Tattva-Journal of Philosophy
2018, Vol. 10, No. 2, 31-36
ISSN 0975-332X | https://doi.org/10.12726/tjp.20.3

Character of a National University – A Conceptual Framework

L N Mittal*

Abstract

The paper situates India's global position with respect to its R&D and patent development. It offers a critical analyses of the current education system and argues that the current pedagogical interventions used in the universities are causative factors for the lack of a global recognition of the Indian universities. Furthermore, the paper presents a proposal for a possibility of a national university and its expected characteristics which would prioritise a culture of research innovation and enterpreneurship.

Keywords: National University, Higher Education, Research, Development

1. Introduction

The system of higher education in India is the third largest system in the world, following the United States and China (World Bank, 2010). It includes both private and public universities. Public universities are supported by the central and state governments of India, while private universities are mostly supported by various bodies and societies. The country also has some institutes of national importance, designated as Indian Institutes of Technology, which could be argued as being closer to the concept of "national universities".

* Professor Emeritus, Lingaya's University, Faridabad, India; lnmittal_2010@yahoo.com

While Jawaharlal Nehru stated that universities stand "for the adventure of ideas… for the onward march of the human race towards even higher objectives" (Sopory, 2011), Narendra Modi, Prime Minister of India, voices that institutes of higher learning and universities, "are places for debate and discussion for academic excellence" (Hindustan Times, 2016).

2. Current status of the university-system in India

It is known that while eighty percent of work on India's R & D is done by the public sector and twenty percent by private enterprises, only three percent is achieved by universities (Patel & Biswas, 2014). According to this study, India's R & D occupies the eighth position, following those of South Korea, Japan, USA, France, China, UK and Russia. Moreover, the contribution of research papers to patent-development and contribution is also not satisfactory when comparing India's with those of other countries.

Interactions with faculty members and students from various universities have provided critical insights for making observations regarding the functioning of these institutions, over a course of sixteen years. It was found that while a majority of state universities are engrossed in conducting examinations which emphasise on rote-learning rather than engaging in research, a majority of private universities are working as business centers which admit students whose scores are below average, and do not pay much attention to developing abilities of higher-order analysis and problem-solving. While a substantial percentage of students graduating from the majority of universities are deficient in hard and soft skills for securing any gainful employment, most of the teaching-learning processes in these spaces are highly theoretical and teacher-centred. Often, a notable percentage of faculty positions lie vacant in most of the universities, including those of national importance. Moreover, at any given point of time, thirty to forty percent of students are absent from classes in most universities.

The mismatch between supply and demand of professional manpower is evident by the larger part of the curricula being stereotypical and it showing no concern towards developing

professionals as per socio-economic needs. There is a gap between what is included the curriculum and the currently-prevailing technologies being used. Also, in majority cases, neither students nor the faculty is clear about the former's future career. Yet, one could say that not only does this system privilege white collar jobs over others but is also determine to groom job-seekers rather than job-creators such as entrepreneurs. Despite these setbacks, no regular feedback is collected to find gaps in the system and to initiate improvement.

Institutes of national importance admit the 'cream' of the country but as previously stated, India's world ranking in terms of R&D and patent-development is not satisfactory. Majority of the research work, carried out at post-graduate and doctoral levels, is not true to its commitment, and is executed to merely fulfill the partial requirement for receiving a degree. This makes evident that India considers a degree to be a status symbol. Furthermore, poor exposure to laboratory experiences, project assignments, and industrial training- which is the heart of education and training of engineering professionals- is given to students, proving that greater importance is given to theory.

3. The concept of a national university

The fact that the Prime Minister, Narender Modi, on 5th November 2015, launched "Imprint India"- a project of 1000 cores to give impetus to original research at M. Tech and PhD levels- further adds to the need to understand what the concept of a 'national university' entails (Ministry of Human Resource Development, 2015). A national university, in all its offerings, is meant to be established with the sole objective of producing professionals of high caliber in selected domains to boost research, design, development, and entrepreneurship to help building the nation towards self-reliance in its needs, along with inherent concerns of overall development of students for their effective functioning in work spaces. It is intended to develop acquisitive capabilities which primarily deal with the development of learning-to-learn skills in students. Some aspects of this include inculcating the drive to learn continuously and to grow in the identified domain, scanning learning resources from various sources, setting learning

goals for oneself, organising self for learning and achieving the goals, and self-analysis of one's strengths and weaknesses.

The next aspect of the students for the university is to develop adaptive capabilities. In addition to the technical know-how of utilising new machines and technologies, this will also necessitate computer-handling skills. Presently, technical education is lagging far behind in terms of including new technologies, processes, and equipment in the curriculum. In addition, students were found deficient in computer-handling skills which use available graphic tools like AutoCAD, use of software to make computer-based presentations effective, effective use of internet gather and exchange information and familiarity with various programming language.

The University is also expected to develop operative capabilities which will require proper understanding of the soft skills which include several aspects of dealing with a human being. Besides the abovementioned, a university should aim at developing innovative skills such as problem-solving skills which will require understanding, with clarity, of domain-specific concepts and principles, recognising various parameters related to the problem, finding innovative solutions based on the root cause of a problem, evaluation of alternate solutions and implementation of the solution. Therefore, a national university has to determine to what extent the abovementioned competencies are being developed. It is also important for the university to be very prudent in the selection of students for ensuring that they are capable of self-studying, discovery learning, problem-solving and of not merely achieving a degree by cramming some facts and figures.

4. Characteristics of a national university

A national university is, therefore, perceived to be a dynamic setup, having full academic and administrative autonomy to consider future requirements of society, the world of work and entrepreneurial opportunities. It is not merely a quantitative appraisal the enrollment statistics sans the required infrastructure. Therefore, a university is supposed to have the high-class infrastructure in terms of physical and other resources, and

autonomy to hire well-experienced and competent human resources including master craftspersons and technicians as per curricular requirements. It is also essential for such universities to be residential in nature for the development of academic focus and for the potential of having unhindered academic and research collaborations during and after regular classes. The university would also require adequate funds for R&D and to tie up with relevant organisations.

Moreover, efforts to ensure that only quality students are admitted to higher education courses based on all-India competitive examinations must be made. Also, conceptualisation of undergraduate, postgraduate and PhD programs must be carried forward with a clear focus to promote creativity, innovations, development, and entrepreneurship. In the case of undergraduate courses, the class-strength should be limited to sixty students in each discipline so that practical experiences are well planned and executed. The faculty-student ratio is proposed to be 1:15 for undergraduate courses and 1:10 for postgraduate courses. Also, systems of student-evaluation, formative and summative needs must be relooked at to make these processes more objective.

The need of the hour is to up-skill the curriculum to produce technical human resource which is given the necessary exposure to laboratory experiences, project assignments, and industrial training. A university must offer education programs to upgrade the knowledge and skills of working manpower at different levels in the domains offered by it and must take all efforts to keep the faculty updated through education and training. Moreover, all curricula are required to be designed on systematic lines based on competency profile at each level. The competency profile may take into consideration the development of acquisitive, adaptive, operative, and innovative capabilities which will vary from course to course. A university is expected to establish symbiotic linkages with professional bodies, institutions, corporate and other organisations in India and abroad for offering collaborative programs. Further, it must offer research and consultancy services to boost socio-economic development and to also know the pulse of the employer's needs. Also, a feedback mechanism can be designed

to find out gaps in the system on a regular basis to bring about immediate improvements.

5. Conclusion

In the context of the above mentioned, good quality education is certainly the foundation of new discoveries, new knowledge, innovations and entrepreneurship that triggers growth and prosperity of the individual as well as the nation, and the role of a national university is different when compared with any other university. Therefore, greater importance must be given to enhancing the quality of 'national universities' in a way which implements changes in the actual functioning of such spaces.

References

Hindustan Times. (2016). *PM Modi wants overhaul of higher education regulators*. Retrieved from https://www.hindustantimes.com/ education/pm-modi-wants-overhaul-of-all-higher-education-regulators/story-ovB1GUpQCQrNsfpUht85XP.html

Ministry of Human Development. (2015). *National launch of IMPRINT*. Retrieved from http://imprint-india.org/uploads/ IMPRINT % 20 Brochure_Final.pdf

Patil, A., & Biswas, S. (2014). *Opportunities and challenges for sustainable R&D in India*. Retrieved from http://www.irdindia.in/ journal _ijrdmr/pdf/vol3_iss1/1.pdf

Sopory, S.K. (2011). *Reflections on the Higher Education in India*. Retrieved from http://www.iimidr.ac.in/wp-content/uploads/Reflections-on-the-Higher-Education-in-India.pdf

World Bank. (2010). *India country summary of Higher Education*. Retrieved from http://siteresources.worldbank.org/EDUCATION/ Resources/ 278200-1121703274255/1439264-1193249163062/India_Country Summary.pdf