Placement Services in Indian Engineering Institutions

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The formal structure of placement services in Indian institutions is yet to evolve. Some institutions at different levels are still only setting up training and placement units primarily to assist students in getting jobs, while some others, particularly the IITs, RECs and the older engineering colleges, have had such units for some years and have been successfully placing students for practical training and in permanent jobs. Organized career guidance and counselling services are, however, practically non-existent in most institutions.

INTRODUCTION

THE INDIAN Society for Technical Education's 1988 publication 'An Overview of Technical Education in India' [1], presented a dismal picture of the status of the placement services in technical institutions in the country. According to the report, career guidance and career counselling services were absent in any form in most of the institutions. Indeed, many institutions did not even have a training and placement officer, who is traditionally, in the Indian context, supposed to look after placement of students for short-term practical training and in jobs. The majority of Indian technical institutions did not have the benefit of campus recruitment. There has, no doubt, been some change in the position since the 1988 report. The All India Council for Technical Education (AICTE) guidelines on the subject and other reasons have prompted more and more institutions at all levels either to set up or strengthen what are called by some Training and Placement Departments and by others Training and Placement Units/Sections etc. However, these 'units' as they will be referred to in the rest of this paper, continue generally to remain understaffed and ill-equipped to provide comprehensive placement services and at best provide assistance to students for short-term placements in industries for practical training or for permanent placement in jobs. Properly organized counselling services are still, by and large, non-existent in the technical education set-up in India. To appreciate the reasons for the current state of affairs and the directions that placement services in India are likely to move in the future, it is necessary to place the topic in historical perspective.

HISTORICAL PERSPECTIVE

India's technical education set-up is a part of the British legacy. The visionaries of independent India started building on what the British left behind, the purpose being to produce qualified technical manpower to meet the growing needs of the country for national reconstruction. Roads, bridges, dams, power projects and heavy industries, mostly in the public sector, were the primary requirements in the years following independence. The government was at that time the major employer, and employment in the government was generally obtained through long, drawn-out procedures, through Public Service Commissions at the union and in the states. Assistance was sought by various government departments from the heads of institutions to recommend the top students from different branches to whom 'ad hoc' appointments in the department could be offered to meet the growing requirements. The public sector also adopted this method to meet their manpower needs partly, while relying on open advertisements for their major requirement. The expanding technical education system in the country was also a major employer of the bright engineering graduates, again through similar procedures. The scenario started changing with the private sector coming up in a big way. R&D institutions that had emerged with the post-independence development of the country were also looking for the best available talent. The technical education system had also expanded, and more particularly some excellent institutions like the Indian Institutes of Technology (IIT), set up mostly with foreign assistance, and Regional Engineering Colleges (REC) with greater governmental funding, had emerged to challenge some of the more established state-level engineering colleges and technical universities. A uniform level of financial and other support was also not available to all the institutions

and this in turn was reflected in the varying quality of manpower produced by different institutions. The 1980s saw a further spurt in India's technical education scenario with state governments permitting the setting up of privately managed, 'self-financing' institutions which, in most cases, enjoyed political patronage and were therefore officially recognized both by the state governments and the universities in the state. The reasons behind the setting up of these self-financing colleges are many-fold, not all of which can be dismissed easily. Standards of education in some of these institutions, run mostly on commercial lines, however, left much to be desired. Notwithstanding the AICTE Act passed by the Indian Parliament, the end result has been that there has been a much larger number of technical graduates and technicians produced than is required by the nation at large, at least in some disciplines. Further disparities in the quality of technical manpower produced by different institutions became much wider.

The reason for organized placement service not finding its rightful place in the technical education scenario in India may be seen in the above context. In the initial years after independence jobs were mostly in the government sector: choice was limited and recruitment procedures were formal. The need for some kind of a placement service was prompted years later, mostly by pressure from the growing private sector, who increasingly sought the assistance of heads of some of the better institutions or heads of departments of such institutions to meet their growing manpower needs. Initially, therefore, where any such service came to be formally established, it was meant to provide assistance to employers who wanted to consider the students and alumni of an institution for employment. In some institutions, placement came about subsequently as a student welfare activity, to provide assistance to students in finding employment, particularly because of the problems students faced in getting jobs on their own, within a reasonable period after leaving an institution. Campus interviews or 'milk rounds' as it is called in the UK started in a few institutions. There was also the need for a central placement unit to find opportunities for short-term placements of students in industries, 4–8 week industrial training having been incorporated as a part of the curriculum of the undergraduate engineering degree programmes in some institutions.

Interestingly, a recommendation for setting up training and placement departments at the IITs for yet another good reason emerged from the Government of India in 1974, based on the Report of the Review Committee of the IITs set up in 1970. This was apparently prompted by the fact that by then there was an increasing trend for IIT graduates to migrate to advanced countries, particularly the USA. Establishment of training and placement departments was advocated so that IIT students could be helped to secure challenging jobs in India (so that they could not use the inability to get a challenging job in India as a reason for migrating to advanced countries) and contribute effectively to the country's development. Another important role of the placement service was identified at that stage, namely the academic feedback system mentioned by Natarajan and Swamy [2]. The training and placement departments of the IITs were supposed to maintain a close liaison with end users of the manpower produced at the institutes and also conduct follow-up studies of placement to yield valuable information to correct, where necessary, the methods of teaching at the IITs. However, though they have set up training and placement units, the IITs have not yet fully implemented the government's recommendations. The first convocation address by the Director of IIT Kharagpur, the oldest of the five IITs, in 1956, mentions the setting up of a department of training and placement at the Institute for organizing practical training of students in workshops and industrial sites and for liaison between industries and graduates leaving the Institute. The Institute also set up a Training and Placement Committee consisting of faculty representatives from each department, under the Deputy Director of the Institute, to oversee the functions of the section (as it later came to be called). For most part, the Training and Placement Committee continued to be chaired on a part time basis by a senior professor of the Institute, appointed by the Director of the Institute on rotation, who was also designated as, the Professor-in-Charge of the T&P Section and the Training and Placement Officer. In 1982, the Institute appointed a full-time professor to head the section. The set-up in each of the IITs is different from the other.

THE PRESENT SCENARIO

The situation as far as IITs are concerned has already been explained above. In most of the RECs, placement services are currently looked after by what are called departments of training and placement, headed by a professor. In some of the other institutions it is looked after by a training and placement officer, while in some cases they have a separate chairman for the placement committee from among a senior faculty in addition to the training and placement officer. Some technical universities have set up university employment bureaux, headed by a chief. The units in most institutions are, as stated earlier, even today, grossly understaffed and ill-equipped, though in some of the institutions the units have in-house computers and plain paper copiers, interview and seminar rooms with audiovisual facilities, etc. The functions carried out by the heads of the units, in different institutions, include teaching, liaison with industry and other prospective employers, arranging in-plant training and on-campus interviews. Some of them are responsible for arranging industrial visits/tours for students. Some are also

engaged in admissions and many are engaged in student welfare activities. A few of these units provide assistance by way of information and guidance to the students to pursue higher studies, particularly abroad. Except for guidance about facing selection procedures, few claim to provide career counselling and career guidance for students.

A recent research study conducted by the Centre for Science, Technology and Environmental Policy Studies, New Delhi (STEPS) [3] has come up with interesting information. The study covered a number of science and technology institutions and looked at their 'competence' in terms of how many of the students of a particular institution were absorbed by the 'coveted' job sector, and examined the factors that make some institutions stand out in this respect compared to others. The hypothesis is that institutions which produce students who find jobs in the coveted job sector stand out from other institutions offering similar degrees. IITs and some of the other large institutions, including some of the more reputed state colleges and the RECs, have in this study come at the top of the list. Although not specifically mentioned as such in the study, it is obvious that besides other factors the existence or otherwise of an active training and placement unit to 'market' the 'products' of an institution would have had an influence on any ranking of institutions in terms of jobs secured by the students of an institution in the so-called 'coveted' jobs sector. The report does mention that the potential of the training and placement units, which have a vital role to play in establishing industry—institution linkages, has not been fully explored in many institutions.

CAMPUS RECRUITMENT PATTERN IN INDIA

The pattern of campus recruitment in India is as follows: R&D establishments, large public sector undertakings and reputable private sector industries limit their visits for campus recruitment to selected institutions, particularly those with an all-India pattern of admissions. If they have additional requirements, the public sector undertakings advertise in national daily newspapers and recruit on the basis of nationwide tests and interviews of short-listed candidates. Local industries and state-level organizations recruit from the better campuses in the state. To a large extent these visits are influenced by how successfully the institute concerned has been able to 'market' the concept of recruitment at their campus to organizations at large, the quality of the graduates and the support that the organization gets from the placement unit to publicize its requirements, collect and forward résumés for scrutiny, facilitate smooth conduct of campus recruitment and in the application of 'placement norms'. Organisations recruiting from campuses look forward to a certain degree of

success in their efforts and see no reason why they should waste their time and money in recruiting from campuses if they cannot expect a reasonable guarantee of success. They therefore expect the placement units to ensure that there is some 'placement norm', whereby a student is permitted only one or two jobs through campus recruitment. The 'placement norm' followed also helps more students from an institution to get jobs, because those getting job offers from the organizations that visited the campus earlier for recruitment are debarred from being considered by organizations coming to the campus later for recruitment, thus creating opportunities for the remaining students to get a job offer through campus recruitment. There are no doubt variations in the way in which different organizations recruit from campuses and the application of placement norms etc., partly because the whole system is still only evolving and partly because of the extensive geography of the country.

FUTURE DIRECTIONS

The STEPS study in itself has encouraged a number of institutions to start training and placement units where none existed or to strengthen existing units, so that they are not left behind when the competence of an institution is judged by the number of students getting jobs or the nature of jobs secured by its graduates. The AICTE guidelines are also influencing the institutions in this respect. More than anything else it is market forces that dictate the need on the part of the technical institutions to gear up their training and placement units. On one side it is the pressure from the student community. The socio-economic condition in the country being what it is, jobs at the end of a professional course are something that all bright students look forward to. Indeed, more generally, what a bright student would look forward to before he or she joins a particular institution or a particular course would be, in today's context, what it offers by way of a career after the course. Better students are attracted to institutions and courses that provide better career options. Training and placement units obviously have an active role to play in revealing to students the opportunities that exist and in helping them to achieve it.

The other pressure is from the employer. There has been a tremendous industrial expansion in the country in the recent past, particularly in the private sector. The problem faced in the country by an employer looking for fresh engineers today is, however, the numbers that respond to an advertisement. The task of identifying the right person out of so many applicants is like searching for a needle in a haystack. The strategy followed by many organizations is therefore to short-list institutions (based on various considerations) in the first round. After having identified institutions that are most likely to produce the kind of fresh graduate engineer the

organization has in mind, and which is most convenient to visit for campus recruitment, the organization would seek the help of the institutions (through the training and placement units) to attract and select the right candidates from the campus itself.

There is also an increasing awareness that some kind of industrial training is necessary for turning out the right kind of engineers from the engineering institutions [2] and therefore there is a need to have training and placement units that actively liaise with industries in each institution. No doubt placement for short-term practical training has its own problems. There are just too many students seeking such opportunities from the industries which find it difficult to oblige all because it will greatly affect their own activity if there are too many trainees around. Whereas some industries are willing to set apart 2 or 3 months in a year to accept trainees from various institutions, due to various reasons some of the institutions find that they are unable to maintain regular academic schedules and therefore do not find it convenient to depute students during the stipulated period. The students often find it difficult, financially, to manage their stay at the place of training, as the organizations concerned do not generally provide any assistance in this regard. Finally, there is the question of proper supervision during practical training. Neither is the industry able to ensure this in view of their preoccupation with their own work, nor is there effective supervision from the institute side because of lack of finance to support visits of teachers to the different places where the students are undergoing practical training.

Particularly in a developing country like India it is absolutely essential to have active training and placement units attached to each of the technical institutions, particularly the ones supported by government funds. The education of an engineering graduate costs the national exchequer dearly since the government subsidises it considerably. The nation is actually making an investment in educating engineers, in the hope that they will contribute to the national productivity. Every day that an engineer, trained at government cost, remains unemployed or under-employed or mis-employed, the nation is losing on the returns on the investment made in their training. Having spent money in training them to be engineers, it is only appropriate that some more effort is made to see that they get the right guidance and counselling and are assisted to get a career of their choice in the country—a job that they can take up as soon as they qualify and thus start providing the nation with some return for the investment made on their training. In some of the better institutions like the IITs, training and placement units have a special role to play in removing misconceptions among students on careers in the country and counter various pull and push factors that are acting on the student to seek opportunities abroad. The ignorance of career options in the country has at least partly been identified as a reason why some of these students seek opportunities in the advanced countries [4].

Indeed, to go one stage further, the training and placement units at the IITs and other leading institutions whose alumni tend to migrate to developed countries should be expected to assist the alumni of the respective institutions, presently abroad, to get suitable placements in India, if they so wish to return or to provide them with information on Non-Resident Indian (NRI) ventures and other opportunities for associating themselves with their mother-land, which is struggling to make its own mark among the nations of the world. Today, the greatest problem faced by NRIs is their inability to get information on career opportunities if they wish to come back [4]. One of the suggestions made in the brain-drain study (IIT, Madras) is the setting up of a clearing house in India to find placements for prospective returnees. A more practical step would be to involve the training and placement units of IITs and other institutions concerned to help in the reversal of the 'brain drain' or tapping of the 'brain bank', because the NRI alumni of an institute would find it much easier to approach the training and placement unit of their alma mater rather than any other agency in this regard.

At the current stage of India's development, the brighter engineering graduates have many career options to choose from. At their age, just on completion of their studies, they are hardly in a position to know their own strengths *vis-à-vis* a prospective career. Indeed they may not even be aware of all the options open to them. In all fairness to the prospective graduates, there must be information available in the training and placement units on organizations and careers and on trends in the employment market. There has to be, in the Indian technical institutions, career information libraries and the training and placement units have to be manned with professionals who can provide career guidance and counselling besides other assistance as exists in countries such as the USA and the UK. The students should, even in the initial years of their study, be able to seek help to define their own interests, abilities, values, and work and lifestyle preferences so that they can prepare themselves for careers of their choice while still at college. Students need to be helped to discover what they do well and enjoy doing, explore career options and develop strategies to make their career choice successful. Indeed such assistance would help them overcome their initial adjustment problems when they take up jobs in the industry and also contribute to the reduction in the 'turn over' of fresh graduate engineers that currently blights the Indian industries. In the USA some universities, besides providing assistance of the type outlined above, have developed computerized career decision-making programs which help match preferences of students with opportunities.

CONCLUDING REMARKS

In the USA, way back in 1966 [5] when a survey was made of 82 placement offices in colleges and universities to determine the purposes to which these offices directed themselves, the point that emerged second, after the one concerning assistance to students in the investigation of career opportunities was, 'To assist in the fulfilment of the purpose of the university'. Indeed, placement services provide an institution with two important elements: accountability and feedback—in terms of the effectiveness of its educational effort [6]. The placement services in the Indian technical education system have reached their present status due to a variety of circumstances and compulsions. Circumstances and compulsions are again leading the Indian technical education system to give further importance to the placement services. The indications are that these will have to go much further, if India is to catch up with advanced countries.

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