

Industry- Institute Interaction: Searching New Horizons

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Abstract

The journey of cooperation between industry and institute has taken different forms at different times. Earlier, it started with simple interaction and gradually evolved to very close partnership overtime. Another Aspect is Higher Education which is a major indicator of social change in a society and strives to churn out knowledgeable individuals who will contribute to the society actively, find employment and develop a positive attitude towards life. But now higher education is on the crossroads. Youth is facing problem of unemployment tremendously and on the other hand industries are complaining about inadequate availability of skilled human resources. There is very little linkage between what is taught in academic institutions and what is required in actual field of employment. We need to build an implicative system to bridge the skill gap and to sustain in the changing scenario; hence there is great need of an efficient Industry Institution Interface. This research paper aims to explain the objectives of Industry Institution Interface, causes for poor interaction in present scenario and how interaction can be enhanced through expanding the range of ways. Industry and institutes engage with each other to enhance their capacity for growth and development. Both industry and institutes need to work in synergistic manner and address the complementary issues. As India is moving further towards more knowledge dependent economy, we need to look increasingly to how academic institutions can work in collaboration with each other to advance the process of innovation across all industry sectors.

Key Words: Industry, Institute, Skills, Interaction

Introduction:

Technical Education forms the backbone of development of a nation. Industry is the major consumer of technical institution product. The real requirement of industry will be explored only through effective interaction with them and Interaction between the industry and institute is now widely recognized. The industry is poised to face Global competition, Unemployment & underemployment. A good & vibrant Industry institute Interaction is always required by both sides. There is a need for effective intervention to understand employer needs, variable sector specific skills, training requirements that improve

business performance, articulation of business expectations in education institutions and engagement of industry leaders with higher education institutions. If we look deeper to the specific environments in the institute and in the industry, it can be observed that institutions carry out their goals to facilitate learning, preserve a protected zone for students and nourish individual care to address the needs of the learners. The enterprise, on the other hand, work within the framework of industrial practices and norms with production, efficiency and profitability as the basic premise of day-to-day operations. The characteristics of the workplace as the supreme learning environment must be coordinated properly to ensure that there is a close correlation between the types of training that the workforce is being prepared for vis-à-vis the work environment, tasks and work systems.

Literature Review

According to *Santoro and Chakrabati* (2002) industrial firms use a variety of relationships with university research centers to accomplish different things. More specifically, they found that large firms have higher intensity knowledge transfer and research support relationships in order to strengthen skills and knowledge and gain access to university facilities for advancing non-core technologies. In contrast, small firms have higher intensity technology transfer and cooperative research relationships in order to strengthen skills and knowledge and gain access to university facilities for advancing core technologies. In the view of *Nangia and Pramanik* (2011) besides industry associations, the universities should also form linkages with government agencies which are entrusted with industrial development activities. In spite of some shortcomings and inhibiting factors with respect to the academia-industry collaboration, government should put into place an integrated policy of academia-industry collaborative interaction encompassing a number of strategies enabling such an initiative to thrive in the country's quest for technological leadership.

Saibal Paul (2010) The role of the industry and the academia has always been indispensable to each other. If industry is responsible for producing, the academia supplies the necessary back up in terms of the technocrats and the professionals who run the industry. *T V Ramana Rao* (2008) In spite of the realization that Industrial Organizations (Manufacturing and Services) need to collaborate closely with Academic Institutions (Universities and Professional Colleges) for survival in this fast paced global environment, in India there is a long divide that is practically existing between the two. *Michaela Martin* (2000) The type of Interaction and its degree of intensity depends upon several internal and external factors such as:-

- research and teaching capacity, both within the higher education institutions
- an industrial base involved in R&D activities and concerned with staff development
- the existence of Government policies, initiatives, financial incentives, structures or programmes to stimulate collaborative R&D and teaching programmes
- an entrepreneurial culture within higher education sector
- an academic reward system and incentives for staff to collaborate in programmes with industry

Objectives of the Study:

- To identifying the benefits of Industry Institute Interface.
- To find out the problems for lower Interaction between industry and institute.
- To make suitable suggestions for development of industry and institute.
- To understand the different modes of Interaction.

Research Methodology:

The study used secondary data only and research design is descriptive in nature. All the Data is collected by using secondary sources which includes Business Magazines, News papers, Internet and Journals.

Benefits of Industry- Institute Interaction:

Close interaction between the institute and the industry is seen as the platform for showcasing best practices, latest technological advancements and their implementation and impact on the Industry. It is basically considered to improve the quality of technical and vocational education adequately to meet the needs of the industry and economy. Mutual benefit is derived from the shared expertise and experiences between the industry and

the institute. Benefits for different shareholders are as follows: -

For the Institute:

- Greater resource generation.
- Improved quality of faculty.
- More relevant curriculum.
- Better Placement of students.
- Better utilization of expertise and facilitated industry.

For the Industry:

- It can have access to the latest technological and management developments.
- Industry can keep their workforce updated in terms of skills and knowledge through refresher courses and other training programmes conducted by the institutes.
- It is able to get fresh and well trained technical personnel.
- Industry can get their research work done through institutions and save cost of R&D.
- Reduction in recruiting costs. Cost effective productivity.
- Better communication with higher learning centre.
- Collaborative research opportunities.

For the Faculty :

- It gives good understanding of the industry and helps in building up of useful case studies for improving the quality of future teaching.
- It provides an ability to identify research programmes of industrial importance.

For the Students:

- Gaining real life experiences.
- Application of theoretical knowledge.
- Enhancement of oral and written skills.
- Decision making on career choice.
- Paid pre-employment (on-studies training).
- Gaining access to sophisticated instrumentation.
- Understanding the work culture of industries.

For the Nation:

- Effective harnessing of the resources, talents and experience within the country.
- Greater efforts at self-reliance and indigenouslyness.
- Greater financial support to institutions and R&D organizations.
- Greater employment of R&D personnel.

- Generating sense of pride in the nations among Indians all over the world by providing excellent research findings.

Reasons of Poor Interaction among industry and institution:

Government is often too sluggish and generally not flexible enough when dealing with academia-industry collaboration as it is often not entrepreneurial by nature and troubled by bureaucracies. Academia also is largely unaware of the real industrial and national needs and unable to market its strengths to industry adequately. Other inhibiting factors are lack of appropriate incentive to faculty and specialized technical infrastructure (R&D Lab.) and examination system puts emphasis on the reproduction of memorized facts. There is lack of work recognitions in the institutions and rigidity of rules and regulations and lack of autonomy resists interaction.

Industries give passive response regarding the assessment procedure of the students as goals and objectives of education system and the Industrial system do not match fully. Both the system have not fully realized about the problem of interaction and partnership. Industry, by nature, is always interested in targeted development. During its interaction with the academia, industry's desired time frames are instant, and investment is guided by efforts that yield result-oriented solutions. The costing frames are typically directed by reluctance to invest in its internal R&D which has either long term or unclear output.

Suggestions for Better Cooperation:

- Academic and administrative autonomy may be granted to institute.
- Institute should be provided with adequate transport facility, infrastructural and secretariat support for carrying out these activities.
- Industrial training for students should be made compulsory for about one month in a year as a part of the curriculum and it should also be credited.
- Sufficient funds for taking up industrial projects should be provided to institutions.
- The course curriculum should be designed as per job profile and its revision has to be commensurate with requirements of the present and new emerging technological demand.
- Adequate lab facility should be created and utilization has to be assured.

- Teacher should be sent to industry for practical training for a short period. Benefits in appointments and promotions are given to teachers with good work in industry.
- Institute should identify the problem of the industry around in his neighborhood and should solve its problems involving students.
- Institute should involve in R&D work and should take projects from established industry for updating its technology.
- Institute should provide information to industry about the facilities available in Institute, which might be used by the industry for its benefit.
- Curriculum of various courses be revised regularly.
- Students should be encouraged to undertake the final year projects in Industry partly or fully with a joint supervisor from industry.
- Industry should give R&D problems to Institute and also provide good training to students under training as they are going to be the important part of industry after completion of the studies.
- Experts from the industry should be invited by the Institute regularly to share their practical knowledge with the faculty and students.

Modes of Interaction among Industry and institute:

As the social and economic structures of various countries in move from labor-intensive and industrial-based to knowledge-based and globalized economy, the role of academic institutes has been intensified more than ever. Institutes possess the optimum resource base to supply new ideas, innovations and analysis of the trends in the labor market in a holistic and pedagogic approach. There are different modes of Industry-Institute linkages which are as follows:-

Institute to Industry:

- Student visit to the Industry as a part of their course
- Industrial tour of students: - This gives them good organizational experiences.
- Practical Training / Student internship:-This gives students good industrial exposures.
- Student Project in Industry:- Some students may be encouraged to undertake their final year project in industry partly or fully with a joint supervisor.

- Teacher Deputation to Industry:- Teacher should spend the two months of vacation in the Industry. Teacher must work on a specific project at industry and submit a report to institute on return and deliver a seminar talk.

Industry to Institute:

- Depute Persons for higher degrees to Institute
- Continuing education of their staff must be a continuing activity of any progressive industry.
- Assign Consultancy Jobs to Institute.
- Sponsor R&D Projects to Institutes.
- Industry sponsored short term course or depute industry staff in institute.
- Resource persons from industry to institute.

Industry-Institute Joint Efforts:

- Jointly Conducting Training/Awareness Programme for Industry / Institute People.
- Organizing seminars/Symposium/ Awareness Programme for Industry/Institute People.
- Undertaking Any Social Responsibility.
- Industry-Institute merger / adaptation of institutes / programmes by industry.

Other Strategies:

- Establishing Entrepreneurship Development Cell at the institute level. (AICTE role)
- Conducting action Research by making intensive interaction with the industry.

Conclusion:

In today's scenario we have seen the many fine examples of university and industry collaboration; there is a need for a more enhanced partnership between higher education and the business community. As India moves further towards a more knowledge dependent economy, we need to look increasingly to how universities can work with business to advance the process of innovation and renewal across all industry sectors. The above discussion has suggested that there are a number of key priorities:

- Business and universities need to expand the range of ways they engage with each other to enhance capacity for growth and development at regional, state and national levels.

- University and business leaders need to seek new strategic partnerships and forms of involvement.
- Universities need to embrace more fully their ‘third role’ of community engagement and leadership.
- Staff and students within universities need to be encouraged in their efforts to engage with industry, and there needs to be an increased acceptance and rewarding of such efforts.
- Industry and universities have a key need to work in partnership to advance knowledge through research and development in order to enhance industry capacity for innovation.

In short, business and universities need to work actively to expand the current position of partnership and engagement. This should lead to a higher level of interaction and seamlessness between business and higher education, with staff from both sectors moving freely across boundaries in order to engage in new and expanding forms of collaboration.

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