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AN ANALYSIS OF STATE-WISE TRENDS IN HIGHER EDUCATION ACROSS INDIA

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ABSTRACT

A nation's development depends primarily on its financial, social and human development. The financial and social development of any country is dependent upon the quality of human resources of that country. For developing human resource, education is considered as a basic source. Human development refers to knowledge, skills and experience of the population in the country. Also, it has a powerful impact on the socio-economic growth of the nation. Therefore, higher education is a key for nurturing professionals who will be capable of tackling upcoming challenges. Post-independence, higher education in India has gone from strengths to strengths. Although the future of the higher education sector looks bright, there are many challenges in various parts of the country for various reasons. For a comprehensive growth, one must dig deep into state-wise numbers and find out the loopholes in the existing system. This state-wise analysis is crucial because all states may not have contributed equally to the national growth. Also, the challenges and their solutions may vary from state to state depending on the local situation. In view of large outreach, the present paper is an effort to analyse the trends in higher education across all states in India, in the last ten years. This paper reviews data collected by the department of higher education; central government of India published by the ministry of statistics. This review demonstrates the trend-lines of student enrolment and number of institutions in higher education, in the last 10 years (2011-2020). Initial screening of data reveals the possibility of growth in the number of women enrolments in higher education. This emphasis is on descriptive analysis and is based on secondary data.

KEYWORDS: *Higher Education, Human Development, Student Enrollment.*

Introduction

India has witnessed an enormous growth in the field of higher education. The phenomenal increase in enrolment of this order would not have been possible without the growth in the number of institutions of higher education. India has one of the largest education systems in the world with more than 1000 universities, 45000 degree colleges and 1500 top institutes. The role of Indian higher educational institutes such as colleges and universities are to provide a quality education to empower youth to be self-sufficient. The paper focuses on statistical analysis of trends in higher education in the last ten years.

Objectives

- To study the current status of higher education in India
- To examine the trends in higher education across all states in India in the last 10 years (2011-2020)
- To relate growth in the number of women enrolment in higher education
- To analyse an impact of growth in number of colleges on the number of student enrolment across all states of India

Research Methodology

This study is mainly based on the secondary data collected by the department of higher education, central government of India published by the ministry of statistics. Data is collected for the time period 2011-2020. Data contains state-wise number of colleges, universities, standalone institutes, state-wise number of student enrolment and gross enrolment ratio in the last ten years. The study uses Karl Pearson's test of correlation to analyse an impact of growth in number of colleges on number of student enrolment across all states of India.

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Paper is categorized as follows: Section II narrates literature review, section III focusses on higher education institutions in India, section IV gives details about student enrolment in higher education, section V describes Gross Enrolment Ratio (GER), section VI talks about statistical analysis and section VII provides the conclusion of this research.

Literature Review

While examining the "All India survey reports" for the past ten years, it is found that there is a massive growth in India's higher education sector. Previous research shows the historical education in India was deeply ingrained in Vedic religion and studies covering a broad array of Grammar, Mathematics, Medicine, Astrology, Logic, Commerce and many more areas. Higher education was fashioned in India by the ancient rishis and sages. The Gurukul system was proposed during Vedic period, but a huge university was established at "Takshashila" in the 6th century B.C and two more universities namely "Nalanda" and "Vikramshila" were established in the 4th and 5th centuries respectively.

A number of recent studies have shown that the pre-independence Indian higher education system was free and often limited to the higher castes. By 1922 the country had 14 universities and 167 colleges. In 1947, 21 universities and 496 colleges were contributing to the Indian education system. Initially, universities did not do teaching or research; they only conducted examinations and awarded degrees. A series of recent studies have shown that India's Higher Education sector has experienced a considerable growth in the number of universities. No prior studies have examined critical analysis of state-wise trends in higher education across India, especially for the last decade (2011-2020). In this context, there is a need to analyse the overall situation of higher education in India for the period 2011-2020 and that is the motivation behind this analysis.

Higher Education Institutions in India

In India, there are a total 1043 universities, 42343 colleges and 11779 standalone institutes.

Types of Universities

Universities for higher education in India are categorised as follows:

- **Central Universities:** Universities established by an act of parliament
- **Institutions of National Importance:** These institutes serve a pivotal role in developing highly skilled personnel within the specified region of the country. Like central universities, these universities are also established by an act of parliament.
- **State Universities:** Universities established by an act of state
- **Institutions Under State Legislature:** Institutions established by a state legislature act
- **Public Universities**: Universities supported by government of India and state government
- **Private Universities**: Mostly supported by various bodies and societies
- **Open Universities:** Institutions offering degrees with low or no entry requirements
- **Deemed University:** Universities working at a very high standard in specific areas of study, can be declared as an institution "Deemed-to-be-university" by the central government of India on the advice of the University Grants Commission (UGC).

Types of Collages

- **Government Colleges:** Colleges fully funded and controlled by the government
- **Private Aided Colleges:** Colleges that gets funds from government but controlled by private institutes
- **Private Un-Aided Colleges**: Colleges fully funded and controlled by private institutes

Standalone Institutions

Standalone institutions are categorized as follows:

- Diploma level technical institutes like polytechnics, which are generally recognised by All India Council for Technical Education (AICTE)
- Diploma level teacher training institutes including District Institute of Education and Training (DIET) recognised by National Council for Teacher Education (NCTE)

- Nursing institutes recognised by Indian Nursing Council (INC)
- Institutes for post-graduate diploma in management recognised by AICTE
- Institutes under the control of various central ministries
- Paramedical institutes
- Hotel management & Catering institutes

Trends in Higher Education Institutions in India from 2011-2020

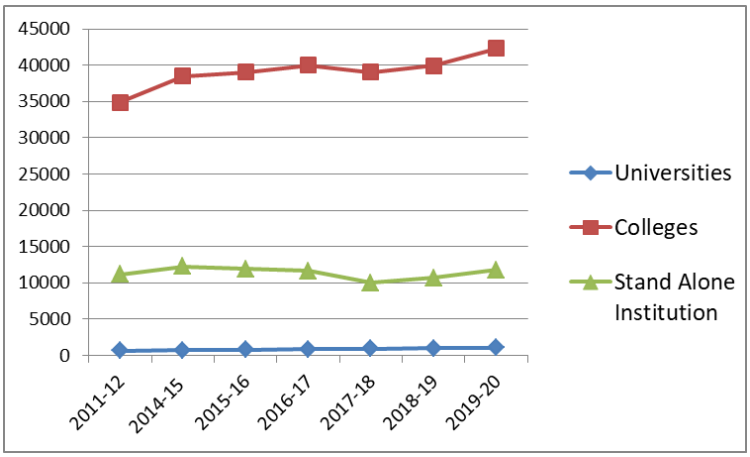

Figure 1: Trends in Higher Education Institutions

According to the trends in figure 1, there were 642 universities in India in 2011-12 that increased to 1043 in 2019-20. In the year 2011-12, there were 34852 colleges that increased to 42343 in 2019-20. Total 1157 standalone institutions existed in India during the year 2011-12 that increased to 11779 in 2019-20.

Student Enrolment in Higher Education

Total student enrolment in higher education is classified into 8 main categories - Ph.D., M.Phil., Post-graduate, Under-graduate, P-Diploma, Diploma, Certificate and integrated.

Along with the increasing number of higher education institutions in India, there is immense growth in the number of student enrolment. Data collected for the year 2019-20 is a clear indication of the same. It shows, the student enrolment is highest i.e., 3.06 crore (79.5%) at undergraduate level in the country. Second to undergraduate, student enrolment in post-graduation is approximately 43.1 lakh (11.2%). Whereas student enrolment in M.Phil. is lowest at 0.06% out of the total enrolment.

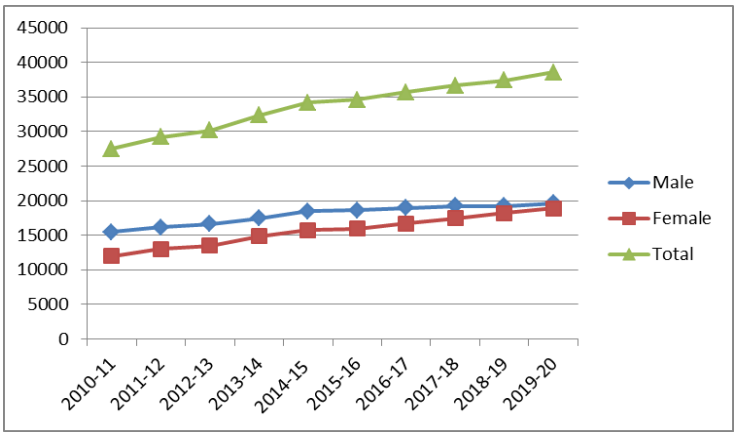

Figure 2: Trends in Student Enrolment in Higher Education

As the figure 2 shows, the total enrolment in higher education is consistently increasing from 2011-2020. Also, it is a progressive sign that the difference between male and female enrolment is shrinking and it is almost negligible as we reach the year 2019-20.

Gross Enrolment Ratio

Gross Enrolment Ratio (GER) is a statistical measure used to determine total enrolment in a specific level of education, regardless of age; expressed as a percentage of the eligible population corresponding to the same level of education. Gross enrolment ratio for higher education is calculated for the 18-23 age group.

The development of the higher education system is classified under three stages.

- **GER less than 15%:** It is considered to be an elite system where access to higher education is limited. It indicates that the system has neither massified nor wide access to higher education.
- **GER is between 15% and 50%:** It is considered as a mass system where higher education is seen as a right for those who are formally qualified for entering into higher education.
- **GER is above 50%:** The system is considered to be universal and higher education is an obligation of the state and well-articulated into its public policy.

State Wise Analysis of Student Enrolment on the Basis of GER

Table 1: Gross Enrolment Ratio (GER) in Higher Education

Sr. No.	State/Union Territory	GER (2019-20)
1	Sikkim	75.8
2	Chandigarh	52.1
3	Tamil Nadu	51.4
4	Delhi	48
5	Puducherry	46.3
6	Uttarakhand	41.5
7	Himachal Pradesh	40.8
8	Kerala	38.8
9	Manipur	38.3
10	Telangana	35.6
11	Arunachal Pradesh	35.4
12	Andhra Pradesh	35.2
13	Jammu and Kashmir	32.4
14	Maharashtra	32.3
15	Karnataka	32
16	Haryana	29.3
17	Goa	28.4
18	Punjab	28.2
19	Meghalaya	26.1
20	Mizoram	26.1
21	Uttar Pradesh	25.3
22	Madhya Pradesh	24.2
23	Rajasthan	24.1
24	Odisha	21.7
25	Gujarat	21.3
26	Jharkhand	20.9
27	Tripura	20.2
28	Andaman and Nicobar Islands	20
29	West Bengal	19.9
30	Chhattisgarh	18.5
31	Nagaland	18.5
32	Assam	17.3
33	Bihar	14.5
34	Dadra and Nagar Haveli	9.4
35	Ladakh	7.9
36	Lakshadweep	7.5
37	Daman and Diu	6.1
Total	India	27.1

Table 1 shows, the GER in higher education during 2019-20, is highest in the states of Sikkim (75.8), Chandigarh (52.1) and Tamil Nadu (51.4); whereas, it is lowest in Daman and Diu (6.1), Lakshadweep (7.5) and Ladakh (7.9).

The study indicates that Daman and Diu, Lakshadweep, Ladakh, Dadra and Nagar Haveli and Bihar are five states with less than 15% GER, which means the system has neither massified nor wide access to higher education. On the contrary, Tamil Nadu, Chandigarh and Sikkim have GER more than 50% and the system is considered as universal.

Trends in Higher Education System of India from 2011-2020

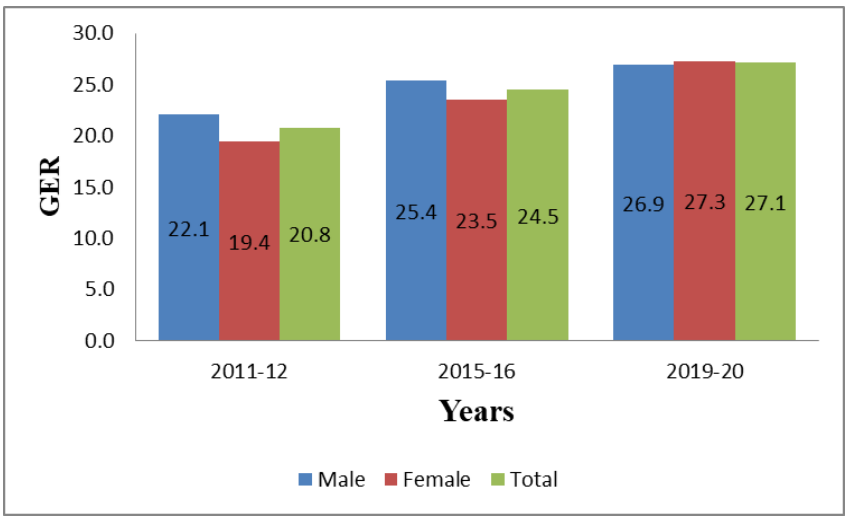

Figure 3: Trends in higher education system

As the figure 3 shows, from 2011-2020 GER is substantially increasing from 20.8% to 27.1%. GER for female enrolment was lower in comparison to male students in 2011-12 but slowly the margin reduced in 2015-16. Whereas GER for females has recorded a higher percentage compared to males during 2019-20.

Statistical Analysis

To analyse the impact of growth in the number of higher education institutes on the number of student enrolment in India, Pearson's test of correlation is used for statistical analysis. Correlation analysis is used to measure the extent of linear relationship between two variables.

The coefficient of correlation (r) ranges between -1 and +1, i.e., $-1 \leq r \leq +1$. A correlation of -1 shows a perfect negative correlation, and a correlation of +1 shows a perfect positive correlation. If the correlation coefficient is greater than zero, it is a positive relationship. Conversely, if the value is less than zero, it is a negative relationship. A value of zero indicates that there is no relationship between the two variables.

The given data analysed with the Pearson's test of correlation, examining degrees of correlation between number of higher education institutes and number of student enrolment from 2011- 2020.

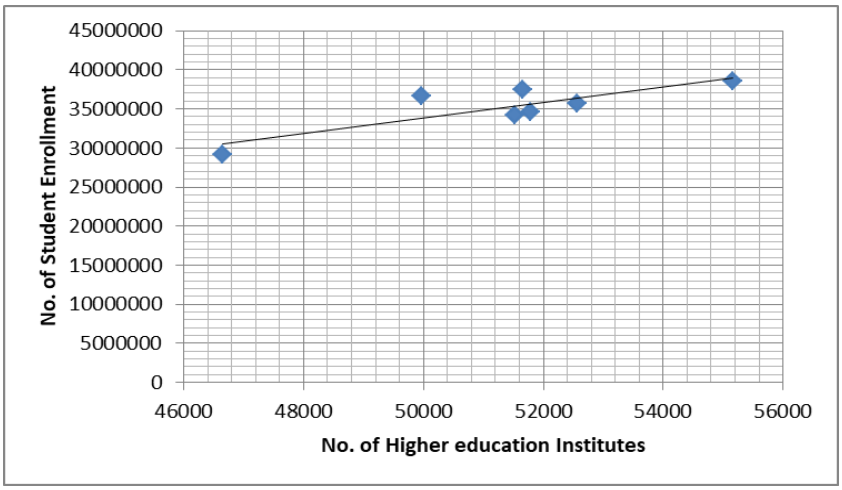

Figure 1: Number of Higher Education Institutes

Pearson's test of correlation computes r = 0.83877 > 0, which shows there is high positive correlation between number of higher education institutes and number of student enrolment from 2011-2020. Also "p" value for Pearson's test of correlation is 0.0183 which shows the result is statistically significant.

Conclusion

The study has examined various trends in India's higher education system. It is observed, there is a high impact of increasing number of higher education institutes on the student enrolment across all states in the country. The analysis highlights, there are already 3 states/UTs (Sikkim, Chandigarh, Tamil Nadu) whose education system is universal. On contract, states/UTs like Daman and Diu, Lakshadweep, Ladakh, Dadra and Nagar Haveli and Bihar come under an elite system. Therefore, higher education institutes should focus on holistic development of an individual and development of multiple intelligence rather than merely linguistic and logical intelligence of an individual. A silver lining of this analysis is women enrolment in higher education system. It took decades for women to bridge the gap between gender differences in GER. And now, in the year 2019-20 GER for women is marginally higher than males. So, at present India's higher education system is in the stage of "massification" with GER 27.1%.

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