SWOT Analysis of Indian Higher and Technical Education Institutes

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Abstract

Due to modernization and globalization, in current years has rose many new challenges to the Indian higher and Technical education system. Globalization has also opened the possibility to global companies and industries in the education sectors too. New products and services are being invented continuously with improved quality and customer focus with different techniques of improvements. The important input to the success of this new brand of industries is a group of highly motivated and methodically trained educated academic forces. The knowledgeable higher and technical work force has to be regularly updated for their skills. The Student coming out of our education system should be capable of meeting the demand and challenges of the modern industry with shorter product life cycle. They should be having sate of art in their technical know-how. Linked to India many of the institutions of higher education in overseas have excellent infrastructure institutes, libraries, resources, faculty developing programs and research but the same cannot be said about the institutions of higher education in India. In this paper, an effort has been made to understand the present status of the higher education system through the SWOT analysis, a widespread method of management studies (1).

Keyword- Education, Opportunity Strength, Threats Weakness

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I. INTRODUCTION

Indian higher education is one of the best and the second biggest in the World after U.S.A. India is likely as one of the Nations to lead the future better scenario. During the era of independence there were 20 Universities, 500 Colleges with 2, and 40,000 students. Today there are more 882 Universities, 38061 Colleges and 9090 Stand Alone Institutions according to ASHIE Report- 2018. There are 500 General, 126 Technical, 70 Agriculture & Allied, 58 Medical, 22 Law, 13Sanskrit and 10 Language Universities and rest 83 Universities are of other Categories. Full amount of enrolment in higher education has been estimated to be 36.6 million with 19.2 million boys and 17.4 million girls (ASHIE Report 2018). Girls constitute 47.6% of the full amount. The total number of teacher's are12, 84,755, out of which about 58.0% are male teachers and 42.0% are female teachers. At all- India level there are merely 72 female teachers per 100 male teachers. Pupil Teacher Ratio (PTR) in Universities and Colleges is 30 if regular mode enrolment is considered whereas PTR for Universities and its component Units is 20 for regular mode. SWOT analysis is a qualitative tool which by evaluating the strengths, weakness, opportunities and threats to the Indian higher and technical education makes an overall evaluation of the Indian Institutes education system.(4)

II. RESEARCH METHODOLOGY

Research methods can be classified in different ways, the most common distinction is between the quantitative and the qualitative approaches for this study descriptive methods are followed and secondary data has been obtained. For this study statistics and information has been collected from various books, Research Article, Magazines, Research Journal, E- journal, Report of UGC and MHRD, and Report of the higher and technical education and Websites.

III. MAIN OBJECTIVE OF STUDY

The main objective of the study is
- To spotlight on important problems of the Indian higher and Technical education through SWOT analysis.
- To know the factors influencing higher and Technical education through SWOT analysis.
- To know threats facing by the Indian higher education.

IV. SWOT ANALYSIS (STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS)

Strengths: These are factors that are likely to have a positive effect on accomplishing
Weaknesses: These are factors that are likely to have a negative effect on achieving the institute objectives.
Opportunities: External Factors that are expected to have a optimistic effect on achieving or exceeding the institutes objectives, or goals not earlier considered.
Threats: External Factors and circumstances that are likely to have a pessimistic effect on achieving the institute's aims, or making the objective redundant or un-achievable. (10)

SWOT analysis shows a framework that helps researchers and policymakers to recognize and arrange the operational goals and further frames the strategies to accomplish them. It also makes vision and awareness into current and past issues, thus finding possible solutions for an existing operations/research or for a new entity (7). SWOT analysis is also recognized as a one type of model that analyzes the information from internal strengths accomplish objectives, how to overcome or Minimiz Figure: 5 Percentage Wise Enrolment Different Courses (Reference: - All India Survey on Higher Education 2017-18 Report of MHRD India)ed risk .(5)(6) SWOT, is an analysis method, which is used in strategic planning for the organization and consists of the initial letters of concepts of Strengths, Weaknesses, Opportunities and Threats (5).As a medium of administration, SWOT analysis is used in making a plan, defining problem and also solution of it, creation a approach and giving an analytic judgment (6). It is a tool for auditing an institution and its own environment. It is a first stage of planning which assist to focus on key issues. The role of SWOT analysis is to take the information from environmental scrutinize and divide it into internal and external issues. SWOT analysis decides if the information indicates something that will assist the institution in obtaining its objectives. Fig-1 Shows SWOT analysis Classification the detail analysis discuss in topic-5.
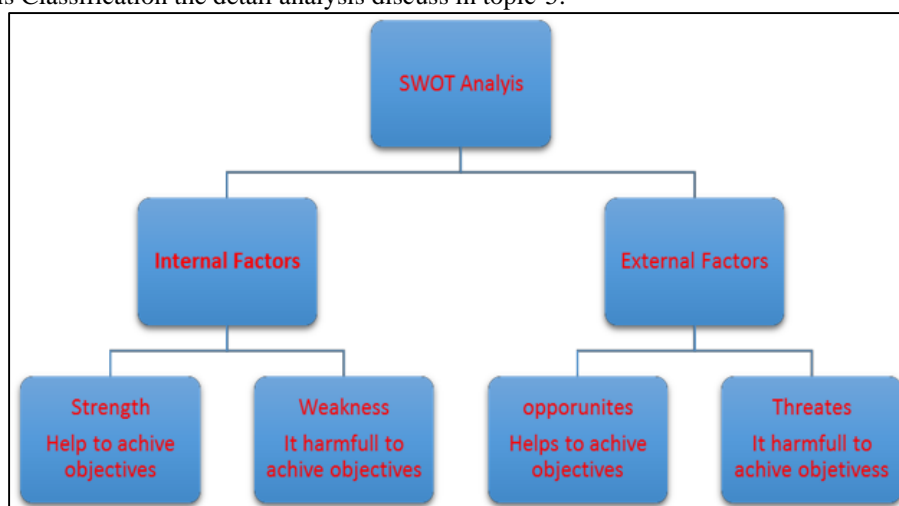

Fig. 1: SWOT Analysis classification

V. SWOT ANALYSIS FOR HIGHER AND TECHNICAL EDUCATION

Following diagram shows major strength weakness opportunities and Threats for higher and Technical Education.
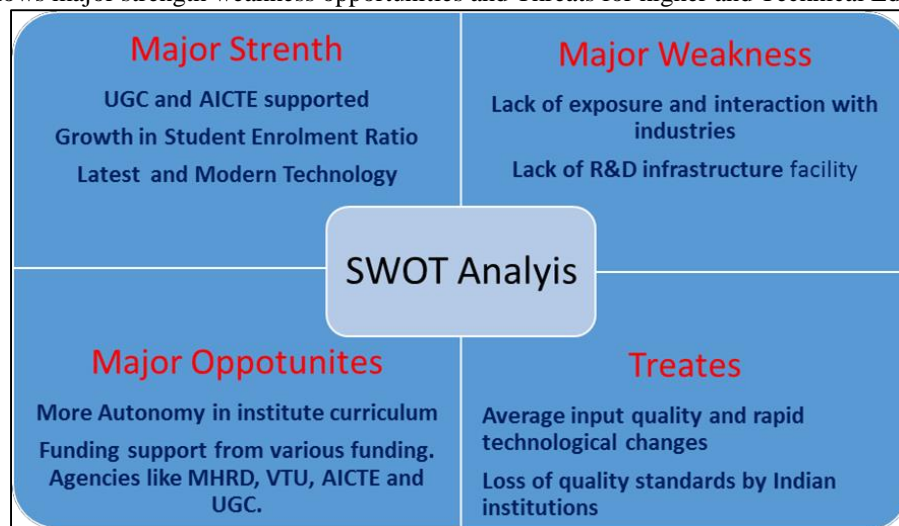

Fig. 2: Major SWOT analysis factors in Higher and Technical Education

A. *Strengths of Higher and Technical Education in India*

Following are major strength of Higher and Technical Education in India

1) To achieve higher quality standards UGC have done establishment of NAAC and NBA by AICTE.
2) Today higher and Technical education is highly subsidized sponsored 8and funded by government through various schemes and policies, thus it is available to the poorest of the poor people in rural areas. It is equity & accessibilities principle has enabled many of the economically poor to acquire higher and Technical education.
3) Some Central Universities such as IITs, IIMs, TATA and IISC and the laboratories of CSIR are deliberated as Centers of excellence with global standards and are also renowned internationally.
4) Technical Education can meet the rising load of growing society and to meet its multiplying demands. The industries, mechanized systems, and scientific research centers all over the world prove that instead of bare hands we must use machines, equipment's and technological devices for all-round development and renewal of human society.
5) India has got very rich and educated education heritage. Very good primary education which provides a strong base. Indian education system shapes the growing minds with enormous amount of information and knowledge. Indian education system gives the greater exposure to the subject knowledge.
6) The life style evolving in this era is very much different from the one we would find in our Indian civilization even some fifty years back. Higher and Technical Education imparts knowledge of the specific trade, craft or profession. General education has been replaced by professional technical education in many cases. Higher and Technical education gives a good opportunity for employment and successful career to young and dynamic graduate for better comfortable life with social status fulfilling 4th stage of esteem need in Maslow's need hierarchy.(8)
7) Qualified and committed teaching faculty, young and enthusiastic staff, pursuit for higher learning is major strength.
8) High Co-ordination, teamwork healthy relationship amongst the faculty reasonably sincerity & co-operative office staff and obedient supporting staff are major strength.
9) Well-equipped and modern laboratories for most of the departments and Independent computing facilities for each of the departments.
10) Latest Audio visual facilities ,well-furnished classrooms good hostel facilities ,good play ground ,upcoming indoor facilities ,and good Auditorium facility is major strength of education institute. Existence of good transportation facility Xerox facility in library etc are now available in higher and Technical institution to provide better facilities to faculty and students.
11) Very good academic results, hardworking and well disciplined, students with good representation of student projects are other major strength. of any educational institute.
12) Student enrolment ratio is increased year by year so there is lager scope for higher and Technical Education.is bigger strength(Figure-3)
13) Better Carrier Advancement Scheme of UGC and AICTE to promote Teachers from a few selected stages to higher stages can motivate faculty at various levels.
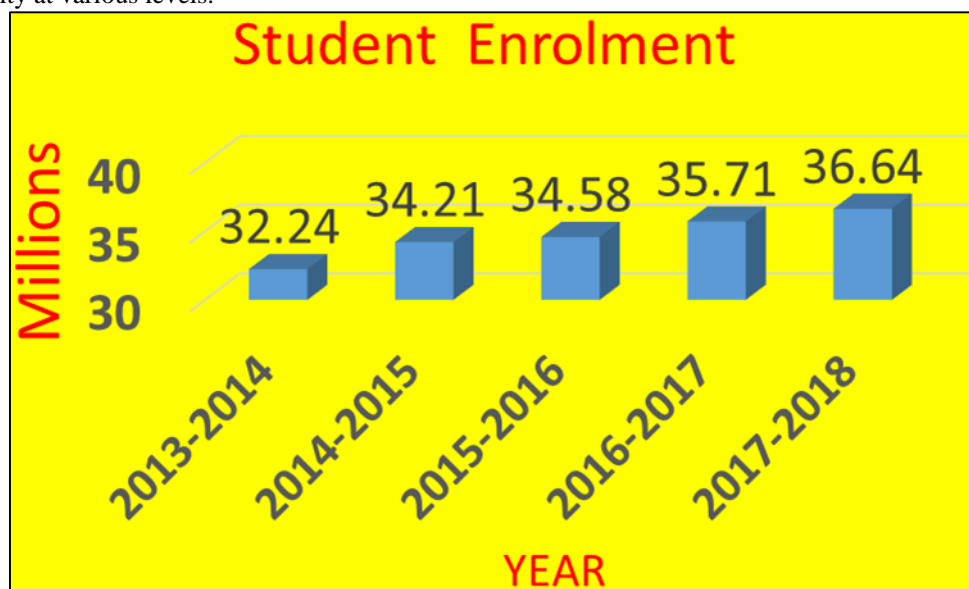

Fig. 3: Year Wise Student enrollment Ratio
(Reference: - All India Survey on Higher Education 2017-18 Report of MHRD India)

B. *Weakness of Higher and Technical Education in India*

The Major Weakness are as under

1) No provision of academic audit in Universities and Colleges. And lack of mission for quality in majority of institutions
2) Lack of involvement in Technical activities and Inability to cope up with changing technology

3) Fewer quest for higher goals. Low expertise in computer field and few involvement in R&D projects by the qualified staff.
4) Lack of exposure and interaction with industries with M e m o r a n d u m of understanding (MoU) for cooperation and III Cell,
5) Lack of awareness of optimal use of resources and Poor communication skills
6) Lack of adequate up-gradation of curriculum according to change in technology and No benchmark and no common course content and no nationwide common exam procedure.
7) Inadequate Library and information Services, Computing facilities &Nonexistence of Office and library automation..
8) Lack of R&D infrastructure facility and few replacement of the obsolete equipment and machines.
9) Improper Organizational structure, financial assistance & internet facility
10) No Benchmarking of any of the process and MIS in the system available.
11) Lack of liaison between external environment and the institute for improving consultancy
12) There are chief growth in the number of technical institutions and therefore in the number of technical personnel. The Planning Commission had estimated that the percentage of unemployed engineering graduates was more than 20%.(8)
13) There was giant inequity in the growth of technical institutions across regions

C. Opportunities of Higher and Technical Education in India
1) By making more autonomy to institute curriculum can be made more realistic according to recent trends, practically biased and job oriented. Students will be observed more as a customer to provide highly technically skilled labor to the nation. India can produce more and highly qualified students to cope up with demand of various stack holders.
2) Application of technology in Government works and growth of Internet facility and Distance learning program
3) Government focus on infrastructure and rural development with various schemes and policies.
4) Funding support from various funding. Agencies like MHRD, VTU, AICTE and UGC.
5) Good Transportation and other facilities in educational institution and quality consciousness in society.
6) High demand for IT sector supported by IT policies of the government.
7) Recognition of different educational Institutions as a certifying authority and training center.
8) Foreign student enrolment is increase in colleges and universities that increase that is major opportunities to our Indian Colleges and universities to give world class Education in India to foreign enrolled student. With better high class teaching learning facilities.(Figure-4) (3)
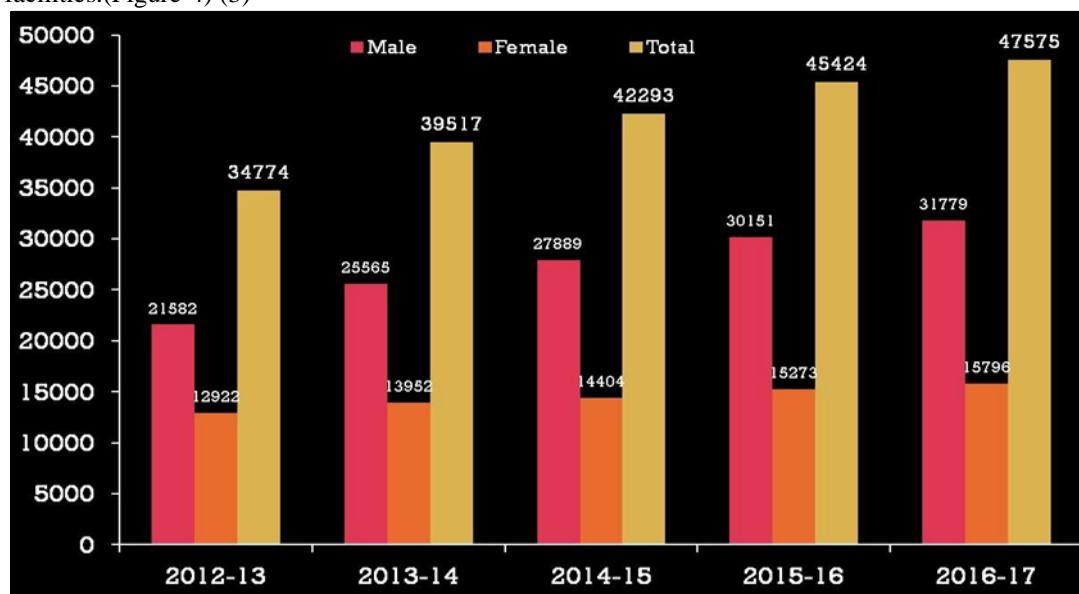

Fig. 4: Foreign Student Enrolments
(Reference: - All India Survey on Higher Education 2017-18 Report of MHRD India)

9) Level wise Enrolment in Higher and Technical Education shown in following table and Figure shows. There are 11 types of Universities and the Level-wise enrolment in each type of university,
Teaching departments and constituent universities/off-campus centers are given in following table. Total numbers of students enrolled are 72.65 lakhs. In State Public Universities number of Ph.D. students is largest (43959) followed by Institutes of National Importance (28383) (3) we can see that large opportunities for educational institute for overall development of India with high educated youth. There is big chance for Indian higher and technical institute to increase student enrollment in various Ph.D programs offered by various universities. Percentage increase in this have big opportunity for research and development growth and patent registration with newer technology, method process idea, product development, business plan. Cost effective analysis in different discipline like Management, Engineering, Science, commerce, pharmacy etc.(3)

Type of University	Ph.D	M.Phill	Post Graduate	Under Graduate	PG Diploma	Diploma	Certificate	Integrated Cour	Total
Central University	22052	3526	109734	560736	3810	8365	3591	11865	723679
Central Open University	365	56	340744	480370	21009	18221	150	0	860915
Institute of national importance	28383	85	40520	117322	103	71	15	16698	1584594
State public university	43959	11849	974934	1300522	79756	110350	40707	34736	2596813
State open University	150	0	184501	855104	9582	21833	18763	0	1089933
1State Private University	13367	775	196534	670183	32057	91771	997	0	1005684
State Private open University	0	0	11	15	0	0	0	29965	29991
Institute under legislator act	200	0	677	2550	42	202	38	0	3709
Deemed University Government	9501	330	11730	16026	1300	2372	454	0	41713
Deemed University Government aided	3049	686	15567	29576	541	3242	3021	1208	56890
Deemed University Private	18192	965	100112	501210	5137	7240	288	132	633276
Total	139218	18272	1975064	4533614	153337	263667	68024	94604	8627197

Table 1: Level wise Enrollment in various types of Universities with teaching department and Constituent units/off centers campus & affiliated and constituent colleges

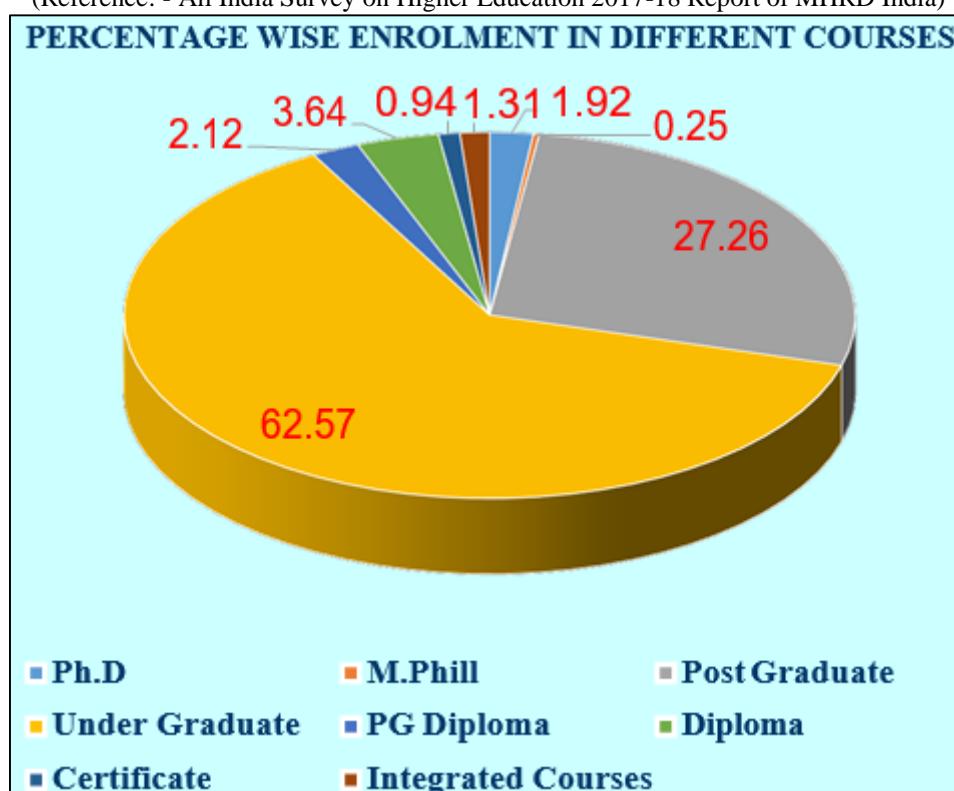(Reference: - All India Survey on Higher Education 2017-18 Report of MHRD India)

Fig. 5: Percentage Wise Enrolment Different Courses

(Reference: - All India Survey on Higher Education 2017-18 Report of MHRD India)

10) Networking of technical institutions, at different levels, for mutual benefit, sharing of Resources, undertaking major projects

D. Threats of Higher and Technical Education in India
1) Opening up of more number of Engineering colleges and Non-availability of high quality academicians
2) Average input quality and rapid technological changes due to fast innovations.
3) Lack of Governments vision towards higher and technical education and   Politicizing the education
4) Loss of quality standards by Indian institutions as more and more students chooses for education in foreign institution.
5) Threat from within of declining standards of higher and technical education due to lack of benchmark in terms of quality of institutions in other country.
6) Due to Unsure and Improper Counselling, many students who join technical education are a result of walking idiotically along with the   herd,   or   strict unreasonable parents. Usually, they picked up   a branch of study at randomly, which has called "MORE SCOPE" at the time.(8) .
7) The inclination of our students to prefer IT related courses, and to avoid other disciplines. The affinity of research scholars to prefer computer-based research over experimental research.(12)

8) The science-base in the country is getting weaker, which will have an adverse influence on ur capacity for technology development

VI. CONCLUSION

The Indian higher and technical education authority like MHRD, UGC AICTE etc. must develop a database on all groups of education concerning the number of educational institutions, their domestic and foreign elements, faculty strength, financial incomes and quality and accreditations.

Update and relevant curricula to meet the global standards and demands of the industries according to newer and upgraded technology and Increase interaction and collaboration between institutions and industry with III(Industry –Institute interaction) To keep speed with the rest of the world and adjust to the newly emerging trends of the educational sight, India have to redesign all our institutions, government policies infrastructure, procedures and processes of higher and technical education. There has to be a lot of autonomy, a lot of experimentation, a lot of trust and courage, and an ecosystem filled with a lot of dynamism and faith.

Need based job-oriented courses should be provided in colleges and universities that can accomplish the skill-based educational needs of the society.

Distinctive grants to universities and colleges in backward areas should be provided to improve their infrastructure and facilitate innovations and thereby become internationally respected (11).

The non-uniformity in the distribution of Technical Institutions in the country, causing local imbalances, and inter-state migration of students. &The Technical Institutions in the rural and industrially backward zones are not as current with students, leading to vacant capacity in these institution (12)

Programs and Schemes (such as long-term scholarships/fellowships and career assurance programs) are being introduced to attract young students to science.

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