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**Pricing Policy of Engineering Education –
A Study in Tamilnadu State**

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Abstract

In India, during the last three decades, the government is gradually receding from financing the institutions of higher learning and the private enterprises are coming up to meet the demand for higher education. An in-depth study of the issue of pricing policy has assumed importance, as private institutions work and charge prices on market principle. Their main objective is profit maximization, which may be attained in various ways like charging higher admission fees, tuition fees, hostel-mess fees, rent, etc. The paper focuses on the pricing cost and in terms of its revenue of self-financing engineering education in Tamilnadu state.

Introduction and Statement of the Problem

Higher education has a critical role to play particularly in the developing countries in the context of globalization. However, emphasis on markets and creation of new activities and services to impart good quality basic and secondary education are insufficient. This is because knowledge and skills required to perform different activities are provided mostly at the tertiary level through courses in engineering,

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technology and applied sciences. India has the potential to be a leader of global technology as its growing industries can increase its global market share. A critical factor in this forward movement rests on the support the technical education system in India receives from various quarters (Geetha Rani, 2010).

In India, during the last three decades, while the government is gradually receding from financing, the institutions of higher learning and the private enterprises are coming up to meet the demand for higher education. An in-depth study of the issue of pricing and product policy has assumed importance, as private institutions work and charge prices on market principles.

The fast growth in the private sector is an account of the fact during the Sixth Five Year Plan (1980-85), when the central and state governments were finding it difficult to expand technical education in the country, a few state governments, especially the governments of Andhra Pradesh, Tamilnadu, Maharashtra and Karnataka, took a bold decision to permit private registered societies and trusts to establish and run technical institutions on self-financing basis. These are institutions of a new generation are unlike the previous set of private institutions which came into existence in the above four states in the early 1980's or earlier (AICTE, 1999).

The expansion in engineering education in Tamilnadu has been only in the private sector from the middle of 1990's. Even though private initiative in education is an old phenomenon in the state with the initiatives of Christian missions and Nattukottai Chettiar community, in the 1980's, it was the turn of politicians, industrialists and other individuals. This trend has led the self-financing colleges to occupy a share of three-fourth of the total engineering colleges in the State.

In Tamilnadu, in the year 2009-10, out of 456 engineering colleges, 431 are self-financing engineering colleges (94.5 percent). The government and private aided colleges are merely 25 in number and constitute 5.5 percent of the total engineering colleges. The managements of the private engineering institution collect additional funds from students in the form of donation and capitation fees. The money collected in the form of donation is not used entirely towards either infrastructural developments or payment to the staff. This aspect was abhorrent to many in the

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country, including the central and some governments, since education begun to assume the form of business.

National Board of Accreditation (NBA), India was established by All India Council for Technical Education (AICTE) as an autonomous body for periodic evaluation of technical institutions and to specify norms and standard as recommended by AICTE.

Research Issues

Rao Committee (2003) recommended the slashing of engineering seats from the current 3,50,000 to 50,000 as there is 20 percent unemployment and more under employment among engineers. The Committee pointed out that many technical institutes lack equipment and facilities to train students properly. It is a grave problem with the Indian education system and needs urgent amelioration.

The high cost of technical education is a major issue. The norms for the fixation of fees are not adhered to, and the quantum of fees charged has no rational basis. It is an attempt to cover more than the full cost of engineering education. While the illegal capitation fees range from Rs.2 to 8 lakhs for some of the engineering majors, the regular fees also vary considerably for various courses and across colleges as well (Anandakrishnan, 2006).

Methodology

This paper deals with the per unit institutional costs which are financed by self-financing engineering colleges in Tamilnadu. The study has the following objective:

“To analyse the cost and revenue of engineering education in Tamilnadu”.

In Tamilnadu, there are 456 higher engineering colleges in 2009-10, and among them, 431 are self-financing engineering colleges (94.5 %). Out of 32 districts of Tamilnadu, two districts, namely, Kancheepuram and Tiruvallur have 109 self-financing engineering colleges (35%) and hence these districts are selected for the present study. 50 self-financing engineering colleges from these two districts are selected by adopting disproportionate stratified random sampling method. All 109

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colleges are grouped into 5 categories (Group A, B, C, D and E) and from each group 10 colleges are randomly selected to get a representative sample of 50 self-financing engineering colleges in Tamilnadu. The stratification of groups is based on admission and tuition fees as Group-A (Rs.80000); Group-B (Rs.72000); Group-C (Rs.65000); Group-D (Rs.58000) and Group-E (Rs.32000). Apart from variation in fees charged, these colleges are found to have different student strength and pass percentage.

According to the government order, the fee per annum for B.E., B.Tech., M.E., M.Tech., and MCA in self-financing engineering colleges were Rs.15,250 (Rs.12,250 for tuition fees and Rs.3000 for development fees) for free seat category and Rs.49,750 per annum (Rs.41,750 as tuition fees for accredited branch and Rs.32,500 for non-accredited branch and Rs.8000 for development fees) for the payment category. The details of fee, as approved by the State Fee Committee for the self-financing engineering colleges amount to Rs.52,500. It comprises admission and tuition fees Rs.40,000; textbooks, Rs.3000; insurance and postage charge Rs.4500; self-development course Rs.1000 and caution deposit Rs.4000.

An analysis of education cost is a highly valuable and powerful tool in the hands of decision makers to evaluate the efficiency of educational institutions in terms of resources allocation and productivity. It is also held that the unit cost analysis of education has become a useful technique by which one can measure internal as well as external efficiencies of an educational institution in terms of productivity and allocation of resources (Coombs, 1972).

Unit Cost of Engineering Education

The study assumes that the institutional cost is sum of the recurring cost and non-recurring costs. By adding unit recurring and non-recurring costs, one can find per unit institutional cost of engineering education. Recurring costs are simply those costs which re-occur frequently to run any development activity or production process. The non-recurring (or) capital costs are costs incurred on the purchase of land, buildings, furniture, fixtures, equipment, etc., to be used in the production of goods or the rendering of services (Coomb, 1972).

The recurring cost in the engineering institutions consists of fourteen different components with their average share as follows; (1) Teacher salary (32.4 %); (2) Office and administration cost (13.6 %); (3) Electricity and fuels charges (12.4 %); (4) Repair and maintenance cost (6.1 %); (5) Conduct of examinations (1.0 %); (6) Extra-mural activities (3.7 %); (7) Expenditure on communication (1.7 %); (8) Purchase of consumables (12.8 %); (9) Transport cost (3.7 %); (10) Legal expenses (0.2 %); (11) Faculty improvement (2.0 %); (12) Publicity expenses (4.0 %); (13) Scholarship and fee concession (1.5 %) and (14) Miscellaneous cost (4.9 %).

Table – 1 gives institutional cost of different groups of colleges. Per student recurring cost is the lowest in group-A.

Table – 1
Average Institutional Cost of Sample Self-Financing Engineering College in Tamilnadu (2009-10)

(in Rs. Per student)

| Category of Engineering College | Recurring Cost | Non-Recurring Cost | Total |
|---------------------------------|-----------------|--------------------|----------------|
| Group – A | 28625 (60.3) | 18825 (39.7) | 47450 (100) |
| Group – B | 34530 (67.2) | 16885 (32.8) | 51415 (100) |
| Group – C | 37180 (70.1) | 15825 (29.9) | 53005 (100) |
| Group – D | 39095 (70.1) | 15220 (29.9) | 54315 (100) |
| Group – E | 31175 (69.7) | 13550 (30.3) | 44725 (100) |

Source: Computed.

Websites of sample self-financing engineering colleges, Tamilnadu.

Note: Figures in parentheses are percentage to respective total.

Recurring cost of other groups in ascending order are Group-B (Rs.34530); Group-C (Rs.37180); and Group-D (Rs.38095). However, Group-E has low recurring cost (Rs.31175) because Group-E colleges are mostly running with loss due to very poor student strength, very low pass percentage, lack of facilities.

Non-recurring cost consists of six different components whose share on an average includes (1) building (63.5 %); (2) furniture and fixtures (27.3 %); (3) plant and equipments (1.5 %); (4) books (3.1 %); (5) transport equipments (3.7 %) and (6) others (0.8 %). The non-recurring cost per student was the highest for Group-A

(Rs.18825). The infrastructural facilities in group-A are well developed to attract the students. It is followed by Group-B (Rs.16885); Group-D (Rs.16220) and Group-C (Rs.15825). Group-E has the lowest (Rs.13550).

As expected from the fee structure, the institutional cost per student in the self-financing engineering colleges increases from Group-A (Rs.47450) to Group-B (Rs.51415), Group-C (Rs.53005), Group-D (Rs.54315) and Group-E (Rs.44725). Irrespective of the category of the engineering institutions, 60.3 to 71.1 percent of institutional cost is recurring.

Unit Revenue from the Engineering Education

Engineering education needs bulk financial resources. The group-wise composition of revenue generated in sample colleges is given in Table – 2. The data reveal that in Group-A, an average revenue Rs.87720 is generated per student and in Group-B it is Rs.77670, in Group-C (Rs.66780), in Group-D (Rs.60925) and in Group-E (Rs.43730). Fees and funds charged by the institutions are the main source of income to run the programmes of engineering colleges. On an average, more than 99 percent of rent is collected from students in the form of fees, donations and charges. The other sources of revenue for the institutions are negligible. The sampled colleges do not to receive any kind of grants-in-aid either from the central or state government.

Table – 2
Sources of Unit Revenue of Sample Self-Financing Engineering Colleges in Tamilnadu (2009-10)

(in Rs. Per student)

| Category of Engineering colleges | Sources of Revenue | | | | Total |
|----------------------------------|--------------------|--------------------|--------------------|---------------|----------------|
| | Student fee | Voluntary agencies | Rent from property | Miscellaneous | |
| Group – A | 87155 (99.4) | 215 (0.2) | 165 (0.2) | 185 (0.2) | 87720 (100) |
| Group – B | 77270 (99.5) | 135 (0.2) | 110 (0.1) | 155 (0.2) | 77670 (100) |
| Group – C | 66470 (99.5)) | 105 (0.2) | 80 (0.1) | 125 (0.2) | 66780 (100) |
| Group – D | 60640 | 65 | 75 | 145 | 60925 |

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|-----------|-----------------|-------------|-------|--------------|----------------|
| | (99.5) | (0.1) | (0.1) | (0.3) | (100) |
| Group – E | 43500 (99.5) | 90 (0.2) | - | 140 (0.3) | 43730 (100) |

Source: Computed.

Note: 1. All charges related to education paid by students.

2. NRIs / Alumni, MPs, MLAs, individual charity.

3. UGC, AICTE, and any other State / Central Government.

4. Figures in parentheses are percentage to respective total.

The analysis reveals that student-centric financing of self-financing engineering education programmes in Tamilnadu state may not be reachable for the students belonging to weaker sections of the society who may be otherwise meritorious. In the absence of state support in the form of public grants and liberal scholarships, alternative modes of financing and cost recovery have been followed in the state, where the full cost recovery from the student has become an over-riding compulsion (Sapna, 2007). Even though the colleges charge the students according to various facilities, these charges are much higher than the institutional cost of engineering education in self-financing colleges.

Unit Return from Engineering Education

Pricing policy of the self-financing engineering colleges is designed with the motivation of maximizing profit from the institutions. The extent to which these institutions are getting returns from recurring engineering programmes is exhibited in Table 3. Table 3 reveals that in Group – A, per unit institutional cost as the proportion of per unit receipts is 54.1 percent and it is found to be the lowest in the sample engineering colleges. This may be due to the filling up of sanctioned enrollment of students in all programmes comprising different branches of U.G. and P.G. programmes in engineering education.

Table – 3
Average Price of Sample Self-Financing Engineering Colleges / Institutes in Tamilnadu (2009-10)

| Category of Engineering College | (in Rs. per student) | | |
|---------------------------------|--------------------------|--------------------|----------------|
| | Student Fees and Charges | Institutional Cost | Surplus / Loss |
| Group – A | 87155 (100) | 47450 (54.4) | 39705 (45.6) |
| Group – B | 77270 (100) | 51415 (66.5) | 25855 (33.5) |
| Group – C | 66470 (100) | 53005 (79.7) | 13465 (20.3) |

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|-----------|-------|-------|------------------|------------------|
| Group – D | 60640 | (100) | 54315 (89.6) | 6325 (10.4) |
| Group – E | 43500 | (100) | 44725 (102.8) | -1225 (- 2.8) |

Source: Computed.

Note: Figures in parentheses denote percentage to respective total.

In other colleges, the share of institutional costs to receipts decreases with 33.5 percent in Group-B, 20.3 in Group-C, 10.4 in Group-D and -2.8 in Group-E.

According to Table 3, the extent of surplus generated in Group-A engineering colleges is the highest percent of 45.6. It may be due to the fact that per unit institutional cost being the lowest because of more number of engineering programmes and enrollment of students. The remaining Groups – B, C, and D get 33.5 percent, 20.3 percent, and 10.4 percent as surplus respectively. But Group-E colleges get –2 percent or loss due to lesser enrollment of students. Because of these sizeable returns from engineering education, large number of private entrepreneurs is expected to enter this business of education, which may lead to reduction in student charges due to more competition.

Conclusion

The Group-A colleges have the lion's share of net revenue as compared to other group of self-financing engineering colleges. Group-A colleges command larger market share and overcrowding is also observed in these colleges. However, the pricing policy is not fully dependent on academic performance. As institutional cost is minimal and personal cost is maximal, the situation may lead to the degeneration in quality maintenance in self-financing engineering colleges.

These self-financing engineering colleges do not offer a perfect model of competition as they manifest oligopolistic behaviour. Due to the heterogeneity of services to students, several price bands (fees charge) are observed.

Autonomy of self-financing engineering colleges should be effectively regulated, especially in relation to fees charged, admission policy, and staff recruitment policy. Teaching-learning process should be strictly provided under the guidelines of the government and National Board of Accreditation should visit these colleges every year.

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