Industry Institute 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. 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

OBJECTIVES

- ✓ Bridging the gap between Industry and Institute.
- ✓ Promotion and co-ordination of consultancy services.
- ✓ Use of resources from industries and the institute for benefit of industries, students and society.
- ✓ Making available Institute infrastructural facilities to the industries and vice versa.
- ✓ Creation of Industries Institute Expertise Database.
- ✓ Forecasting the technical manpower requirement for Industry.
- ✓ Training and the knowledge update through faculty exchange.
- ✓ Joint R&D activities
- ✓ Enhancement in use of testing facilities for industries.
- ✓ Short term courses for manpower development for industries and curriculum update.

CAUSES OF POOR INTERACTION

- ✓ Lack of interest from both sides.
- ✓ Curriculum is not planned as per as the job profile
- ✓ Education imparted is not job oriented.
- ✓ Examination system puts emphasis on the reproduction of memorized facts.
- ✓ Insufficient teaching time and learning time because of late admissions and more number of holidays.
- ✓ Obsolete lab facilities do not attract industry to interact with the institute.
- ✓ Lack of work recognitions in the institutions.
- ✓ Rigidity of rules and regulations and lack of autonomy.
- ✓ Passive response from Industries regarding the assessment procedure of the students.
- ✓ 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.
- ✓ Government regarding interaction & partnership between the industry and institute does not giving proper attention.

MODES OF INTERACTION

1. Institute to Industry.
2. Industry to Institute.
3. Industry-Institute Joint Efforts
4. Other Strategies

Institute to Industry

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

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

a. Adjunct faculty from industry.

b. Expert Lecture from Senior Industry Personnel.

Industry-Institute Joint Efforts

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

Other Strategies

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

FEASIBILITY REPORTS

- A feasibility report is an evaluation of a proposal designed to determine the difficulty in carrying out a designated task.
- Feasibility study precedes technical development and project implementation.
- It is an evaluation or analysis of the potential impact of a proposed project.

Why to do a feasibility study?

- When faced with a business opportunity, many optimistic persons tend to focus on its positive aspects. A feasibility study enables them to take a realistic look at both the positive and negative aspects of the opportunity.

Five common factors of feasibility report:

(1) Technology and system feasibility

- The assessment is based on an outline design of system requirements in terms of Input, Processes, Output, Fields, Programs, and Procedures.
- This can be quantified in terms of volumes of data, trends, frequency of updating, etc.
- Technological feasibility is carried out to determine whether the company has the capability, in terms of software, hardware, personnel and expertise, to handle the completion of the project

(2) Economic feasibility

- Economic analysis is the most frequently used method for evaluating the effectiveness of a new system.
- To determine the benefits and savings that are expected from a candidate system and compare them with cost.
- Cost Based Study: It is important to identify cost and benefit factors, which can be categorized as follows: 1. Development costs; and 2. Operating costs.
- This is an analysis of the costs to be incurred in the system and the benefits derivable out of the system.
- Time Based Study: This is an analysis of the time required to achieve a return on investments. the benefits derived from the system. The future value of a project is also a factor.

(3)Legal feasibility

- Determines whether the proposed system conflicts with legal requirements, e.g. a data processing system must comply with the local Data Protection Acts.

(4) Operational feasibility

- It is a measure of how well a proposed system solves the problems, and takes advantages of the opportunities identified during scope definition and analysis phase of system development.

(5) Schedule feasibility

- Schedule feasibility is a measure of how reasonable the project timetable is. A project will fail if it takes too long to be completed before it is useful.

Other Feasibility factors

1. Market and real estate feasibility:

- Market Feasibility Study typically involves testing geographic locations for a real estate development project, and usually involves parcels of real estate land.
- Jurisdictions often require developers to complete feasibility studies before they will approve a permit application for retail, commercial, industrial, manufacturing, housing, office or mixed-use project.

2. Resource feasibility:

- This involves questions such as how much time is available to build the new system, when it can be built, whether it interferes with normal business operations, type and amount of resources required, dependencies, etc

3. Cultural feasibility

- In this stage, the project's alternatives are evaluated for their impact on the local and general culture. For example, environmental factors need to be considered and these factors are to be well known.

BENEFITS OF INDUSTRY INSTITUTE INTERACTION

To Institute

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

To 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.

To 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.

To 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 Nation

- Effective harnessing of the resources, talents and experience within the country.
- Greater efforts at self-reliance and indigenousness.
- 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.

SUGGESTIONS FOR BETTER COOPERATON

- 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.