

FUNDING OF SELF-FINANCED ENGINEERING INSTITUTIONS

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INTRODUCTION

Educational Institutions transform inputs into outputs. Hence, education can be thought of as 'production' and educational institutions as 'production units', not very much different from manufacturing units. However, there are some important differences. Education producing units do not generally seek to maximise the profits and do not as a rule sell their product directly into the market. However they take a set of inputs- students time, teachers, physical facilities like building and equipment - and combine them in such a way as to produce a set of outputs - cognitive gains, knowledge, specialisation etc. Clearly, this transformation of inputs is not without cost. Hence, the question arises as to who should bear this cost of transformation i.e. educational processing.

Involved in this process is the Government who is considered responsible for the welfare of its people, the parents & students who are the direct beneficiaries and the industry, who utilises this output and make huge profits. So far, it was the Government who was funding this education; students were required to pay nominal fee; but industry paid nothing for this transformation.

WHY GOVERNMENTS CANNOT PAY FOR HIGHER EDUCATION

In a welfare state like India, where there is a constitutional commitment of free

elementary education, imperative need for adult education and literacy, recent thrust being on "education for all", it is the responsibility of the Government to provide funds for all education. But unfortunately Government cannot provide enough funds for elementary education, adult literacy and education for all. Not that it does not contribute to the view that education is an investment for the future of the nation, but it has to survive the present in order to live for future. It has to provide for the problems of today, first, before it can invest for future. It has to provide for :-

- i) Defence,
- ii) Floods & famines that occur frequently ,
- iii) Basic necessities of life like water supply, sanitation, food, shelter & clothing,
- iv) means of communication etc.

As a result, education has always been pushed down the ladder of priorities. Hence, budget allotments that education gets is small. There has been, therefore, a thinking recently that Government should concern itself with elementary & secondary education, adult education and education for all, and not pay for Higher Education. Hence, the problem of funding of higher Education has cropped up.

The recent Acharya Ramamurthy Committee which reviewed the National Educational Policy 1986, has emphasised

on "education for all" which has been the call at international plane recently.

WHO SHOULD PAY FOR ENGINEERING EDUCATION?

Higher education covers all post-secondary education, Arts, Commerce, Science & Engineering etc. Costliest of these are Medical and Engineering Education. Here, we shall concern ourselves with the funding of Engineering Education only.

It has been mentioned above that Engineering Education involves Government, students who are the direct beneficiaries, and the industry, which employs engineering personnel and makes profits. Hence, if the Govt cannot pay for Engineering Education, then naturally the students & parents and the industry will have to be considered for funding of this education.

A general Engineering Education Tax on industry/incentive under 80G etc for donations to Engineering Institutions by the Industry, are some of the measures that could be considered. This suggestion has come up recently but has not been considered with any seriousness by the Government. Hence, the only source which can be tapped is the students/parents. Those, who want Engineering Education should pay for it, has been the recent thinking & this has given rise to what are known today as self financed Engineering Colleges and Polytechnics.

ECONOMICS OF SELF-FINANCED ENGINEERING INSTITUTES.

Self-financed Engineering Institute – an Engineering college or a Polytechnic or even an Industrial Training Institute – is one which is sanctioned by the State Government, affiliated to a Statutory University/Board of Technical Examination, but does not get any financial aid from the

Government. However Government has a control over the sanctioned intake, rules of admission and the University/Board of Technical Exam has academic control. These institutes are also under the purview of the AICTE which is now a statutory body. The tuition fees charged by these institutes is as permitted by the state Govts. In short, a self-financed Institute is under the control of the Directorate of Technical Education, the University/BTE; however it has to provide its own funds and develop the Institute.

Let us work out the financial requirements for, say an Engineering College which has three disciplines (less than three, it is seen, are not economically viable) the intake per branch is 60+6 (10% management quota) =66; hence for 3 branches there will be $66 \times 3 = 198$ students, say 200 students. Every year 200 students will be admitted & in the 4th year of the college (as the Course is of 4 year duration) there will be 800 students on the roll. The fees charged by a college are Rs. 12,000/- p.a. per student; other fees Rs. 2,000/-p.a. on an average, Deposits Rs.1000/- per student, Thus the possible sources of income for an Engineering College will be :-

- i) Tuition and other fee Rs. 14,000/- p.a. per student,
- ii) Deposits Rs. 1,000/- (for laboratory, Gymkhana etc) p.a. per student,
- iii) Management quota,
- iv) Testing, consultation & production Unit,
- v) Donations/Building Fund.

Against 10% management quota a College can admit students who need not be in merit; only condition being they should fulfil eligibility conditions. Donations taken from this quota can fetch 10 to 15 lakhs per year.

Testing & Consultation services can be provided only after 5 to 6 years of the

College by which time, college will have adequate equipment & qualified and competent staff for this purpose. This can fetch about Rs.6 lakhs per year.

Deposits, which will amount to Rs. 8 lakh at the end of four years, can be treated as fixed deposits & will double every five years and will be more than a crore by the time the College celebrate its Silver Jubilee.

Donations (Building Fund, in case receipts are issued for amounts received) may come to Rs.60 lakhs to 125 lakhs or even much more per year depending on the location of the college.

Thus taking into account only tuition & other fees, the College income, expenditure will be as given below. It is assumed that for 3 disciplines equipment with Rs. 150 lakhs & Buildings of Rs. 150 lakhs will be enough to meet the university/AICTE standards.

Income & Expenditure Statement for a Self-financed Engineering College for the first few years. (On approximate basis only)

Year	Income (lakhs) from Titution & other fees	Expenditure (lakhs)				Balance (lakhs)
		Recurring	Equipment	Building	Total	
I year	(200 x 14000) = + 28	15	10	20	-45	-17
II year	+ 56	24	26	30	-80	-24
III year	+ 84	30	40	30	-100	-16
IV year	+ 112	36	50	40	-126	-14
V year	+ 112	45	24	30	-99	+13
Total	+ 392	150	150	150	-450	-58
VI year	+ 112	45	5	4	-54	+58
Total	+ 504				-504	00
VII year	+ 112	45	-	-	45	+67

From the above statement, it will be seen that

- i) Even from the tuition fee income, the college can provide all physical facilities like Building & Equipment in the first five years (without taking any donations, Building Fund etc.)
- ii) From 7th year onwards, there will be a net profit of Rs.67 lakhs; this will be besides the income from testing & consultancy services, production unit and interest from deposits.
- iii) To take care of a total deficit of 58 lakhs in the first five years, arrangements for Bank loans will have

to be arranged; however by the end of 6th year, this loan can be repaid.

- iv) However, there are certain limitations the presumption that every year students strength will go up to 200 is not correct. In the higher classes, the strength will be less; however by 6th or 7th year, the college strength will be 800, as presumed. To take care of this, one may say College will be left with a surplus of Rs. 67 lakhs p.a. say a surplus of more than 60 lakhs every year, after the 7th year of the College.

EDUCATIONAL DEVELOPMENT BANK OF INDIA :

On lines similar to IDBI- Industrial Development Bank of India - another organisation - Educational Development Bank of India - EDBI could be established. The objective of this EDBI would be to assist the growth & development, quantitatively & qualitatively of Engineering Education System in the Country. Self financed Engineering Colleges & Polytechnics should be given loans by EDBI at nominal rate of interest & this loan can be repaid by the colleges within 5 to 6 years time, at the most. These banks should provide loans to students, particularly when parents cannot afford to support their wards financially for an engineering career & these loans can be repaid in convenient installments in a period of 8 to 10 years. Govt. will have to take the responsibility for setting up such a Bank- EDBI-in the interest of development of Engineering Education.

This bank can be funded mainly by the users system i.e. Industry. Govt can lay down certain norms and make it obligatory for Industry to fund EDBI.

QUALITY & QUANTITY OF ENGINEERING EDUCATION

This should rest with the Government. Government may extend & supplement Engineering Education through self financed Institution, yet the final responsibility for balancing demand & supply of Technical manpower and quantity and quality of Engineering Education should and must be shouldered by the Governments. In each state, there must be a separate Director of Technical Education

DTE, if not a separate Directorate, This Director should coordinate Technical Manpower demands with the supply by the Engineering Education system. It must watch, monitor the growth & development of the Engineering Education and apply necessary checks & rechecks for compatibility between Education & Industry.

CONCLUSION

In conclusion, it may be said that self financed Engineering Colleges & Polytechnics are economically feasible & should be allowed to play their significant role in the development of Engineering Education; only under necessary watch & monitoring by the state & Central authority in the interest of industrial development & welfare of the people & the nation.

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