

WHAT HINDERS INDUSTRY-INTERACTION IN TECHNICAL INSTITUTIONS

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ABSTRACT

Technical institutions (both Polytechnics and Engineering Colleges) need to have a high level of rapport with industries in order to make their teaching relevant to the world of work and ensure that their products are employable. Such rapport is crucial for the institutions and highly beneficial to the industry which employs the institute's passouts. However, examples of institutions having such high level of rapport are hard to find in the country today. Although the areas in which rapport building is needed are known, the strategies adopted leave much to be desired and there are several systemic and organisational problems. This article highlights some of the inhibiting factors pin pointing the lacunae, which if addressed to properly and with dedication, Industry - Institute Interaction could be placed on a sound footing.

It is an established fact that in our country, linkages between Technical Institutions (both Engineering Colleges & Polytechnics) and the industry are weak and over the years, this has effected the quality of institutional outputs resulting in a cognizable level of unemployment & under employment. The problem has been discussed on several platforms in various Seminars & Conferences at all levels in the system and many well-meaning suggestions have been offered. (one such article was by Sri.Ashok K. Gupta in the October 1993 issue (Vol.VII, No.2) of this esteemed journal). If one is to judge the results of all these deliberations by the gains achieved so far, it should be admitted that the impact has been negligible, to say the least. The standard remedies to this malady are well known (Ex: involvement of industry personnel in Curriculum Development, guest lectures by industry managers to students, faculty exchange programmes

between institutions and industries, sponsored projects in institutions compulsory in-plant training for students, continuing education programmes etc.), Many of these have been attempted by a few enthusiastic teachers & administrators and eventually abandoned out of frustration. In this article, the author, who had some personal experience of this activity at Polytechnic level, wishes to present his own analysis of the factors hindering success so that these could be addressed to in future for promising results, hopefully.

1. LOCATION

The first and foremost hindering factor is the location of technical institutions. Unfortunately in this country, we do not realize that location-wise an industry is as important to an Engineering College/ Polytechnic as a hospital is to a Medical College. While the All India Medical Council does not give recognition to a Medical

College unless it has an attached hospital, the AICTE does not have any such stipulation for Engineering Colleges & Polytechnics. As a result, we have today, institutions established in many rural areas, devoid of any industry in the immediate neighbourhood. This is the main factor responsible for weak interaction between Industries & Engineering Institutions.

2. TRANSPORT FACILITY

Arising from the location problem, it has become necessary that in any technical institution, a suitable transport facility such as a bus, has become necessary to facilitate visits by students & faculty to industries for a visit or a spell of industrial training. Likewise a staff car is needed to bring guest lecturers to the institution from industry. Unfortunately many state governments consider these transport facilities as a luxury for Polytechnics & Engineering Colleges. Proposals to purchase these vehicles (even when the expenditures are reimbursable under the World Bank Project for Polytechnics) have often been turned down by the Governments in the name of austerity and fuel conservation.

3. FACULTY

It is again a harsh truth that not many faculty members of Polytechnics & Engineering Colleges have first hand experience in industry. Most faculty have joined the institutions after obtaining a B.E., M.E. or even Ph.D. and subsequently rose up the ladder by virtue of teaching experience or research and have rarely spent anytime in industry. As a result, their teaching is limited to the two covers of the textbook and devoid of any examples from industry. Many have also not bothered to avail themselves of the Government of India's fellowship programme for industrial training. Consequently, they feel diffident to take up any consultancy work from industry which also hesitates to

allot projects to an institution with such faculty. All efforts at obtaining consultancy work in Engineering Colleges & Polytechnics have thus remained only marginally successful.

4. TECHNOLOGY INPUTS

Whenever technology inputs are required by industries in India, it is a common practice to obtain them from their foreign collaborators through bilateral trade agreements. Few industries bother to look to the neighbouring Engineering Colleges/ Polytechnics for such inputs, even when they are available. It is also fashionable and more appealing to share holders to obtain such technologies under "Foreign Collaboration" though quite expensive. This situation is hardly conducive to promotion of consultancy work in technical institutions.

5. CURRICULUM DEVELOPMENT :

While technical institutions wish to involve industry managers in curriculum formulation, teaching & evaluation, the response from industries too has been far from encouraging. This is because industries are commercial enterprises which work with a profit motive and the time of their Senior Managers is precious. They therefore depute some junior inexperienced persons for such activities, if at all they do, and the benefit derived by such participation is only marginal. A separate set of incentives may have be offered to industries to make them willingly participate in academic activities at institutions.

6. INDUSTRIAL TRAINING

With the exception of a few large industries which have their own training schools, the middle level industries are reluctant to open their doors to students & even teaching faculty. This is because of two reasons :

- 1) They cannot spare the services of their officers to plan, execute & evaluate the trainee, deviating from their main production jobs, and
- 2) The few places that are available are already filled up by the mandatory requirements under the Apprenticeship Act.

Hostel facilities are non-existent in most industries for long term trainees and girl students find it very difficult to manage in the absence of such basic amenities.

7. EXCHANGE OF FACULTY

While some teachers from Polytechnics & Engineering Colleges are prepared for such an assignment, the industry is rarely willing to accept them because of their unfamiliarity with the industrial scenario. In the reverse direction, industry managers are largely unwilling to work in educational institutions because of the low pay scales & emoluments. Thus, this much touted strategy for linkage between industries & institutions remained a non-starter.

8. GUEST LECTURES :

Here and there we find a few devoted industry managers opting to give guest lectures in educational institutions, but the remuneration offered to them as per Government Rules is a meagre Rs.50/- per hour. This rate has remained unrevised for several decades and is not at all commensurate with the efforts put in by the lecturer abandoning his job in industry to help the Polytechnic.

9. PERCEPTIONS OF INDUSTRIES ABOUT OUR TECHNICAL INSTITUTIONS :

By & large industries in India do not hold our technical institutions in high esteem, except for the I.I.T.s and a few selected RECs, Engineering Colleges & Polytechnics. The academic climate in a majority of

these institutions, the teaching standards, quality of passouts and exposure to relevant modern technologies has deteriorated to such an extent that it is difficult to convince industries to invest funds, time & effort in any meaningful collaborative activity. Unless steps are initiated urgently to improve, on a war footing, quality and academic excellence and standards, the situation is not likely to improve much, especially in the competitive market resulting from the liberalized industrial policy of the Government of India.

10. RAPPORT WITH INDUSTRY :

Technical Institutions must develop a conscious policy and strategy to improve internally and build rapport with selected industries in their immediate vicinity responding holistically to the overall needs of the industry. This cannot be done overnight. The rapport has to be built-up over a period of years at different levels : Principal - Top Management : HODs - Middle level Managers, Teachers - Shopfloor Managers & Supervisors and Students - Workers and even their families. As part of this strategy even students should be asked to engage themselves in literacy campaigns for the workers and their families. Such a gradual building up of linkages at various levels would ultimately lead to a total adoption of the institution by the Industry.

11. THE WORLD BANK ASSISTED PROJECT :

This huge project involving nearly 550 polytechnics for total quality upgradation, puts a heavy emphasis on Interaction with Industry. The Bank Review Missions, over the last 3 years have been complaining about the lack of progress on the ground in this area, apart from the formation of state & institutional level committees. Recently, in a number of states, Memorandum Of Understandings (MOUs) have been signed with the Confederation of Indian Industry and we

look forward to some positive results, overcoming the various problems, outlined in this article. In the meanwhile, the academic community should take up this matter in all

seriousness and come out with workable strategies to overcome these inhibiting factors working against the cause of Industry Institute Interaction in the country.

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