International Journal of Current Research and Modern Education (IJCRME)
ISSN (Online): 2455 - 5428
(www.rdmodernresearch.com) Volume I, Issue I, 2016

ROLE OF INDUSTRY INSTITUTE INTERACTION IN MAKING OF ENTREPRENEURS

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Abstract:

The benefits of close collaboration with industry for graduate/post-graduate professional students have been repeatedly emphasized in the literatures. This paper discusses the adoption and operation of curriculum which when taken up in professional colleges may help making of entrepreneurs when the student completes his academic courses. Sample groups of professional students can act as representative samples and their inclinations towards entrepreneurship -on the basis of behavioral traits, passion, drive, risk taking capacity- can be tested by administering structured questionnaire to them, so as to ascertain how effective is the inclusion of Industry-Institute-Interaction in the academic curriculum. Problem-based learning (PBL) by way of academic projects can be relevant to the specific field. This paper suggests the necessity of Industry-Institute-Interaction cell to ensure that the industry institute collaboration proceeds smoothly and helps in making of entrepreneurs.

Index Terms: Industry - Academic Collaboration, Problem-Based Learning, Industry - Visits & Entrepreneurship

Introduction:

"Industry-Institute-Interaction" provides a platform for both the students as well as faculty members to be aware of industry expectations of skill sets required for students. This enables students to be aware of the lacunae in their skills and provides an opportunity to upgrade them. It also enables Faculty to be aware of industry expectations & train students to meet these expectations. Faculty members through FDPs are also provided an opportunity to constantly upgrade their knowledge. This will enhance the Teaching Learning Process and enable the Institution to produce quality students. Such interactions can thus be of mutual benefit to the institution as well as the industry. The main objectives of setting up an Industry-Institution-Interaction cell in a college are:

- ✓ To enable the students acquire the necessary skills for observing the concepts taught in the classroom by solving projects in industries.
- ✓ To take up consultancy work in the nature of diagnosis and solving them using the expertise of the faculty and students.
- ✓ To provide assistance to industry in the area of testing the quality of various products and materials as per the industrial standards.
- ✓ To encourage the students to visit a wide range of industries and technical exhibitions to keep them abreast of the scenario prevailing in their field of study. Thus the students undergoing the co-curricular training program get multi-faceted exposure to their respective engineering discipline.
- ✓ To provide internship for pre-final year students to confront real-life challenges and learn the state of art technology and process to add to their core competency.

The educational reform of linking technical education with industry is one of the important educational innovations emerging in this country. Interaction between

institute and industry is now widely recognized as an essential requirement to train and develop the right kind of man power necessary to sustain and promote industrial and economical growth.

Memorandum of Understanding (MOU):

The Institutes are required to enter into a memorandum of understanding (MOU) with some of the well-run industrial units, so that MOU's are being utilized in the following manner:

- ✓ Students make their industrial visits to these companies.
- ✓ Planning of In-plant training and Internship during vacation period.
- ✓ Organizing guest lectures.
- ✓ Obtaining sponsored mini and major projects.
- ✓ Carrying out research, consultancy and testing to the industries.
- ✓ To provide academic knowledge and training to company employers.
- ✓ Teachers should visit industries to undergo industrial training.
- ✓ Possibility of seeking placement in industries.
- ✓ Upgrading qualification for industry employees.
- ✓ Providing training, testing and servicing of lab, equipments, system software.
- ✓ Facilitate with visiting experts and professors from industries and institutions.
- ✓ To organize short term evening courses to enhance the Engineering Education Program (CEEP) for the students.
- ✓ To receive academic and curriculum feedback from industries for framing industry based curriculum and syllabi for enabling Industry ready students.
- ✓ To make them to involve in BOS, Academic council and governing council.
- ✓ To enroll our faculties as members in their decision making bodies.
- ✓ To create new ideas and applications for product development.

All India Council of Technical Education (AICTE):

All India Council of Technical Education has recommended formation of Industry Institution Partnership Cell (IIP-Cell) in many of the technological institution, so as facilitate the initiation of some of the basic business/industrial activities through first generation entrepreneurs. This cell identifies the industrial expectation and promotes institutional preparation for meeting industrial needs by facilitating sponsored R&D projects, seminars, workshops and various other industrial training programs. Organizing such IIPC's in institution makes an effective contribution to educational system rather than criticizing shortcomings which are expected by the industry. Industry Institute partnership reflects in equipping faculty to latest practices and makes the students industry-ready by providing exposure to current industry practices, and hone their skills to adapt changing technologies. The primary focus of IIPC is to interact with elite industries and extend the efforts in establishing partnership with industries across the country in near future.

The objective of the IIP Cell is to reduce the gap between industry expectations (practice) and academic offerings (theory) by direct involvement of industry to attain a symbiosis. Indian industry at present has reached the most crucial turning point where it has to face the dynamic demands of the competitive domestic and global markets through the provisions of high quality products and services. To survive and succeed in this new scenario, the input that is most essential is the human resource. As technologies change rapidly, retraining and updating of the work force continuously are becoming major challenges facing every country today. Industries and Technical Institution have a strong mutuality of interest which forms the basis for having IIP-cells.

The institutes set up an industry-institute Partnership Cell with the following objectives:

- ✓ Developing close links between Industry-Institute by interaction programs. High priority is given to activities-designed to bring about improvement in the performance of industries.
- ✓ Mobilizing industrial personnel- A partnership approach
- ✓ Identifying the present day requirements for professionals and meeting the future human resource needs.
- ✓ Disseminating technical advances through informal educational techniques.
- ✓ Training the shop floor personnel's through continuing education program.
- ✓ Publishing and issuing technical bulletins news letter and course material with latest technological developments.
- ✓ Organizing seminars, symposium, exhibitions and workshops.
- ✓ Collaborating with other societies (National and International) having similar objectives.
- ✓ Widening and effectively implementing the area of R&D and consultancy.

IIPC Activities:

- ✓ Arranging industrial training for students and faculty members.
- ✓ Identifying the opportunities for student project work in Industries.
- ✓ Encourages the department level tie-ups or MoUs with Industries for the mutual benefit.
- ✓ Research and development activities with industry.
- ✓ Promoting consultancy activities, training courses for industry people.
- ✓ Enrich the teaching learning process through identified industrial training / visit.
- ✓ Planning for student's industrial visit.
- ✓ Inviting industry experts for guest lectures, seminars and expertise sharing.

Following are some of the interactions with the spirit of drawing mutual benefits through IIP-C:

- ✓ Memorandum of understanding between the institute and industries to facilitate training to students and faculty.
- ✓ Develop knowledge and skills to adapt industrial environment.
- ✓ Industrial visits by the students.
- ✓ Facilitating research and development, consultancy and testing services to solve industrial problems. Organizing symposia and workshops with joint participation of faculty and industrial experts.
- ✓ Curriculum development.
- ✓ Scholarships instituted by industries for students.
- ✓ Campus drive and employment.

Other Side of the Scenario:

Most of the technological institutes where Engineering, Management, Computer Application Courses are taught have failed to set up such "active" III-cells for good many reasons; significance and importance of such set-ups may not be clearly known to the people managing those colleges. Such institutes will fail to get good placement to the students, and, they will produce fewer future Entrepreneurs. The reasons can be – (1) Management's short-sightedness in theoretical approach to Business and Management education; (2) Outmoded syllabus; (3) Lack of Industrial exposure to the Faculty; (4) Limited use of case-studies in teaching pedagogy; (5) Total divide between the Industry and the Education institution; (6) Absence of EDPs in the academic year; (7) Not

conducting any Conferences; (8) No Industrial visits for the students; (9) Identifying and exchange of Resource persons; (10) Lack of Industrial training arrangements.

The Minimum Curriculum To Be Taken Up:

Some of the essential activities that have to be taken up by the Academia can be listed as:

- ✓ Compulsory internship in-between pre-final and final semesters or academic years;
- ✓ Creation and/or exhibition of video content of Production processes;
- ✓ Familiarizing Faculty and students with executives of MOU's Units;
- ✓ Acquaintance of Project profiles of some of the basic industrial/business activities;
- ✓ Project-cum-working during the final year of academia;
- ✓ Inputs to the Educational institutions from Industries with whom MOUs signed;
- ✓ Identification and exchange of Resource persons from Industry and Academia;
- ✓ Guest lecturers in Colleges by Promoters of successful entrepreneurial ventures;
- ✓ Talented students and Faculty attending programs organized by Chambers of Commerce;
- ✓ Attending conferences/workshops organized by Small Industries' Associations;
- ✓ Creation of a database of Case-studies or atleast Case-lets;
- ✓ Creating audio-visual research centre on industries by the Academia;

Entrepreneurs are Made:

Following Case-let speaks about this myth - "Real estate guru and author Cliff Michaels says it's a myth that someone is a born entrepreneur. Entrepreneurship can be taught, he says—and more important, it should be taught. "Entrepreneurial thinking is for everyone," Michaels says, because it's all about problem-solving, people skills, critical thinking, passion and gratitude—the skills and motivations of successful people. At age 18, when he began dabbling in real estate, what he learned from mentors on the streets was a lot different from what was taught in his college classrooms. "Why aren't colleges teaching this stuff?" he asked himself. His on-the-job learning groomed him—and, of course, many others—for success, Michaels believes. Those same at-work experiences also inspired him to write his book.

Michaels says the purpose behind the book, which presents life skills, action strategies, core values and purpose, is to help readers achieve the equivalent of a real-world master's degree in business administration. Since his college days, Michaels has seen a curriculum shift—courses cover some of his book's concepts—emotional intelligence, how to learn from failure and following your passion, for example. But he'd like to see more teaching in the area of entrepreneurial thinking. "All the things that make a Mozart or a Tiger Woods are not innate," he says. "They are learned over 10 to 15 years. The willingness to fail and learn from it is what entrepreneurs do really well."

Evangelist for Entrepreneurship:

In spreading the word that anyone can think like an entrepreneur, Cliff Michaels so far has donated 10,000 copies of his 4 Essentials book to underprivileged students and young professionals. He often donates through the University of California-Berkley's SAGE (Student Achievement Guided by Experience) Scholars or similar programs. "Whatever topic you teach, whether it's Business 101 or science, integrate the four essentials," Michaels says. "Practice problem solving. It's a good way to learn more about whatever you're teaching."

And if you think core values such as passion, gratitude, humility, integrity and tolerance—values that all successful entrepreneurs share—can't be taught, then think

again. "You can teach values. Really good businesspeople delegate and collaborate and have the humility to learn and get things done," Michaels insists."

From the above case-let, we can observe how entrepreneurs can be "made". The basic characteristics observed in any individual who may become an entrepreneur are-

- ✓ "Get Involved"
- ✓ "Grab Attention";
- ✓ "Design workspace for success";
- ✓ "Get and stay organized";
- ✓ "Follow up constantly".

Empirical evidence has come in handy to enlist six factors in making of Entrepreneurs, which are:

- ✓ Many don't have prior experience, but had some basic exposure to some economic activities.
- ✓ They have both common sense and willingness to break mats;
- ✓ They have willingness to take risks;
- ✓ They learn from their mistakes;
- ✓ They have the passion to persist;
- ✓ They are resilient in the face of failures.

Above all, Vision, Passion and Drive are the three important qualities of any Entrepreneur who succeeds.

Conceptualization:

The background with which the Academia is required to set up III-C in its campus and with what objectives it has to function are explained in brief, in this paper. The functioning of the Cell with Faculty exposed to Industrial environment as its head, and selecting peers and students by the Faculty plays a dominant role in success of this cell. The cell has a dual role; first, to assist placements especially in Engineering curriculum, and, secondly to give greater exposure to the students of all disciplines about the running of a manufacturing unit and functioning of a business enterprise. The student in his last lap of studies will understand the 'hardships' to undergo in manufacturing side, and 'decision making' challenges in managing the functioning of the business units. This is a conceptual paper, which can be converted into a research paper by identifying the independent variables like behavior, attitudes, traits, intelligent quotient which are responsible for framing the entrepreneurship in the students. The Population for the research can be Institutes/Technological Universities; and sample frame can be Colleges/Institutes where III-C, IIPs are functioning, and sampling can be in a State or some States.

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