Evolution of higher education: are we future ready?

'To kill an error is as good a service as, and sometimes even better than, the establishing of a new truth or fact.'
– Charles Darwin

The objective of this editorial is not to suggest a roadmap for the future, but to try and identify the areas of concern in the domain of higher education which deserve immediate attention from the authorities. Higher education is no longer elitist, much less a luxury, but has become more accessible and is, moreover, essential for survival in today's world. Hence, higher educational institutions and universities have to be centres for entrepreneurship, innovation, creativity, scholarships and knowledge production. Universities should be a platform to breed knowledgeable citizens with cultural and ethical values imprinted in them.

Higher education in India has witnessed a huge expansion in the number of universities and colleges, with about 700+ universities and about 40,000+ colleges today. The Indian higher education ecosystem is now an extremely heterogeneous mosaic, with State Universities (public and private), clusters of colleges forming a university, autonomous colleges elevated to university status, deemed universities (public and private), Central Universities, IITs, IIMs, institutions of national importance (IISc, IISERs, NISER), CSIR Academy, and international universities (Nalanda, South Asian University).

With all this expansion, what is our international status? Some of the important metrics adopted by global ranking agencies such as Times Higher Education (THE), QS Top University Rankings, etc. include teaching (the learning environment), research (volume, income and reputation), citations (research influence), international outlook (staff, students and research), engagement with industry (knowledge transfer), quality of faculty (Nobel prizes, Fields medals, highly cited authors), per capita performance, quality of education (alumni), etc. Out of 1000 institutions ranked by THE for 2017–18, only IISc, Bengaluru, and a few IITs have figured between ranks 250 and 400. IISc has also been ranked eighth in the world among universities with fewer than 5000 students. In the QS World University Subjects' Rankings, 2017, for 46 disciplines, Delhi University ranks as the world's 16th best for 'development studies', whereas IITB and IITM are ranked between 51 and 100 for materials science. For chemical sciences, IISc and IITB are ranked between 101 and 150. Obviously, our higher education institutions are yet to get adequately ranked according to the global benchmarks and metrics.

What are the factors adversely impacting the performance of the Indian higher education system?

One glaring deficiency of our system is that there is no succession plan and timeline for appointing leaders of public-funded higher education institutions. The tenure of 'in-charge' officers often extends beyond one year. This includes UGC – chairman, vice-chairman, secretaries, vice-chancellors of universities, directors, registrars, finance officers, and members of important committees and councils. Sometime back, even the DG, CSIR, and the Secretary, DST, were 'in-charge' officers. With numerous limitations on decision making by an 'in-charge' chief, one can imagine the fate of development and sustainability of these institutions.

Top academic leadership is now more challenging, complex and variegated than before and requires multi-tasking. The selection of academic leaders is largely based on research and academic performance. Yet, a candidate heading an institution of higher education must have great skills in academic, ethical and cultural leadership, human resource management, fund-raising, financial planning and accountancy, real-estate management, legal expertise, defending institutional autonomy, enshrining meritocracy, etc. Hence, search committees and appointing authorities should enjoy absolute freedom for selection to academic leadership positions; they also need to be truly diligent and accountable. Further, the leader of a university has to be supported and guided by the Syndicate/Executive Council and able statutory officers. These members should be persons of eminence with integrity, vision and experience to properly nurture the university. If, however, universities are treated as rehabilitation centres while making appointments, and if there is political interference, nepotism/favouritism in the appointment of vice-chancellors, registrars and faculty members, the institution will be plunged into a state of organized anarchy.

The emergence of 'mono-faculty universities' has destabilized the concept of a university. In many cases, this has been achieved by amputation of faculties in multi-faculty universities. The universities are thus deprived of diversity of faculty and this has a serious impact on the

diversity of courses offered by the university. Yet another disturbing development in higher education is the 'hyper-development' (commerce, management, biotechnology), as well as, 'hypo-development' (natural sciences, humanities, social sciences) of certain disciplines. Although multi-, inter- and transdisciplinary is paid lip-service during curriculum development, effectively, it is not properly conceived. R. Gadagkar (Centre for Contemporary Studies, IISc) feels that this is mainly due to lack of understanding of the concept or the significance of such cross-disciplinary studies. Ultimately, academic diversity, a crucial feature of any university, is lost. This has a negative impact on knowledge creation and the academic ambience of such institutions.

Semester scheme with choice-based credit system is claimed to be in place in many institutions. Its success depends on the 'choice of courses' as well as 'choice of faculty' available to students. In many institutions, there is either no or limited choice which has negative impacts on teaching, learning and research. Two important limiting factors are faculty and infrastructure. Many of the institutions suffer from shortage of faculty as vacancies are not filled up and also additional positions are not created for new programmes. Therefore, top priority has to be given for faculty recruitment. With regard to the hiring of faculty, the main issues of concern are, competence of the people recruited for teaching and research, regulations to bring in expertise to promote interdisciplinary teaching and research, and focus on continuous recharging of faculty. An important dimension of a campus is the diversity of faculty; it should be a mix of the local, national and international. Diversity of academic programmes is also a must.

State universities and their affiliated colleges form an important segment that has to be strengthened. Initially, the affiliation model, with the 'university as big brother' worked well for many reasons. But today, it is just a ritual and, hence, redundant. Therefore, reforms in the affiliation system are the need of the hour. Universities should be facilitators and colleges must be empowered. As of now, our training programmes largely focus on in-depth training in a discipline or a set of closely related sub-disciplines. Instead, universities have to focus on (a) developing broad-based graduate programmes with an emphasis on major discipline(s) with well-defined graduate attributes/learning outcomes, (b) provisions for interdisciplinary courses, and (c) space for research projects of multidisciplinary nature. In this respect, graduate programmes at IISc and IISERs serve as excellent models for our higher education ecosystem. Unfortunately, the arts, humanities and social sciences constitute the most neglected domain on many of our campuses. Several courses in this sector have virtually disappeared in many universities. Therefore, on the lines of IISERs, we need 'Indian Institutes of Social Sciences and Humanities Education and Research (IISSHER)' centres across the country, focusing on the training of students and researchers to work at the interfaces of different disciplines.

Human resource in terms of expertise and infrastructure for teaching, learning and research is unequal in our institutions as of now. Our country is characterized by a strong rural–urban divide and within the metropolitan cities, further inequalities are seen among institutions. Presently, a student admitted to a college or a university has to make do with the available facilities. This does gross injustice to the potential of a candidate. If the student is capable of getting admission at different institutions for different courses, he/she must be allowed to acquire credits from different recognized institutions and earn a degree or diploma. Transfer of credits between different institutions/universities within the country or between institutions of different countries is the basis of the concept of a meta university. This would facilitate student mobility and exposure. This has been discussed for some time in the country and initial attempts were made at universities in Delhi (DU, JNU, IITD). Credit transfers are in place among many American, European and Australian universities.

In a recent development, the Ministry of Human Resource Development (MHRD) has initiated a process to set up 20 world-class universities. Hopefully, it will be done transparently, with a third party assessing the suitability of the applicants. Also, MHRD has to look into the quantum of finances invested by other countries such as Russia, UK, Australia, China, Korea, France, etc. for a similar exercise. It is preferable to have an international review with global benchmarks to look into the past performance, present profile and the future road map of institutions. Further, all universities need to move towards being world class. Therefore, to promote the well-being of the entire sector of higher education, top-down as well as bottom-up strategies are required.

Our higher education system is extremely complex, with over 12 regulatory bodies governing different sectors. These multiple regulators with overlapping roles and lack of transparency have often created serious aberrations in the education sector. Therefore, what is needed is the creation of an 'Autonomous National Commission for Higher Education' supported by a 'Policy Research Centre on Higher Education'.

Becoming future ready cannot be a one-time process. It has to be a continuous iterative programme of the system. With introspection, innovation and improvement strategies within its DNA, the system has to follow an evolutionary mode of developing new and novel adaptations.

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