STRATEGIES TO DEVELOP INSTITUTIONAL LINKAGES WITH OTHER ORGANISATIONS

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INTRODUCTION :

In the context of the economic and industrial development of our country, the role played by engineers and engineering activities is extremely critical. In our economy, 35% of our industrial investment belong to engineering industries. The output from these engineering industries account for 33% of our total industrial output. Role of engineering industries and contribution of engineers in the national economic development of our country are not only commendable but also very essential. With rapid increase in the opportunities available in the field of engineering, there is a natural tendency for the young aspirants to go for technical education. Also with this increase in the scope for engineers in the industries, the Govt. at state levels and at the central level were unable to keep pace with the demand for admission to technical education. Since sufficient resources were not available with Governments to start new technical institutions, the society was compelled to look for alternative to meet the demand. Over a period of time, private entrepreneurs discovered this as a business opportunity and today as we all know the number of privately managed institutions far outstrip the number of Govt. run institutions. Today the manpower through the number of privately managed technical institutions in the state of Karnataka, Maharashtra, Tamilnadu and Andhra Pradesh is five or six times the number of Govt. run institutions. This manpower finds its place in Defence services, R&D laboratories, Manufacturing industries, Maintenance organizations and most of productive sectors. The sufficient financial resources, laboratory buildings, equipment, workshops and associated facilities brought together cannot meet the quality and standards required for technical education. While these kinds of hardware and building facilities are no doubt necessary but they are not the main crucial issues. The main issues are concerned with curriculum, its subject contents, teaching of design methodologies, exposures to industrial and manufacturing processes which make technical education distinctively

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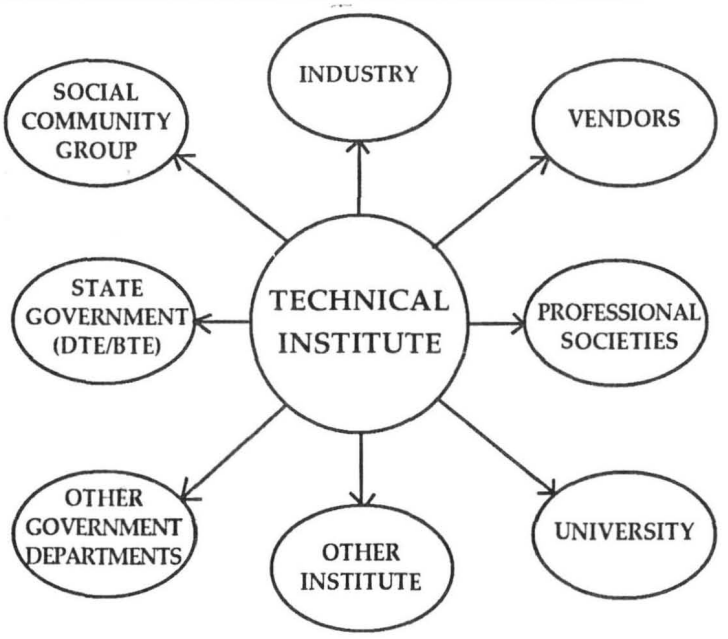

Figure

Agencies in the Environment of a Technical Institute

different from others. In order to supply quality pass-outs to the user agencies, the technical institutions must develop, strengthen and add "relationship" with different agencies existing in the environment of a technical institute.

The understanding of types of linkages that exist between technical institute and other agencies and strategies to be adopted for developing them forms a major aspect of studying this linkage system. The crucial success factors governing these linkages also require great attention. The attempts are made in the present paper to discuss these issues in the context of private sector technical education.

ENVIRONMENT OF A TECHNICAL INSTITUTE :

Technical education is one of the most significant components of human resource development programme of our country. The intended purpose of technical education system is to, cater to the manpower needs of the potential employments-the industry. At present a large number of technical institutions are preparing manpower at different levels of technical education.

The technical education system has certain objectives. They are :

1. Development of technical expertise and competency
2. Development of innovative and

creative mind
3. Development of professional skill
4. Entrepreneurship development
5. Promotion of inherent talent, analytical mind and administrative ability.

The technical institute by fulfilling the said objectives make valuable contribution to the society in the area of industrialisation and employment generation, increased productivity, increase in per-capita income, rise in living standards, quality consciousness and indigenisation and upliftment of rural areas.

Considering the multi-faced objectives, technical institutes would have many agencies in the environment to link with for its effective performance.

The technical institute may have two types of environment viz. Proximate environment and Remote environment. Some institutions / agencies who, irrespective of their geographical locations, have 'sympathy' towards the technical institute are said to be in the "Proximate" environment of that institute. This proxemics does not necessarily relate to the closeness of the technical institute from the distance point of view but relate mainly to the "relation" these institution/agencies have with the passout of technical institutes.

On the other hand institutes/agencies closely located to technical institute may have 'apathy' to the institute so far as the "relations" are involved. Such institute / agencies come under the "Remote" environment of that technical institute. For effective linkages to be developed with different institutes and agencies the technical institute should have the agencies in its "Proximate" environment. The other agencies should also consider the technical institute in its proximate environment.

For establishing, strengthening, adding or developing linkages, the agencies from "Remote" environment must be brought in the proximate environment. Hence the first step should be to create a shift to more proximate positioning.

For a technical institute, linkage with the ultimate beneficiary i.e. industry, employing agencies, community groups etc. is more important. Other linkages would be with Govt. departments, Suppliers of equipment / consumables, State Directorate, University, Board of Technical Examinations. For establishing linkages it is a must that these agencies get positioned in proximate environment of the technical institute.

CONDITIONS THAT PROMOTE LATERAL LINKAGES :

For a technical institute and environmental agency, mutual gain can be obtained if a dependent relationship or link is established.

A technical institute can render effective services to gain power or influence over the environment agencies. This influence or power will be helpful in developing / strengthening linkages and to create conductive environment around them.

If the technical institute has to couple itself with an agency, it is important that both (technical institute and organisation) have permeable boundaries.

DEVELOPMENT OF LINKAGES :

Linkage is relationship which exist between the institute and other organisation and groups in the environment. These relationships are expressed in transaction which occur through the exchange of resources, services and support. The relationship may be supportive, co-operative or competitive. The different types of linkages are :

1. Enabling Linkages - The relationship with organisations that control authority and allocation of resources. The enabling linkages for the private sector technical institutes are of not much importance.

2. Functional Linkages - The relationship with organisation that provide the inputs and utilise the output of the institution.

3. Normative Linkages - The relationship of the institution with other organisations which share a interest in its objectives, methods and purposes.

4. Diffused Linkages - The relationship with individuals and groups which are not formally organised but which influence the standing and acceptance of the institution.

Out of the four linkages mentioned above, a private sector technical institution has to maintain good functional linkages for developing quality technical manpower which will fulfil the expectations of the users.

FUNCTIONAL LINKAGES -

Developing functional linkages with the industries of the region, a private sector technical institute can involve technical/industry expert to prepare need-based curriculum. The industries can also train students and staff for updating their knowledge and skills.

Similarly these linkages can be developed for arranging / organising continuing education programmes, getting resource persons and participants.

The linkage with entrepreneurs will be helpful in encouraging the students to take entrepreneral activities by arranging expert lectures of successful entrepreneurs with them.

NORMATIVE LINKAGES -

The linkages with Universities and academic institutions will be helpful in developing relevant curriculum and laboratories. The senior faculty of these organisations can act as resource persons for the staff development programmes. The state science and technology departments can be resourceful in instructional material and media development. The linkages with professional societies may contribute in institutional development activities.

DIFFUSED LINKAGES -

The diffused linkages with local industrial association will be useful in student placements for jobs and inplant training. This will result in better achievement of students. The linkages with social and voluntary organisations may add to social recognition of programmes. Similarly the linkages with professional associations will give better reorganisation and better recognition for the programmes.

STRATEGIES FOR DEVELOPING LINKAGES :

There are many strategies available to develop, sustain and improve the

linkages. The institution should constantly maintain the activities which result in linkages.

Following are the set of illustrative strategies :

1. Seminars and conferences : Seminars and conferences bring people together. The topics of such seminars should be matters of common interest and should be decided by mutual consultation. This helps people to know each other and share their knowledge and experience.

Sharing of resources : In many institutions there are modern equipment which can be used for testing and inspection by the industries. The physical facilities like conference hall, learning resources (OHP, library facilities, film projectors etc.) can be made available to other organisations.

3. Exchange of faculty : Teachers from institution should go to the industry and share their knowledge in inhouse training programmes at various levels. Similarly professionals from industry should go to institutions and work as a visiting faculty for reasonable duration.

4. Extension service centers : The institution can establish extension service centers and promote extension services to the local community through training programmes, technology transfer, support services etc.

5. Development of instructional material : Owing to the everchanging technological innovations, radical changes have taken place in the recent years in the industrial processes, instrumentation and controls adopted by engineering industry. Though it is possible to include such theoretical instructions for the students, it is however impossible to incorporate them in practical laboratory instructions in view of their high cost. The industry can assist the institute by supplying video tapes on sophisticated equipment, tools, processes, quality control techniques, production planning, inventory methods, safety regulations etc. which can greatly help in teaching methodologies. This can also create interest in students as the emphasis is on practical applications.

6. Establishing Advisory Councils / I.I.I. Cells : There should be an advisory committee for every institution consisting of knowledgeable people from industry, institution and other related agencies. This committee should meet atleast twice in a year to review the progress and performance of the institution. Similarly Industry Institute Interaction Cell can be established in which the experts from industries and institution can come together to discuss issues of common interests and develop better interactions.

7. Continuing Education Programmes : A large number of people in industry desire to improve upon their educational qualifications as well as professional skills. Due to nature of their duties and responsibilities, they cannot do so on account of various constraints. The institution should design and organise need based training programmes for industry people. The institute can also start part time or correspondence courses.

8. Participation in Evaluation : Professionals from industry should be in-

volved in paper setting and assessment of students for theory and practical examinations, A joint committee of examiners with equal participation from both the institution and industry should do the evaluation to have fair and just assessment.

9. Membership of Professional Societies : The institution can become member of professional societies like The Institution Of Engineers (India), ISTE, IEEE, AIAME, ISTD, QCFI etc. This helps in participation in state and national level activities and the faculty from institution get exposure to new concepts and ideas relating to industry and technological developments.

10. In-Plant Training of Students and Teachers : both teachers and students should be deputed for inplant training in relevant industries atleast once in a year to update their knowledge in technological developments. The industries should also take active part in imparting a systematic training programme. The performance and evaluation report at the end of the training is good idea.

CRITICAL SUCCESS FACTORS FOR MEANINGFUL LINKAGES :

There are certain crucial factors, the existence and operation of which makes the linkages more meaningful and permanent. These critical success factors are;

1. Leadership -

Leadership is perhaps the most crucial factor in promoting and sustaining the linkages. The task of establishing viable linkages with different agencies demand quality of leadership, tact, persuasiveness and professionalism on the part of Principal and Head of the Departments. It has been observed that there are certain leadership patterns which are responsible for meaningful linkages.

Stability of leadership has promoted consistent growth in the collaborative efforts. Considerable delegation of authority to Heads of Departments and senior faculty members becomes a source of encouragement and motivation which leads to better planning and execution. Exploring the possibility for resource generation is found to be helpful in promoting interaction. Dynamic leadership gets re-enforced by successful performance, leadership gets re-enforced by successful performance, particularly with respect to risk taking ability.

2. Resources (Human and Physical) -

The role of faculty in a technical institution is not only to design, execute and evaluate the teaching - learning process in the institutions but also to establish personal contacts with professionals from other organisations and formulate suitable interactive approach. To increase the reputation of the institution , the competence, level of motivation, commitment and active involvement of the faculty becomes most important. To increase the competence of the faculty, staff development plans must be formulated and sincerely executed. Encouragement to staff in applying skills has become the responsibility of the Heads of the Departments. Challenging innovative industrial projects undertaken by the institutions can further increase the intrinsic motivation of the faculty. Procurement of new physical resources and

optimum utilisation of the existing resources has made the job of the faculty simpler, increasing the student and industry contact.

3. Dynamism of the Institution -

The success of linkages of institutions with other agencies will depend on the active involvement of agencies on the one hand and on the other the initiative, enterprise and commitment of the technological institution. Establishing an understanding between agencies and technological institutions has become essential in respect of the objectives, processes and outcomes of the interactive projects. The institutions must derive benefits from these agencies in various areas of collaboration. The significance of having meaningful linkages with different organisations should be projected by policy maker and also the suggestions made must be translated into sustained working relationship.

4. Overcoming Resistance to Change -

The management of change and innovation is a complex process involving multiple points of intervention. The technical institutions must adopt certain strategies to minimise the resistance to change.

The participative processes should be adopted for decision making by frequent involvement of faculty. The more freedom should be given to the faculty to select direction of work in tune with their interests. Counselling by the Principal as and when required can also form major strategy to minimise the resistance to change. Establishing a problem - solving infra-structure and feedback mechanism within the institution, seeking guidance and assistance from the professional bodies and involving personnel from industries in various committees of the institution are also some of the suggested strategies to overcome resistance to change.

5. Extrinsic Motivation -

In some of the technical institutions the major changes may be resulted due to certain external factors such as appointment of a new principal, the establishment of intimate link with facilitating agencies, progressive decisions of management, establishment of a industrial estate etc. During the event of change, rapid growth may develop and then stabilisation may take place.

CONCLUSIONS :

A technical institution has to understand the concept of linkage with its ultimate constituencies industry/employing agencies, community groups etc. These constituencies are many. It is necessary to ensure that most of these constituencies get positioned in the proximate environment of the technical institution. Every institution can develop, sustain and improve various linkage that are essential for the better development of the institution's programmes. There are evidents of shortcomings and deficiencies in the different agencies. To make this linkage strong, meaningful and fruitful both the systems should understand the role of each other and the operation of critical success factors. Linkage threats should be 'visible' and collaborative activities would emerge only then.

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