
<th>Deemed University-Private</th>
<th>Institute of National Importance</th>
<th>State Private University</th>
<th>State Public University</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-16</td>
<td>43</td>
<td>32</td>
<td>11</td>
<td>79</td>
<td>75</td>
<td>197</td>
<td>329</td>
</tr>
<tr>
<td>2014-15</td>
<td>43</td>
<td>32</td>
<td>11</td>
<td>79</td>
<td>75</td>
<td>181</td>
<td>316</td>
</tr>
<tr>
<td>2013-14</td>
<td>42</td>
<td>36</td>
<td>11</td>
<td>80</td>
<td>68</td>
<td>153</td>
<td>309</td>
</tr>
<tr>
<td>2012-13</td>
<td>42</td>
<td>36</td>
<td>11</td>
<td>80</td>
<td>62</td>
<td>122</td>
<td>292</td>
</tr>
<tr>
<td>2011-12</td>
<td>42</td>
<td>38</td>
<td>11</td>
<td>79</td>
<td>59</td>
<td>105</td>
<td>286</td>
</tr>
<tr>
<td>2010-11</td>
<td>41</td>
<td>40</td>
<td>11</td>
<td>91</td>
<td>59</td>
<td>87</td>
<td>281</td>
</tr>
</tbody>
</table>

The table shows that the increase in number happened primarily in state private universities and somewhat in state public universities. All the rest of figures were practically unchanged.

4.1 EXPANSION OF EDUCATION SYSTEM

The prime outcomes of the analysis are listed below:

- Certainly, the greatest challenge facing higher education in India is the chronic shortage of faculty. Various reports estimate that 30-40% of faculty positions are unfilled.
- Most faculties have had no proper training in teaching and there is a gross shortage of teaching and learning resources which compound the problems in education delivery.
- Outdated, rigid curricula which changes from state to state. Some of the universities are offering courses which have been technologically disrupted by superior technology.
- No connect between the universities and the Industry and absence of employer engagement in course contentand skills development.
- Very few opportunities for interdisciplinary learning.
- Pedagogies and assessment are focused on input and rote learning; (Williams, 1997)
- Students have little opportunity to develop a wider range of transversal skills, including critical thinking, analytical reasoning, problem-solving and collaborative working.
- High student: teacher ratio, due to the lack of teaching staff and pressure to enroll
- Separation of research and teaching; complete lack of early stage research experience.

This has resulted in graduates with low employability, a common feature of higher education.
4.3 EQUITY IN HIGHER EDUCATION

There is a substantial multi-dimensional disparity in enrolment rates in terms of geography, states, districts and townships. The same absence of equity is observed between metros and small towns, between rural and urban populations, affluent and deprived, minority and mainstream communities, scheduled castes, scheduled tribes, and other backward sections. Equity and parity is also skewed in ratios of males and female population, especially with reference to specific university programs. ‘Inclusive growth’ is a primacy for reorganization in Indian education sector. With the growth in the middle classes, Indian universities must prepare themselves for considerable changes in student profile. The base and foundation education of these deprived classes has to change if a significant improvement is desired in equity and parity amongst geographies and social classes.

5.0 CONCLUSION

The data analysis and insights developed thereon clearly shows that much needs to be done to ensure quality higher education. Technological forces are also bringing a change in a big way. Campuses once organically bound to one physical place now have the occasion to magnify and network between states, regions, and international locations. In addition, technology enables professors and students access to a world of information previously available only to a few and that too at high costs. The desire for education created by a population that continually seeks education, further supports changes within the higher education quality framework. India needs to considerably increase the quantity of spaces at universities and enrolment through Massive Open Online Courses (MOOCs). There has to be a simultaneous increase in the types of programs and specializations.

6.0 REFERENCES