



***Integration of Industry and Academia
Enhancing students Employability.....***

(Full Length Paper)

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***The views expressed herein are that of the presenter of the paper and
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Integration of Industry and Academia - Enhancing Student Employability

In the wake of liberalization of India's economy and also considering the fact that India is aiming to become a super power in 2020 and with the falling of the barriers of international trade and investment, the whole world has become a global village. In view of these developments, a pertinent question over the age-old and accepted systems and practice and methodology followed in India with respect to its educational system as to whether the said system enables to produce the required skills in the changing environment needs to be debated. Time has come to question as to whether the country which produces more lawyers than engineers and doctors needs a thorough revision or a relook on its educational systems. Over a decade after liberalization, India has witnessed huge growth of management schools. The fact of the matter in management schools out number all other types of higher educational institution. The fad for management education has gone to such a level that every parent wants their child to be a management graduate, no matter the interest of the child and logics behind the course. Growth of management schools was compounded by the fact that companies in India and abroad after the liberalization absorbed these management graduates into their fold by giving astronomical packages. This gives a feeling that the management education is a major source of getting highly paid jobs. In one of the case studies, it has been analysed that, out of the few Lacs of management graduates who are absorbed into the industry every year, hardly about 50-100 will reach top-most post as a CEO of company. The rest remain unnoticed.

In one of the study papers issued by the Federation Indian Chambers of Commerce and Industry with regard to the industry academia convergence bridging skill gap, it is stated that in a country which produces more than 5 lacs engineering and 3 million university graduates annually at any given time, about 5 million graduates remain unemployed. The

said paper also points out to the fact that less than 25% of the engineers produced by various universities alone are found fit for employment. India needs more than 10,000 Ph. Ds in a year to manage the various academic institutions. However, not more than 400 Ph. Ds are produced a year and this points to an acute stage of academics talent in India.

It is also to be noted that while India gives emphasis to educational systems, the entire educational system is pointed towards producing more engineers, more doctors and more lawyers. The Indian educational system has never ever given a thought to set up an institution to produce talents in educational management system. To the best of my knowledge and belief, there are no institutions in India which offers a course in educational system which caters the Global educational need.

Off-late, India has seen a big shift towards legal education. As stated above, the second best thing which any parent aspires, other than getting a MBA, is to put their children into any of the 'Law schools' which has been set up all over India. It is really sad to note that these law schools beginning from National Law School in Bangalore to the latest of such Law Schools, which was set up with noble intention, have failed in their objective in producing world class lawyers. Instead, they have produced 'world class lawyers' whose sole aim is to get into corporate environment and also to get into a corporate law firm and become glorified law clerk for life. Very seldom, one finds graduates of all these National law Schools going out into an arena and practicing in court. As a result, the court practice is limited to those lawyers who come from the 2nd rank law colleges. This will have a big impact on our Indian judicial system because it is amongst these lawyers, who practice in the courts, who are elevated to the bench. The knowledge gap between the elite law school graduates, who confine themselves into a law firms and corporate world and those who battle it out in the court are wide and this cascading effect passes on to the bench also.

On the given background, it has become necessary to look at these developments and it has become imperative to bridge the knowledge gap. There is a need to bring more professionalism in the administration of education system and also we need to look into more practical side viz. outside the confines of the curriculum to improve the efficiency of the graduates in various disciplines. It is also to be noted that Wharton school, in its study, has found that the senior management of Indian companies are not less than or is not as good as their counterparts anywhere in the world with regard to the sophisticated knowledge of the management and functional scale.

Now we need to consider seriously as to how the integration of industry and academia can be made to enhance students' employability. One of the best suited method is to have industry linkages. When I say industry linkages, it means that there should be a platform where there should be constant flow of information between two partners namely industry and academia. This should cover scientific and technical knowledge which will have a direct impact to better the skills of the candidates who are aspiring to become a part and parcel of the industry. Most of the universities do not give much importance to research. Often students are not keen to take up research as a career. Industry and academic research will lead to an innovation which can be benefitted by both, industry as well as the academia.

Therefore, we recommend that in order to have more convergence and integration of industry and academia, industry specific research courses is needed and can be included in the curriculum. This will enhance the skills and knowledge with respect to each of the industry where research and innovations are most critical in those industries. Therefore, the Universities of higher education should tie up with those industries, which need such skills, to set up such institutes and impart world class research facilities with a practical bend of mind to train students to put the same to the use of those industries.

Notwithstanding the failure of certain airlines, the aviation Industry in India is doing well, the old concept that air travel is limited to the rich and famous has disappeared. Today, we find there is a severe shortage of skilled employees in the aviation sector. Report states that 30-40% of the pilots employed by various airlines in India are 'imported pilots'. It is also strange to note that almost all the aviation companies are headed by foreign nationals. The Chief Executive of all the major airlines except Air India are foreign nationals. In reality, we have not found any type of course in any of the universities which is specific to aviation industry. There is a terrible shortage of management personnel in the aviation industry as the Indian management student terribly lacks the knowledge skills of aviation industry. In India, it is estimated about 3000-4000 jobs of pilots in the coming year but, we do not have world class flying school.

It is highly necessary to recognize the shortfall needs and identify sectoral needs and impart the needs of each of the sector into the education system to address the changing environment patterns with regard to each sector which would lead to a convergence between an Industry and Academia. While this be the case, it is also noted that distinctive business trends may lead to changes in the skills requirement, which may be common within sectors. So therefore, while we may need sector specific knowledge, we should also not forget the fact that wherever the common talent and pool can be recognized and utilized, we may have to equip the students with such general knowledge which can be used across sectors. It is a fact that business can become more productive when they have appropriate skilled employees. This will improve productivity and business growth and public service improvement and employability. This will also directly influence funding of education and training because when such skilled raw material is available in the universities, the industries which need such skilled talents will not shy away from building a close co-operation with these universities by funding them to further sharpen these talents so that the finished

product can be put to use by the industry directly on the job without any training. This will also save the industry from setting up institutes of training and providing months of on the job training as may be required, which is necessary to train the raw unskilled employees, who have no direct knowledge about the needs of the industry. In short, it is better to cater the prospective employee at a young age and mould them into the needs of the industry to which he is interested. This will also enable them to have a focussed approach on the industry and in his specific job profile.

The other most important thing is to forge strong link between the employers and higher educational institutions. This will enable them to share the winning formula and also to set certain benchmark with regard to the skills needed for the industry and also will enable the industry and academia to come out with a formula for effective use of the manpower. Today, education even in specialized areas like engineering or technical fields is more general in nature. While we are not forgetting the fact that there are major branches in engineering, however, it is not the case with an engineer who has graduated in one branch will be put to employment in the said branch itself. For example if a mechanical engineer goes into IT field, the fact of the matter is that the basic skills which he has acquired in the college in the mechanical field becomes redundant and he has to start afresh in the new field. If there was a convergence of the academia and industry based on the aptitude of each of the said students, related training could have been imparted at the very beginning.

India is considered to be one of the largest suppliers of nursing graduates or nurses, both male and female all over the world. However, due to the lack of any kind of convergence between the medical industry and nursing schools, the quality of nursing imparted in India does not meet the global standards. As a result, we find that more of the nursing graduates, save and except the very few from those colleges attached to various reputed hospitals, find themselves employed in local hospitals which are neither

sophisticated nor well equipped with the latest technology to deal with any kind of emergencies. They end up in poorly paid jobs. This is a great risk to the general public. Recently, as a result of this, we have seen lots of such nursing graduates going on strike all over India, especially highlighting the poor pay they receive. This is an area where there can be a convergence of the academia and the industry.

Another area of convergence which the academia and the industry can have and where it can bridge the skill gap is the biotechnology in India. There is a dearth of biotechnology graduates. We hardly produce about 20,000 biotechnology graduates in a year and about 4 lacs of B. Sc. Graduates on an average. However, as far as post doctorates are concerned, compared to US and other developed nations, India produces less than a few hundreds of the post doctorates in biotechnology. The result of the above shortage leads to two things, biotechnology industry has to depend on the foreign skills and since this is not a developed area in India, those who have acquired better skills search for better greener pastures in other countries.

The gaps in Indian higher education system arise out of the following issues. One of the issues is lack of non-industry experience of the teachers and professors. To bridge this gap, it is highly necessary to ensure that there should be a tie-up with a specific industry and industry leaders should be regularly visiting as guest faculty member and imparting training to the students. The fact of the matter is that, today the lack of industry knowledge amongst the academia has come to such a point that it has created mental blocks amongst the students who pass out as what is preached and what is practiced are two different sides of the coin. The other most important issue which we are facing is rigidity of the courses which are run by the university or higher education. As on date, save and except certain autonomous colleges, the courses which are imparted by these universities or higher education institutions are by and large controlled by UGC Regulations. As a result, practical and job-oriented courses cannot be run by these

institutions and almost all the institutions produce the same set of skills except the fact that, the academia which imparts this knowledge in each of these institutions differ.

In these cases, I am of the opinion that there should be a rethinking on these issues and more and more practical job-oriented short courses should be allowed to be imparted by these institutions. For example, the medical education which is imparted in India, which according to the statistics where India has about one doctor for about 2000 patients, is limited to those medical graduates practicing in those hospitals in and around urban areas. The result of this is that the rural areas still suffer from lack of medical care. The disadvantage is that in those areas quacks prop up. In my opinion, in order to avoid the same, short term practical course should be designed wherein a degree can be awarded to a person who will be in a position to take care of the basic medical problem and act as a general practitioner in the rural areas. The short type of condensed courses especially to cater to the needs of the rural population has to be made available.

This is only an example and such courses can be tailor-made to suit each of the industry needs.

In a job market in India, the students are not encouraged to take pure sciences. In a post industrial economy, pure science is most important. Country like China, Vietnam and other developing countries have been converged on the same as they rightly understood the importance of pure sciences. In a country which is technically driven and which depends on the technical as major platform for its growth, pure sciences assume lot of importance. The fact of the matter is that students are shifting away from the said courses because it does not find a good pay master or an environment which will absorb them once they acquire the skills. Industry and academia has to seriously think about this.

The last one is that there is a need for improvement in the management education. It should allow dual specialization including sector wise studies as per the interest of the student. It should allow and give more focus on the personal development of the students. It should also allow more importance to the basic foundation of a subject.

There should be greater interaction to the academia and the industry in selecting and setting up a curriculum and syllabus in management education, which should be reviewed every year and industry experts should always be asked to interact with students and if needed, even revise curriculum and syllabus with the changing trends.

In conclusion, I would like to state as under.

It is necessary for the industry to bring the academia higher education Universities together and enhance strong collaborative relationship.

It is necessary to revisit the focus and mission and each of the curriculum which is imparted by the management school as also in each of the sectors like law, engineering and it should be in a position to allow and identify a mix of what an industry needs without compromising on the fundamentals. Education which is imparted by the universities should not be focused in getting a placement and higher pay package. In fact, if there is an interface between the academia and industry, the question of placement becomes of less importance as they are trained with focus of an industry and specific sector and their aptitude with regard to each industry is measured and identified at the initial stages. This will enable easy absorption into that particular industry. This will completely stop attrition. Such identification of the skills of each of the student and putting them in the right type of frame of job which they like and train them in that skill will make the work place a happy one and more productive. Only industry and

academia interface can solve this problem. Industry and academia should give more importance to those students who opt for research and pure sciences and their importance should be recognised by absorbing them and treating them at par with other employees.

The other important issue to be looked into is suggestions in curriculum and designing. The most important issue is that industry and academia should join together to ensure that every Executive is sent back to the schools for executive education and to sharpen their skills and talents in their fields compulsorily once in two years. Seminars have to be jointly hosted by industry and academia to enable knowledge flow. Academia should be allowed to compulsorily be trained in an industry at least for a period of 3 months in a span of 3 years.

It is necessary to include the industry experts in the selection process of student and also the governing counsels. On the contrary, the industry has to ensure that adequate infrastructure and funding are provided to knowledge schools both, in research as well as in other developments. Without such convergence and building the knowledge gap, the higher education imparted today will not be in a position to meet the need of the hour. If this existing trend continues, there will always be brain drains attrition and country like India by 2020 will have more of ex-pats working in India rather than locally trained skilled employees.

Ref: i) Research Paper by FICCI on Industry-Academia Convergence "Bridging the Skill Gap"

ii) Research Paper by Irfan A. Rizvi and Ashita Aggarwal on "Making Academia-Industry Interface work" from Institute for Integrated Learning in Management, New Delhi.

