

# **Indian Journal of Open Learning**

(Decennial Number, July 1995)

**Social Demand for  
Higher Education in Asia**

## **HOW COST EFFECTIVE ARE OPEN UNIVERSITIES?**

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## Social Demand for Higher Education in Asia: HOW COST EFFECTIVE ARE OPEN UNIVERSITIES?

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## IGNOU DECENNIAL NUMBER

This year, the Indira Gandhi National Open University, New Delhi, is completing its first ten years of dedicated service to the nation. Ten years in action is a period long enough to provide us the basis for critical insights into our successes and failures, our strengths and weaknesses. Whereas we must celebrate our successes and feel happy about our strengths, we have to undo our failures and overcome our weaknesses. This is a resolve we would like to manifest in our decennial celebrations which commence in October, 1995 and continue till October, 1996. As a part of these celebrations, it is planned:

- i) to restructure those constituents of the university which need modifications to enhance effectiveness and efficiency,
- ii) to improve upon the quality of services which have been available for some years now and to provide new ones,
- iii) to launch new programmes with accent on professional-vocational and socially relevant courses,
- iv) to introduce new communication technologies at experimental and application levels,
- v) to introduce and implement a comprehensive research policy covering various disciplines, communication technologies and methodologies and distance education systems, and
- vi) to extend university operations beyond the boundaries of the country.

It is in the context of our decennial celebrations and the growing relevance and recognition of the utility of distance and open education, that we present this new-look issue to our readers. Starting with the first issue in January 1992, this is the eighth issue of IJOL. We are happy to record that by and large we have kept to our objectives, successfully maintained the quality of the contents and that of presentation and succeeded in generating reasonable enthusiasm among the distance education personnel to contribute their studies to IJOL for dissemination. Besides, in our efforts to widen the acceptability of the journal we sought expert advice from the Commonwealth of Learning, Vancouver, Canada, and we are grateful to them for their valuable suggestions. As a consequence, we have changed over to a different paper size, replaced two column presentation by one in a single column and introduced a more readable font type. We hope our readers would like the journal in its new form.

This issue is special on yet another account -- the contents of this issue pertain to a single theme namely the economics of distance education. It is a theme which, in the context of open and distance education, has generated a relatively small quantity of literature. Any studies in this area should, therefore, be welcome. The study presented here was funded by the World Bank and conducted by Prof. V.C. Kulandai Swamy (Vice-Chancellor, Indira Gandhi National Open University, New Delhi: 1990-1994) in 1993. Having been permitted to bring out the study in IJOL, we could not present it so far for our commitment to the contributions received

## Scope of the study

### 1.1 Introduction

The twentieth century has seen a panorama of developments of far-reaching consequences to human civilisation. The full impact of many of them is still in the process of unfolding itself and human society is finding it difficult to adjust and come to terms with the changes and challenges of its own creation. If we carefully and critically sift through the series of developments, the one that stands foremost in terms of its significance and pervasive influence is the emergence of knowledge as a resource — a resource that can be augmented, renewed and created. If available in right measure, it can compensate for the lack of many natural resources.

A resource is for development and the development of knowledge as a resource has given rise to the modern concept of what is being referred to as ‘‘Human Resources Development’’ (HRD). The means of HRD is education and training and we see the dawn of an *age of knowledge* and the picture of a *learning society*. Education has come to occupy the centre stage as never before and has thrown up challenges and demands that neither the systems so far developed nor the infrastructure facilities so far created are adequate to meet. What is happening rather silently but quite effectively is a *learning revolution*.

The advent of science and technology as a social, cultural and economic force is another factor that has established mastery, creation and application of knowledge as the main determinant of wealth and prosperity of a people. New tools, whether they be in concrete form or conceptual form are continuously being generated. The use of these tools needs competence in people and forging of new tools needs leaders of knowledge. We see, therefore, a situation where ‘basic education for all’ and the ‘highest of education for a few’ are equally important for a society to sustain its prosperity and progress. The three major concepts which have gained relevance and momentum and have assumed the dimensions of not only economic, but social and political problems are the following:

- i. Universalisation of education/Education for all
- ii. Equity and equality of opportunities
- iii. Continuing/Lifelong education.

Every nation is facing these challenges in its own way, depending on its level of development and economic capability. Linear expansion of the existing systems is an obvious step that every country has taken to fulfil the demands. If we reckon the number of universities established in the four decades after 1950 and the number of universities established in the preceding eight centuries starting from the establishment of Oxford University in England and others in Europe, we will find that



the number after 1950 is larger. One may also expect the phenomenon to be applicable to developing countries, since they did not have a long history of modern university education, but even in a developed country like the UK, the universities have more than doubled after 1960. In a developing country like India, the number of Universities has increased from 25 in 1950 to 206 in 1993 (AIU 1993).

Today the Governments in both advanced and developing countries spend more money — a higher percentage of their GNP — than ever before on higher education (Swamy 1992; 3).

Despite the higher expenditure and large expansion, the percentage of beneficiaries of higher education among the relevant age group is still very low, particularly in the developing countries coming under medium human development and low human development. As per the information given in *Human Development Report 1993* of the UNDP, the Tertiary Enrolment ratio for the developing countries is 7 per cent, while the world average is 16 and the average for the industrial countries is 45 per cent. The figure is 3 for Pakistan, 3 for Bangladesh, 7 for India, 4 for Sri Lanka, 16 for Thailand and 8 for Indonesia — all the figures were worked out for 1988-90.

While the public expenditure and the number of higher education institutions have been on the rise, there has not been appreciable increase in the size of the relevant population receiving the benefits of higher education. "In several countries the rate of expansion has outstripped the resources needed to maintain the system" (Selim 1987: 126) The demand for higher education, on the other hand, has kept on increasing because of:

- i. the phenomenal expansion in the opportunities for school education,
- ii. the increasing demand for higher education as people perceive it as a means of upward mobility in social and economic spheres, and
- iii. the higher education policy in a number of countries stressing on "narrowing the gap, between educational opportunities (access, participation and attainment) of the rich and those of the poor, and among the various regions and groups of people through a more equitable distribution of resources and facilities" (Selim 1987: 126).

The increasing demands for higher education have, over the years, led to the introduction and growth of the open learning system in the 1970s. When the distance education institutions were established in Europe, it was done, not so much out of cost consideration as out of egalitarian objectives that sought to make amends for the disparity in opportunities (Curran 1988: 27). But, later, when the thought caught on with the educationists in the 1980s, it was more out of a consideration to meet the challenge of large numbers, covering a wide spectrum of age and employment status, to be educated or trained and to enable governments to fulfil their obligations within the economic constraints without reducing the sweep of operations.

The pressure of unmet demands, the resource constraint and the inequitable nature of the existing system have made the option of Distance Education very appealing as a new mode for imparting higher education. According to Lord Walter Perry's report, contained in *The State of Distance Learning — Worldwide* published in 1984, there were 21,00,000 students studying in distance learning institutions throughout the world (Singh 1992: 26). As per the data collected upto February 1993 by the International Council for Distance Learning (ICDL), Open University, Milton Keynes, there are 600 distance learning institutions in 89 countries offering 22,182 courses. In Asia, according to the same source, there are 74 institutions (covering Bangladesh, China, Hong Kong, India, Indonesia, Korea, Malaysia, Pakistan, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam). Obviously institutions in all the Asian countries have not found a place in the list. Even among countries listed, information about all the institutions is not available with ICDL. The information compiled by National Institute of Multimedia Education, Japan (1992) includes Iran (1), Maldives (1), Myanmar (1), Nepal (2) and Turkey (1).

As John Daniel (1987: 34) observes:

Throughout the world, higher level distance education continues to grow and evolve in an impressively diverse fashion. While firmly established for many years and in various forms in numerous countries, distance education at the higher level is now in full expansion, offering new programmes, catering for new clientele, employing new technologies and achieving new results through its significant impact upon the teaching and learning programmes.

The 'exciting' developments of distance education are mainly due to its two cardinal features, namely, great 'flexibility' and high 'productivity' which answer the demands of equity, cost-effectiveness and opportunities for lifelong education. The arguments advanced as rationale for distance teaching programmes in the earlier days are more precisely elucidated by Gooler (1981: 45) under the following heads:

- i. Numbers and necessity argument
- ii. Egalitarian argument
- iii. Economic argument
- iv. Quality of education argument
- v. Spinoff benefits argument

Another argument that will become increasingly important and should be added to the list is, the continuing education or lifelong education argument. The demand for distance courses is "increasing day by day, because today it is unrealistic to expect that during the relatively limited period of formal education people can develop sufficient knowledge and skills to last a lifetime in a fast changing social and economic life" (Koul 1993: 9)

\* Figures within brackets following each country represents the number of open institutions within the country.

The two arguments that emerge as dominant — overshadowing the rest or indirectly encompassing the rest within themselves — are the arguments concerning the 'numbers and necessity' and the 'economics'.

The present project is an attempt to see how well the open universities in Asia have fared with respect to these two major factors favouring the popular appeal of distance education:

- accommodating social demand for higher education; and
- their cost effectiveness

Though the title of the project talks of 'open universities' in Asia, the project restricts itself to India, Indonesia, Pakistan, Sri Lanka and Thailand as stipulated in the terms of reference given below. Hong Kong has also been included as the Open Learning Institute (OLI) there presents a model different from those in the rest of the countries. The term 'open university', for purposes of this project, is taken to denote singlemode institutions offering education through correspondence and other delivery modes. However, as far as India is concerned a study of a limited number of dual mode institutions where we have correspondence courses within the jurisdiction and control of conventional universities has also been undertaken to study particularly their cost-effectiveness in relation to their counterpart conventional offerings within the same organisation. Except in the case of India, the study is limited to one open university in each country. As for India, the study covers one national open university and three of the five state open universities that have come into existence; the other two state open universities are yet to become functional.

The Terms of Reference given by the World Bank, the sponsor of the project, provide the broad framework of operations. The data used for the study are upto 1993.

## SH1 = 1.2 The Terms of Reference

The terms of reference for the study, as given by the World Bank, are as follows:

### *1.2.1 Background*

There has been a rapid increase in the social demand for higher education in Asian countries. This has been accompanied by heavy public subsidy to universities and their students. However, per student expenditure is declining in many countries, reflecting their increasing inability to maintain high cost university system, and adversely affecting the quality of instruction offered. It is imperative that these countries adopt low cost strategies for providing public higher education of reasonable quality.

Several Asian countries have in the last two decades established open universities to provide public higher education. They include among others, Thailand, Sri Lanka, India, Indonesia, Pakistan and China. These institutions have an important role in the national higher education systems. In Thailand, for example, the country's self-financing open universities account for more higher education enrol-

ment than the conventional system. However, there is no systematic evaluation of the substance of the education provided by these institutions, particularly in terms of the standard of the courses and the quality of the course material.

While much has been written in advocacy of open universities, surprisingly little is known about their

- overall delivery mode,
- support services quality,
- patterns of staff recruitment,
- internal efficiency, and
- cost-effectiveness.

In particular, there is no study which effectively demonstrates that an open university system by its flexibility covers large numbers of students at reasonable cost.

### *1.2.2 Objective*

The study describes the aims and objectives of open universities and the variations in their size, organization, financing and programmes in selected Asian countries and

- i. examines the characteristics of the social demand for open universities, i.e. who attends open universities; what programmes are apt for the system and why? — for example, what is the representation of
  - a. women,
  - b. students from rural areas,
  - c. socially and economically disadvantaged groups, and
  - d. employed/mature students;
- ii. analyzes data on unit and programme costs at these institutions with a focus on sources of variation in component costs. Special attention is given to the determination of student fees and to remuneration of academic staff;
- iii. examines the quality of courses and course material and how and who prepares them;
- iv. compares data on the internal efficiency of instruction at the institutional and programme levels, including costs per graduate, wastage rates, and average length of time needed to complete programmes of study;
- v. presents information on the quality of programmes offered as measured by pass rates and success in externally administered examinations, for professional certification; and
- vi. reviews studies of the external efficiency of open university programmes, i.e. employment of graduates, impact of training of careers and job performance. Many open universities have focussed on inservice teacher training, though other areas too have been covered.

### 1.2.3 Sources

The study reviews the extensive secondary literature on open universities. Some of the most important sources, however, are project evaluations and reports to national and donor agencies that have been involved in the establishment of these universities or in financing their programmes. Examples include the recent USAID sponsored evaluation of inservice teacher training in Indonesia and Sri Lanka.

## 1.3 The Methodology

The terms of reference quoted above suggest that secondary literature on open universities is to be used as the source of the study. But it was found that:

- i. the secondary literature on open universities, particularly on cost effectiveness and related information listed under objectives in the terms of reference, was very limited, and
- ii. the materials that were available for review gave details which were mostly about 10 years old.

In order to obtain current information, individuals from institutions in the select Asian countries were contacted. The terms of the study were communicated to them and they were requested to participate as investigators in the project. A report on a fairly detailed study on cost analysis of IGNOU was also sent to them to provide a model for cost studies. Reports were received, in response, from Thailand, Sri Lanka, Pakistan and the open universities in India. But these initial reports fell short of our expectations. Most of the universities perhaps did not maintain the data to meet the requirements of the study. Even where information was available, it was not processed and made available in usable form and was also not readily accessible to the investigators for preparing the report.

The reports received were analysed and further information was sought. It was felt that a seminar inviting the authors of the reports might help improve the content and seek clarification on certain issues.

The World Bank graciously accepted the proposal and funds were made available partly by the bank itself and partly through the Canadian International Development Agency (CIDA). The seminar was held at the Anna University, Madras on 22, 23 and 24 December 1992. Participants were provided with detailed guidelines on the topics they were expected to cover and also with copies of the terms of reference given by the World Bank. In order to help the participants with a model, copies of the following were also sent to them:

- i. *Cost Analysis of Distance Education: IGNOU*, C.R. Pillai & C.G. Naidu, Planning Division, IGNOU, New Delhi: 1991.
- ii. "Accommodating the social demand for higher education: cost effectiveness of IGNOU — A Preliminary Report", V.C. Kulandai Swamy & C.R. Pillai.



The seminar was attended by eight participants, besides Prof V.C. Kulandai Swamy. Dr. V. Selvaratnam, on behalf of the World Bank and Dr. M.K. Bacchus, on behalf of CIDA also took part in the deliberations. Prof. M. Anandakrishnan, Vice-Chancellor, Anna University, Madras (venue of the seminar) participated in the seminar on all the three days.

Papers on the following institutions were presented by the persons mentioned against them:

India	i.	Dr. B.R. Ambedkar Open University (BRAOU), Hyderabad	K. Kuppuswamy Rao Dean, Faculty of Sciences & Director (Academic), BRAOU.
	ii.	Indira Gandhi National Open University (IGNOU), New Delhi	C.R. Pillai Director (Planning), IGNOU.
	iii.	Kota Open University (KOU), Kota	Yogeshwar Sharma Director (Planning), KOU.
	iv.	Yashwantrao Chavan Maharashtra Open University (YCMOU), Nasik	Ram G. Takwale Vice-Chancellor, YCMOU.
	v.	Correspondence Courses in dual mode institutions of India (CCI's)	M.M. Ansari Jt. Director (Research) Association of Indian Universities.
Indonesia		Universitas Terbuka (UT), Jakarta	T.R. Srinivasan Asst. Director, IGNOU.
Sri Lanka		Open University of Sri Lanka (OUSL), Colombo	A. Ranasingha Director (Operations), OUSL.
Thailand		Sukhothai Thammathirat Open University (STOU), Bangkok	Chow Rojanasang Vice President (Operations), STOU.

In addition to these, a paper on OLI, Hong Kong, under the title "Planning towards self-financing: Acquisition of quality, access and economics" by G. Dhanarajan and A. Hope was presented in absentia. The investigator identified for Pakistan could not participate and there was no paper from Pakistan either.

The seminar started with the presentation of the paper by Kulandai Swamy "The New Patterns of Education: Distance Education". This was followed by an overview of the papers to be presented and discussed at the seminar. Later, papers on different institutions were presented one after the other.

#### 1.4 The Study

The study is presented in the following chapters and is organised as follows. Chapter 2 presents, in general, detailed information on each institution: aims, objectives, programmes, courses and enrolment details. Chapter 3 gives the student profile in relation to the social demands and the spin-off benefits that flow to the

society at large. Chapter 4, is a brief introduction to costing — its types, functions, terms and approaches. Chapter 5 deals with the cost analysis of the institutions. Chapter 6 discusses the cost effectiveness issues and Chapter 7 gives a summary and conclusions of the study.

## The Institutions

### 2.1 Choice of Institutions

The study under the project has been restricted to select countries identified in the Terms of Reference — Thailand, Sri Lanka, India, Indonesia and Pakistan. In addition, as we said earlier, Hong Kong has also been considered. Some of these countries have more than one open university/open learning institute of university-level education. For instance, in Thailand there are presently three institutions (UNESCO & NIME 1992) that make use of distance education mode in one form or another.

- i. Sukhothai Thammathirat Open University
- ii. Ramkamhaeng University
- iii. Centre for Educational Technology.

Sri Lanka has the National Institute of Education besides the Open University of Sri Lanka. In India, besides one National Open University (IGNOU), there are five state open universities one each in the states of Andhra Pradesh, Maharashtra, Rajasthan, Bihar and Madhya Pradesh. These are:

- i. Dr. Bhim Rao Ambedkar Open University, Hyderabad
- ii. Yashwantrao Chavan Maharashtra Open University, Nashik
- iii. Kota Open University, Kota
- iv. Nalanda Open University, Patna
- v. Raja Bhoj Open University, Bhopal.

(The last two are yet to become fully functional). In addition to these, there are more than forty conventional universities and higher-level institutions which are offering correspondence education through their Directorates/Institutes of Correspondence/Distance Education. These dual mode institutions have been long in existence and account for a substantial portion of enrolment of distance learners in the country.

In Indonesia, there are six institutions offering university and sub-university level education (UNESCO & NIME 1992) using distance teaching mode.

- i. The Universitas Terbuka, Jakarta
- ii. National Teachers Distance Education, upgrading Course Development, UN Bandung.
- iii. Centre for Educational Communication Technology, Ministry of Education, Jakarta
- iv. Centre for Educational Training for Programme Personnel, National Family Coordinating Board, Jakarta.
- v. Indonesian Banking Development Institute, Bureau of Distance Learning Programme, Jakarta.



- vi. PERUMTEL Training Centre, Division of Distance Learning System, Bandung.

In Pakistan no other institution besides Allama Iqbal Open University is known to offer open education at higher level.

As for Hong Kong, there are six institutions currently offering open higher education. The first of these is a single-mode institution and the rest are conventional institutions of regular face-to-face education offering distance education through their departments of continuing education:

- i. Open Learning Institute, Hong Kong
- ii. The School of Professional and Continuing Education, University of Hong Kong.
- iii. Extra Mural Studies Deptt., The Chinese University of Hong Kong
- iv. The Continuing Education Deptt., Hong Kong Polytechnic
- v. Centre for Continuing Education, City Polytechnic of Hong Kong.
- vi. School of Continuing Education, Baptist College, Hong Kong.

Additionally in the 1991-92 academic year, 34 overseas tertiary institutions were offering 59 programmes at undergraduate and postgraduate levels through 7 local tertiary institutions and colleges in Hong Kong (Dhanarajan 1992: 4).

The growth of open learning being so prolific within each of these countries, a representative choice was imperative for any indepth study of its working. Accordingly, one institution from each country (with the exception of India) was selected. The choice was restricted to single mode open learning institutions.

In the case of India, samples have been taken from all the three categories of institutions.

- i. National Open University,
- ii. State Open Universities and
- iii. Institutes of Correspondence Courses/Directorates of Distance Education.

Thus the list of institutions studied include:

- Thailand : Sukhothai Thammathirat Open University
- Sri Lanka : Open University
- Indonesia : Universitas Terbuka
- Pakistan : Allama Iqbal Open University
- India :
  - i. Indira Gandhi National Open University
  - ii.
    - a. Dr. Bhim Rao Ambedkar Open University
    - b. Yashwantrao Chavan Maharashtra Open University
    - c. Kota Open University

iii. Select Institutes of Correspondence Diploma Education Courses

## 2.2 Introduction to Institutions

We present a brief introduction to each of these institutions with some details of the size and nature of their operations in terms of objectives, enrolment, courses and programmes on offer, media in use, language of instruction, etc. We begin with a general introduction to each of these institutions followed by tabulated details of specific information.

**Sukhothai Thammathirat Open University (STOU)** was established by a Royal Charter on September 5, 1978. It is a national, single mode distance education university and aims to give opportunities for people in all walks of life to enrich knowledge and improve professional competence. It has at present ten Schools in the following ten disciplines:

- Liberal Arts,
- Educational Studies,
- Management Sciences,
- Law,
- Health Sciences,
- Economics,
- Home Economics,
- Political Science,
- Agricultural Extension, and
- Communication Arts.

It was also proposed to establish a School of Science and Technology in 1992.

**The Open University of Sri Lanka (OUSL)** came into existence in 1980 by a parliamentary Act of 1978. The purpose envisaged in the Act was "providing higher educational facilities to those who are not students of any other institutions." The programmes of the University are designed to meet national education and training needs and to offer an opportunity to all people to have access to that extent and the kind of education which their development requires. The university has three faculties:

- i. Humanities and Social Sciences
- ii. Engineering and Technology
- iii. Natural Sciences

Each of these faculties has five divisions. They offer education and training in the fields of Management, Education, Law, Science and Technology.

**The Universitas Terbuka (UT)** was established in September 1984 by a Presidential Decree as a national single mode distance education institution of higher learn-

ing. ('Universitas Terbuka', in the Indonesian language means Open University). Its main purpose was to increase the absorbent capacity of higher education and to meet the need for university graduates for national development. It provides opportunity for higher secondary school graduates, fresh school leavers and unemployed as well as the employed, to obtain tertiary level education. It has four faculties:

- i. Faculty of Teacher Training and Education
- ii. Faculty of Social and Political Sciences
- iii. Faculty of Economics
- iv. Faculty of Mathematics and Sciences

They offer programmes at Certificate, Diploma and Degree levels.

**The Allama Iqbal Open University (AIU)** was established in Islamabad in June 1974 under an enactment of the National Assembly of Pakistan. It was to provide part-time educational facilities through correspondence courses, tutorials, seminars, workshops, laboratories, television and radio broadcasts and other mass communication media. It was to cater to the educational and training needs of working adults, household women, in-service teachers and remote and handicapped people. It offers courses of an extremely wide range, from literacy to MA and M.Phil. The Primary Teachers Orientation course is the largest of its several vocational programmes.

**The Indira Gandhi National Open University (IGNOU)** came into being in 1985 at New Delhi by an Act of the Indian Parliament. Besides functioning as an Open University, IGNOU according to the Act, has to function as an apex body promoting, coordinating and determining the standards of distance education systems in India. The Open University function of IGNOU is carried out with the help of 15 Divisions and 9 Schools of Studies. For carrying out its role as an apex body a statutory authority called 'Distance Education Council' has been created.

The University has Schools of:

- i. Humanities,
- ii. Social Sciences,
- iii. Sciences,
- iv. Education,
- v. Continuing Education,
- vi. Engineering and Technology,
- vii. Management Studies,
- viii. Health Services, and
- ix. Computer and Information Sciences.

**Dr. B.R. Ambedkar Open University (BRAOU)** formerly known as Andhra Pradesh Open University was established in August 1982 by an Act of the state legislature of Andhra Pradesh. It was the first open university in India. It is expected

to play a 'complementary role' in democratising higher education in the state by providing educational opportunities to the hitherto neglected sections. It is also to offer continuing education to the working population to upgrade their skills and knowledge. At present it offers undergraduate, postgraduate and research programmes.

**Yashwantrao Chavan Maharashtra Open University (YCMOU)** was established in July 1989 to serve the state of Maharashtra in the Union of India. It is to introduce and promote the open university and distance education systems to achieve decentralization and reorganisation of university education in the state. Its programmes lay a major emphasis on vocational/technical courses. Most of the courses are offered in the regional language i.e., Marathi. English is used at higher levels and for courses in science and technology. The university is committed to becoming self supporting in its operational cost.

**Kota Open University (KOU)** was established in July 1987 as a cost effective alternative to the conventional system of higher education and with the major objective of providing education to those who need it at their doors and thus avoid overcrowding in the conventional system in urban areas. It offers programmes at the pre-degree, degree, postgraduate and research levels. It covers the descriptive areas of Arts, Commerce, Science, Journalism, Tourism and Hotel management.

As for **Correspondence Course Institutes (CCIs)** in India there are at present more than forty conventional universities offering correspondence courses to 454,000 students (Singh 1992).

A few have carried out investigations and made cost analysis of some of the CCIs in the country. The studies that deserve mention are by:

- i. Vijay Mulay Committee (1978)
- ii. M.L. Gupta (1986)
- iii. M.M Ansari (1992-A)
- iv. Bakshish Singh (1992)
- v. Rudder Dutt (1993)

In this report a detailed study of the CCIs is not contemplated. In view of the large number enrolled in correspondence education, some relevant information is given about the CCIs in the chapters that follow. Eight of the CCIs have been taken up for cost-study by Ansari. These are the CCIs of the Universities of Annamalai, Bombay, Madras, Delhi, Kerala, Mysore, Punjab and Utkal. These are major universities which are engaged in research and teaching through the traditional class room method as well as distance mode, mainly correspondence, and account for about 50% of the total enrolment of distance learners in the country. They represent different Indian states which greatly differ in levels of educational development and socio-economic settings that are characteristic of Indian society and economy. They

have been offering programmes at the undergraduate and the postgraduate levels in different disciplines.

### 2.3 Classified details about the institutions

Details of specific information concerning each of the open universities studied under this project are tabulated under the following heads:

- |       |   |             |
|-------|---|-------------|
| i.    | Objectives                                | (Table 2.1) |
| ii.   | Levels of programmes offered              | (Table 2.2) |
| iii.  | Number of programmes and courses on offer | (Table 2.3) |
| iv.   | Staff position                            | (Table 2.4) |
| v.    | Regional and Study Centres                | (Table 2.5) |
| vi.   | Use of non-print media                    | (Table 2.6) |
| vii.  | Language(s) of Instruction                | (Table 2.7) |
| viii. | Number of candidates qualifying: yearwise | (Table 2.8) |

The details of yearwise admission are discussed in Chapter 3.

**Table 2.1 Institutions under study: Objectives**

Educational					Developmental				Economic
OU's	Expansion/ Equity/ Equality/ of Oppor- tunities	Train- ing/Staff dev./ Voca- tional edn.	Life- long edn.	Per- sonal dev.	Nation- al dev.	Econ. dev.	Prom. of democ.	Pol. & econ. ideol- ogy	Cost ef- fective- ness
STOU	✓	✓	✓	✓	✓	✓	✓	✓	
OUSL	✓	✓	✓	✓	✓	✓			✓
UT	✓	✓	✓	✓	✓		✓		✓
AIOU	✓	✓	✓						
OLI	✓		✓			✓		✓	✓
IGNOU	✓	✓	✓	✓	✓		✓	✓	✓
BRAOU	✓	✓	✓	✓	✓		✓	✓	✓
YCMOU	✓	✓	✓	✓	✓	✓	✓	✓	✓
KOU	✓						✓	✓	✓

**Notes:**

The identification of objectives is as used in the UNESCO & NIME study (1992). The objectives overlap one another and a clear distinction between the one and the other is rather difficult.

**Source:**

- Information about STOU, OUSL, UT, AIOU, OLI and YCMOU is from the UNESCO & NIME study (1992)
- Information about IGNOU, BRAOU and KOU is from the papers presented at the Madras seminar (1992).

**Table 2.2 Institutions under study: Levels of Programmes Offered**

OU's	Pre-degree	Dip.	Cert.	First degree	Post graduate	Con- tinuing Edn.	Com- munity Edn.	Research	
								M.Phil	Ph.D
STOU			✓	✓	✓				
OUSL	✓	✓	✓	✓	✓	✓	✓		
UT		✓	✓	✓	✓				
AIOU	✓	✓	✓	✓	✓			✓	
OLI	✓			✓	✓				
IGNOU	✓	✓	✓	✓	✓	✓			
BRAOU	✓	✓	✓	✓				✓	✓
YCMOU	✓	✓	✓	✓		✓	✓		
KOU	✓	✓	✓	✓	✓				

**Source:**

- UNESCO & NIME (1992) for STOU, OUSL, UT, AIOU, OLI and YCMOU.
- Papers presented at the Madras seminar for IGNOU, BRAOU and KOU.

**Table 2.3 Institutions under study: Number of Programmes and Courses offered**

OU's	Programmes Offered	Courses Offered**
STOU (1991)	58	443
OUSL (1991)	16	372
UT (1991)	26	550
AIOU (1991)	20	260
OLI (1991)	18	38*
IGNOU (1993)	44	300
BRAOU (1992)	7	158
YCMOU (1990)	4	29
KOU (1992)	15	—

**Source:**

- UNESCO & NIME (1992) for STOU, OUSL, UT, AIOU, YCMOU and OLI
- Prasad (1993) for BRAOU
- Vice Chancellor's Convocation Report (1993) for IGNOU
- Paper presented at the Madras seminar in case of KOU

\*OLI courses are expected to grow upto 135 by 1995/96.

\*\*Information about the number of courses is as given by the institutions. A course in one university may not be comparable to a course in another university in terms of content and number of credits assigned.

**Table 2.4 Institutions under study: Staff employed**

OU's	Full Time	Part Time*
STOU	1985 403(A) + 1582(O)	4000 (app)
OUSL	577 245(A) + 332(O)	816
UT	1398 726(A) + 672(O)	350
AIOU	1150	3000 (app)
IGNOU	1494 261(A) + 1233(O)	9000 (app)
BRAOU	488 89(A) + 399(O)	3075
YCMOU	223 38(A) + 185(O)	11
KOU	61	163
OLI	190	800

A = Academic Staff

O = Other Staff (Administrative, Technical/Professional Staff)

**Source:**

- UNESCO & NIME (1992) for STOU, OUSL, UT, AIOU and OLI
- Personal correspondence (1993) in case of KOU, BRAOU and YCMOU
- Official records (1993) in the case of IGNOU.

\* part-time staff consists of academic counsellors and staff employed on a part-time basis in Laboratories, Studios and Study Centres. In the case of YCMOU, part-time staff consists of 1 coordinator and 10 Regional Directors.

**Table 2.5 Institutions under study: Regional and Study Centres**

OU's	Regional Centres	Study Centres
STOU	7	75 + 58 + 75
UT	32	110
AI OU	—	425
OLI	—	13
IGNOU	16	220
BRAOU	—	85**
YCMOU	7	94 + 21 + 17***
KOU	6	29

**Source:**

- UNESCO & NIME (1992) except for IGNOU, BRAOU, YCMOU & KOU
- Vice Chancellor's Convocation Report (1993) for IGNOU
- Personal correspondence (1993) in case of ERAOU, YCMOU & KOU

\* STOU has 75 Study Centres, 59 'special study centres' and 75 'STOU Corners'; 'special study centres' are work-centres for professional/vocational training and 'STOU Corners' are spaces exclusively segregated for STOU materials in the public libraries.

\*\*Of these 6 are exclusively for women and 2 for prison in-mates.

\*\*\*94 study centres, 21 'sub-study centres' and 17 'work centres'.



**Table 2.6 Institutions under study: Use of Non-Print Media**

OU's	Audio	Video	Disc	Computer	Radio	TV	Satellite	Telephone
STOU	✓	✓		✓	✓	✓		
OUSL	✓	✓		✓				
UT	✓	✓		✓	✓	✓	✓	
AIOU	✓	✓		✓	✓	✓	✓	
IGNOU	✓	✓			✓	✓		
BRAOU	✓	✓			✓			
YCMOU	✓	✓						
KOU	✓	✓			✓	✓		
OLI	✓	✓		✓		✓		✓

**Source:**

Dhanarajan et al., "Staff development for the application of interactive technologies in distance education — A feasibility study", *ICDE Bulletin*, Vol. 27, Sep. 1991, except for BRAOU, YCMOU & KOU, for which information was gathered through 'personal correspondence'.

**Notes:**

- The above tabulation is based on the source cited. It is surmised that the use of computer as a medium is likely to be only in experimental stage in most of these universities.
- Wherever TV and satellite are indicated, it is presumed that the telecast is made through satellite.

**Table 2.7 Institutions under study: Language(s) of Instruction**

OU's	English	Other Languages
STOU		Thai
OUSL	✓	Sinhalese, Tamil
UT		Indonesian
AIOU	✓	Urdu
OLI	✓	Chinese
IGNOU	✓	Hindi
BRAOU	✓	Telugu
YCMOU	✓	Marathi
KOU	✓	Hindi*
CCI's	✓	respective regional languages

\*One or two programmes are offered in other Indian languages too.

**Source:**

- UNESCO & NIME (1992) for STOU, OUSL, UT, YCMOU & OLI
- Papers presented at the Madras seminar for IGNOU, BRAOU, KOU & CCIs.



**Table 2.8 Institutions under study: Number of Candidates qualifying — yearwise**

	STOU	OUSL	UT	AIOU	IGNOU	BRAOU
1982	9594	405	117			
1983	17237	1929		151		
1984	11487	909		121		
1985	11770	1650		780		
1986	13185	1654	8500	840		
1987	15021	840		1122		1494
1988	14812	1841	2385		960	
1989	13895	3470	1423		737	1170
1990			2215	1561	3807	2034
1991			1346		4907	3649
1992					4444	3330

**Source:**

UNESCO & NIME 1992 except for BRAOU & IGNOU, for which the sources are Rao, 1992 & the Convocation Report of VC, IGNOU respectively.

**Notes:**

- i. OLI and YCMOU were yet to produce any graduate (as in 1992).
- ii. Details were not available for KOU.
- iii. 8500 for UT is cumulative for 1985, 1986 and 1987.

## The Social Demands

### 3.1 Nature of Demands

Social demands for education in a country may be recognised at two levels — the macro-level and the micro-level. At the macro-level the demands would relate to issues like:

- i. universalisation of education,
- ii. equity and equality of opportunities, and
- iii. Life-long process of education (including continuing education for upgradation of knowledge, skill and technology)

These will be perceptible in the government policies, proclamations, election manifestoes of political parties and perhaps through the sentiments voiced by responsible members of the public in the media and elsewhere.

The demands at the micro-level would relate to more immediately felt educational needs to achieve planned economic growth or targeted societal goals and would normally get reflected in the reports/surveys of manpower, plan documents, performance budgets and budget allocations.

While considerable differences can be expected in the demands at the micro-level from country to country, at the macro-level there is near consensus about the demands among the Asian countries. These are the same as identified at the beginning of this chapter. It will be appropriate to mention here that while the wording of the demands may be the same, the significance of each demand will vary from country to country. The universalisation of education for a country like India or Pakistan with a high percentage of illiteracy has different priorities in comparison to a highly literate city like Hong Kong. The kind of urgency and priority that equity demands in a country of vast disparities may not be echoed in a country where the spectrum of privileges is narrow and inequality is not exaggerated.

### 3.2 The Mission of the OUs: Macro-Level

#### 3.2.1 General

The OUs under study have been mainly established with the mission of meeting the macro-level social demands — primarily the demands of the rising number of aspirants for higher learning which go hand-in-hand with the demands for equality of opportunities and the needs for continuing education. The brief statement of objectives and missions of each of the Open Universities that follows highlights this premise.

### 3.2.2 *The Sukhothai Thammathirat Open University (STOU), Thailand*

It was established in 1978 to provide the population with increased educational opportunities at the university level. The STOU's mission is:

- promotion of life-long education;
- improving the quality of life of the public in general;
- increasing the educational qualifications of working people, and
- expanding the educational opportunities for school-leavers. (It is said that only 6% of the rural agriculturists, who form about 80% of the country's population, manage to have access to higher education. STOU is to widen opportunities for these rural agriculturists.)

### 3.2.3 *The Open University of Sri Lanka (OUSL)*

It was established in 1980. Its objectives are to provide:

- educational facilities for those who cannot leave their jobs and homes;
- higher education to everyone (only 25% of school leavers in Sri Lanka are admitted to university education and it amounts to only 2% of the annual school admissions); and
- educational facilities to geographically isolated areas and make life-long education possible.

### 3.2.4 *The Open Learning Institute (OLI) In Hong Kong*

Established in 1989, its aim is to provide access to higher learning to all those who may have missed it or will be missing it in the conventional systems for one reason or another (only 11.3% of the 15 + age group have access to tertiary education). The conceptual design of the Open Learning Institute is of a large scale; it is expected to be a comprehensive alternative to institutional education at the school and technical/vocational training levels as well as higher education level.

### 3.2.5 *Universitas Terbuka (UT) of Indonesia*

It was established in 1984 with three major missions:

- to increase access to higher education (as less than one third of the applicants only were accommodated by the existing Indonesian conventional universities);
- to provide a second chance to higher education (as, on average, only 20% to 30% of high school graduates are accommodated by the campus universities); and
- to provide efficient upgrading programmes for Junior and Senior High School teachers (who were recruited on a large scale following rapid expansion of primary and secondary schools in the 70s and early 80s).

### 3.2.6 *Dr. B.R. Ambedkar Open University (BRAOU), Andhra Pradesh (India)*

Established in 1982, the objectives of the University, among others, are:

- to provide educational opportunities to those students who could not take advantage of institutions of higher learning; and
- to realise equality of educational opportunities for large segments of the population who wish to upgrade their education.

### 3.2.7 *The Indira Gandhi National Open University (IGNOU), India*

It was established in 1985. Its major objectives are:

- to provide access to higher education for large segments of the population (It is worth recalling here that only about 7% of the eligible age group is admitted to the conventional institutions of higher education);
- to provide education in different branches of knowledge, technology, vocations and professions;
- to strengthen and diversify the degree, diploma and certificate programmes in relation to the needs of employment and economic development of the country;
- to promote opportunities for continuing education; and
- to provide an innovative system of education which is flexible and open.

### 3.2.8 *The Yashwantrao Chavan Maharashtra Open University (YCMOU), Maharashtra (India)*

Established in 1989, YCMOU seeks:

- to make higher, vocational and technical education available to large sections of the population;
- to give special attention to the needs of the disadvantaged groups;
- to provide continuing adult and extension education, including retraining of adults in new skills; and
- to provide an innovative, flexible and open education.

### 3.2.9 *The Kota Open University (KOU), Rajasthan (India)*

It was established in 1987 with the objective of providing education to those who need it at their doorsteps. It was intended to avoid overcrowding in the conventional higher education institutions in the urban areas and provide an opportunity for higher education to the rural aspirants.

The overall mission of all the above Asian Open Universities is more or less similar: widening access to higher education, equalisation of educational opportunities, and promotion of life-long education. Indeed, the genesis of all Asian Open Universities

is in the perception of the need to respond to an ever increasing social demand for the expansion of higher education facilities.

### 3.3 The Extent of Macro-Level Demands Met

In order to appreciate the manner in which and the extent to which the OUs in Asia under study have endeavoured to fulfil their commitment to the macro-level demands, it is necessary to study their performance along three lines:

- i. the size and growth of enrolment
- ii. the nature and types of programmes offered
- iii. the characteristics of the learner groups catered to

#### 3.3.1 The size and growth of enrolment

If the size and growth of enrolment can be taken as an indicator of accommodating social demand for higher education, the figures are very favourable. The figures pertaining to select OUs in Asia are given below year-wise:

**Table 3.1 IGNOU: Admission of Students**

1986-87	4,381
1987-88	16,811
1988-89	42,324
1989-90	48,281
1990-91	52,376
1991-92	62,375
1992-93	75,666

Source: Vice Chancellor's Convocation Report 1993

**Table 3.2 BRAOU: Admission of Students**

1983-84	6,231
1984-85	11,244
1985-86	15,702
1986-87	19,271
1987-88	16,303
1988-89	16,827
1989-90	16,402
1990-91	27,446
1991-92	32,416

Source: Rao 1992

**Table 3.3 YCMOU: Admission of Students**

1989-90	1,260
1990-91	9,566
1991-92	13,052
1992-93	15,276

Source: Takwale 1992

**Table 3.4 KOU: Admission of Students**

1987-88	14,278
1988-89	22,983
1989-90	14,389
1990-91	12,263

Source: Sharma 1992

**Table 3.5 STOU: Admission of Student**

1980-81	82,139
1982	69,046
1983	46,900
1984	83,640
1985	79,990
1986	61,687
1987	48,500
1988	49,420
1989	52,831
1990	67,398
1991	80,000

Source: UNESCO: NIME 1992

**Table 3.6 OUSL: Admission of Students**

1982	2,360
1983	6,879
1984	5,873
1985	9,052
1986	10,063
1987	13,119
1988	13,197
1989	12,832
1990	14,407

Source: Ranasinghe 1992

**Table 3.8 OLI: Admission of Students**

1989-90	4,237
1990-91	13,009
1991-92	17,535

Source: Dhanarajan & Hope 1992

The pattern of growth of the OUs in general, excepting STOU and UT, indicates a trend of continuous growth. The decline at UT is described as part of the general trend of decline in enrolment for higher education in Indonesia during the period. The reasons attributed are:

- i. Senior Secondary School graduates, who form a considerable part of UT clientele are "now more interested in short-term vocational courses which promise more immediate results".
- ii. Economic reasons prevent students from enrolling at UT.
- iii. Prospective students discouraged by the challenges of being a self-dependent learner.
- iv. Changed system of registration, tutorials, exams, etc. confused the students leading to their dropping out (Rukhmat, et al 1988: 175).

The reasons attributed for the declining trend at STOU are:

- i. Mainly lack of confidence among the public — after initial enrolment — as to the possibility of getting a degree through distance mode of education.
- ii. Poor economy may be the factor for the drop after the spurt in 1984 (The spurt was perhaps the consequence of the emergence of the first set of graduates).
- iii. The demands of the distance education system were new and unfamiliar to the prospective students (Sriprasart, et al 1988: 142)

**Table 3.7 UT: Admission of Students**

1984	85,329
1985	85,015
1986	19,655
1987	7,509
1988	9,041
1989	5,739
1990	37,151
1991	66,513

Source: Personal correspondence

- i. Admissions were open thrice in 1986 and 1987 and twice in the remaining years. The figures represent the total in each year.
- ii. For 1986 only two admission figures were made available out of three; similarly for 1989 only one figure was available out of two.

Admission figures of select CCIs of India are tabulated below. The trend in admission, despite more and more CUs having put DLS units into operation, is seen rising in some CCIs, fluctuating in certain others and stable in the rest.

**Table 3.9 CCIs: Admission of Students**

Year	Delhi	Bombay	Madras	Punjab	Annamalai
1975-76	13,722				
1976-77	13,477				
1977-78	13,302				
1978-79	11,133	12,054	10,011		
1979-80	8,355	4,585	9,101		
1980-81	4,482	5,280	9,460		
1981-82	4,759	6,698	9,150		
1982-83	9,822	7,448	20,584	8,741	25,397
1983-84	13,825	9,412	42,214	9,321	24,565
1984-85	18,250	12,302	67,968	7,775	30,420
1985-86	21,444	12,701	78,123	8,899	39,311
1987-88	22,478	15,148	92,737	8,783	41,554
1988-89	23,852		94,425	7,719	

Source: Extract from Dutt 1993: 172-73

Bombay, Madras and Annamalai show steady increase, while Punjab's admission figure is somewhat stable with minor upward or downward changes. The admission at Delhi kept declining upto 1981-82, but then started rising. What is interesting to note is the upward trend despite introduction of more CCIs over the years.

Considering the numbers that each institute seems to accommodate year after year, the admission figures are in no way small.

### 3.3.2. The nature and types of programmes offered

The programmes offered by OUs can be categorised along the following lines:

- programmes that have no comparable courses in conventional institutions (*Non-conventional programmes*)
- programmes of specific job relevance/job-orientation (*Job-oriented programmes*)
- programmes of specific social-welfare orientation (*Welfare-oriented programmes*)
- programmes seeking to cater to the unfulfilled or newly developed aspirations which may or may not have any immediate job-relevance to the learners (*Programmes of life-long education*)



- programmes seeking to update/upgrade the skills and qualifications of professionals and others with the focus set on an immediate Job-related objective (*Programmes of Continuing Education*)
- programmes on offer for wider options of those within conventional system (*Open Programmes for Conventional Students*).

A detailed study along the above lines would help us in assessing the attempt to meet the demands for: universalisation of education, equality in educational opportunities and provision of life-long education.

The table on programmes offered by OUs in Asia gives a broad view of the types of programmes offered and thereby the kind of clientele catered to. However, the table does not give any clear idea of the extent of service within each category, either in terms of the number or range of programmes or in terms of the size of the beneficiary groups. Further work along this line may help in defining more precisely the extent to which OUs meet the different kinds of social demands for higher/continuing education.

**Table 3.10 Institutions under study: Programme-types offered**

OUs	Conventional	Non-conventional	Job Oriented	Welfare Oriented	Life-long Education	Continuing Education	Extended Open Education
IGNOU	*	*	*	*	*	*	*
BRAOU	*	*	*	*	*	*	
YCMOU	*	*	*	*	*	*	
KOU	*		*		*	*	
STOU	*		*		*	*	*
OUSL	*		*		*	*	
UT	*		*		*	*	
OLI	*		*		*	*	
CCIs (India)	*		*		*	*	

If people not catered to by the conventional universities are to be accommodated, OUs should offer conventional programmes also, irrespective of, whether such offers are supported by the assessment of national 'needs'. They ought to be offered to meet the social 'demands'. All OUs under study seem to give credence to this view — as they all do offer conventional programmes besides others. Among other programmes, all OUs are seen, from the above table, offering programmes of job-oriented education, continuing education and life-long education — which again confirms the commitment to meet evolving social demands. Five OUs offer welfare-oriented programmes — programmes oriented towards social well-being. Only four offer the type of programmes which are not normally offered in the for-



mal system. Two OUs permit simultaneous registration for open learning while continuing studies at formal institutions.

### 3.3.3 Characteristics of the learner groups

A study of the profile of learners along the following dimensions would help in assessing whether the OUs really reach the hitherto unreached and, thereby would provide a measure of the extent of accomplishing the objective of equitable opportunities in education:

- ratio of learners employed as against the total enrolment
- ratio of women-learners as against the total enrolment
- age distribution of learners
- educational qualifications of learners at entry level
- ratio of learners who come from groups that may be considered socially, economically or otherwise disadvantaged in the country concerned.

The information collected is given in the form of tables that follow.

**Table 3.11 Institutions under study: Distribution of Students by Employment status (in percentage-1992)**

OUs	Employed	Unemployed
IGNOU	52.67	47.33
YCMOU*	50.67	28.76
BRAOU**	28.18	71.82
KOU	NOT AVAILABLE	
STOU	91.4	8.6
OUSL***	80	20.0
UT	84.6	15.4
OLI (HK)	97.1	2.9

**Source:** Papers presented at the Madras seminar.

\*Distribution is worked out for the 1992 enrolment in the B.A./B.Com programme. 20.55% have not responded. Information gathered through personal correspondence with the Vice-Chancellor.

\*\*Distribution worked out for B.A., B.Com. students of 1989-90. Those students formed about 80% of the total enrolment. For four of the remaining programmes employment was a necessary or preferable condition for admission. So it is presumed that the employed ratio will be slightly higher if the total enrolment is reckoned.

\*\*\*More than 80% OUSL students are said to be "employed or adults" (forming non-traditional student group). Therefore it cannot be strictly considered as employed.

The percentage of employed students in the case of India ranges from 28.18 to 52.67 while the percentage in the other countries ranges from 75 to 97.1. The lesser percentage in India can be explained by the fact that the incidence of unemployment even among the educated is large and most young people consider some additional higher educational qualification a desirable asset for employment in the competitive

market. A large number of unemployed youth enrol in the open universities with this objective.

The fact displayed by the table is that a larger percentage of OU students are employed persons — persons who could otherwise not get opportunity to improve their qualification or skill through formal institutions.

**Table 3.12 Institutions under study: Distribution of Students by Gender (in percentage -1992)**

OUs	Male	Female
IGNOU	64.2	32.8*
YCMOU	74.5	25.5
BRAOU	67.0	33.0
KOU	NA	NA
STOU	50.0	50.0
OUSL	62.7**	37.30**
UT	78.0	22.0
AIOU	69.0	31.0
OLI (HK)	66.4	33.6

\*The figure excludes the population of Management Programmes; if they are included the distribution works out to 75:25. The participation of women in these programmes is low (to the tune of 5.89%) because one of the prerequisites for registration in management programmes is that the applicant must have been in service for atleast three years in the capacity of a manager or supervisor. Women managers are still few as compared to men in India.

\*\*Surprisingly the participation of women in management & entrepreneurship programmes of OUSL is to the tune of 23.47%. But participation of women in the Diploma and Bachelor Degree programmes in Technology works out to only 12.4%. Excluding these two programmes the distribution works out to 57.8: 42.2.

The female participation in the programmes of the OUs under study ranges from 22% to 50%. The female participation ratio seems to be conditioned by the kind of programmes being offered and the prerequisites for admission that go with them. At IGNOU the female participation is less in the management programmes (5.89%) because the conditions for admission stipulate that the applicants must be in employment holding no less a position than of a manager or supervisor.

The female participation ratio compares well with, if not more favourably than, the corresponding ratio in the conventional system of education. In respect of India the female participation in the conventional system of education is worked out by the University Grants Commission as 31.6% while the corresponding figure in distance education is represented as 41.2% (Swamy, 1991).

**Table 3.13 Institutions under study: Distribution of students by age (in percentage-1992)**

OUs	< 21 yrs	21-30 yrs	31-40 yrs	41-50 yrs	> 50 yrs
IGNOU	9.0	58.2	22.8	6.50	1.50
YCMOU	12.7	54.8	17.8	7.7	7.0
BRAOU	Information not available				
KGU	Information not available				
STOU	8.4 (< 23)	67.0 (23-30)	17.6	4.1	0.6
OUSL	1.4	45.5	31.6	18.1	2.7
UT	25.8 (< 26)	25.2 (26-30)	37.3	11.7	
OLI (HK)	8.6 (< 22)	54.7 (22-30)	32.1	3.3 (41-45)	1.2 (> 45)

**Notes:**

- For BRAOU, the average age of students works out to 28 according to Prasad 1993: 73
- STOU Figures given pertain to 1985 (Ngam 1987: 360);  
2.3% have not specified their age.  
Average age of students (in 1990) is 26.7;  
Median age is 25.0  
(Rojanasang 1992)
- An updated 1993 distribution of the cumulative enrolment from 1989 to 1993 at YCMOU is: 11.44, 17.5, 14.6 with 7.5% not having responded.

The above age profile of OU learners shows very little participation from the less-than 21 year old population. Thus a vast majority of learners are in the age group above 21 — again an age-group for which conventional institutions of higher learning are normally out of reach. Hence here is another dimension of social demands from non-traditional student groups (higher age bracket) which is met by the OUs.

**Table 3.14 Institutions under study: Distribution of Students by Entry Level Educational Qualification (in percentage-1991)**

OUs	Degree and above	Diploma Certificate	Hr. Sec.	Less than Secondary
IGNOU	34.8	← 52.9 →		12.3
BRAOU		← 25 →		75
STOU	14.0	53.1	32.9	—
OLI (HK)	5.2	29.9	59.5	5.4

\*The admission in BRAOU is substantially in the bachelor's degree programme and the figures given pertain to this programme.

**Source:** Prasad 1993: 72 in the case of BRAOU, and papers presented at the Madras seminar for the rest.

The distribution of students by entry-qualification shows a relatively high percentage of participation from graduate population at IGNOU, India. The reason here

again could be the entry requirement made for its Management and other programmes. The University offers a few postgraduate diploma and degree programmes for some of which there is a popular demand as reflected in the enrolments. Corresponding information is not available for other universities.

Details of distribution of students by income is available in UNESCO & NIME 1992 survey for four institutions — STOU, OLI, UT and AIOU. Similar information compiled by YCMOU with respect to students (numbering 8284) enrolled in 1992 for B.A./B.Com programme is also available. The details are tabulated below. The classification as Top, Middle and Bottom income groups is as specified in the UNESCO & NIME report, except in the case of YCMOU where the demarcation has been made as follows: Top-above Rs. 50,000 per annum, Middle-between Rs. 50,000 and Rs. 10,000, Bottom-below Rs. 10,000.

**Table 3.15 Institutions under study: Distribution of students by income (in percentage-1992)**

OUs	Distribution of income		
	Top	Middle	Bottom
STOU	6	18	69*
OLI	20	60	20
UT	—	39	61
AIOU	10	30	60
YCMOU	3	37.5	45*

\* The remaining 7% of students in the case of STOU and 14.5% in the case of YCMOU have not responded.

**Source:** personal correspondence in the case of YCMOU, and UNESCO & NIME 1992 in the case of the rest.

The table reveals that enrolment from the middle and the bottom groups is several times larger than enrolment from the top group. We could see a pattern emerging in the income based enrolment distribution, if you leave out the case of OLI where 97% of the students are employed persons (Ref. Table 3.11). The bottom group gets a larger representation than the middle and the middle a larger representation than the top.

### 3.4 Demands at the Micro-level

No survey and/or prediction of manpower needs is available in any of the papers presented except in parts. Consequently the relation between the identified and quantified manpower needs and the programmes offered has not been discussed in detail. It would be worth the effort, if relevant information is obtained by the Universities and shared so as to assess more accurately the immediate or short term social utility of the open learning institutions.

### 3.5 Spin-off benefits to the Society

Besides the obvious relevance of the open universities in meeting the social demands at the macro and the micro-levels, the OUs have also been rendering certain significant — but less known or recognised — services to the society at large. In the process of universalising or democratising educational opportunities, they have thrown open wider access not only to those outside the purview of the conventional institutions but even to those within the conventional systems for wider options of elective courses through such memorandum of understanding for credit transfer as IGNOU has entered into with Pondicherry University. For instance, Pondicherry University offers a Master's degree programme in management studies; IGNOU also offers one. While the electives available in Pondicherry University are limited, IGNOU offers a number of Postgraduate Diploma Programmes in various specialised areas of management. The courses for these programmes have been prepared at considerable cost, utilising the services of some of the best professionals and academics. The students of Pondicherry University, preparing for the M.B.A. degree can take any of the relevant elective courses in IGNOU and claim from Pondicherry University recognition of the credits earned. By a simple provision, the students have been enabled to have access to a large number of courses developed by IGNOU. The same provision is available for all parallel or related programmes. The widening of options, that can be achieved at no extra cost, for a country of the size of India, through similar agreements, will make a remarkable contribution to the pressing educational needs of the society. The same agreement can also be extended to undergraduate and postgraduate programmes in affiliated colleges. Today, a Punjabi or a Bengali student enrolled at one of the affiliated colleges in Pondicherry University for a Bachelor's Degree Programme cannot hope to do Punjabi or Bengali as his/her option respectively under language. But he/she can take an IGNOU course in these languages and claim credit for it. Such facilities may be available in other countries too, but the details are not available.

The other two significant social contributions of the OUs are as follows:

- they have been gradually moving towards setting more widely applicable standards of education with their wider jurisdiction, expanded further through networks of larger scales of operation.
- when the book industry has grown prohibitively costly for the developing Asian nations, the OUs are rendering a yeoman service by providing a sort of 'Teach Yourself Textbooks' on a large number of topics at affordable prices.

## Costing Approach

### 4.1 The Economics of Education

The latter half of the twentieth century has been witness to a revolution, the consequences of which can only be dimly visualised even today. Science and Technology have set a new pace and pattern for life and work; knowledge is generated at a faster rate than ever before in human history; the spectrum of applications of the new knowledge is ever widening; and the communication technology has brought people worldwide closer together than ever before. We have been witness to some of the consequences of these developments; the disintegration of empires and power blocks; the rise and fall of economic and political doctrines and dogmas; and the very optimistic expectations about the emergence of new world orders yet undefined in many cases.

The post-war reconstruction of economies in America, Europe and Japan placed a higher emphasis on education in Science and Technology to promote research and development. The expansion of technical and professional education in these countries as against the traditional liberal arts education was phenomenal. The emergence of a new class of entrepreneurs and managers who were instrumental in accelerating the pace of economic development in these countries was a direct consequence of this change in the focus of higher education.

The emergence of a very large number of independent nation states, most of them acquiring freedom from their colonial masters, was another major development during this period. Each one of them was keen to establish a national identity, the major components of which included economic and political independence. Both required human resources; their attention inevitably turned to developing their own manpower through the setting up of institutions of education and training. "Several countries have achieved rapid development in the post-war period; for the most part, they have two features in common. They invested in the education of men and women, and in physical capital" (*World Development Report 1991*: 31).

The classical view "education for enlightenment" surely gave way to the new approach 'education for development'. That made education an economic activity; an Investment in people. "By improving people's ability to acquire and use information, education deepens their understanding of themselves and the world, enriches their minds by broadening their experiences, and improves the choices they make as consumers, producers and citizens. Education strengthens their ability to meet their wants and those of their family by increasing their productivity, and their potential to achieve a higher standard of living." (*World Development Report 1991*: 55-56)



The new approach 'education for development' has a sociological dimension too. Many of the newly independent countries, and some even in the developed world, had to encounter problems of equity, and of access to education. While in countries like the USA affirmative action by the state in favour of the less privileged tried to address these problems, in the developing countries, governments had to allocate substantial resources for the creation of educational facilities to provide the necessary opportunities to ensure equity and access. The significant growth and development of distance education has been a response to all these challenges.

#### 4.2 Cost function: models

The economic interests, besides leading to significant developments in the concepts and delivery modes of higher education, led to a search for methods of assessing the cost-benefit (input-output) relationship in education. This, in turn, paved way for developing several models to study and analyse the costs. Cost analysis essentially involves four major steps:

1. *Identification of inputs which generate costs.* From the purely economic point of view, there are no "free" resources. Where such resources seem to be available freely, someone bears the cost, and a notional value has to be assigned to those resources.
2. *Distinguishing the operating costs (recurring annual costs) from the capital costs (one-time investments that can be drawn upon over a number of years, and therefore can be assigned a derived annual value).*
3. *Separating the variable costs, which fluctuate more or less proportionately with the number of students.*
4. *Analysing the cost function to establish the relationship between the costs and the number of students, in terms of total costs, average costs and marginal costs.*

Funding policy of governments in the domain of distance education varies from country to country. There is hardly any standard or universally accepted method of arriving at the per capita cost in distance education. Certain approaches have been developed by the academics for cost analysis. They are briefly discussed here to provide an introduction to cost analysis discussed in chapter 6 for various universities.

A simple equation which could be applied in any education system is:  $TC = F + VN$  where:

TC = Total cost

F = Total fixed cost

V = Variable cost per unit

N = Number of units of output

(eg. students/student hours, etc.)

The total cost function here is observed to be linear and the average cost (AC) is obtained simply by dividing the fixed cost (F) by the output (N) and adding it to the variable cost (V). Thus

$$AC = F/N + V$$

To describe the fundamental cost-inducing variables in distance education, a modified form of the above equation was developed in the mid 1970s by the U.K. Open University. This was based on two fundamental variables namely, the number of students and the number of courses under development and on offer:

$$C = a + bx + cy$$

where

C = total cost

a = the fixed cost

x = the number of courses (those under development weighted as 1.0 + those on offer weighted as 0.1<sup>\*</sup>)

y = the number of students

b = the average cost per course

c = the average cost per student

For several years this equation was used as the basis for determining funds to be provided to the U.K. Open University. This approach was later taken up and modified by a number of other open universities. At Athabasca University, Snowden and Daniel developed a more sophisticated costing model (1980: 76-82):

$$TC = a_1x_1 + a_2x_2 + by + c$$

where:

TC = Total Cost

x<sub>1</sub> = course credits 'in development'

x<sub>2</sub> = course credits 'in delivery'

y = 'weighted' course enrolments

and

a<sub>1</sub> = course development costs per credit

a<sub>2</sub> = course revision/maintenance/replacement costs per credit

b = 'delivery' costs per 'weighted' course enrolment

c = Institutional costs (overhead)

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\* Different weights have been assigned, keeping in mind the cost for developing a course afresh and the cost for maintaining a course already on offer.



Another dimension in the development of models has been to identify the sub-components within the fixed costs and variable costs pertaining to the sub-systems of distance education system, namely:

- Production system (p)
- Instructional system (i)
- Evaluation system (e)
- Administrative system (a)

Applying these sub-systems to the fixed costs (F) and the variable costs (V), the simple equation

$$TC = TF + TV$$

(Total cost = Total fixed cost + Total variable cost)

is expanded as

$$TC = (TF_p + TF_i + TF_e + TF_a) + (TV_p + TV_i + TV_e + TV_a)$$

where

- $TF_p$  = Total fixed cost for production
- $TF_i$  = Total fixed cost for instruction
- $TF_e$  = Total fixed cost for evaluation
- $TF_a$  = Total fixed cost for administration

and

- $TV_p$  = Total variable cost for production
- $TV_i$  = Total variable cost for instruction
- $TV_e$  = Total variable cost for evaluation
- $TV_a$  = Total variable cost for administration

A number of other models have been developed. These models appear to be simple, but fail to specify the cost-affecting variables in sufficient details to be of any practical help in cost justification or estimates. Nevertheless, these models are useful in as much as they give an insight into the cost structure.

### 4.3 Cos: types

There are broadly five cost types (Birch & Cuthbert 1981):

- i. Historical cost
- ii. Replacement cost
- iii. Standard cost
- iv. Projected cost
- v. Opportunity cost

**Historical cost** is an attempt to summarize in monetary terms the extent to which an activity has consumed or appropriated resources.

**Replacement cost** refers to the cost that would be incurred to acquire equivalent physical facilities or to buy comparable materials or services to replace those obtained in the past.

**Standard costs** are predetermined costs to serve as a norm or basis for comparison with actual costs.

**Projected costs** are estimates of future costs.

**Opportunity costs** relate to foregone resources or revenue as a result of choosing one alternative in lieu of another.

Only the first of these five types of cost represents the actual cost — money's worth sacrificed — in performing an activity or acquiring an asset or receiving the goods and services. The rest depend, to a considerable extent, on hypotheses and assumptions. For purposes of a study of cost effectiveness, which *ipso facto* involves comparison of costs, we have to take recourse largely to the historical costs, the data for which can be had from the financial records of the institutions concerned. Other costs — replacement, standard and projected — might help in consolidating the findings of comparison of the historical costs. Opportunity costs are too complex to determine and too hypothetical in nature to be of any substantial help in assessing cost effectiveness.

#### 4.4 Costing terms

The components of cost, whatever be the method of costing, can be classified as *direct* and *indirect* for some purposes and as *fixed* and *variable* on certain other considerations.

Direct costs are those which are readily identifiable with a "cost centre". If the concern is to determine the cost of running an academic department within an institution, then, the academic and administrative staff working exclusively for the department have to be identified. There may be other staff responsible for maintaining the institutional administration, the accounts, the campus, the library and such other common facilities. The department concerned, though has some staff working exclusively for it, may still not be able to function, if the other staff looking after the general administration and common facilities are not there. In this instance, the academic department is the cost centre, the salaries paid for the staff exclusively working for the department are the direct costs and a rational proportion of the salaries paid to the other staff is the indirect cost of the department. The indirect costs are also referred to as "overheads" and they are the costs which are not readily identifiable with a cost centre.

A rational process of determining the proportion of the indirect cost pertaining to a cost centre is known as *apportionment*. It is necessary to apportion indirect costs to a given cost centre. But there is no one correct method of doing it. All that could be said is that the apportionment should be governed by rational, equitable and prac-

ticable considerations. Different considerations/norms may be necessary for apportioning different costs.

A *variable cost* is that segment of the total cost which varies with the volume of output; the segment that remains constant irrespective of the volume of output is known as the *fixed cost*. The cost of preparing a unit of course material (writing, editing, revising, composing) remains fixed whatever be the number of students enrolled for it; but the production cost (printing, binding and distributing) varies with every change in the number of students enrolled. The former constitutes the fixed segment while the later constitutes the variable segment of the total cost of course development.

#### 4.5 Approaches to Costing

Cost analyses may be done along several directions. But there are three basic approaches which are more commonly used in the context of costing education:

- i. Full (or absorption) costing
- ii. Differential (or incremental) costing
- iii. Standard costing

*Full costing* requires that all direct costs are allocated and indirect costs are apportioned to the cost centres. They may be subsequently related to cost units — units of output or activity, such as per capita cost, cost per credit, cost per programme, etc.

*Differential costing* attempts to identify the change in costs resulting from an option of a different level of activity or mode of operation. Suppose an institution desires to change over from telecasting its video lessons to distributing video cassettes to students, differential costing approach will provide details of the change in costing that would follow.

*Standard costing* attempts to compare actual costs with predetermined (norm) costs. A significant variation, if noticed, may necessitate further investigation. The variation might be due to circumstances outside the control of management or within. If within, remedial measures may have to be devised.

Standard costing may be useful to check and keep the expenses of a school/division in an institution within targeted limits. Differential costing approach may be helpful whenever a change in the level of activity or mode of operations is contemplated. It may be relevant whenever questions of increase/decrease in enrolment, reduction/enlargement of option-range, launching/withdrawal of courses, etc. are planned or anticipated. The full costing approach is relevant to the purposes of reviewing/evaluating the cost performance or cost-effectiveness relationship.

#### 4.6 A costing model for IGNOU

When a study of the cost analysis for IGNOU was taken up, it was realized that none of the theoretical models developed and available in the published documents are directly applicable. Taking into account the literature in the field, a method of approach was evolved by C R Pillai and C G Naidu to analyse the cost for 1989-90.

They set out on two purposes:

- i. Defining and analysing the existing cost structure of IGNOU
- ii. Norm-setting for the future.

The pursuit of the former results in the identification of the major cost factors and disaggregation of the total costs of IGNOU in terms of cost components leading to the derivation of unit costs per measure of output. In pursuit of the latter, the authors have tried to develop, on the basis of the unit costs derived, 'productivity norms' for course development (in terms of time dimension) and 'cost norms' for different activities associated with production, delivery, etc.

In the study made by Pillai and Naidu units for which the unit costs are to be determined are standardised at the outset. The course is identified as a unit. A student is identified as another unit. The unit of a course consists of 8 credits (240 hours of study) and a unit student is a 32 credit (960 hours of study) or equivalent curriculum load student. The authors then identify the major cost-heads. The cost heads are:

1. *Printed Materials cost:*

- A. The Development Phase
  - i. the non faculty cost
  - ii. the faculty cost
- B. The Production Phase
  - i. printing costs
  - ii. distribution costs

2. *Audio Video Materials cost:*

- A. The Development cost
- B. The Diffusion cost

3. *Student Record Maintenance and Examination Processing cost*

4. *Admission costs*

5. *Student Counselling costs*

6. *Library and Documentation costs*

7. *General Administration costs*

8. *Common Services and General charges*

9. *Capital costs.*

Along with the identification of major cost-heads, significant cost elements under each head are listed out. While listing out the cost element, wherever the actual value of a cost element is not directly available, the authors have explained how the value may be worked out or deduced from the available cost data.

Using the cost details collected for the cost elements and the cost head for the sample courses, average cost of an 8-credit course is computed for the development phase and the printing phase separately. Similarly the average cost for producing audio-video material for an 8 credit course is worked out. Adding these average costs, the total (average) fixed cost for an 8-credit course is worked out. The total cost is then annualised applying the annualisation factor  $a(r,n)$  using the formula:

$$a(r, n) = \frac{r(1+r)^n}{(1+r)^n - 1}$$

where:

$a(r,n)$  = annualisation factor

$r$  = interest rate

$n$  = lifetime of the material

To work out per student unit cost, the annual enrolment of students in different programmes of varying credit values has been standardised by weighting the students on the basis of the credit values they had enrolled for. To determine the annual unit cost per student, the total revenue expenditure for the given year is broken up under a number of cost elements and regrouped under major cost-heads, relating to three categories — fixed, semi variable and variable. The annual unit costs are worked out for each of the cost elements and cost heads by dividing the revenue expenditure by the number of weighted student enrolment. Thus annual recurrent costs per student for semi variable, variable and indirect costs are obtained and the total annual recurrent cost per student is arrived at.

Applying a uniform credit rating for all programmes and applying the unit costs derived, costs in launching 8-credit courses, fixed costs for material preparation and programme delivery costs have been determined. The cost function in launching a new programme is defined as:

$$CNP = bx + cxy$$

where:

CNP = cost of development and delivery of a new programme

$x$  = number of 8-credit equivalent courses in a programme

$y$  = number of weighted 8-credit equivalent students in a programme

$b$  = cost of developing a new 8-credit course

$c$  = cost of delivery of services to an 8-credit equivalent student.

In the whole costing exercise described above, the capital cost has not been taken into account. Depreciation of infrastructure facilities has also not been considered. Based on the approach outlined above, the per capita cost for selected programmes in IGNOU has been worked out in Chapter 5. Per capita cost at other institutions given in Chapter 5 have not followed necessarily the same approach because of different cost orientation and/or non-availability of data along the suggested lines. The cost study of different institutions is discussed in Chapter 5.

The investigators involved in the project were provided with the sample method of costing, evolved in *Cost Analysis of Distance Education: IGNOU* (Pillai and Naidu 1991) as described above. Cost analysis and norm-setting, if worked out realistically for different open learning institutions, could provide a sound basis for inter-institutional comparison of cost-performance. Moreover a uniform approach in costing is desirable for any comparative study worth the effort. It is for these reasons that we presumed that providing this costing model to the investigators would help in facilitating the study of this project.

## Cost analysis

### 5.1 Introduction

In this Chapter we present the details of cost study of the Institutions identified for the project. We had eight investigators each dealing with one institution — leaving out OLI and AIOU. The investigators presented their study at the Madras Seminar. There could neither be any participation from AIOU nor any presentation on its behalf because of certain socio-political developments in that country. As for OLI we received a paper (Dhanarajan & Hope 1992) and the accounts for the year ended March 1992. Among the papers presented by the investigators, two had very meagre details on cost related heads — the one on KOU and the other on STOU. Thus we were left with six reports of cost studies. The substance of these reports is presented in the following sections. For the remaining institutions we have presented whatever relevant cost information we could gather from secondary sources. The details on STOU have been supplemented by information from secondary sources. KOU has been left out for the following reasons:

- i. Information available on KOU is too little
- ii. sufficient number of Indian institutions have already been represented.

A reference was made at the beginning of Chapter 4 that cost analysis involves separation of the *operating costs* (recurrent annual costs) from the *capital costs* (investments in assets like building, equipment etc., which can be used for a number of years). In this study, we have separated the operating cost, but have not taken into account the capital costs, and its annualised value. This was for the simple reason that many of the open universities studied under this project are still to make substantial investments in the creation of their assets.

Similarly while computing unit costs, only institutional costs have been taken into account. Private costs, including opportunity costs, have been kept out of the purview of the study, except where the information could be collected through some secondary source of studies conducted earlier. The decision to keep the private costs out was taken considering the complexity involved in computing the private costs and the opportunity costs.

In this Chapter, most of the tables and figures have been taken from the papers presented at the Madras seminar. So the information on source is given only in cases where the source happens to be other than the papers presented at the Madras seminar.

### 5.2 IGNOU study

#### 5.2.1 Institutional average per capita cost

IGNOU has worked out the annual institutional average per capita cost and the annual cost per student for each of its programmes. The annual institutional average



per capita cost has been worked out by dividing the total revenue cost by the number of weighted students registered in the year concerned. The total cost has been identified under three major heads.

- i. cost of course development and production
- ii. cost of student support services
- iii. cost of institutional overheads

Each of the above cost components has been further divided into subheads to give a more detailed analysis of costs. The cost items thus identified under each cost component are:

**Table 5.1 IGNOU: Cost Components and Cost Items**

Cost Component	Cost Items within	
A. Course Development and production	A. i.	Development of course materials
	A. ii.	Production of print materials
	A. iii.	Production of audio and video materials
B. Student Support Services	B. i.	Admission and student record maintenance
	B. ii.	Student counselling/tutoring
	B. iii.	Examination
	B. iv.	Materials distribution
C. Institutional Overheads	C. i.	Library and documentation
	C. ii.	General administration
	C. iii.	Common services and general charges
	C. iv.	Miscellaneous, including estate management

The above costs have been worked out for three consecutive years 1989-90, 1990-91 and 1991-92. The details are made available in three tables. Table 5.2 gives a snapshot picture of IGNOU cost structure for the year 1989-90, 1990-91 and 1991-92:

Table 5.3 presents component-wise average per capita cost for the three years 1989-90, 1990-91 and 1991-92:

A further analysis into the details of constituent cost — items of the components in the above table is made in Table 5.4 to give a detailed analysis of per capita annual recurrent costs.

**Table 5.2 IGNOU-Cost Structure**

(Rs. in millions)

Cost Components	1989-90		1990-91		1991-92	
	Actual	% of Total	Actual	% of Total	Actual	% of Total
i. Course Development and Production	34.01	40.53	43.68	38.81	66.21	42.98
ii. Student Support Services	20.71	24.68	32.40	28.79	39.05	25.35
iii. Institutional Overheads	29.20	34.79	36.47	32.40	48.77	31.67
<b>Total</b>	<b>83.92</b>	<b>100</b>	<b>112.55</b>	<b>100</b>	<b>154.03</b>	<b>100</b>

Table 5.3 IGNOU: Annual Average Per Capita Cost

(Per Capita Cost in Rs.)

Components	1989-90	1990-91	1991-92
i. Course Development and Production	709.33	656.72	879.43
ii. Student Support Services	432.07	487.13	518.78
iii. Institutional Overheads	609.01	548.30	647.73
<b>Total</b>	<b>1750.41</b>	<b>1692.15</b>	<b>2045.94</b>

Table 5.4 IGNOU: Break up of Annual per capita cost

Sl. No.	Cost Item	Total Cost (Rs. in millions)			Cost per student (Rs.)		
		1989-90	1990-91	1991-92	1989-90	1990-91	1991-92
A i.	Development of Course Material	10.05 (11.97)	12.10 (10.75)	13.78 (8.94)	209.54	181.94	183.03
A ii.	Production of Print Material	19.94 (23.76)	28.70 (25.5)	47.61 (30.91)	415.83	431.45	632.29
A iii.	Production of Audio & Video	4.03 (4.8)	2.88 (2.56)	4.83 (3.13)	83.96	43.33	64.11
<b>A</b>	<b>Total Development &amp; Production of Material</b>	<b>34.01 (40.53)</b>	<b>43.68 (38.81)</b>	<b>66.21 (42.98)</b>	<b>709.33</b>	<b>656.72</b>	<b>879.43</b>
B i.	Admission & Student Record Maintenance	2.38 (2.83)	3.79 (3.37)	4.61 (2.99)	49.67	57.03	61.22
B ii.	Student Counselling	11.87 (14.14)	16.48 (14.64)	22.12 (14.36)	247.52	247.76	293.81
B iii.	Examination	4.10 (4.89)	5.49 (4.88)	7.82 (5.08)	85.54	82.56	103.89
B iv.	Material Distribution	2.37 (2.82)	6.64 (5.9)	4.51 (2.92)	49.34	99.78	59.86
<b>B</b>	<b>Total Student Support Services</b>	<b>20.71 (24.68)</b>	<b>32.40 (28.79)</b>	<b>39.06 (25.35)</b>	<b>432.07</b>	<b>487.13</b>	<b>518.78</b>
C i.	Library and Documentation	0.87 (1.03)	1.23 (1.09)	1.39 (0.90)	18.13	18.51	18.52
C ii.	General Administration	5.16 (6.14)	5.57 (4.95)	6.23 (4.05)	107.55	83.81	82.77
C iii.	Common Services & General Charges	16.34 (19.48)	21.03 (18.69)	30.24 (19.64)	340.91	316.22	401.71
C iv.	Miscellaneous, including Estate Management	6.83 (8.14)	8.63 (7.67)	10.9 (7.08)	142.42	129.76	144.73
<b>C</b>	<b>Total institutional overheads</b>	<b>29.20 (34.79)</b>	<b>36.47 (32.40)</b>	<b>48.77 (31.67)</b>	<b>609.01</b>	<b>548.30</b>	<b>647.73</b>
<b>D</b>	<b>Total Revenue Costs</b>	<b>83.92 (100.0)</b>	<b>112.55 (100.0)</b>	<b>154.03 (100.0)</b>	<b>1750.41</b>	<b>1692.15</b>	<b>2045.94</b>

(Note. Figures in parenthesis denote % of costs to total revenue costs)

### 5.2.2 Programme-wise annual per capita cost

Programme-wise annual cost per student has been derived from the above annual average cost per student. The process of this programme-wise deduction of cost has been complex because:

- i. the programmes offered by IGNOU are at various levels.
- ii. there are significant cost factors responsible for variations in cost between one programme and the other.
- iii. the cost factors as far as production of materials is concerned, are determined by the number of constituent courses of the programme, the level of offering, and the efforts involved in development and production.
- iv. the cost factors concerning delivery are governed by such components as laboratory practicals, student projects, etc

Precise data is not available to assess the cost of each programme separately. Yet an effort has been made to derive the programme costs on the basis of certain well defined parameters like the number of courses in a programme, the volume of materials produced, the number of study centres activated for the programme, etc., and applying them to the average costs. The cost of individual programmes so worked out is presented in Table 5.5

**Table 5.5 IGNOU: Programme-wise cost per student (in Rs.)**

Sl. No.	Programme	1989-90	1990-91	1991-92
1.	Bachelor's Preparatory Programme	437.65	519.43	778.70
2.	Bachelor's Degree Programme	1842.18	1644.17	1996.96
3.	Bachelor of Library & Information Science	2315.35	2259.86	3117.51
4.	Management Programmes	1839.07	1702.20	1779.84
5.	Diploma in Distance Education	2059.25	3149.02	5671.59
6.	Diploma in Creative Writing in English	5189.95	7637.67	6247.14
7.	Diploma in Computers in Office Management	—	4459.40	4598.55
8.	Diploma in Rural Development	—	—	2301.86
9.	Diploma in Higher Education	—	—	3661.71
10.	Certificate in Food & Nutrition	767.86	731.18	779.82
	<b>Average Cost for all programmes</b>	<b>1750.41</b>	<b>1692.15</b>	<b>2045.94</b>

**Note:** The programmes listed against Sl. No.1 and 10 are for six months.

## 5.3 BRAOU Study

### 5.3.1 Expenditure and Receipts

Among the OUs in India, BRAOU has the longest period of operation — 10 years. The yearly budgets of the University for the past 10 years provide the details of expenditure and receipt under different heads. Applying the total strength every year, average expenditure per student, average fee receipts per student and average government grant per student are worked out yearwise for the ten years. The details are presented in Table 5.6 on page 45.

### 5.3.2 Fee Income Vs Expenditure

The Table indicates that a major portion of expenditure is met by the student fee.

Yearly averages over the ten years confirm this indication:

Yearly average expenditure ('00,000 Rs.) = 291.70

Yearly average fee receipts ('00,000 Rs.) = 226.60

Yearly average Govt. grants ('00,000 Rs.) = 94.10

Yearly average student strength = 37,400

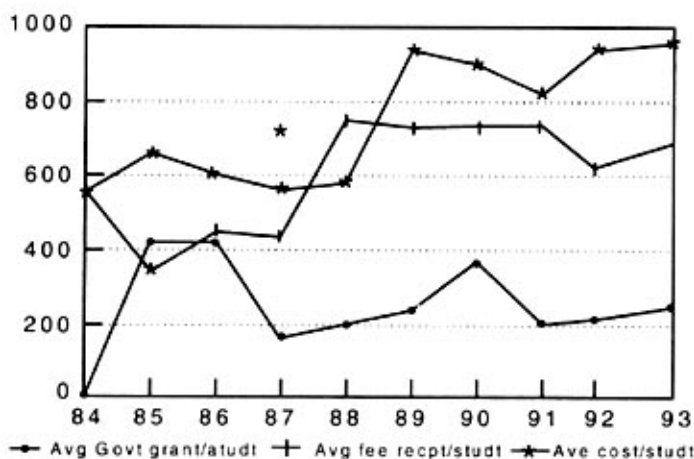
Yearly average expenditure per student (in Rs.) = 780

Yearly average fee income per student (in Rs.) = 606

Yearly average Govt. grants per student (in Rs.) = 251

The yearly average per capita cost, income and grant are graphically represented in Fig. 5.1

Fig 5.1 BRAOU: Fee Income Vs. Expenditure



The total yearly average income per student exceeds total yearly average expenditure by Rs. 77, because in the calculation here only recurrent costs are taken into consideration, leaving out fixed costs. The excess per capita income from the government source is for meeting the fixed cost requirements.

**Table 5.6 BRAOU: Annual income and expenditure  
(1983-84 to 1992-93)**

Particulars	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93
<b>A.</b>										
Income ('00,000 Rs.)										
(i) State Government Grants	—	107.00	150.00	52.50	75.13	70.39	125.64	95.40	118.00	146.80
(ii) UGC/IGNOU Grants	—	—	—	10.00	23.00	7.45	—	3.00	11.00	—
(iii) Fee Receipts	33.94	87.52	156.11	203.50	268.11	221.65	225.83	314.61	338.32	416.22
(iv) Other Misc. Receipts	—	5.92	6.45	12.29	17.44	3.78	5.72	15.08	8.49	10.53
<b>Total Receipts</b>	<b>33.94</b>	<b>200.44</b>	<b>312.56</b>	<b>278.29</b>	<b>383.68</b>	<b>303.27</b>	<b>357.19</b>	<b>428.09</b>	<b>475.81</b>	<b>573.55</b>
<b>B.</b>										
Expenditure ('00,000 Rs.)										
(i) Administration & Direction	12.82	61.98	69.21	83.84	79.09	134.06	136.21	111.00	156.74	125.33
(ii) Course Material	7.80	57.29	49.06	46.06	29.01	25.46	75.00	96.10	147.78	164.23
(iii) Audio-Video	—	15.19	26.81	26.46	10.29	12.78	4.74	3.09	7.00	16.14
(iv) Library	1.00	12.38	13.74	11.65	10.83	6.01	9.33	7.74	6.09	9.82
(v) Study Centres	10.68	16.66	30.69	56.21	46.31	66.61	55.34	105.60	116.24	154.10
(vi) Examination	1.67	9.81	14.80	31.04	28.42	42.68	39.65	50.15	66.15	84.84
<b>Total Expenditure</b>	<b>33.97</b>	<b>173.31</b>	<b>204.31</b>	<b>255.31</b>	<b>203.95</b>	<b>287.60</b>	<b>320.27</b>	<b>373.68</b>	<b>500.97</b>	<b>563.46</b>

**Table 5.7 BRAOU: Average income, expenditure and govt. grant per student (1983-84 to 1992-93)**

Particulars	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93
Total Student strength	6,321	25,485	34,109	46,629	36,454	32,957	34,183	45,041	52,803	60,000
Average expenditure per student (in Rs.)	537	680	599	547	560	972	937	830	947	939
Average fee receipt per student (in Rs.)	536	343	458	436	735	673	660	698	641	694
<b>Average grant per student (in Rs.)</b>	<b>—</b>	<b>420</b>	<b>440</b>	<b>113</b>	<b>206</b>	<b>214</b>	<b>368</b>	<b>212</b>	<b>223</b>	<b>245</b>

### 5.3.3 Detailed Cost Analysis

A detailed cost analysis for the three preceding years (1989-90, 1990-91, 1991-92) is carried out under three major heads of cost components — Course Development, Student Support Services and Institutional Overheads — which represent the fixed costs, variable costs and indirect costs respectively. Each head has been further subdivided into a number of cost-items. From the details thus worked out, average per student cost under each of the three major heads has been calculated yearwise. By adding up the average cost per student under the three heads in a year, average unit cost per student per year has been calculated. The details of calculation are given below:

**Table 5.8 BRAOU: Cost Analysis for 1989-90, 1990-91, 1991-92**  
**COST COMPONENT — 1: Course Development (Fixed Costs)**

	1989-90	1990-91	1991-92
<b>A.</b> Writing and Editing ('00,000 Rs.)			
i. Salaries for internal Faculty teachers	22.75	24.93	31.14
ii. Remuneration to external resource persons for course writing & editing	4.87	0.70	1.50
iii. Travelling expenses and other contingencies for course writers & editors	2.75	1.10	1.00
<b>Total</b>	<b>30.37</b>	<b>26.73</b>	<b>33.64</b>
<b>B.</b> Printing ('00,000 Rs.)			
i. Cost of paper	50.38	65.90	92.00
ii. Printing	13.54	16.17	32.00
<b>Total</b>	<b>63.92</b>	<b>82.07</b>	<b>124.00</b>
<b>C.</b> Annualisation ('00,000 Rs.)			
Taking into consideration that the course material is printed for two years, the annualised printing costs per year	31.96	41.04	62.00
<b>D.</b> Total fixed costs (A + C) ('00,000 Rs.)	62.33	67.77	96.64
<b>E.</b> Total number of students on rolls	34,183	45,041	52,803
<b>F.</b> Average fixed cost per student in Rs.	<b>182</b>	<b>150</b>	<b>183</b>

**COST COMPONENT — 2: Student Support Services (Variable and semi-variable costs)**

	1989-90	1990-91	1991-92
<b>A.</b> Expenditure ('00,000 Rs.)			
i) Study centres	55.34	105.58	116.24
ii) Examinations	39.65	50.15	66.12
iii) Printing (other than course material)	8.14	2.99	2.75
iv) Evaluation Branch	3.00	2.11	2.20
v) Computer Centre	0.12	0.72	1.32
<b>Total</b>	<b>106.25</b>	<b>161.55</b>	<b>188.63</b>
<b>B.</b> Total number of students on rolls	34,183	45,041	52,803
<b>C.</b> Average variable cost per student in Rs.	311	359	357



**COST COMPONENT — 3: Institutional Overheads (indirect costs)***(in Rupees)*

	1989-90	1990-91	1991-92
A. Expenditure ('00,000 Rs.)			
i. General Administration	66.54	81.47	118.61
ii. Library	2.41	7.74	6.09
<b>Total</b>		<b>68.95</b>	<b>89.21</b>
B. Total number of students on rolls	34,183	45,041	52,803
C. Average indirect cost per student in Rs.	202	198	236

From the above cost analysis carried out under the three major heads, the institutional average unit cost per student is derived. The unit cost per student is given in Table 5.9.

**Table 5.9 BRAOU: Unit Cost Per Student***(in Rupees)*

	1989-90	1990-91	1991-92
Average Course Development	182	150	183
Average Student Support Service	311	359	357
Average institutional overhead cost	202	198	236
<b>Average unit cost per student per year</b>	<b>695</b>	<b>707</b>	<b>776</b>

**5.3.4 Projected cost of a BRAOU Programme**

Having made an ex post cost analysis of the preceding years, an attempt has also been made to compute costs of an academic programme, given the operational factors governing an academic programme of BRAOU. Given below are the postulates, assumptions, and details of projected estimates.

An academic programme of one year duration leading to an award of degree or diploma consists of 6 to 8 courses. Each Course is divided into Blocks and each Block is subdivided into units. The programme costs are arrived at by assuming the following:

- The duration of the programme is one year.
- The academic programme consists of 8 courses.
- The expected student enrolment is 5000 in one year.
- The course material is printed for one year.
- The print material consists of 25 units; comes to 500 pages in double demi size.
- The number of counselling sessions will be 20 for one course
- The programme is offered at 50 study centres.
- One internal faculty member will coordinate the course writing and it would take one year for the completion of course writing and printing.
- It would take Rs. 10,000 for production of one video lesson and Rs. 1000 for an audio/radio lesson.



Table 5.10 BRAOU: Projected Cost per student per programme

<b>A. COURSE DEVELOPMENT:</b>		
i)	Expert Committee meetings for finalisation of syllabus and identifying course team	Rs. 20,000
ii)	Course writing @ Rs. 1000 per unit and editing @ Rs. 10,000 for the course	Rs. 35,000
iii)	3 course team meetings consisting of editor and 5 writers @ Rs. 3000 per person on travel, stay and other incidentals.	Rs. 54,000
iv)	Salaries for internal faculty	Rs. 1,00,000
v)	Typing, Xerox, Art work and other Miscellaneous expenditure	Rs. 10,000
<b>Total</b>		<b>Rs. 2,19,000</b>
<b>B. COURSE PRINTING:</b>		
i)	Cost of 32 reams of paper @ Rs. 400 per ream	Rs. 1,28,000
ii)	Composing charges @ Rs. 75 per page for 500 pages	Rs. 37,500
iii)	Preparation of negatives @ Rs. 27 per page for 500 pages	Rs. 13,500
iv)	Preparation of plates @ Rs. 96 per plate for 62.5 plates (with 8 pages per plate)	Rs. 6,000
v)	Printing of 5000 copies @ Rs. 25 for 1000 for 62.5 plates	Rs. 7,820
vi)	Binding charges @ Rs. 40 per 1000 of 16 pages lots	Rs. 6,250
vii)	Front and back cover page printing @ Rs. 80/- per 1000 copies for 5000 x 2 copies	Rs. 800
<b>Total</b>		<b>Rs. 1,99,870</b>
<b>C. AUDIO-VISUAL SUPPORT:</b>		
i)	Preparation of master copies of 2 audio, 2 radio and 2 video lessons per course	Rs. 24,000
ii)	Duplication of 50 cassettes to be sent to 50 study centres where the course is offered	Rs. 10,000
<b>Total</b>		<b>Rs. 34,000</b>
<b>D. DESPATCH OF COURSE MATERIAL:</b>		
i)	Despatch of 5000 units of course material in two instalments @ Rs. 25/-per despatch	Rs. 2,50,000
<b>E. FACE-TO-FACE COUNSELLING:</b>		
i)	Counselling at 50 study centres with 20 counselling sessions per course @ Rs. 70 per counselling session	Rs. 70,000
ii)	Correction of 3 assignments per course @ Rs. 3/- per assignment for 5000 students	Rs. 4,50,000
<b>Total</b>		<b>Rs. 5,20,000</b>
<b>F. TOTAL COST FOR 5000 STUDENTS (A + B + C + D + E)</b>		<b>Rs. 12,22,870</b>
<b>G. AVERAGE COST PER STUDENT PER COURSE</b>		<b>Rs. 245</b>
<b>H. Total cost per student for courses</b>		<b>Rs. 1,960</b>
<b>I. Average cost per student on student support services for one year programme based on 1991-92 averages vide table 5.7 Cost Component 2</b>		<b>Rs. 357</b>
<b>J. Average cost per student on indirect costs for one year programme based on 1991-92 averages vide Table 5.7 Cost Component 3</b>		<b>Rs. 236</b>
<b>K. Total Cost per student for the entire programme (H + I + J)</b>		<b>Rs. 2,553</b>

- j. The audio-visual supplement consists of 2 audio lessons, 2 radio lessons and 2 video lessons for the course.
- k. Travel expenses are restricted to First class train fare only.

## 5.4 YCMOU study

### 5.4.1 Cost Components and Cost Centres

YCMOU is still at its formative stage. It is rather difficult, therefore, to find out realistic programme cost and unit cost. However, an attempt has been made to analyse the expenditure of the first three years to get some idea of the costs involved.

The cost components of revenue expenditure as envisaged by the university are classified into operational cost and development costs.

The **operational costs** include:

- i. Cost of producing study texts
- ii. Multi copying of audio/video tapes, floppies, experimental kits, etc.
- iii. Cost of delivery including costs of such activities as publicity, registration, study centre organisation, counselling, formative, summative evaluation & certification.
- iv. Cost of maintenance activities
- v. Cost of infrastructural support

The **developmental costs** include

- i. Cost of planning for the programmes.
- ii. Cost of development of programme design, infrastructural materials, feedback & reforms.

YCMOU has eight Divisions. The likely distribution ratio between developmental and operational costs for each of these divisions is expected to be as follows:

**Table 5.11 YCMOU: Expected Distribution of Developmental and Operational Costs**

Division/Centre	Proportions of Expenditure	
	Developmental Cost %	Operational Cost %
1. Academic Division	100	0
2. Academic Services Division (ASD)	100	9
3. Audio Visual Centre (AVC)	90	10
4. Print Production Centre (PPC)	0	100
5. Student Services Division (SSD)	0	100
6. Computer Centre	25	75
7. Library & Resource Centre (LARC)	100	0
8. Administrative Division	0	100

### 5.4.2 Annual Per Capita cost

The revenue-expenditure for the first three consecutive years is given in Table 5.10. The expenditure has been divided into four main stages of operation — i.e. develop-

ment, production, delivery and infrastructure. The expenditure of various divisions is separated in the proportion mentioned in Table 5.9.

**Table 5.12 YCMOU: Revenue Expenditure by Divisions and Stages of Operations**

(Rs. in lakhs)

Division	Development			Production			Delivery			Infrastructure		
	89-90	90-91	91-92	89-90	90-91	91-92	89-90	90-91	91-92	89-90	90-91	91-92
1. Academic	6.09	20.06	13.10	—	—	—	—	—	—	0.85	2.57	8.86
2. ASD	1.11	3.10	2.57	—	—	—	—	—	—	—	—	—
3. AVC	0.76	5.00	7.61	0.21	2.56	6.60	—	—	—	—	—	—
4. PPC	—	—	—	5.72	33.11	39.88	—	—	—	—	—	—
5. SSD	—	—	—	—	—	—	5.11	22.55	26.72	—	—	—
6. Computer & LARC	0.43	13.20	6.00	—	—	—	—	—	—	0.14	5.88	13.27
7. Administrative	—	—	—	—	—	—	—	—	—	10.43	22.25	67.80
	8.39	41.36	29.28	5.93	35.67	46.48	5.11	22.55	26.72	11.42	30.70	89.93

The year-wise total revenue expenditure is calculated (Table 5.13) and divided by the total number of students to give cost per student (Table 5.14). The effective student number is arrived at by applying 0.5 weight to students enrolled on short term courses. So the student number is the number of students on year-long courses added to half the number of students on short-term courses.

The cost per student is around Rs. 2200/- which is "obviously high since the enrolment is quite low".

**Table 5.13 YCMOU: Summary of Revenue Expenditure**

(Rs. in lakhs)

Year	Development	Production	Deliveries	Infrastructure	Total	No. of Students
1989-90	08.39	05.93	05.11	11.42	30.85	620
1990-91	41.36	35.67	22.55	30.70	130.28	6111
1991-92	29.28	46.48	26.72	89.93	192.41	9552
<b>Total</b>	<b>79.03</b>	<b>88.08</b>	<b>54.38</b>	<b>132.05</b>	<b>353.54</b>	<b>16283</b>

**Table 5.14 YCMOU: Annual Average Cost Per Student**

(in Rs.)

Average annual cost per student	Development	Production	Deliveries	Infrastructure	Total
1991-92	306.53	486.60	279.73	941.48	2214.34
%	(15.22)	(24.16)	(13.89)	(46.73)	(100.00)
Yearly average	485.35	540.93	333.96	810.98	2171.22
%	(22.35)	(24.91)	(15.38)	(37.36)	(100.00)

### 5.4.3 Projected cost per standard course

Initially expenditure on various programmes and courses was not segregated. Further, the divisions were regrouped after the initial one and a half years. So the divisional expenditure cannot be disaggregated programme/course-wise. This may be possible shortly when the computerisation of expenditure materialises: calculation of unit cost per programme/course may not be possible till then. Hence an attempt has been made to estimate the likely cost of a course.

On the basis of costs incurred and the rates of honoraria, etc., paid by the university, the expenditure per student for one 8 credit points course of BA/B.Com programme has been projected in Table 5.13. The cost works out to be about Rs. 237/-. Infrastructure cost for administrative support is taken at 40%. On the basis of this estimate, the unit cost per student per year (32 credit points) will be about Rs. 950/- and the entire programme cost of 12 courses to be completed in minimum three years will be Rs. 2850/-.

**Table 5.15 YCMOU: Projected Cost per student for an 8 Credit Course of B.A./B.Com**

<b>(A) Development Cost:</b>		Per Student Cost
For 5000 students over three years		
(i) Meetings 3 @ Rs. 5000/-	Rs. 15,000/-	
Honorarium for members Rs. 250/- per credit point × 8	Rs. 18,000/-	
Stationery, Postage, Contingency, etc.	Rs. 7,000/-	
	Rs. 40,000/-	
(ii) A.V. Materials		Rs. 14/- (5.9%)
2 Videos at Rs. 10,000/-	Rs. 20,000/-	
4 Audios at Rs. 2500/-	Rs. 10,000/-	
	Rs. 30,000/- Rs. 70,000/-	
<b>(B) Production Cost:</b>		
(i) Printing of Blocks		
Per course 8 Books @ Rs. 12/- per Book	Rs. 96/-	
(ii) Multicopying cost of A.V. Materials for a batch of 50 students to be used over three years 4 Audio & 2 Videos @ Rs. 600/- per Set	Rs. 4/-	
		Rs. 100/- (42.00%)

<b>(C) Delivery Cost:</b>		
Per course per student		
(i) Postage (Rs. 0.2 per book)	Rs. 1.60	
(ii) Study Centre Expenses — Counselling & Admn. Management	<u>Rs. 27.40</u>	Rs. 29/- (12.1%)
<b>(D) Infrastructure Cost:</b>		
Administrative support expenses at 40% of the total expenditure		Rs. 94/- (40%)
<b>Total per student cost</b>		<b>Rs. 237/- (100%)</b>

### 5.5 CCIs study

The CCIs function under dual mode universities, offering simultaneously both classroom teaching and correspondence courses. Hence, all through the cost calculation, a tendency to compare the two modes within each university is maintained. The income details of three such institutions have been collected in Table 5.16.

Table 5.16 CCIs: Source of Income 1988-89

(Rs. in lakh)

Heads of Income		Grants (Govts.)	Fees			Other Receipts	Total
Universities			Tuition Fees	Other than Tuition Fees	Sub- Total		
1	2	3	4	5	6	7	8
Annamalai	CS	101.7 (29.8)	—	109.6 (32.3)	109.6 (32.3)	128.6 (37.9)	339.9 (100.0)
	DLS	—	425.0 (65.5)	85.6 (13.2)	510.6 (78.7)	138.0 (21.3)	648.6 (100.0)
Delhi	CS	1813.3 (89.1)	51.9 (2.6)	115.9 (5.7)	167.8 (8.3)	53.7 (2.6)	2034.8 (100.0)
	DLS	94.8 (46.9)	73.8 (36.6)	21.0 (10.4)	94.8 (47.0)	12.2 (6.1)	201.8 (100.0)
Mysore	CS	678.6 (89.5)	19.0 (2.5)	19.0 (2.5)	—	60.5 (8.0)	758.1 (100.0)
	DLS	—	110.3 (98.8)	—	110.3 (98.8)	1.3 (1.6)	111.6 (100.0)

Notes: Figures within parenthesis are the percentages to total

CS — Conventional System

DLS — Distance Learning System

Per student cost is worked out in Table 5.17 for weighted enrolments. The weighted costs have been worked out by dividing the total expenditure by the weighted en-

rolment. The following weights have been assigned to different levels of programmes to reflect higher costs at successive higher levels—

Certificate	0.25
Diploma	0.5
Undergraduate	1
Postgraduate	1.7
M.Phil	2.2
Ph.D	2.8

The above weights have been assigned on subjective assessment of value attributed to knowledge at successive higher levels and the corresponding efforts to be put forth by the teaching institutions to cope with the needs.

**Table 5.17 CCIs: Institutional Cost Per Student: 1988-89**

Head of Exp./Cost		Per Student Cost (Weighted) (in Rs.)			Per Student DLS as % of CS
Universities		Salary	Non Salary	Total	
1	2	3	4	5	6
Annamalai	CS	2498 (48.6)	2645 (51.4)	5143 (100.0)	23
	DLS	103 (8.4)	1124 (91.6)	1227 (100.0)	
Delhi	CS	5278 (69.1)	2359 (30.9)	7637 (100.0)	11
	DLS	536 (62.4)	323 (37.6)	859 (100.0)	
Mysore	CS	6683 (70.0)	2860 (30.0)	9543 (100.0)	22
	DLS	996 (48.2)	1071 (51.8)	2067 (100.0)	

Figures within parenthesis are the percentages to total.

CS — Conventional System, DLS — Distance Learning System

## 5.6 OUSL study

OUSL offers courses of different credit-rating and the credit-rating of a course has direct relation to the amount of study materials. Hence, student-credit (number of students enrolled on a course multiplied by the credit value of the course) is taken as the basic cost-centre.

For the year 1990, the total student credits in the three faculties were as follows:

**Table 5.18 OUSL: Total student credits (1990)**

Faculty of Engineering Technology	3994.50
Faculty of Natural Sciences	2027.75
Faculty of Humanities & Social Sciences	11880.06

To work out the cost per student for a given programme, the total faculty specific costs and the total non-faculty costs are identified for each faculty. The academic staff salary (faculty specific) in 1990 were as follows:

**Table 5.19 OUSL: Academic staff salary (1990)**  
(in million Sri Lankan Rs.)

Faculty of Engineering Technology	4.125
Faculty of Natural Sciences	3.606
Faculty of Humanities & Social Sciences	1.975

The overhead expenditure and the expenditure on student support services were distributed among the three faculties according to the number of student credits or courses. The production cost for books was distributed on the basis of the number of books produced for each faculty. Putting all these direct and indirect costs together, the total expenditure for the three faculties in 1990 were as shown in table 5.20:

**Table 5.20 OUSL: Total Cost — Faculty-wise (1990)**  
(in million Sri Lankan Rs.)

Faculty of Engineering Technology	11.925
Faculty of Natural Science	10.720
Faculty of Humanities & Social Sciences	15.698

As each faculty was offering varying number of programmes, the total faculty cost was distributed among the academic programmes of the faculty according to the ratio of student credits in each programme. From the cost thus computed, cost per student per year for each programme is determined.

**Table 5.21 OUSL: Cost per student per year — programme-wise (1990)**  
(in Sri Lankan Rs.)

Certificate in Pre-School Education	1223.16
Diploma in Management	3271.73
Diploma in Technology	7681.07
Bachelor in Law (LL.B.)	2914.49
Bachelor in Science (B.Sc.)	10985.70

Details of institutional overhead costs, total cost of student support services and the total cost of production of course materials are not available. Similarly, details of computation of cost per programme and the number of students or student-credits per programme are also not available.



[An earlier study conducted in 1989 "Cost of Courses/Programmes of study offered by OUSL — Nov. 1989" by Mr. N. Dissenayake and others present data under the following heads:

- i. Variable cost of courses per credit
- ii. Overheads
- iii. Total cost of courses per credit
- iv. Comparison of costs with present fees
- v. Recoverable overheads with present fees
- vi. Salaries of staff
- vii. Cost of programmes of study]

However details of average cost for producing one unit of printed course material, one unit of audio material and one unit of video material are given, each individually. The details are given below:

**Table 5.22 OUSL: Projected cost of producing print, video and audio material**

<i>PRINTING COSTS OF COURSE MATERIAL (OFFSET PRINTING)</i>			
	*	Year	— 1991
	*	No. of pages (per book)	— 100
	*	No. of copies	— 500
	*	Size	— A4
(01)		Material Charges	
	A.	Camera stage (charges for negative/positive)	
		Cost of making 100 positives	Rs. 3713.00
		Cover in one colour (Rs. 37.00 per page).	
	B.	Plate making charges	Rs. 5044.00
		Text 13 forms (26 plates)	
	C.	Paper and Board cost	Rs. 4757.00 + 1250.00
	D.	Binding Material	Rs. 751.00
		Total direct material cost	Rs. 15515.00
(02)		Labour cost	Rs. 4874.00
(03)		Indirect material cost	Rs. 863.00
(04)		Overheads cost	Rs. 4106.00
(05)		Other unaccountable charges and profit margin to the press	Rs. 5378.00
		<b>Total cost</b>	<b>Rs. 30736.00</b>
		<b>Cost of a book</b>	<b>Rs. 61.47</b>

**Cost of producing one video programme of 30 minutes duration**

Script development	Rs. 1000/-
Direction	Rs. 5600/-
Camera work	Rs. 750/-
Editing	Rs. 1250/-
Production — Co-ordination	Rs. 500/-
Graphics	Rs. 500/-
Post production activity	Rs. 250/-
Miscellaneous	Rs. 2500/-
Studio & Equipment (Studio, Camera, Editing, Lighting, Material, etc.)	Rs. 40000/-
<b>Total</b>	<b>Rs. 52350/-</b>

**Cost of producing one audio programme of 30 minutes duration**

Script development	Rs. 750/-
Recording supervision	Rs. 50/-
Editing	Rs. 125/-
Preparing of Master-tape	Rs. 250/-
Co-ordination of Production	Rs. 500/-
Post Production activity	Rs. 250/-
Studio & Equipment	Rs. 1500/-
<b>Total</b>	<b>Rs. 3425/-</b>

## 5.7 UT Study

### 5.7.1 Cost data

57.9% of UT revenue comes from the government grants, while 42.1% comes from student fees and sale of material.

For computing unit costs, the following data are used—

- i. total costs for course development, course delivery and the overhead management
- ii. the number of credits offered
- iii. the level of enrolment for each course for five consecutive years.

The total cost for the UT courses and programmes during the study period was 38.81 billions in Indonesian Rupiah (US \$ 20.98 million). The details are given below:

**Table 5.23 UT Cost data**

*(in Rupiah)*

Unit of activity	Total cost for 1985-86 - 1989-90	%
Course development	8,480,978	21.85
Course delivery	16,341,553	42.11
Overhead management	13,987,386	36.04
Total	38,809,917	100

Source: Summarised from Musa 1991

### 5.7.2 Unit Costs

The cost per course was calculated on the basis of estimated total cost per credit for each type of UT course.

The cost per student for each UT course is obtained by dividing the total cost by the number of students taking the course. Similarly the cost per credit is calculated by dividing the cost per student for each course by the credit load of the course. The total cost for the UT courses and the costs per student and per credit are given below:

**Table 5.24 UT: Estimated total cost for the UT courses and unit costs per student and per credit**

(in Rupiah)

Course category	No. of Courses		Credit	Total cost per course	Unit cost per student	Unit cost per credit
	Total	Average				
<b>A. By Credit Load</b>						
2 credit course	180	360	2.00	12,024,092	31,427	15,714
3 credit course	243	729	3.00	24,348,786	32,394	10,798
4 credit course	17	68	4.00	2,271,217	56,650	14,163
<b>B. By Course Requirements</b>						
Fundamental	12	25	2.08	835,006	4,396	2,113
Pre-core	65	189	2.91	6,312,648	16,954	5,826
Core & Support	364	948	2.60	31,663,442	51,309	19,734
<b>C. By Field of Study</b>						
Social & Political Science	85	242	2.85	8,082,862	14,114	4,952
Economics	74	221	2.97	7,381,456	34,496	11,615
Math & Physics	63	190	3.02	6,346,049	139,596	46,224
Education	207	484	2.34	16,165,724	102,745	43,908
<b>Total UT</b>	<b>441</b>	<b>1162</b>	<b>2.63</b>	<b>38,811,097</b>	<b>32,908</b>	<b>12,512</b>

Source: Musa 1991

**Note:** The figures have been reproduced as they were found in the source; we find the figures given against 'Total UT' do not tally with the 'total' of different categories of figures

The per student and the per credit costs vary considerably within and between the groups of courses. The variations in the cost per credit, though the allocation of money has been constant for each credit, are due to the differences in the enrolments.

### 5.7.3 Cost and Fee Ratio

The table above shows that the most expensive courses were those offered by the School of Mathematics and Physics; the least expensive were those by the School

of Social and Political Sciences. The existing tuition fee (which averages to 5000 Rp) is generally equal to the unit cost for the courses of the latter; it is about 50% of the cost per credit for economics, 9% for Maths and Physics and 10% for Education courses.

### 5.8 OLI study

A cost study of OLI as such has not been taken up by any investigator, as it was said at the beginning of this chapter. Hence some relevant pieces of information from Dhanarajan and Hope (1992) and "the Accounts for the year ending 31 March 1992" are presented in this section.

The OLI was expected to be totally self-financing within a period of four years. With the target set thus the government grant has been on the decrease over the years, with a corresponding increase in the tuition fees. The details of revenue are given in table 5.25.

Table 5.25 OLI: Revenue

Sources	1991-92	1990-91	1989-90
i. Tuition fees (in million HK \$)			
School of Arts and Social Sciences	17.5	12.2	2.2
School of Business and Administration	56.9	30.8	6.2
School of Science and Technology	45.7	23.1	3.2
<b>Total</b>	<b>120.1</b>	<b>66.1</b>	<b>11.6</b>
ii. Government Grant (in million HK\$)	20.9	41.3	42.8
Percentage of Govt. grant to total revenue	13.9%	35.1%	69.0%

Source: Accounts for the year ending 31st March 1992, OLI.

The expenditure is accounted under the major heads — direct costs, staff costs and other costs. Per credit costs under these heads have been added up to get the total cost per credit (20 credits of OLI are equivalent 1 credit of UKOU; 40 credits are taken to be equivalent to the curriculum load of one year at the conventional institutions). The cost per credit details are given below in Table 5.26, followed by tuition fee per credit for purposes of comparison.

Table 5.26 OLI: Cost per credit/Tuition fee per credit

(in HK \$)

	1991-92	1990-91	1989-90
Direct cost per credit	221	229	304
Staff cost per credit	220	275	598
Other costs (rent, etc.) per credit	62	99	441
<b>Cost of producing one credit</b>	<b>503</b>	<b>603</b>	<b>1,343</b>
<b>Tuition fee per credit</b>	<b>450</b>	<b>380</b>	<b>330</b>

Cost efficiency/effectiveness rates, reproduced below, have been worked out by Dhanarajan and Hope (1992: 18)

**Table 5.27 OLI: Cost efficiency/effectiveness rates**

	1991-92	1990-91	Oct. 1989
FTE academic staff FTE students*	1:63	1:56	1:27
Administrative cost to Academic cost	1:1.47	1:1.25	1:0.8
All staff costs to Fee income	1:1.99	1:1.43	1:0.8

\*Academic staff calculated as full-time staff plus part-time tutor cost at mid-point of the lecturer scale.

Source: Dhanarajan and Hope, 1992.

## 5.9 STOU study

For STOU no cost details could be obtained despite all our efforts. The funding details given in subsections 5.9.1 — 5.9.3 have been collected from secondary sources, mainly from Chaya-Ngam (1993).

### 5.9.1 Total Expenses

The total expenses of STOU in 1992 amounted to 645,544,100 Bahts. A breakup of his total expense against different expense types is tabled below.

**Table 5.28 STOU: Total expenses (1992)**

Expense Types	Expense
i. Salaries and wages	150,225,800
ii. Remunerations, expenditures materials, utilities and others	407,232,400
iii. Equipment, land and construction	70,210,400
iv. Central fund	17,875,500
<b>Total</b>	<b>645,544,100</b>

Source: Chaya-Ngam, 1993.

The expense types listed are primary types and the figures are approximate. The first type includes salaries and wages of employees, a majority of whom receive the full salary and benefit packages as fixed for the government employees. The second category includes payment for a wide variety of services (such as course-writing, assessing exam scripts, seminar-teaching, overtime wages/fees, transportation and accommodation expenses, etc); and payment for consumable materials and utilities such as electricity, water, telephone, mailing. The third category includes audio-visual equipment, printing equipment, office equipment, etc. The fourth category represents a monetary sum over and above income allocated to the other three divisions.

### 5.9.2 Government funding

STOU's primary source of income is the Thai Government. It received 136 million Bahts in 1992. Though this amount looks substantial, compared to budget allocation made to other universities/institutes in Thailand, it is the second lowest. This has to be viewed in the light of the fact that "STOU's student enrolment represents nearly the highest enrolment of any higher education institution in Thailand".

The annual government allocation is again meagre when viewed against the annual expenses: the government allocation for 1992 is just 21.12% of the STOU total expenses for the year, 646 million Bahts. The percentage has grown marginally over the years as shown in Table 5.29.

**Table 5.29 STOU: Total yearly expenses × annual government allocation**

Budget year	STOU Total expenses	Govt. allocation	%
1989	579,691,376	84,116,700	14.51
1990	469,470,558	94,635,600	20.15
1991	605,305,997	118,229,100	19.53
1992	645,544,100	136,258,300	21.12

Source: Chaya-Ngam (1993)

The government budgetary allocation to STOU is earmarked for only certain items on STOU's list of expenses. Out of the total allocation of 136 million Bahts for 1992, a major chunk of 103 million Bahts (75%) was meant for the expenses under the head salaries and wages; the remaining was distributed to select items under other heads. STOU had to self-support to the tune of 47.5 million Bahts for salaries and wages (about 31.62% of the total expenses under this head). The government contribution to expenses on air time was 0.02% and to audio visual supplies was 0.09%. Its contribution to expenses on printing, supplies, course writers and tutors was nil.

Thus the funding from the government is very limited.

### 5.9.3 Revenue from Students

The other major source of funds for STOU is the revenue from students. For a two year degree programme a student has to pay about 5,600 Bahts, which is "admittedly low by any standard". The size of annual revenue received from students is given in Table 5.30.

**Table 5.30 STOU: Revenue received from students**  
(in million Bahts)

Year	Total revenue
1989	279.5
1990	272.6
1991	318.4
1992	319.4

Source: Chaya-Ngam (1993)

Apart from revenue from students, STOU has other resources such as supplementary revenue, land donations and financial grants to supplement the limited government contribution.

As for cost-study, as no current information could be obtained despite our efforts, we present below some relevant information pertaining to 1982 published in 1987.

#### 5.9.4 Operating cost per head by institution

The National Education Commission of Thailand conducted a study on operating and capital costs of government universities and private colleges in 1982. A comparison of operating costs per head of government universities (in 1982) with that of STOU (in 1982) is provided in Table 5.31. The operating cost per head at STOU is 2,341 Baht.

**Table 5.31 STOU: Operating cost per head as percentage of cost per head of other universities, 1982**

(in Bahts)

Institution	Per head in other universities	STOU per head (2,341) as % to other universities
Khon Kaen	49,635	4.72
Chiang Mai	40,210	5.82
Prince of Songkhla	37,244	6.29
Kasetsart	24,683	9.48
Chulalongkorn	46,089	5.08
Thammasat	11,463	20.42
Mahidol	120,730	1.94
Srinakarinwirot, Prasarn Mit.	25,999	9.00
Silpakorn	27,394	8.55
King Mongkut's Institute of Technology	27,230	8.60

Source: Quoted in Srisa-an 1987: 524

#### 5.9.5 Operating cost per graduate

The National Education Commission (1982) has also compared the operating cost per graduate at STOU with the corresponding cost at other institutions. It has been



assumed that the success rate at STOU is 50% of the cohort. The comparison is made in Table 5.32. STOU per graduate cost is fixed as 7,023 Baht.

**Table 5.32 STOU: Operating Cost per graduate as percentage of cost per graduate in other universities (1982)**

(in Bahts)

Institution	Per graduate cost in other universities	STOU per graduate cost as % to other universities
Khon Kaen	61,276	11.46
Chiang Mai	46,186	15.21
Prince of Songkhla	46,791	15.01
Kasetsart	31,490	22.30
Chulalongkorn	53,532	13.12
Thammasat	12,790	54.91
Mahidol	145,064	4.84
Srinakarinwirot, Prasarn Mit.	30,756	22.83
Silpakorn	33,686	20.85
King Mongkut's Institute of Technology	38,000	18.48

Source: Quoted in Srisa-an 1987: 525

### 5.10 AIOU study

As stated earlier AIOU was not represented in the Project by any investigator. So no current cost study report could be obtained on AIOU and we had to depend on whatever information was available through secondary sources.

Siddiqui (1987) refers to two UK Overseas Development Administration (ODA) sponsored studies undertaken in January/February 1979 and March 1983. The former was conducted by an Evaluation Mission in connection with the phasing of further assistance to the AIOU. Considering the amortization of capital costs, salaries and other recurrent expenditure together with student numbers, the Mission felt that "the AIOU would progressively show considerable cost advantages over other conventional institutions" (ibid: 218).

The ODA team, according to the country paper summaries presented in Distance Education in South Asia (1989), "demonstrated that the cost of a graduate at a conventional university was Rs. 18,850 compared to the cost of a graduate at AIOU which was in the range of Rs. 8,670 — Rs. 12,000". But about 35% of AIOU cost mentioned above is met by the student fees. If this factor is taken into consideration "the net cost of a graduate at AIOU is in the range of Rs. 5,680 — Rs. 8,500 which is between 30 per cent and 45 per cent of the cost in the conventional system" (ibid: 144).

The second study referred to by Siddiqui is a Review of the University taken up jointly by the Government of Pakistan and the ODA. This concluded that the AIOU

could provide graduate-level education more cheaply than conventional universities in Pakistan, provided that enrolments were sufficiently high.

Siddiqui observes that both the assessments were proved by subsequent analyses "which have indicated that with an enrolment of 5000, average student costs are approximately 30 per cent of the cost of educating a graduate at a conventional university". (Siddiqui 1987:220)

The cost comparison figures for two programmes, given by Siddiqui, have been used in Chapter 6.

## The Cost Effectiveness

### 6.1 Effectiveness and Efficiency

Studies of cost effectiveness and cost efficiency are concerned with the relationship between the achievement of objectives and the cost involved in achieving them.

An organisation is effective, if it achieves its objectives; it is efficient, if it achieves the objectives with optimum use of resources. While effectiveness depends on the quality and quantity of the output, efficiency is determined on the basis of the consumption of resources in achieving the given quality and quantity of output (Rumble 1986: 69-70).

It is difficult to make conclusive statements about cost effectiveness or cost efficiency, as neither of the two factors involved — i.e. achievement of educational objectives and the cost of education — can be measured precisely. ‘‘Educational aims and objectives are often open ended, benefits are invariably unquantifiable and the relationship between inputs and outputs is unknown.’’ Consequently ‘‘questions about the effectiveness and efficiency of education can only ever be answered tentatively.’’ (Birch & Cuthbert 1981: 13).

Measures of effectiveness that we need to use for OUs obviously have to correspond with the rationale that we identified in Chapter 1 for the spurt of OUs:

- i. Numbers and necessity argument
- ii. Egalitarian argument
- iii. Economic argument
- iv. Quality of education argument
- v. Continuing education argument
- vi. Spin-off benefits argument

The OUs under study can be said to be effective to the extent that their performance-indicators answer each of these arguments in favour of their establishment. The discussion in Chapter 3 on the enrolment and the types of programmes offered reflects the performance of OUs against the parameter of numbers and necessity. The discussion on the profile of learners was an attempt to check the extent to which the OUs meet the egalitarian demand and the demands for life-long or continuing education\*. What range and kind of spin-off benefits they provide were also discussed, to some extent, in Chapter 3.

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\* The range and size of unconventional learners who would have otherwise remained outside the ambit of formal education (and the conventional type learners benefitted by the OUs as well) is a measure of fulfilment of the demand for equity and equality of educational opportunities. Their range and size reflect the demands for continuing/life-long education too.

This chapter is concerned with:

- i. the cost advantages supporting the economic argument, and
- ii. the quality of education offered by the OUs in terms of success rates, benefits to learners and social acceptance.

## 6.2 Cost advantage

Any assessment of cost becomes meaningful only by a comparative assessment of advantage in relation to the cost incurred by an alternative means to achieve the same objective. So a comparison of 'the like with the like' is necessary to make any cost study worth its effort.

One measure of cost effectiveness that is meaningful in the present study is a comparison of the costs for a given programme in the open universities with the corresponding programme, in the conventional system. Identical programmes in both the systems with scope for one to one comparison are not many. The conventional universities again have not maintained records in such a manner as to facilitate disaggregation of cost per individual for each programme. There are many common items of expenditure in the institutions of conventional system which cannot be easily apportioned to individual programmes and much less to individual courses.

Notwithstanding the above limitations, an attempt has been made (Pillai 1992) to compare the cost of Bachelor's Degree programme offered by IGNOU with similar programmes offered by colleges affiliated to different universities in India. There are about 7400 such colleges in the country. Data from about 80 colleges distributed in different parts of the country, spread over six states, have been collected and analysed. The per student unit cost for the year 1989-90 (upto which the data were available) has been worked out. The details are given in Table 6.1

**Table 6.1 Annual Revenue Expenditure of colleges (in India) offering Bachelor's Degree Programmes**

*Per Capita Cost in Rs.*

Sl. No.	State	No. of Colleges	No. of Students	Per Student Cost
1.	Jammu & Kashmir	16	12,976	4,235
2.	Madhya Pradesh	12	16,262	2,462
3.	Orissa	7	9,495	4,424
4.	Goa	5	3,709	2,307
5.	Pondicherry	5	3,394	8,206
6.	Tamil Nadu	34	29,542	4,718
	<b>Average (all states)</b>		<b>75,378</b>	<b>4141</b>

Source: Pillai (1992)

The unit cost for the year 1989-90 was converted at current prices to estimate the annual costs for the year 1990-91 and 1991-92 for the purpose of comparison with the costs of IGNOU. The position is presented in Table 6.2

**Table 6.2 IGNOU: Comparison of Annual Cost of Bachelor's Degree Programme of IGNOU and Select Colleges**

*Per Capita Cost in Rs.*

Year	IGNOU	Select Colleges
1989-90	1842	4141
1990-91	1644	4762
1991-92	1997	5476

Source: Pillai (1992)

The YCMOU has worked out the average cost per student per year (for 1991-92) as 2214.35. By another calculation assuming 5000 students on roll, the expenditure per student for one 8 credit course of B.A/B.Com programme is worked out as Rs. 237/-. On the basis of this estimate the unit cost per student per year works out to Rs. 948/-. The difference between the estimate (Rs. 948/-) and the ex post computation of average cost per student per year for 1991-92 (Rs. 2214/-) is too large to accept the estimate. Since about 77% of the enrolment for the year 1991-92 is for the B.A/B.Com programme, we incline to take the average cost per student per year for 1991-92 as the approximate annual cost for a B.A/B.Com student. The actual cost may come down considerably, if the enrolment increases.

The per capita cost of Bachelor's degree students of BRAOU has been calculated as Rs. 777 for the year 1991-92.

The per student annual cost at the colleges and the corresponding costs at IGNOU, YCMOU and BRAOU are tabulated in Table 6.3. Ignoring the shortcomings, the study still gives a definite picture of the economy in per capita expenditure that is made possible in distance education.

**Table 6.3 Comparison of Annual Average Cost per student (Degree/Diploma Programmes, 1991-92: OU and Select Colleges)**

*Annual per student cost (in Rs.)*

OUs	OUs	Select Colleges	OU cost as % to Select Colleges
IGNOU	1997	5476	36.5
BRAOU	777	5476	14.2
YCMOU	2214	5476	40.4

The size of enrolment and the limited number of courses/options on offer at BRAOU for the Bachelor's degree programme seem to keep the per capita cost low.

As for the CCIs, Rudder Dutt (1993) made an exercise to compare cost per student in the School of Correspondence Courses & Continuing Education (SCC & CE), New Delhi, with corresponding cost at 12 of the 53 colleges affiliated to Delhi University. The sample comprised colleges with different enrolment levels to make the sample representative of the wide spectrum of enrolment range.

Cost per student for these colleges was computed for three consecutive years — 1985-86, 1986-87 and 1987-88. The cost was converted into cost per student at

1987-88 prices and the average annual cost per student was worked out. The results of this exercise are given in Table 6.4.

**Table 6.4: Average enrolment and cost per student for Delhi colleges**

Colleges	Average Enrolment for 1985-86 to 1987-88	Average cost per student for 1985-86 to 1986-87
1. St. Stephen's College	987	5,814
2. Miranda House	2,105	5,364
3. K. M. College	2,087	4,710
4. I.P. College	1,833	4,952
5. Zakir Hussain College	2,030	4,601
6. SGTB Khalsa College	2,239	4,213
7. Vivekananda Mahila College	1,147	4 211
8. Swami Shradhananda College	2 023	3 489
9. Satyawati College (M)*	1,636	3,750
10. Zakir Hussain College (E)**	1,326	3,466
11. SGTB Khalsa College (E)	1,325	2,746
12. Satyawati College (E)	1,057	2,569
Total	—	49,785
Average	—	4,157

Source: Dutt (1993) \* Morning \*\* Evening

The average of 12 colleges reveal that cost per student in regular colleges of Delhi University was Rs. 4157/-. A similar exercise was undertaken to determine the average annual cost per student at the SCC & CE for the three year period — 1986-87, 1987-88 and 1988-89. The results are given in Table 6.5.

**Table 6.5 CCIs: Enrolment and cost per student for different courses in the School of Correspondence Courses, Delhi University (1986-87—1988-89)**

(in Rs.)

Courses offered	Total number of students	Weighted average cost per student
B.A. (Pass)	51,046	544.82
B.Com. (Pass)	24,607	550.84
B.Com. (Honours)	3,098	856.16
B.A. (Honours)	208	1,067.98
M.A. Hindi	1,642	1,277.00
M.A. Political Science	887	1,399.16
M.A. History	226	2,403.71
M.A. Sanskrit	337	2,310.76
M.Com.	2,023	1,222.33
Total	84,074	611.05

Source: Dutt (1993) \* at 1987-88 prices

The two tables reveal that as against the annual average cost per student of SCC & CE, Rs. 611, the corresponding cost at the regular colleges is Rs. 4157. The SCC & CE cost works out to be 14.7% of the cost of Conventional Education. The results of Ansari's study have been reported in Chapter 5. The three CCIs which have been represented show their per capita cost as ranging from 11 % to 23% of the per capita cost of the conventional system.

While studying the cost of CCIs one needs to take into account certain cost determining factors. The CCIs function as subordinate units of the conventional universities to which they belong and they follow mostly the very same courses (by and large of Arts, Humanities and Social Sciences, barring a few exceptions) offered by the parent organisations. As such, they do not generally have to incur any expenditure by way of designing courses; the preparation of courses itself does not cost much for the very same reason. Moreover, the student support services and the use of technology for course delivery are also kept at a low profile. Short intensive contact-sessions are held by some CCIs once or twice a year and some CCIs use radio broadcasts made available free of cost. Their instructional packages do not consist of audio/video cassettes. Study centres for student contact are too few in number and are run only by a few of the CCIs. Besides, the CCIs have large enrolments (Chapter 3) and less number of courses. Because of these factors the costs of CCIs are bound to be lower than the costs of conventional universities and, even lower than the costs of open universities.

In Indonesia, the Centre for Research and Community Service at the UT conducted a comparative cost study in collaboration with the Institute for International Research (IIR). It compared the cost effectiveness of the UT's D2 Mathematics and D2 Bahasa Indonesia Programmes with those provided by four IKIPs (Campus based post secondary Teacher Training Colleges) and two FKIPs (Schools of Education within the conventional university system). Both institutional and individual costs relating to the academic years 1987-88 and 1988-89 were taken up for comparison. The institutional costs (operational as well as fixed) were grouped into "cycle costs" (costs per graduate) and "credit hour costs". The cycle costs were based on a two year programme and the credit hour costs were based on an 80 semester credit hours requirement for a two year programme. The comparison of costs per cycle and per credit are summarised in Table 6.6.



**Table 6.6 UT: Operational costs and fixed costs per cycle and per credit at UT & Corresponding Conventional Institutions (1987-88 and 1988-89)***(in Indonesian Rupiah thousands)*

Unit Costs	IKIP's & FKIP's			UT			UT cost as % cost at IKIP's & FKIP's		
	Operation Costs	Fixed Costs	Total	Operation Costs	Fixed Costs	Total	Operation Costs	Fixed Costs	Total
D <sub>2</sub> Mathematics									
Per Cycle	2,738	622	3,360	368	194	562	13	31	17
Per Credit	34	8	42	9	5	14	27	63	33
D <sub>2</sub> Bahasa Indonesia									
Per Cycle	2,955	571	3,526	359	193	552	12	34	16
Per Credit	37	7	44	9	5	14	24	71	32

Source: Adapted from Musa 1991: 42

\* Conventional Institutions

The table shows that the unit costs are significantly lower for the UT distance education programmes compared to the programmes of the campus-based institutions. The UT unit cost per cycle (per graduate) is only 16-17% of the cost of campus based institutions (12-13% operational cost & 31-34% fixed cost). The UT unit cost per credit is 32-33% of the cost of campus based institutions (24-27% operational cost & 63-71 % fixed cost).

The comparison of individual costs (direct and foregone) is made in Table 6.7. The individual foregone cost is higher at UT for the Maths programme. Nevertheless, the total cost works out to 40-50% less compared to campus based costs.

**Table 6.7 UT: Comparison of Direct and Foregone costs of Teacher-Training programmers through distance and conventional modes in Indonesia**

Programme	Conventional Mode			Distance Mode			Cost of distance mode as % to conventional mode		
	Direct	Foregone	Total	Direct	Foregone	Total	Direct	Foregone	Total
D <sub>2</sub> Maths	603	48	651	242	86	328	40	180	50
D <sub>2</sub> Bahasa Indonesia	642	85	727	247	45	292	39	53	40

Source: Adapted from Musa 1991: 44

Thus the study shows that the distance education system is evidently less expensive than the face-to-face system.

A comparison of unit costs of UT and of the campus universities of Indonesia was attempted in 1986 by a project called "Improving the Efficiency of Educational System" (IEES). It computed the faculty-wise weighted average of operational

costs per student per year. It did not take into account the number of courses offered by the faculty. The unit costs worked out are given below:

**Table 6.8 UT: Comparison of per capita cost with Conventional Universities**

(in Rupiah)

Field of Study	Per capital cost			UT cost as % to	
	UT	Public CU	Private CU	Pub. CU	Priv. CU
Social Sciences	43,299	170,000	266,000	25.5	16.3
Economics	99,387	196,000	301,600	50.7	33.0
Natural Science (Maths and Physics)	351,452	656,000	832,400	53.6	42.2
Education	361,501	297,000	236,000	121.7	153.2
<b>Average (weighted)</b>	<b>119,892</b>	<b>280,000</b>	<b>343,800</b>	<b>42.8</b>	<b>34.9</b>

Source: Adapted from Musa 1991: 84

The estimated cost per student at UT is lower compared to the cost at Public as well as Private campus universities for all fields of study except Education. The reason attributed for higher cost for Education is the low enrolment level in the courses and programmes offered by the School of Education.

A joint project of Harvard Graduate School of Education and the USAID on *The cost effectiveness of Distance Education for Teacher Training* (1991) undertook a comparative cost study of teacher training programmes in the distance and the conventional modes offered in Sri Lanka and Indonesia. The study provides evidence that distance education was "clearly more cost effective" than the campus education in Sri Lanka. In Indonesia, while the distance language programme was found more cost effective, the distance programme in Maths was found less cost effective, compared to corresponding programmes in the conventional face to face mode. The Distance Education Programmes were found more cost efficient in both the countries from the point of view of Government costs. The annual cost per capita was 1/6-3/5 of the cost of campus based education. Government costs ranged from 1/10 to 1/3 of the cost of campus based programmes in Sri Lanka, and 1/4 of the cost of the campus based programmes in Indonesia.

In Hong Kong there are 7 conventional Tertiary Institutions. An attempt made to compare the unit cost per student of these institutions with the corresponding cost at OLI, again goes to prove that the distance mode is significantly less expensive. The computation of the unit costs is summarised in Table 6.9. The cost details relate to the year 1991-92. The figures do not include capital and research grants. The FTE of OLI is calculated on the assumption of 40 of OLI credits as equivalent to a full-time workload.

**Table 6.9 OLI: Recurrent Grant and Unit Cost — comparison with Conventional Institutions**

	Student Numbers (FTE)	Recurring Grant (% of total expenditure) in HK\$ millions	Average Recurrent Grant (FTE) in HK\$	Unit Cost per FTE (HK\$)
HK University of Science & Technology*	700	293.116 (93%)	418,737	455,140
HK University	8,899	1038.219 (82.6%)	116,667	141,243
Chinese University of HK	8,895	909.998 (73.7)%	102,304	138,812
City Polytechnic HK	9,074	674.465 (84.6%)	74,330	87,860
HK Polytechnic	13 881	843.148 (83.3%)	60,741	72,919
HK Baptist College	3,306	239.032 (83%)	72,302	87,111
Lingnan College**	1,426	79.266 (83%)	55,586	66,971
Open Learning Institute***	7,470	20.900 (13.9%)	2,797	16,076

- \* The HK University of Science & Technology is a new (one year old) university. Its FTE costs therefore are unusually high. The University is expected to reach its full capacity in about four or five years when unit cost per FTE will drop to the levels of the mature institutions.
- \*\* Lingnan College is another new entrant to tertiary education. It is a liberal arts college and overheads are very, very low.
- \*\*\* FTE figures for the OLI are extrapolated from the total credits delivered by the Institute. In the year 1991-92 OLI delivered 298,000 credits. For purposes of comparison with other institutions 40 of OLI credits are considered equivalent to a full academic year worth of student workload.

Source: Personal Correspondence with Director, OLI

Column 4 (average recurrent grant) represents the amount of money the government of Hong Kong gives on an annual per capita basis to the Institutions. Column 5 (unit cost per FTE) is the actual cost of supporting a student in the institutions. The difference between column 4 and column 3 is met by student fees, endowments, donations etc.

In the case of OUSL, comparative cost details of similar programmes are available only for the Science and Law programmes. They are tabulated below:

**Table 6.10 OUSL: Comparison of Costs with Conventional Universities**  
(in Rupees)

Programme	Cost per student		OUSL Cost as % CU cost
	OUSL	CUs	
Bachelor in Law	2914	3006	96.9
Bachelor in Science	10985	20147	54.5

Source: Ranasinghe 1992

The cost advantage at OUSL, in the case of law programme is meagre (3%) but in the case of Science Programme it is about 45.5%. But it is relevant here to point

out that the Bachelor in Law is the only programme\* which fetches more money to the OUSL through student fees than what it actually spends on it. The details of the total cost, present fee and difference are given below:

**Table 6.11 OUSL: Difference between programme cost and student fee (Bachelor's Degree Programme in Law)**

Level	Total Cost (in Rs)	Present fee (in Rs)	Difference (in Rs)
3	1001.67	1620.00	+ 618.33
4	1360.19	1620.00	+ 259.81
5	1350.61	1620.00	+ 269.31
6	1063.27	1620.00	+ 556.73

Source: Dissenayake 1989

In the case of AIOU, cost statistics of recent days is not available. Siddiqui (1987: 221) has attempted a comparison of costs for two programmes. Based on projected intakes for 1987-88 extrapolated from the earlier enrolments, he presents the costs for two levels of award as follows:

**Table 6.12 AIOU: Comparison of Cost — Intermediate and B.A. Programmes**

	AIOU	Conventional institutions	AIOU cost as % to Conventional institutions
Intermediate	Rs. 3,930	Rs. 5,688	69
B.A.	Rs. 5,240	Rs. 7,250	72

Source: Siddiqui 1987

The cost for conventional institutions are based on estimated 1978 figures corrected for inflation by a cautious 25%.

Similarly in the case of STOU also the statistical information available on cost comparison relates to the year 1980. A comparison of operating costs per head in the same discipline is provided in Table 6.13

**Table 6.13 STOU: Comparison of cost by disciplines with Conventional Universities**

Discipline	Type of University		OU cost as % of CU
	Selective (Baht)	Open (Baht)	
1. Business Administration and Commerce	14,942.07	1,695.95	11.35
2. Natural Science	19,778.15	972.72	4.91
3. Education and Teacher Education	20,507.39	638.08	3.11
4. Social Behavioural Science	13,435.97	591.84	4.40
5. Law	11,970.81	461.34	3.85
6. Humanities	14,332.56	305.36	2.13

Source: Chaya-Ngam, 1987: 348

\* With the exception of Certificate in Professional English which gets an excess income of Rs. 123.23 over the cost of 1076.77 by collecting Rs. 1200 as tuition fee.

The figures given in the table represent only the operating costs. Capital costs are not included. "The table demonstrates the economical effect of large-scale operations. The large number of students in the open universities helps to reduce the average cost" (Chaya-Ngam 1987: 346). The open type universities represented in the Table include STOU and Ramkhamhaeng University. The operating cost of open type universities for different disciplines varies from 2.13% to 11.35% of the operating cost of the same disciplines at the conventional type universities. STOU operating cost per head as percentage of cost per head of conventional institutions varies from 1.94% to 20.42% (Table 5.31). The operating cost per graduate of STOU is in the range of 4.84% to 54.91% of the cost per graduate of the conventional institutions (Table 5.32).

Thus, wherever comparative studies have been made and the details of studies are made available, the figures speak positively in favour of the economic advantage of the distance education system and support the economic argument. But the question is whether the cost advantage claims can be sustained against the questions of quality.

### 6.3 Quality of Education

Cautions have been made about the comparability of quality of OU graduates with CU graduates. The cautions are based on the arguments that (i) 'information sharing' is not education; (ii) the other functions of imparting education through provisions of tutorial services, opportunities for interaction with fellow pursuers of education and access to educational facilities/resources are key factors differentiating the educational experience of OU as against CU graduates. Carter, quoted in Rumble (1986: 73), says:

...the comparison is between two quite different kinds of educational experience: one full time, involving close relation with other students in a wide variety of activities, free from the pressures of earning a living and from most other responsibilities; the other requiring the dedicated use of spare time, in a life subject to the discipline of other responsibilities, I'm not saying which educational experience is better — ... But they are not the same ...

Carter proceeds further to react to Wagner's claim that the output of OU is planned to be similar to that of conventional universities. Carter feels that Wagner's claim "might give currency to the belief that those who can pass the same examination have had the same education" (ibid: 74).

The fact is that Carter's objection to correlating the quality of education gained to the examination passed is applicable even to the conventional system of education. Certainly all those who pass the same examination of a conventional university do not have the same educational attainment — not only in terms of levels but even in terms of quality and kind. The exposure and experience of each individual differs and also the kind of education they gain.



If the distance learner is denied opportunities of "close relation with other students in a wide variety of activities", he has his job-environment, colleagues, superiors and subordinates, with whom he interacts and gains in job-oriented experiential learning. He is under pressure to earn and hold other responsibilities; but he is mature, aware of his needs and is willing to work for them. If he does not get the opportunity to fulfil his needs for learning through the OUs, he may not get any opportunity at all.

#### 6.4 Success Rates and Learner Benefits

What we need to consider in the light of the foregoing discussion is not a comparison of quality — comparison is worth only where 'like is compared with like' as we said earlier; we should rather concern ourselves with the target set, the achievement made and the cost suffered. With this assumption the success rate and the learner-benefits are studied in the following section.

The success rates as given in the papers presented at the Madras seminar are tabulated below. The success percentage represents the number graduated as against the number enrolled or the number graduated as against the number appeared for exams. Strictly speaking the percentage of pass against those who have enrolled in a course will not reflect the true success rate in a system where student-paced learning is a declared policy. The comparison should, then, be with those 'active' in a given semester or term and those turning out successful.

**Table 6.14 Institutions under Study: Percentage of Students Passing Examination**

OU	Pass % X enrolment	Pass % X appearance
IGNOU	22.5	—
YCMOU	—	56.2
BRAOU	29.14	—
OUSL	26.22	59.56
OLI	44.12	75.19
CCIs		
Delhi University	28.2	—
Annamalai University	40.4	—
Bombay University	41.2	—

The table shows highest pass percentage for OLI, whether it is against the enrolment or against the appearance. It should be remembered that at OLI the students have to meet almost the full cost of their education, whereas at the other institutions the cost is highly subsidised by the governments concerned (chapter 5). Considering the average pass percentage for the conventional institutions of India (C.R. Pillai 1992: 23), the pass percentage of Indian OUs/CCIs ranging from 22.5% to 41.2% may be taken as a positive indicator of performance, given the flexibility of OUs in terms of duration of studies besides other differences.

Details of success rates concerning STOU are given by Sriprasart, et al (1988: 160). The percentages represent average graduation rate per year of the total enrolment in the relevant programme.

**Table 6.15 STOU: Average graduation rate per year**

Programme	Average graduation %
1. Two year continuing education Bachelor's Degree Programmes	38
2. Three year Bachelor's Degree Programmes	20
3. Four year Bachelor's Degree Programmes	15
4. One year Certificate Programmes	37

**Source:** Sriprasart, et al. 1988

One year and two year programmes show an average success rate of 37% and 38%. As programmes of longer duration show lesser success rate, the programme-duration perhaps has something to do with the sustenance of interest and motivation. May be with part-time pursuers of learning, length of duration has negative influence.

As for UT, Rakhmat, et al (1988) give some details of success rates for the initial three years of UT operation. During 1984-85 to 1986-87 the cumulative enrolment for Degree and Diploma programmes was 131,743 out of which the active students were 67,446. (ibid: 175). UT did not graduate any student during the three year period; but it produced 2,607 diploma graduates (ibid: 183). As details of students enrolled for the diploma programmes are not available, it is not possible to work out success rate. However, the retention rates, based on 1984-85 COHORT sample, show that only 60.5% students stay through all the four semesters, 19.8% drop out at the end of the first semester, 10.7% at the end of the second semester and further 9% at the end of the third. Challenges of self learning system, difficult learning materials, poor exam results, family and job related problems were some of the factors that inhibited students from further registration (ibid: 188).

Individual studies about the relevance of education to employment and to job performance have been carried out in Thailand. The research titled *Occupational Benefits of Open University Education* by Dr. Preecha Kamphirapakorn, et al found a higher level of capability in the work of their sample (Sriprasart 1988: 160). Another study by Maethi Piyakhun found a different sample registering a high level of job satisfaction, using in their jobs what they had learnt at the OU and receiving much overall benefit (ibid: 160). Statistical data on application of learning to jobs are given below:



**Table 6.16 STOU: Application of Learning to jobs***(in percentage)*

	1984	1985	1986	1987	1988
Very much	32.6	32.1	30.6	30.0	27.9
much	55.6	53.8	54.0	53.5	53.3
little	8.2	9.8	10.7	10.5	13.2
very little	2.7	2.7	3.6	3.6	3.6
no response	0.9	1.7	1.1	2.3	2.0

Source: Rojanasang 1992

The statistics show that about 30% students every year find their learning "very much" useful in their jobs and around 54% find it "much" useful.

Statistical data on the effect of education on employment are tabulated in the following table:

**Table 6.17 STOU: Effect of Education on Employment***(in percentage)*

	1986	1987	1988
Kept the same job	98.1	97.8	97.5
Direct effect	0.6	0.8	0.5
Some effect	0.7	0.8	1.0
No effect	0.6	0.4	0.4
No response	0.1	0.1	0.6

Source: Rojanasang 1992

A majority of STOU's students (an annual average of around 83%) are government employees who "will not change their jobs following their studies." Their aim is to improve their qualification or knowledge and they are satisfied that they "can apply their knowledge so as to advance in their careers and increase their expertise" (Sriprasart 1988: 161).

Information on similar studies undertaken in other Asian countries is not available. It is said that in India, Indonesia and Sri Lanka the respective governments treat OU graduates on par with CU graduates. In Sri Lanka "the OUSL degrees are of the same standard as those of [the] other eight universities.... The professional bodies like Council of Legal Education have recognized the OUSL Law Degree." (Ranasinghe 1992: 21). "Most" of those who received the certificate in Pre School Education "have started their own pre schools and others have been recruited in existing schools. The students qualified in Diploma in Technology are working as Engineering Asst. Technicians, while continuing their studies for Bachelor of Technology. Science graduates of the OUSL are all either employed as teachers or holding executive post in other organizations. Law graduates are all employed" (Ranasinghe 1992: 13).

## Conclusions

### 7.1 The Premise

A study of cost effectiveness is a study of relationship between the resources utilised (the cost) and the objectives fulfilled (the effectiveness). Often information about the cost and the effectiveness is meaningful only in a comparative context. A cost effectiveness study, therefore, has to follow four distinct steps:

- i. defining objectives
- ii. determining the cost
- iii. comparing costs
- iv. comparing effectiveness

Any comparison of cost, to be valid and reliable, should ensure

- i. methodological similarity in costing the two units compared (i.e., application of identical costing concepts and costing methods) and
- ii. functional similarity of the two units (i.e., pursuit of similar objectives in identical operational situations).

Comparison of effectiveness is possible

- i. only when the two units compared share similar ideologies and pursue similar objectives and
- ii. only in cases of such objectives which are objectively measurable and quantifiable.

It is obvious that these conditions may not be met fully by any two institutions that belong to two different systems. One may only look for as much commonality as possible. Perhaps all comparisons in the real world situation have to accept this compromise.

A cost effectiveness study begins by defining objectives. Accommodating social demands for higher education is the broad objectives in relation to which the cost effectiveness of Asian OUs is studied. Social demand in this study was analysed in terms of the broad parameters identified by Gooler, namely, numbers and necessity, egalitarianism, economy and quality of education to which we added continuing education.

### 7.2 Meeting social demands

An attempt has been made in the course of the study to determine the extent of contribution made by Asian OUs in meeting social demands in terms of the broad parameters listed above. The question of numbers and necessity has been dealt with in terms of enrolment (Chapter 3) and in terms of programmes — types, levels and

disciplines (Chapter 2 and Chapter 3). Each of the OUs is found to accommodate a population several times larger than a traditional institution with similar resources can normally accommodate. The figures keep increasing — not only in terms of enrolment, but also in terms of number of institutions. Table 7.1 illustrates the point:

**Table 7.1 Institutions under study: Trends in student enrolment**

	IGNOU	BRAOU	YCMOU	KOU	STOU	OUSL	OLI	UT
81-82					82,139			
82-83					69,046	2,360		
83-84		6,231			46,900	6,879		
84-85		11,244			83,640	5,873		85,329
85-86		15,702			79,990	9,052		85,015
86-87	4,381	19,271			61,687	10,063		19,655
87-88	16,811	16,303		14,278	48,500	13,119		7,509
88-89	42,324	16,827		22,983	49,420	13,197		9,041
89-90	48,281	16,402	1,240	14,389	52,831	12,832	4,237	5,739
90-91	52,376	27,446	9,566	12,263	67,398	14,407	13,009	37,151
91-92	62,375	32,416	13,052		80,000		17,535	66,513
92-93	75,666		15,276					

**Source:** Data compiled from Tables in Chapter 3.

**Notes:** In the case of STOU, OUSL and UT, the figures represent enrolment in a calendar year, while in the case of the rest the figures represent enrolment in an academic year. The former of the two numbers in Column 1 is to be taken to represent the calendar year in respect of STOU, OUSL & UT.

In India, the OUs and the CCIs collectively cater to 11.5% of the total population enrolled for higher education. They are expected to increase their clientele to 16.5% during VIII five year plan (POA 1992: 138). In absolute terms, this would mean a net addition of 400,000 students to the enrolment in open universities/distance education institutions.

Annual intake at IGNOU and YCMOU show a record of consistent increase. While IGNOU has gone through seven cycles of enrolment, YCMOU has gone through four. Introduction of newer programmes in successive years is perhaps a factor contributing to the consistency in increase. The 9 cycles of enrolment at BRAOU and OUSL show a steady growth, except on one or two occasions. STOU with ten cycles of enrolment showed declining trend for a brief period from 1985 to 1987 after which it shows a trend of ascent. UT, for which figures for 8 years are available shows a steep declining trend upto 1989 after which it seems to have recovered comfortably but not yet to the level of its first two years. The decline is said to be part of a common trend in enrolment for higher education in Indonesia during the

period because of economic reasons and also because of general trend among school-leavers to shift from university education to short-term vocational courses. Fear of difficulties in pursuing self-learning is also said to be a reason.

The enrolment at KOU is also on the decline. The reason attributed in this case is the need on the part of authorities "to man the house properly" so as to ensure maintenance of regularity in the calendar of activities. Among the CCIs of India, for which figures are available, steady trend of growth is seen in the case of 4 and mixed trend in the case of one, if one takes the figures since 1982-83. Figures for the remaining CCIs are not available. On the whole, therefore, there is a rising trend in enrolment, reflecting a constantly increasing social demand for higher education.

### *7.2.1 The learner profile*

#### **Age Spectrum**

The profile of OU learners in terms of age indicates in very clear terms that OUs are catering to an age-specific population (21 +) who may not have access to higher education institutions of the conventional type. The 21 + years population ranges from 1.37% (OUSL) to 12.65% (YCMOU) of the total enrolment. A large percentage of learners belong to 21-30 age group, ranging from 45.49% (OUSL) to 79% (BRAOU). These are target groups outside the ambit of the conventional institutions.

#### **Gender Ratio**

The male-female distribution of learners correspond more or less to the ratio in the conventional institutions. The largest female participation ratio is available at STOU (47.16%). The expectation that more women students would avail themselves of the OU opportunities is yet to be realized at least in the case of India. The reasons could be traced to the nature of programmes/courses offered and the entry requirements stipulated. More programmes that suit women's interests and aptitude may have to be designed and introduced. For most of the rural women in India, the language of instruction could also be a hurdle, if instruction is offered in English or in languages other than their mother tongue or the regional language.

#### **Employment Status**

Participation of unemployed students is more in the OUs of India — 47.33% in IGNOU and around 43% in BRAOU (BRAOU percentage is computed from 1986-87 figures). In the other OUs the percentage ranges from 2.9% (Hong Kong) to 20% (Sri Lanka). These figures again lend support to the premise that OUs cater to a population that has no access to higher education institutions of the conventional type. 80% to 97% of students enrolled at OUs are already on a job and pursue higher education for improving their qualification or skill.

### **Entry qualification**

Few of the students at OU have degree qualification. The percentage is 14 at STOU out of its total enrolment; 5.2 at OLI and 34.78 at IGNOU. The percentage-variation could be attributed to the levels of programmes offered. IGNOU offers quite a few post graduate diploma and degree programmes in Management, Distance Education, Higher Education and Library Science which require a degree as entry qualification and these courses also enjoy a popularity among graduates employed in the fields concerned.

The learner profile, thus, allows a categorical assertion of the population served by the OUs — adult, mostly employed undergraduates, seeking to pursue higher education.

#### *7.2.2 Programme profile*

The programme profile shows that all the OUs under study have been offering job-oriented programmes and programmes of life-long and continuing education, besides conventional programmes. Though the number and range of such programmes vary from one institution to the other, the profile is a pointer to the commitment of OUs to meet the dual social demands for (i) conventional type of programmes and (ii) programmes of relevance to life. Four of the OUs offer welfare oriented programmes which may be directly relevant to the promotion of social welfare — programmes in such areas as food and nutrition, rural development, home economics, cultivation of crops, etc. The same four OUs have also been offering programmes that are not available elsewhere in the conventional system within the country concerned — such programmes as on distance education and programmes of “non-formal stream” leading to Bachelor’s Degree.

Thus, the learner profile and the programme profile together indicate clearly the OUs orientation towards meeting social demands in terms of numbers and necessity as also the demands of continuing education, though any objective quantification of such service is not possible at this stage. Detailed, classified data from the institutions concerned, if collected by the institutions in future, may help in quantification.

### **7.3 Equity**

As far as the egalitarian dimension is concerned, though the provisions of education are thrown open to all by the OUs, irrespective of the local and social and economic stratification, we have little statistical evidence to show whether and to what extent the disadvantaged sections of the society get benefited. The study attempted to collect data relating to:

- rural-urban distribution of students,
- income-based distribution of students, and
- the beneficiaries across the disadvantaged social sections.

We could collect data only from certain institutions with regard to the rural-urban distribution and the 'socially disadvantaged' distribution. The data collected was found to suffer from lack of precision for want of clear understanding of the terms 'rural' and 'urban' among the student population. Most of the employed students of OUs are migrants to urban localities and are not sure whether they should call themselves urban on the basis of their job-station or rural on the basis of their nativity. As for socially disadvantaged sections, a problem of different nature came to light in the course of the study. Disadvantage was along different lines in different countries — when caste and community could be a disadvantage in one country, race was in another, language or religion in yet another, and region in some other place. What makes one disadvantaged in a given country was not known definitely and data did not pour in adequately when they were identified. As for the economic criterion, neither sufficient details of what economic condition can be termed as disadvantaged in a given country, nor enough data could be collected. The open universities covered in this study, with the exception of STOU have not collected and compiled data on the income brackets to which their students (or their families) belong. The classification of students into high, middle and low income groups (UNESCO & NIME 1992) quoted in Chapter 3 indicates clearly that at least in four OUs covered by this study, the majority of learners are from middle and low income groups.

The data collected for this study make it clear that the OUs serve the cause of those aspirants to higher education who, either because of their age or employment or marital status, are unable to pursue higher education in conventional institutions. (87% of women enrolled at BRAOU according to 1986-87 figure were married).

The other parameters of social demand, namely, economy and quality of education were taken up in the discussion of comparison of cost and comparison of effectiveness (Chapter 6).

#### **7.4 Cost Effectiveness**

With regard to costing, the project envisaged collection of information on unit costs of each of the OUs and the unit costs of a corresponding conventional institution in the country concerned. Because of the complexities and the differences in the cost concepts and cost methods applied in determining cost at different institutions, collecting identical data for comparison became difficult. This was in spite of our effort to collect comparable data through local experts of different institutions. Difficulties stemmed from a variety of cost-factors as well as non-cost factors.

As a result, we could collect identical pairs of unit costs only with regard to certain programmes and institutional average cost per student of certain institutions. The other dimension of comparison which we could try was the government contribution as against self-generation of funds. The direct comparison of unit costs across programmes could not be attempted because of inconsistencies in cost centres



between the OUs and the CUs. The comparable data thus collected were very limited, yet they do indicate the cost trend.

The programme specific cost per student proves that OUs are less expensive than CUs. The cost per student for the Bachelor's (Arts & Commerce) programmes at IGNOU and YCMOU is about 1/3 of the cost for corresponding programmes in the conventional system. The cost per student for the Bachelor's programme in Science, at the OUSL, is lesser by 45% compared to the corresponding programmes at conventional institutions in Sri Lanka. The per student cost of Mathematics Diploma Programme of UT is about 50% of the corresponding programme at the conventional institutions in Indonesia; similarly, the Indonesian Language Diploma programme costs 60% less than its counterparts in the conventional institutions.

The CCIs of India make more pronounced claims for cost advantage. The cost per student of the CCIs, worked out as percentages of cost per student of the conventional system (operating within the same university and mostly within the same campus) ranges from 11% to 23%. Other studies conducted on the CCIs confirm their cost advantages in different degrees. At any rate, there are some CCIs in India which generate considerable surplus funds through economies of scale, and taking full advantage of the dual mode system that helps reduce costs. There are also, on the other hand, CCIs in India which depend on Government grants to meet their deficit in the operating costs.

Government grants on account of the operating costs of CCIs/OUs range from 8% (CCIs) to 67.67% (IGNOU). Government grants to CUs range from 62% to 90%. IGNOU generates its own funds to the tune of 32.3% of the total operating costs; BRAOU 74.41%; KOU 50%; STOU 78.88%; OUSL 74%; UT 41%; OLI 85% and selected CCIs 92%.

Comparison of effectiveness of programmes is difficult when programme objectives are not precisely defined. The problem becomes "particularly acute" because when we attempt to compare the effectiveness of OU programmes with that of CU programmes, we are attempting to compare "the effectiveness of one programme that has one set of intentions, with another programme that has a different set". (Gooler 1981: 11). Under such circumstances we need to make certain assumptions and allow for certain differences. In the absence of distinctly spelt programme objectives, we need to depend on pass percentage data as an indicator of effectiveness. The data on pass percentage against enrolment collected from OUs are reasonably acceptable, if we give due allowance to the flexibility permitted in the system. The percentage ranges from 22.5 to 41.2. The percentage of pass against the number of students appeared present a fairly good ratio. In either case, the failure cannot be equated with "wastage".

The Bridges project which studied the teacher training programmes offered through distance and conventional modes in the countries of Sri Lanka and Indonesia, has



come out with statistical evidence to prove cost effectiveness of the distance mode. But as for programme effectiveness, the study indicates mixed results.

Very little information is available about studies on programme effectiveness concerning distance education programmes in other Asian Countries. Subjective statements made in different contexts affirm that distance education programmes are equally effective, if not more, compared with conventional programmes.

Studies undertaken in Thailand confirm student acceptance of usefulness of the programmes in jobs.

The benefits of OU programmes along different dimensions have been acknowledged by Sriprasart et al (1988), Rakhmat et al (1988) and others. There are certain clear trends which are discernible from this study. These are:

1. Adult learners are increasingly getting interested in higher education and are looking for opportunities to improve their qualifications and/or skills to seek employment, to change jobs or for their own personal development. This is a constituency not served by the conventional universities and the OUs respond to their needs without their having to undergo any dislocation in their life and work.
2. The enrolment of women in OUs in Asia as a proportion to the total enrolment seems to be low. However, considering the fact that a vast majority of them are adult women (21 + in age), most of whom might have settled in life after marriage, their number in absolute terms is significant. The OUs provide an institutional mechanism for the empowerment of women, raising their social and economic status and ensuring gender equality. Through appropriate measures to attract women to enrol in their programmes and retain them till the successful completion of their studies, OUs can become an instrument of social change, as far as gender equality is concerned.
3. The employment status of OU students in Asia is a clear indicator of the nature of emerging demands for higher education. The majority of OU students in Asia are already employed. Apparently, they seek new qualifications and wish to acquire new skills for advancement in their career. The structures and processes of the conventional system cannot respond to this demand. The built-in flexibility of the OUs permit them to address the needs to these new client groups and tailor programmes to meet them. The modular structure of the programmes adopted by the OUs permit mobility of students across programmes and also across institutions.
4. The conventional system of higher education does not produce a wide range of instructional materials of high quality and standard as the OUs do and make available to their students. The participation of a wide

spectrum of top level experts — both in teaching and in the professions — in the development of these materials ensures their quality. That these materials are available openly, not only to the students of OUs but also to the students of the conventional universities and the general public is a distinct contribution that the OUs make to the needs of a learning society.

5. The OUs adopt communication technology to great advantage. They can reach a large number of students scattered at different places at a relatively low cost. OUs are thus instruments of mass education, while CUs, of necessity, have to be selective in choosing their students in smaller numbers.
6. The OUs have signalled an era of national and international cooperation and have widened access to good quality education to students across nations. There are several instances where materials produced by one university is utilised by another to great advantage. There are also instances of adaptation and translation of materials for local use. The OLI, Hong Kong virtually buys programmes off-the-shelf and uses them in their programmes by incorporating minor changes to suit local needs. The emergence of OUs is surely a great opportunity for the less developed countries who do not have the resources to create the infrastructure required for higher education in their own countries. It augurs well for a new era of international cooperation in higher education.