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The Higher Education Scenario in Maharashtra

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Abstract:

This study attempts to analyze the i) changing facets of education in India, with specific reference to the state of Maharashtra ii) The emerging trends in Industry with reference to globalization and iii) Issues that confront educational institutes with respect to more demanding and rapidly changing education processes. Hypotheses have been formulated with a view to improve the system of education and suggested methodology to ensure survival of the fittest amongst the new private education institutes.

1. Introduction

The higher education scenario is undergoing a rapid change in India. The past decade has witnessed a spate of private universities and educational institutes mushrooming in every state. This is primarily due to the shortage as well as mismanagement in the state run universities. This led to the proliferation of private universities and institutions to cater to the demand of technical education. However, with these privately run institutions too, there have also been many lacunae. Lately, most of them have lost their impact due to poor performance, gross mismanagement, and commercial touch.

Therefore, it is necessary to lay emphasis on quality of education and take positive steps towards an international, industry oriented global education system.

2. Technical Education in Maharashtra

2.1. Background

Till May 1961, when Gujarat was created out of the erstwhile state of Bombay, Maharashtra boasted of an engineering college at Ahmadabad, a polytechnic at Pune and one model polytechnic each, at Bombay and Ahmedabad. With the formation of the State of Maharashtra in 1960, a new chapter opened in the field of technical education in the state. This, coupled with a rise in industrial development, fueled the need for technical manpower. To cater to this trend, several industrial training institutes, engineering colleges and polytechnics were started. By the beginning of 1978, there was a marked rise in demand, and the number of engineering degree institutions rose to 16. At the same time the number of diploma colleges went up to 50. Also, nine institutions developed postgraduate facilities. The ITI's as well as technical schools increased by large numbers.

By the year 1987, almost every district in Maharashtra, except Gadchiroli, Ahmednagar, Raigad and Wardha had a government polytechnic. Despite all this, due to the high demand, many a deserving student were left out due to limited number of seats in these governments and government-aided institutions. With a view to give equal opportunity to all aspirants, the government chose to grant permission to private educational bodies to start self financed institutions.

2.2. Governing Bodies

A vast growth in the field of education, led to the Directorate of Technical Education being bifurcated in 1984. The Directorate of Technical Education was responsible for diploma and degree institutions. Its functions covered Architecture, Engineering, Technology, Pharmacy, Catering Technology, Hotel Management, etc. It was also meant for monitoring and control of all management institutes imparting diploma and degree in management.

Also, the Directorate of Vocational Education and Training was formed to facilitate the development and monitoring of these technical institutes. This Directorate was meant to oversee of industrial training institutes, certificate course institutes and technical high schools in the state of Maharashtra while

3. Higher Education in Maharashtra

Maharashtra is the third largest state of India. Therefore, education sector receives immense importance by all the stakeholders. It is for this reason that today we see some of the most remarkable educational facilities and infrastructural development taking place in Maharashtra.

Along with private institutions, the state government too has built a number of educational institutions. There are more than 330 engineering colleges, 610 industrial training centers and 26 universities. With such a priority to higher education in Maharashtra, it is not surprising that more than 1, 75000 students are awarded the professional degree every year. The University of Mumbai ranks amongst the largest universities of the world. Besides this Nagpur, Ahmednagar, Kolhapur and Aurangabad too boast of good education centers. The literacy rate in Maharashtra is almost 83% having almost equal figures for male and female literacy. Amongst its 35 districts, Pune has traditionally given a high importance to education infrastructure. The College of Engineering, Pune, established in 1854, ranks as the 3rd oldest college Asia.

3.1. Courses Offered

There are vast choices of versatile courses that are offered in education institutes in Maharashtra. These are in various disciplines of graduate, post graduate and diploma courses' level as well as professional courses like engineering, management, medicine and law. Other specialized courses include Pharmacy, Veterinary Science, Homeopathy, Fine arts, Hotel Management, Mass communication, etc.

3.2. Admissions

Admissions in various colleges of Maharashtra are done through the university level examinations as well as the CET at state and national level.

3.3. State Government's Plans

The higher and technical education department of Maharashtra has a detailed perspective plan for higher education across the state, with a view to streamline it.

Due to the excessive number of colleges, a large number of seats remained vacant in management and engineering streams during the last few academic years. This resulted in higher and technical education department to initiate a survey to evaluate the situation.

According to the survey, almost 30,000 seats went vacant in engineering streams and around 20,000 seats in the management stream every year, during the past few years.

4. Technical Education Scenario

Due to formation of new colleges, the overall seat capacity has increased rapidly in the past five years, with the private sector playing a dominant role lately. Maharashtra is one of the few states to prepare and put into action its vision 2020 document. It has initiated measures aimed at attracting private sector to invest in the development of the core engineering sector and IT industry.

Automobile and IT sectors have developed and created a world class industrial infrastructure around Pune and Mumbai. The Chemical engineering industries have focused around Raigad District and have created tremendous job opportunities in this district. Various Multinational names have established their organizations at Mumbai. A number of home grown international players like IBM, Satyam, Infosys, Wipro, L&T, Reliance, Jindal Group, Adani Electricals, Tata Power, Finolex, Welcome pharmaceuticals, Bhushan steel, Maharashtra seamless, Sudarshan Chemicals, etc. are a boon to the state. This infrastructural development as well as the Engineering industries requires a large number of technical manpower.

There is bound to be a demand for technically qualified personnel in the industrial sector in the near future. With the research ventures growing exponentially it will become easier for the newly set up educational institutions to take up this task of development more easily. Joint efforts can be made with the corporate sector to meet the international benchmarks from the conception stage itself.

4.1. Future Prospectus of Education in Maharashtra

Knowledge and technical skills are the two main driving forces of economic growth of a nation. Countries that have higher levels of skills and education can adjust effectively to the opportunities and challenges in a global environment. The planning commission too has recognized the need to equip the workforce adequately with skills and capabilities consistent with the increasing expectations and demands of the industry. The Eleventh Five Year Plan laid out the framework for a sustainable skills development initiative. The National Skill Development Policy attempted to address the issue of 'inclusive growth'. Under this policy, the government recognized that skill development plays a vital role in making India an economic superpower of the future, and set a target of skill developing in over 500 million people by the year 2022.

To complement this target, there has to be creation of adequate employment opportunities in order to enable youth to participate and contribute towards the country's growth. Furthermore, the Twelfth Five Years' Plan sets up the goals of sustainable growth. This also indicates the official acceptance of the fact that skill development is critical for growth as well as for providing employment opportunities to the young.

Thus, enhancing the employability through skill enhancement is essential to meet the aspiration of becoming a competitive player in the global economy.

4.2. Key Considerations

Mumbai contributes to almost 15% of Maharashtra's population and 25% of its GDP. Hence, the number of technical institutions required in and around Mumbai is high. Despite this, the intake capacity in Mumbai's' districts is not more than 7% of the total

capacity owing to the high cost of property and rentals. The remaining capacity is taken by Pune, which is the educational hub of Maharashtra.

Keeping this in view, apart requirement of Mumbai has been diverted to Pune, Nagpur and other education hubs. A similar push has been given to other emerging education centers of the state.

5. Issues That Need Addressing

5.1. Faculty

Adequately qualified and motivated faculty is an issue that needs to be addressed. To this effect, there is a need to have quality linked monetary incentives so that it attracts the best faculty from professional streams.

5.2. Class Room based approach

Most colleges and Polytechnics follow class room based approach rather than strategic approach. This creates a situation where there is a lack of practical orientation. It is important to have audio visual as well as other modern training aids in all forms of training.

5.3. Evaluation Methodology

A practical exam based approach is more efficient in building bridges between the technical knowledge and industrial expectations. However, most institutions tend to follow written exam based approach. This needs to change and a balance arrived at keeping in view the need for the continuous evaluation system.

5.4. Obsolete Learning Resources

No pragmatic upgrade is made over years in the infrastructure, equipment and course curriculum. There should be more use of e-Learning resources, ICT based education, Digital library, etc.

5.5. Industry Interaction

There is a need for more involvement of the industry in the curriculum.

6. Recommendations for Improving Quality

6.1. Curriculum and Program

- Frequency of Curriculum update should be regular with active industry inputs.
- Compulsory exposure and engagement is imperative. This can be done by inclusion of different types of work and a minimum set of compulsory occupational exposure.
- Cross discipline learning should be encouraged. Students should be allowed to study subsidiary subjects; and not just the major ones that they have opted for.
- There should be ample scope for technical education system via multiple channels.
- Curriculum ought to focus on and all round development, including skills as well as ethics, leadership, social responsibility and overall personality development.
- Colleges with a proven record should be given greater autonomy and academic self governance.
- Higher focus on accreditation of institutes and courses.

6.2. Development of Faculty

- Adopting specialized doctoral programs and improvement of methodology to facilitate greater acquisition of PhDs in the faculty.
- Designing full-fledged orientation programs for teachers in colleges and universities and orienting them towards a proposed framework of the curriculum. They should also be imparted communication skills.
- Enhancement in quality of Academic Staff to promote better skill enhancement.
- Continuous learning by incorporating web based training programs for continuous learning
- Promoting the use of visiting faculty from industry and corporate.
- Take measures to attract and retain quality faculty. This can be done by providing incentives and maintaining that a healthy teacher student.

6.3. Infrastructure Development

- Up-gradation of classrooms and improvement of training aids.
- Up-gradation of ancillaries like laboratories, libraries, learning material and equipment.
- Sharing of resources to ensure optimum utilization.
- Developing distance learning for specialized skill sets.
- Creating digital libraries and interlinking them with others.

- Networking of institutions.
- Establishing educational counseling centers to cater to the needs of students with learning impairment and those from socioeconomic backward strata.
- Higher focus on upkeep and maintenance of infrastructure in the institutes.
- Designing, developing and implementing a Management Information System (MIS).

6.4. Examination System

- Emphasis on continuous assessment system rather than an annual examination system.
- Promotion of self learning among the students.
- More stress on conceptual and practical training rather than on theory.
- Granting greater autonomy to the faculty/institute in deciding methodology and evaluation parameters.
- Adopt modern innovative techniques like latest case studies, open book examination, project based scoring, etc.
- Incorporation of Course Credits System and promote transfer of these credits among various Universities
- Introduction of Learning at own pace by accumulation of credits.

6.5. Resources and Research

- Creation of Learning Resource Centers.
- Development of learning resources.
- Train the faculty in development of these learning resources.
- Creation of learning resource storage facility to facilitate ready access to teachers as well as students.
- Campus networking, provision of internet, and networking between various institutions with a view to enhancing access to and cluster sharing.
- Focus on Research as well as consultancy and develop Centers of Excellence studying specific areas or research and innovation.

6.6. Institutional Quality Assurance Cell

There should a quality assurance cell every institution to monitor the following

- Regularity and conduct of academic sessions
- Attendance during classes
- Timeliness and evaluation mechanism of the evaluation process
- Planning and implementation of curriculum.
- Ensure Student participation in industry.
- Promoting interaction between students, management and faculty
- Redressal of grievances
- Counseling mechanism.

6.7. Ensuring Transparency

This is done by adopting stringent disclosure norms in Admissions, Facilities, Finances, Faculty positions, etc. Also, the state of Infrastructure like recreational facilities, labs, sports etc should be assessed at regular intervals. To this effect, benchmarks should be set and efforts made to bring to that standard.

6.8. Exchange of Knowledge

- Tie-ups reputed universities in India and abroad, to promote research and high standards.
- Platform for inter university and interstate interaction by promoting exchange of Faculty and students i.e. student exchanges programs.
- Online exchange of information and ideas.

6.9. Interaction with Industry

The institutions should intensify collaboration with industry and other organizations for sharing and mutual benefits by adopting approaches like the following

- Collaboration in training.
- Collaboration in setting up Centers of Excellence.
- Collaboration through student internships
- Collaboration for students' mentors.
- Encouraging talent to participate in teaching and research
- Entrepreneurship development with facilities for technology incubation.
- Collaboration in research, consultancy, etc.

6.10. Establishment of Various Cells

1. Advisory councils at the national and international level, consisting of eminent academicians and personnel from corporate world.
2. Membership with national and international academic bodies and establish the-
 - Regional Entrepreneur Network
 - Global Cell for leadership
 - Global Cell for HR development
 - Management Association
 - Advisory committee
3. Formation of a special research cells like Rural Admission, Grants and Subsidies, prevention of women Harassment, Anti Ragging, Marketing, PR Cell, etc.

7. Recommendations

1. There is a need for Improving Productivity.
2. Making PhD program in tune with the needs of the industry
3. Support research in newly emerging areas.
4. Interdisciplinary research through internal organizational arrangements.
5. Practical oriented projects and research centers tuned to the needs of industrial development should be developed.
6. Improvement of Women's Representation in all spheres of research and development.
7. Strengthening of institutional libraries by creating a network of commonly accessible libraries.
8. Awareness drives to sensitize students about IP, patents, etc. The universities should also appoint legal support staff that help in filing patents.
9. The Universities must prioritize industry participation in their research programs.

7.1. Information Communications Technology (ICT) and its Role

The accessibility of higher education is increased and ICT also enables imparting education all remotely without the issues associated with regular education which some cannot pursue due to various reasons (E.g. handicapped, medically unfit, rural areas, gender biases, etc). It reduces the cost of education which can be provided by distance education centers, online courses, virtual classrooms, etc. ICT can hence be used to extensively improve the overall effectiveness and quality of education as well as improve transparency of the institutes.

7.2. Monitoring and Evaluation Framework

At present, the following regulatory bodies look into the aspects of evaluation and accreditation

- The National Board of Accreditation (NBA). This was constituted by All India Council for Technical Education (AICTE) under Section 10(u) of AICTE Act, 1987. It functions as an autonomous body,
- National Assessment and Accreditation Council (NAAC), which is also an autonomous body that has been established by the University Grants Commission (UGC).

7.3. Evaluation of Private Institutions

CRISIL entered into the evaluation and accreditation by launching its Education Grading service. It started first with business schools and has evaluated many private institutes in Maharashtra by giving them grading that reflect upon the quality of these private institutions and help the students to make an informed choice.

7.4. Industry Participation

The CII, along with industry members often visit these private technical educational institutes for evaluation and help in improving quality of education through workshops, guest lectures, training programs, industry visits, etc. However, the total participation from the industry partners has not been sufficient enough to meet the demand of the entire state.

7.5. International benchmarking

1. Accreditation process itself is not new; it is a phenomenon that has been in existence in various developed countries since last five decades.
2. The Council for Higher Education Accreditation (CHEA) (a non-governmental organization in United States) which maintains a directory that contains contact information of international quality assurance as well as accreditation bodies in more than 175 countries.
3. There are almost 52 national accrediting bodies in the USA.

8. Conclusion

For any educational institute to succeed in Maharashtra, besides accreditations and infrastructure it is imperative to follow all the guidelines laid out by the government especially with respect to the right to education. Some special features that go a long way in ensuring success of a private educational institution are

1. Fee concessions for the rural students and those from economically weaker sections.
2. Free/Concessional travelling facility for staff and students.
3. Guarantee of Placement.
4. Assistance in getting Education loan.
5. Foreign tie-ups
6. d) Corporate sector involvement via guest facility.
7. Creation of a PhD research cell.
8. Liaison and interaction with Mumbai chamber of commerce and Industry. (Since that would covers the entire corporate sector)
9. Tie-up with the BSE and NSE.
10. Constant interaction with industry to understand and rapidly adapt to its special needs.

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