AC 2010-189: GLOBALIZATION OF HIGHER EDUCATION: A CASE STUDY FROM INDIA

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Globalization of Higher Education: A Case Study from India

Abstract

For developing countries such as India, reaching global standards in higher education is a major challenge. India can no longer remain in isolation with respect to its higher education, both in terms of quality and diversity of students passing out of the system. Higher education institutions are an underexploited link to the global knowledge economy and can provide gateways to the private sector.

Issues concerning equivalence of degrees and transfer of credits must be resolved nationally and internationally. The educational institutions and programs offered must first meet their own professional standards as well as national quality standards. Seeking accreditation of the programs by respective professional bodies and international agencies would be the next logical step. The accreditation process, however, is a very time-consuming and an expensive process for institutions in developing nations. Educators and professionals in industry, business and government agree that an international educational experience would be a valuable asset before graduation. Student exchanges are essential for improved cultural understanding internationally and universities must make student exchanges possible without delaying graduation.

This case study from India demonstrates how universities and institutions of higher learning in India can ensure globalization of their academic programs, teaching and learning process and provide an experiential learning to students in a cross-cultural environment. An important step in the process is to have national and international recognition of the academic programs so that institutions and educators can be confident that their students will have a successful academic experience as well as a successful cultural experience. Flexibility in scheduling is also required to accommodate differences in the academic calendars. This paper presents how one private institution in India is striving towards successful globalization of its academic programs.

Introduction

Globalization has influenced various sectors of our economy, society, culture and higher education, especially in professional education such as engineering and technology. It has thrown up many challenges as well as immense opportunities for those in engineering and technology education. In this context, globalization of higher education becomes a crucial issue for universities and educational institutions in India.

According to N. R. Shetty, globalization of higher education is the process of integrating international and inter-cultural dimensions into the teaching–learning process, training, research and service functions of the institution of higher learning. International cooperation in higher education is one of the important aspects which include relevance, improvement of quality and management, and financing of higher education. International cooperation is viewed as an instrument for change, capacity building and for exploring various ways and means by which our educational system can be further developed. The quality of graduates coming out of the portals
Globalization of higher education, and in particular in engineering education, is one approach to realize it. Globalization is characterized by trans-border operations of firms, huge foreign direct investment (FDI) and a high volume of international trade and mobility of highly skilled personnel across the countries. The time has come for our Indian engineers and managers to take stock of the macro-economic conditions which have a direct impact on the bottom line of the company in which they are working. Today’s engineers and managers need an understanding of the wider world as economies and peoples of the world are intertwined like never before in human history. Globalization of education at Indian Universities will go a long way to increase the mobility of our scientists, engineers and managers across the countries.

India can no longer remain in isolation with respect to its higher education, both in terms of quality and diversity of students passing out of the system. India has the third-largest higher education system in the world, only behind the U.S. and China, training almost 2.5 million graduates every year, which is about 10% of India’s youth. Hence, there are enormous opportunities for professionals trained in Indian universities to pursue careers in teaching and research as well as in industry and business.

Globalization has brought along with it a “death of distance,” which in principle enables any place with an internet connection to participate in the knowledge economy. Nevertheless, proximity plays a role and innovations continue to cluster around regions with vibrant communities, skilled people and universities. Higher education institutions are an underexploited link to the global knowledge economy and can provide gateways to the private sector.

Global Knowledge Economy

Higher education is indeed important for economic development of any country like India. Globalization and the emergence of new players in the world economy have intensified the competition. Many countries are turning their production towards high value added, knowledge-intensive products and services. India’s capacity to compete in the global knowledge economy will increasingly depend on whether its higher education system can meet the fast growing demand for high-level skills. This in turn, will hinge on India’s universities’ abilities and capacities to provide quality education that is adapted to the needs of society and industry.

Globalization of Higher Education in India

N. Sobhana has presented an overview of globalization of higher education in India. Globalization refers to the increasing flow of technology, finance, trade, knowledge, values and ideas across the borders. Globalization is high on the agendas of national governments, international bodies and institutions of higher learning. Institutions are developing their own strategies to globalize their teaching and research. Globalization has many advantages,
particularly for India, which has a large educational system and infrastructure and diverse human capabilities.

R. Natarajan\textsuperscript{6} et al has highlighted the importance of globalization of engineering education which is emerging as a contemporary critical issue in engineering education at the moment in India. D.V. Singh\textsuperscript{7} stressed the need for globalization of education services in the context of GATS (General Agreement on Trade and Services). Ashok Misra\textsuperscript{8} has also emphasized the need for globalization in higher technical education in India. However, there are issues and challenges such as the equivalence of degrees awarded in India with that of the U.S., European and western countries, the transfer of credits and the accreditation of our engineering and technology programmes by international agencies.

**Objectives of Globalization**

Objectives of globalization at VIT University in India may be stated as follows:

1. To create a cosmopolitan culture and an international ambience in the university, thus providing an experiential learning to students in a cross-cultural environment;
2. To facilitate the visit of foreign professors and international experts, enabling them to share their expertise and experience;
3. To facilitate exchange of students and faculty to work on projects and to carry out R&D on areas of mutual interest;
4. To augment the facilities of laboratories and research centres already established in universities in India so that the R & D carried out in India is considered at par with that of the best available anywhere in the world.
5. To pave the way for transfer of credits, establish equivalence of degrees and accreditation of the educational programmes offered in India.
6. To motivate and prepare the students to seek global educational opportunities and international career options.

**VIT University**

VIT University, a private university, was initially established as Vellore Engineering College in 1984 in the town of Vellore, Tamil Nadu, a southern state in India. VIT University started in 1984 with only 180 students. During the subsequent years the infrastructure expanded rapidly and quality in the teaching-learning process was emphasized. All of its programmes were accredited with an ‘A’ Grade by the National Board and Professional Societies. VIT became a Deemed University in 2001, continued adding infrastructure, laboratories and research centres, starting new and innovative graduate and post-graduate programmes and implementing a continuous quality improvement management system. The two main ingredients\textsuperscript{9} for universities, such as VIT University, to emerge as premier institutions have been the commitment of the leadership and the commitment to quality which are the keys to their success and sustained growth. The leadership provided by Dr. G. Viswanathan as its Chancellor and his commitment to quality are responsible for VIT University emerging as a premier national institution. VIT University was ranked\textsuperscript{10} as the 10\textsuperscript{th} highest among the coveted top engineering and technology institutions in India in 2008 and 2009.
Successful Driving Forces

The success of VIT University has resulted from the commitment of its top leadership to develop a quality education system. VIT University is characterized by its Motto, Mission, Vision, Quality Policy and Core Values which are explicitly stated and widely displayed:

(a) **Motto:** “VIT – A place to learn; A chance to grow”.

(b) **Mission:** “Our mission is to educate students from all over India, including those from the local and rural areas, and from other countries so that they become enlightened individuals, improving the living standards of their families, industry and society. We will provide individual attention, world – class quality of education and take care of character building”.

(c) **Vision:** “We, at Vellore Institute of Technology, will impart futuristic technical education and instill high patterns of discipline through our dedicated staff who shall set global standards, making our students technologically superior and ethically strong, who in turn shall improve the quality of life of the human race”.

(d) **Quality Policy:** “We, at Vellore Institute of Technology, aspire to establish a system of Quality Assurance which would on a continuous basis evaluate and monitor the quality of education and training imparted at the Institute, improve the teaching-learning process and, ultimately, develop the Institute as a Center of Excellence”.

(e) **Core Values:** Core values and their various attributes are characterized by: student focus, strong work ethics, striving for excellence, respect for all and social development.

Few universities have made such a strict commitment to quality and quality assurance in their educational system on a sustained basis. Globalization of education at VIT University is one of the crucial factors which led to the success of VIT University and the immense popularity VIT enjoys amongst the students who aspire to join the institute.

Quality Thrust

Quality has remained a hallmark of all the academic activities undertaken by VIT University since its inception. With meticulous planning and unceasing efforts, Vellore Engineering College obtained ISO 9002 Certification from DNV (Det Norske Veritas), The Netherlands in 1999. Vellore Engineering College was the first private engineering college in the country to get this coveted honor, which requires continued maintenance of stringent quality, efficiency and a high standard of academic excellence. This certification paved the way for subsequent quality assessments and accreditations by national and international agencies later. Table 1 indicates the major assessments and accreditations obtained by VIT since 1998. VIT was declared as a Deemed University in 2001 for the academic standards it maintained since its inception and for its excellent infrastructure.
Globalization Process at VIT University:

Several of the initiatives taken to globalize higher education at VIT University are illustrated in Figure 1. A Centre for International Relations was established to facilitate the visit of foreign professors and students. VIT University has identified Faculty Coordinators for each School. These coordinators identify faculty and students who would work with international groups, improve their competencies and at the same time getting an exposure to work in a foreign country and cross-cultural environment. Professors from partner universities periodically visit VIT to deliver lectures as part of the curriculum.

DAAD (German Academic Exchange Programme) has identified VIT as the best Partner University in India in its task of internationalization of institutions across the world. DIES (Dialogue on Innovative Higher Education Strategies), under the auspices of DAAD, has organized training programmes for VIT and other university faculty on Intercultural Relations in collaboration with LUH (Leibniz University, Hannover), Germany. The internationalization process includes getting faculty and students from Germany and other western countries to work on projects and carry out research on topics of mutual interest.

Semester Abroad Programme (SAP)

VIT University has provided an opportunity for its students to get an international exposure through its recently launched SAP. In this programme students carry out their project work at leading universities in the world during their final semester. During the 2008-09 academic year more than 100 students have opted for the programme. Thirty-five leading universities in 15 countries have been identified for this programme and MoU’s have been signed to facilitate the sponsoring of the students. The universities include the Harvard, MIT, John Hopkins, Houston and Drexel in the USA, Saskatchewan and Lavan in Canada and several other universities in Mexico, France, Germany, Holland, Italy, Slovenia, Switzerland, U.K., Australia, Singapore, Korea and China. VIT University financially supports the program to the extent of $50,000(US) by providing scholarships for the students to help meet their travel expenses. Many of VIT graduates get admission to universities in the USA and other countries for pursuing graduate study and research.

Innovations Introduced as a result of Globalization

Many of the innovative practices such as the Curriculum Augmentation Programmes introduced in the early stages at the institution have been appreciated by many of the accreditation agencies and later have been adapted throughout the country, in one form or another. Some of the major innovations at VIT University were:

♦ Fully Flexible Credit System (FFCS) for all the academic programmes introduced which enables slow and advanced learners to choose courses suiting their abilities and optimizing their academic commitments. This will facilitate the establishment of credit transfers and accreditation of academic programmes.

♦ Curriculum, courses and syllabus (course contents) are benchmarked with the best of the institutions in India and abroad.
Establishing an Academic Staff College (ASC) for continuous training and for professional development of its faculty members.

All faculty members are preparing course plans, instructional objectives, schedule of instructions, tutorial sheets and assignments and make them available on the internet as per international practices.

All class rooms are equipped with state-of-the-art facilities to enable ICT (Information and Communication Technology) use by faculty. (i.e. “smart class rooms”)

Students Evaluation of Teachers (SET) has been introduced for obtaining feedback from students for continuous improvement in the teaching-learning process.

**Academic Programmes Resulting from Globalization Efforts**

As a result of globalization efforts, several new and innovative academic programs have emerged at VIT University. These are:


2. M.Tech. Sensor System Technology was the first of its kind offered in India in collaboration with University of Applied Sciences, Karlsruhe, Germany.

3. Dual Degree Programme in M.Tech. Communication Engineering. (Students of VIT undergo class work/courses for a period of 1 year for a M.S. Degree in Electrical Engineering from University of Applied Sciences, Darmstadt, Germany).

4. Joint offering of programs at Caledonian College of Engineering, Muscat, Oman.

5. Specially designed B.Sc. Program in Computer Science and E-Commerce for Chinese students.

6. Teaching of foreign languages such as German, French, Spanish, Japanese and Chinese to Indian students, which enable them to pursue higher studies abroad and to seek global opportunities.

7. SAP (Semester Abroad Programme). The final year B.Tech. students spend a semester in a partner university carrying out their project work thus gaining international exposure and experience of studying and working in an university abroad. SAP will enrich the international ambience at VIT and enhance the chances of students having global careers.

8. Conferences, workshops and seminars featuring keynote speakers of international stature on various themes and topics.

**Global Partnerships**

VIT has increased its international recognition by signing MoU’s with more than 80 leading institutions around the world. These MoU’s facilitate faculty and students exchange, joint R&D, curriculum development, global thinking among the faculty and student communities ensuring that education and training offered and facilities at VIT University meet international standards.
International Student Exchange

Some of the international exchange activities are:
1. About 1,000 foreign and NRI (Non-Resident Indian) students from across 40 countries are currently enrolled in undergraduate and graduate programs in various disciplines at VIT University.
2. VIT students displayed automobile cars of their own design at the Rochester Institute of Technology in the USA and at the University of Pretoria in South Africa.
3. Students participated in conferences organized abroad presenting their novel ideas, designs and innovative projects and won various awards.
4. Students undergo internships at partner universities abroad.

Assessments and Accreditation of Academic Programs

The academic programs offered by VIT University are being continuously assessed and accredited by national and international agencies. This motivates the faculty to strive for continuous improvement of quality and to introduce innovations in the program offerings, teaching-learning practices, evaluation of student’s performance, both summative and formative evaluation. In fact, continuous assessment and accreditation of the academic programs paved the way for internationalization of the educational process at VIT University.

Discipline, Ethics and Academic Integrity

The rules for behavior in the classroom and on campus are very strict compared to the typical university in the USA. VIT University believes that good discipline is necessary to achieve academic laurels. The strict discipline and respect for fellow students, staff and faculty improves the learning environment. Ethics, honesty and academic integrity are emphasized in all teaching-learning processes at VIT University. VIT University has developed goals that are student oriented and faculty oriented to improve the education system as a continuous process. VIT University has published a Primer\textsuperscript{14} to help the faculty to improve their class room and laboratory instructions. This is in line with some of the best practices followed internationally\textsuperscript{15}. Continuous improvement in the teaching-learning process, evaluation methods and carrying out R & D as an integral part of the university activities will go a long-way in globalizing higher education in universities in India.

Conclusions

It is imperative that more universities in India aim for globalization of higher education. The benefits of globalization are enormous. The VIT case study demonstrates that commitment of management and its leadership, adherence to quality standards, establishing a Centre for International Relations, signing of MoU’s with leading institutions across the globe, facilitating exchange of foreign professors and students, seeking international accreditation for its programs and introduction of the SAP (Semester Abroad Programs) for students has helped VIT University begin achieving the objectives of globalization of higher education.
Globalization of higher education will facilitate the transfer of credits, establish academic equivalence of degrees, accreditation of programmes, and will enhance the mobility of highly talented and competent personnel across the countries enabling them to seek global opportunities. Globalization of higher education in universities in India will also further enhance the image of India amongst the developed nations in the world. India will soon become a land of great opportunities for international students. India has the potential to attract global talents not only to provide an opportunity for the international community to be a partner in its growth and development, but also to meet its own challenges of emerging as a fast developing nation and likely to be a developed nation by 2020.

Bibliography


<table>
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<th>Agency</th>
<th>Programmes</th>
<th>Remarks</th>
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<tbody>
<tr>
<td>1</td>
<td>NBA (National Board of Accreditation) of AICTE (All India Council for Technical Education), New Delhi, 1998.</td>
<td>All B. E. Programmes, MBA &amp; MCA (Master in Computer Applications)</td>
<td>“A” Grade for 5 years</td>
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<td>2</td>
<td>ISO 9002 Certification by DNV (Det Norske Veritas), The Netherlands, 1999.</td>
<td>For the University as a whole</td>
<td>Initially for a period of 5 years</td>
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<td>3</td>
<td>The Institution of Engineers (India), 2003</td>
<td>• B.E. Electrical &amp; Electronics Engg;</td>
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<td>• B.E. Computer Science &amp; Engg.</td>
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<td>• B.Tech. Chemical Engg.</td>
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<td>4</td>
<td>Evaluation by NAAC (National Assessment and Accreditation Council) constituted by U.G.C, 2003</td>
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<td>Institutional score of 70% - 80%</td>
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<td>5</td>
<td>TVN-KIDAO-NIQR Award for Outstanding Educational Institution presented by National Institute for Quality and Reliability, New Delhi, 2004</td>
<td>For the University as a whole</td>
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<td>6</td>
<td>Institution of Engineering and Technology, U.K., 2005</td>
<td>All Engineering and Technology Programmes</td>
<td>Valid for 6 years</td>
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<td>• B.Tech. Chemical Engg.</td>
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<td>8</td>
<td>Evaluation by NAAC (National Assessment and Accreditation Council) constituted by U.G.C, 2008</td>
<td>For the University as a whole</td>
<td>“A” Grade for 5 years (Jan 2009 – Jan 2014)</td>
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<td>9</td>
<td>NBA (National Board of Accreditation) of AICTE, New Delhi, 2008.</td>
<td>• B.Tech. Civil Engg.</td>
<td>Valid for 5 years (Feb 2009 – Feb 2014)</td>
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<tr>
<td>10</td>
<td>Certification by ABET (Accreditation Board for Engineering and Technology), USA., 2008</td>
<td>• B.Tech. Civil Engg.</td>
<td>For 8 years (1st Oct 2007 – 30th Sep 2015) with retrospective effect</td>
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Figure 1. Globalization Process at VIT University

1. Development of statements of Motto, Mission, Vision, Quality Policy and Core Values of University
2. Setting up of Centre for International Relations
3. Signing of MoUs with Partner Universities abroad
4. Exchange of Faculty and Students
5. Participation of Faculty and Students in International Conferences and Seminars
6. SAP (Semester Abroad Programme) for Faculty and Students
7. Continuous Training and Professional Development of Faculty through ASC (Academic Staff College)
8. Assessment and Accreditation by National and International Agencies as an ongoing process
9. Joint Offering of Academic Programmes in collaboration with Partner Universities abroad
10. Global Employment and Higher Education Opportunities for Students
11. International Keynote Speakers in Conferences, Workshops and Seminars
12. World-class Infrastructure for Education, Training & R&D
13. Cosmopolitan Culture and International Ambience
14. Globalization Process at VIT University