

Roundtable with his excellency Dr. Abdul Kalam

The Role of Higher Education in Creating a World Class Knowledge Economy: Drawing on the Indian and Canadian Experience

The Role of higher education may range from primary objectives, such as employability, enhancing the earning potential, seeking and advancing knowledge and wisdom, research and experimentation to more serious secondary objectives like attaining mental and spiritual growth, engaging in quest for the unknown, facilitating better lifestyle, and developing scientific outlook.

Millions of people think that earning a higher degree would lead them to a comfortable lifestyle viewing higher education primarily as a launching pad for individual economic security and social inclusion. This has overshadowed higher education's critical role in our economic growth. Because the prevailing view that higher education is primarily a purveyor of individual economic opportunity rather than an engine for national economic growth provides too narrow a perspective on higher education. We have to consider its broader economic benefits because in a knowledge economy, higher education benefits more than just those who attend. A strong economy benefits us all.

As the country has moved from an industrial economy to a post-industrial, knowledge-based economy, Indian higher education has emerged as the premier system for preparing the highly skilled workers our nation requires. In the twenty-first century, India's ability to produce and disseminate education will increasingly determine its economic competitiveness.

It is undeniable that we are witnessing the rise of knowledge society, i.e., a society which privileges knowledge, leads to the integration of the

economies of the world, and makes the nations of the world interdependent and interconnected.

Knowledge will be the key to this age, and fundamental sources of wealth may well be knowledge and information rather than raw materials and labour. Efficient utilisation of existing knowledge can create comprehensive wealth for the nation in the form of better health, education, infrastructure etc. for improving the quality of life. Ability to create and maintain the knowledge infrastructure, develop knowledge workers and enhance their productivity through creation, growth and use of new knowledge will be the key factors in deciding the prosperity of this knowledge Society.

Education and especially higher education is the primary agent of transformation towards sustainable development and increasing people's capacities to transform their visions for society into reality. Education provide the skills for "learning to know, learning to live together, learning to do and learning to be".

To function effectively and to manage or even work in any economic activity, knowledge becomes essential; hence the need for involvement and education of all people. In this perspective, looking to the role of higher education, one needs to go beyond the role of the traditional universities and degrees and the teaching- learning process.

This summarizes itself in the position that in a knowledge based society higher education is perceived to aspire to the following parameters.

Quantity: Education for the masses

Quality: To meet the aspirations and perceptions in terms of content, delivery, outcomes and relevance

Flexibility: To meet the challenges of obsolescence and change

The kind of education needed to sustain economic and social activity and development in a knowledge society would seem to include:

- i. Education that meets the needs of the economic units (e.g. industry/ agriculture/services etc) in a knowledge society. That ensures relevance and availability.
- ii. Education that helps the individual meet the challenges of life individually and socially, and function as an effective, thinking human being (value based education).
- iii. Education that engenders values, behaviour and lifestyle towards a sustainable future.
- iv. Education that facilitates mass and effective development and deployment of human capital.
- v. That facilitates redeployment, keeping in view fast changing frontiers of knowledge and fast obsolescence of gained knowledge.
- vi. That does not restrict an individual in a particular stream for life, and enables him to come back to the education system in case of change of interest or new employment avenues.
- vii. Education that enables learning to learn for life.
- viii. Education that understands and facilitates the cross cultural, cross disciplinary and global networking of knowledge.
- ix. That facilitates and builds on the interdependence of economies and societies.
- x. Education that fosters a spirit of enquiry and research, creativity and entrepreneurship.

It has been said very often that higher and technical education in our country is facing a crisis. However, every crisis carries within it the seeds of opportunity, of new possibilities for change and reform. Today's knowledge-based economics are shaped by movements of talent, ideas and innovation, which flow seamlessly across geographical and jurisdictional boundaries. As the global playing field is increasingly being levelled, the higher education landscape worldwide is also becoming more competitive. While the fast changing world poses

challenges to the educational institutions, it also opens up an ocean of opportunities.

Higher and technical Education has been a key part of every one's agenda. We all recognize that there is going to be a huge skill shortage in almost all areas in the near future. We have already started seeing the strains on the industry. If we are to continue with the growth of 9 – 10% we have no options but to focus clearly on higher and technical education.

Higher education really has fundamentally three challenges:

- (i) **Expansion**- today we have to triple or say quadruplet our requirements;
- (ii) Improving **quality** and improving it substantially, and
- (iii) Increasing **access with equity** which is *inclusive*.

These are all key priorities and need bold initiatives, vision, some amount of risk and commitment to built solid foundations for the future economy. *“Responsiveness and agility are critical”*

While India's economy continues to thrive, there is increasing concern that future growth may become constrained by limited access to higher education. Government has ecognized the fact and has made massive expansion plans for Higher Education sector under the 11th Plan (2007-2012). However govt. resources alone cannot take forward the expansion initiatives and hence the corporate & private sector and foreign collaboration is needed to invest to bridge the demand-supply gap in higher education.

Given the international experience also, **enrolment of 20-25 per cent is a necessity for sustainable economic development**, and the

foremost ***priority needs to be placed on enhancing Gross Enrolment Ratio to 'this threshold level.'*** Furthermore, several questions of ***equity are to be addressed*** in relation to the enrollment in higher education. These relate to the ***rural-urban, inter-regional, Inter-state and inter-caste differences.*** They also relate to ***women, minorities, physically disabled and other marginalized segments*** of society.

To address this, the government has to ***take the initiative to establish and upgrade Higher and technical institutions to world-class standards along with increasing intake in existing ones and strengthening State institutions.*** Expansion of technical education must meet the manpower requirement not only for the industry, R&D sector within the country but also for global reach and for which ***massive investment is needed which would come from public, private and public-private partnership and also FDI.***

It is also equally important to look at the ***quality of education*** that we are imparting. The government needs to critically look at the ***policy and re-structure education,*** which needs to be ***remodeled right from primary schooling up to higher education and research.***

So whether we employ distance learning, e-learning, interactive learning, through different means of technology, is something that would need to be looked at. Therefore, the ***need is to develop a meaningful and comprehensive framework that would account for the multi-dimensionality of differences that still persist at fast pace keeping in view the lagging pace and available teachers.***

For India, the most populous and vibrant democracy, the World has ever known, ***the aspiration to become part of the global network of***

international Universities that collaborate and compete can only be for the good of the world. Restructuring the Higher education System to improve accessibility and quality of services would continue to be essential if India wishes to play a dominant international role in the emerging knowledge society.

Five factors make an institution World class.

- (i) Commitment for achieving excellence in all fields.**
- (ii) Research and Development** in Thrust Area - need for strengthening research capabilities at the universities, particularly at the graduate level education by facilitating innovation to leverage the growing opportunity in developing India as a research hub & sustain global competitiveness.
- (iii) Academic and Financial autonomy** for emphasis on interdisciplinary.
- (iv) Industry-Institute Partnership** and
- (v) International Collaboration.**

All these things can ensure that quality institutions come up and continue to impart education.

India - Canada

The academic environment in universities & higher education institutions has changed over the last decade owing to economic development, growing international cooperation and GATS under WTO negotiations. Consequently it becomes more important to understand the higher education sector's growth pattern and get an overview from

countries with longstanding cooperation with Indian higher education system as to how they perceive India, their offerings and expectations.

Although India and Canada have a longstanding association in higher education, however, not much is known about the well defined Canadian Higher and Technical Education System in India.

It's also true that despite obvious differences between their economies, India and Canada have much in common. In addition to a common language and Commonwealth heritage, the two countries share a commitment to democratic principles, the rule of law and the promotion of diversity. They are linked through the ingenuity and innovation of their people, as well as their shared aspirations for expanded prosperity and opportunity in a safer and more secure world. In recent years, the India-Canada relationship has evolved through more sustained engagement among political leaders, federal, provincial and state government officials, academics and scientists, business leaders and other organizations. Since India has only recently become more open for business" in terms of expanding international partnerships in higher education so there's much potential.

India had not taken full advantage of the educational opportunities in Canada. Need to explore our common interests in areas like:

- joint programs to train faculty members
- and increase the number of Indian students earning master's degrees and Ph.D.'s.
- Research and development
- the social sciences and the humanities,
- multiculturalism, human-security issues, aboriginal and indigenous peoples, gender studies, the arts, and many more areas."

Exchange

- Some 160,000 Indian students go abroad every year to study, spending about \$4-billion (U.S.).
- Only about 2,500 Indian students come to Canada, a stark contrast with the tens of thousands who go to the United States and Britain.
- But the numbers are growing and are expected to jump when Canada develops a higher profile in India.

Canada and India should enter into new era of cooperation and partnership, and should move quickly to deepen and accelerate the growing ties between our countries and explore new avenues for cooperation. Exchanges between Canada and India should be enhanced, particularly with respect to Institutions, Faculty, students and other people-to-people linkages along with R&D and other key issues. *“Students are our best ambassadors”.*

Hence Increased mobility of students and teachers, international research projects, interactive networking, greater emphasis on professional education, exploring new areas such as information sciences etc are some of the key factors responsible of internationalization of higher education institutions & universities in India and abroad. Through these various initiatives we can draw lessons from the knowledge sharing.