
The Management and Economics of Distance Education: The Case of Sukhothai Thammathirat Open University

Wichit Srisa-an and Tong-in Wangsotorn

Abstract

This paper focuses on the managerial skills required to run an open university and the economic aspects of such an operation. It is a case study of Sukhothai Thammathirat Open University (STOU) and reflects the current state of affairs. It reflects the problem in Thailand which is to seek effective and economic ways of responding to the needs of and demands for more widespread access to higher education.

The fundamental concept of open education would seem to pose enormous problems, both in terms of economics and management. At STOU the distance teaching/learning system (DTL) was selected as the most appropriate vehicle to convey education to more of the people – to a much greater part of the population – in the attempt to overcome these two specific problems.

The first section of the paper, Part I, provides details of admission and the arrangement of the courses followed by a description of the degree programmes offered by STOU's 10 schools, including available majors and the specific titles of the degrees. Certificate programmes and joint programmes with other agencies, are also described.

Consideration of the students themselves is also introduced in the first section. Data on the new student intake is examined, and an analysis of the information about them and their success in graduation is provided.

Part II takes up the theme of management in distance education. The first section, in essence, deals with the academic and administrative structure and refers to the organization structure. This comprises the governing bodies – the University Council and the Academic Senate – together with their duties and responsibilities, role and function; the support units, such as the Offices, and the academic units – the schools, their chairmen, boards of studies, and academic assessors.

The second section of Part II deals more specifically with management per se. The discussion of the system functions and supportive units provides a broad overview of the operational mechanics from admission to examinations and graduation. The management of the materials production process

established at STOU exemplifies the success of the planning, implementation, and management of the STOU system.

Part III emphasizes the economic aspects of distance education at STOU and compares these with other institutions. A general accounting of institutional costs and the cost to the individual and society are also covered.

PART I BACKGROUND OF THE UNIVERSITY

1. Background

The idea of establishing an open university arose from the desire to democratize higher education and from the stimulus provided by the concept of life-long education. The increasing demand for higher education led the Royal Thai Government to look for ways of responding to this demand effectively and economically.

The distance teaching/learning system was viewed as a practical means of supplementing the conventional university system. Given existing financial constraints, an open education system using distance teaching methods was considered to be the most appropriate alternative.

After three years of planning, Sukhothai Thammathirat Open University (STOU) was established by Royal Charter in September 1978. It was the first open university in Southeast Asia to employ a distance teaching learning system to extend higher education to the people. Like other conventional state universities, Sukhothai Thammathirat Open University is under the guidance of the Ministry of University Affairs, enjoys a great degree of autonomy, and has the right to award its own degrees.

2. Programmes

2.1 Degree programmes

Eligible for enrolment as students in the degree programme, without entrance examination, are:

- (a) those who have completed upper secondary schooling (12 years) or its equivalent;
- (b) those who have completed lower secondary schooling (10 years), who have had 5 years of work experience after receiving their certificates, and who are over 20 years of age as of the 1st of July of the enrolment year;
- (c) holders of diplomas or degrees at any level, or their equivalent, from institutions of higher education as approved by the STOU Academic Senate.

STOU employs a two-semester system and allows students to earn a degree in 4–12 years. Courses are arranged in blocks to provide an integrated study of interrelated subjects. Each block is worth 6 credits. The number of credits needed for a bachelor's degree is from 132 to 144.

The degree programme offered by STOU is shown in the following table:

Table 1: Degree Programmes by Majors

School/Programme/Major	Degree
1. School of Liberal Arts Provides foundation courses for other Schools.	

School/Programme/Major	Degree
2. School of Educational Studies	
2.1 Four-Year Programme	
(1) Elementary Education	B. Ed.(El.Ed.)
(2) Secondary Education	B. Ed.(Sec.Ed.)
2.2 Two-Year Programme	
(1) Elementary Education	B. Ed.(El.Ed.)
(2) Secondary Education	B. Ed.(Sec.Ed.)
(3) Educational Administration	B. Ed.(Ed.Ad.)
3. School of Management Science	
3.1 Four-Year Programme General Management	B.B.A. (General Management)
3.2 Two-Year Programme	
(1) General Management	B.B.A. (General Management)
(2) Construction Management	B.B.A. (Construction Management)
4. School of Law	
4.1 Four-Year Programme Law	LL. B.
4.2 Three-Year Programme Law	LL. B.
5. School of Economics	
5.1 Four-Year Programme Economics	B. Econ.
5.2 Three-Year Programme Economics	B. Econ.
6. School of Health Science	
6.1 Four-Year Programme	
(1) Health Management	B.P.H. (Health Management)
(2) Public Health	B.P.H.
(3) Nursing	B.N.
7. School of Home Economics	
7.1 Four-Year Programme	
(1) Community Nutrition	B.HE.
(2) Child and Family Development	B.HE.
8. School of Agricultural Extension and Co-operatives	
8.1 Four-Year Programme	
(1) Agricultural Extension	B. AgExt. Coop.
(2) Co-operatives	B. AgExt. Coop.
8.2 Two-Year Programme	
(1) Agricultural Extension	B. AgExt. Coop.
(2) Co-operatives	B. AgExt. Coop.
9. School of Political Science	
9.1 Four-Year Programme	
(1) Political Theories and Techniques	B.A. in Pol.Sc.
(2) International Relations and Comparative Politics	B.A. in Pol.Sc.
10.School of Communication Arts	
10.1 Four-Year Programme Communication Arts	B.Comm.Arts
10.2 Three-Year Programme Communication Arts	B.Comm.Arts

2.2 Certificate Programme

The University has co-operated with various agencies in setting up short courses and programmes for personnel development for the respective agencies, using the distance teaching/learning system. At present, the University offers the following certificate programmes:

(1) Certificate in Basic Home Economics	1 year
(2) Certificate in Land and Property Law	2 years
(3) Certificate in Village Administration	1 year
(4) Diploma in Government Administration	1 year
(5) Certificate in English for Specific Professions	1 year
(6) Certificate in Teaching	1 year
(7) Certificate in Agricultural Extension and Co-operatives	1 year

2.3 Certificate of Achievement Programme

Besides offering courses in the various Schools to students in degree and certificate programmes, STOU also offers courses to students in a non-degree programme. This is called the Certificate of Achievement programme. Students are allowed to study one course per semester. The University allows them to take any course without stipulating any background requirements whatsoever.

Students in this programme use exactly the same materials and sit for the same examination as regular students. Upon successfully completing a particular course, they will receive a Certificate of Achievement for that course.

A special feature of this programme is that it makes university courses available to anybody who wants to study. No educational qualifications are required to enrol in the programme. Candidates need only be literate. Thus the programme is popular with adult working people for their personal and professional development. Anyone can enrol as a student in the course while they are in employment. By using multi-media, the programme can manage a large number of students throughout the country. At the end of academic year 1983, 5,298 students had enrolled in this programme.

2.4 Associate Student Programme

This is a joint-programme with other agencies which aims at the career development of working people. Students in this programme, called associate students, take courses in the same way as regular students but do not pursue a degree. They receive only grade reports at the end of the semester. At present, the University has this joint-programme with the Bangkok Bank and the Bank of Agriculture and Co-operatives. In 1985, about 1,651 employees of the Bank of Agriculture and Co-operatives and 30 from Bangkok Bank enrolled in the programme.

3. Students and Graduates

3.1 New Students

Since the beginning, STOU has enrolled about 360,000 students. In academic year 1985, the University admitted a new intake of 83,456 students. The three most popular schools were the School of Management Science, the School of Educational Studies, and the School of Law. About 75 percent of the new intake was enrolled in these three schools, as shown in Table 2.

Table 2: Distribution of New Students by School

School	1980-1981 Number	1982 Number	1983 Number	1984 Number	1985 * Number
1. Management Science	6,805 (8.3)	16,225 (23.32)	11,163 (22.28)	23,839 (28.03)	25,263 (30.27)
2. Educational Studies	75,334 (91.7)	10,328 (14.85)	12,063 (24.07)	20,421 (24.01)	17,310 (20.74)
3. Law	—	29,827 (42.88)	14,913 (29.76)	18,792 (22.10)	16,201 (19.41)
4. Home Economics	—	2,287 (3.29)	2,353 (4.70)	3,006 (3.53)	3,976 (4.77)
5. Communication Arts	—	—	—	4,102 (4.83)	5,585 (6.69)
6. Political Science	—	—	3,731 (7.45)	4,688 (5.51)	4,118 (4.94)
7. Health Science	—	3,985 (5.73)	2,061 (4.11)	4,401 (5.18)	4,743 (5.68)
8. Liberal Arts	—	—	—	—	948 (1.14)
9. Economics	—	1,553 (2.23)	1,932 (3.86)	2,786 (3.28)	1,938 (2.32)
10. Agricultural Extension And Co-operatives	—	5,356 (7.70)	1,896 (3.78)	3,006 (3.53)	3,374 (4.04)
Total	82,139 (100.00)	69,561 (100.00)	50,112 (100.00)	85,041 (100.00)	83,456 (100.00)

* As of June 20, 1985

Sources: Enrolments, for academic years 1980-1981, 1982, 1983, 1984

3.2 Total Enrolments

Enrolments in each semester vary. Normally the number of students enrolled in the first semester is greater than in the second. In the first semester of academic year 1985, there were 173,350 students, as shown in Table 3.

Table 3: Enrolment by School
First Semester, 1985 *

School	Number	Percentage
1. Management Science	46,689	26.93
2. Educational Studies	41,125	23.72
3. Law	41,274	23.81
4. Home Economics	6,874	3.97
5. Communication Arts	7,628	4.40
6. Political Science	7,761	4.47
7. Health Science	10,100	5.83
8. Liberal Arts	948	0.55
9. Economics	3,934	2.27
10. Agricultural Extension and Co-operatives	7,017	4.05
Total	173,350	100

* As of June 20, 1985

3.3 Graduates

In 1982, students in the two-year programmes admitted for the first time in 1980 - 1981 comprised the first batch of graduates. There were 9,594 graduates in this year. In 1983, there were 17,236 graduates from four Schools: Educational Studies, Management Science, Home Economics, and Agricultural Extension and Co-operatives. In 1984, there were about 11,000 graduates from these four Schools and the Schools of Law and Health Science. Table 4 shows the numbers of graduates from the first and second batches of students.

Table 4: Numbers of Graduates – First and Second Batches

School/Programme	1982		1983	
	Number	%	Number	%
Educational Studies	8,217	85.65	14,527	84.28
Elementary Education	3,026	31.54	6,604	38.31
Secondary Education	2,640	27.52	3,551	20.60
Educational Administration	2,551	26.59	4,372	25.37
Management Science	1,377	14.35	1,956	11.35
Construction Management	1,377	14.35	1,076	6.24
Business Administration	–	–	880	5.11
Home Economics	–	–	250	1.45
Community Nutrition	–	–	250	1.45
Agricultural Extension and Co-operatives	–	–	503	2.92
Agricultural Extension	–	–	481	2.79
Co-operatives	–	–	22	0.13
Total	9,594	100.00	17,236	100.00

PART II THE MANAGEMENT OF DISTANCE EDUCATION

1. Organizational Structure

1.1 Governing bodies

1.1.1 The University Council

The University Council is the supreme governing body of the University. As stipulated in the Sukhothai Thammathirat Open University Act B.E. 2521 (1978), the University Council consists of the following members:

The Chairman of the University Council to be appointed by the King

Ex Officio Members

- The Permanent Secretary of State for University Affairs or representative
- The Director-General of the Post and Telegraph Department or representative
- The Director of the Mass Communications Organization of Thailand or representative
- The General Manager of the Communications Authority of Thailand or representative
- The Rector of Sukhothai Thammathirat Open University

Academic Member

Representative of the Academic Senate of the University elected by the Academic Senate

Distinguished Members

Not less than four but not more than nine distinguished outsiders to be appointed by the King

The University Council elects one member as vice-chairman. The Council, upon the advice of the Rector, appoints a Vice-Rector as secretary.

The University Council has the following powers and duties:

- (1) to establish the policy of the University relating to education, research, public service, and cultural preservation;
- (2) to issue rules and regulations of the University;
- (3) to approve the granting and conferring of degrees, diplomas, and certificates;
- (4) to consider the establishment, dissolution, merger, and abolition of the offices, institutes, schools, as the case may be;
- (5) to approve the affiliation of higher education institutions;
- (6) to consider the appointment and dismissal of the Rector and professors;
- (7) to approve the appointment and dismissal of Vice-Rectors, directors of institutes, directors of offices, deputy-directors of institutes, deputy-director of institutes, deputy-directors of offices, associate professors, and assistant professors;
- (8) to issue rules relating to finance and properties of the University;
- (9) to appoint a committee to carry out any matter as entrusted to it by the University Council; and
- (10) to carry out other duties relating to University affairs which have not been specifically entrusted to any particular person.

1.1.2 The Academic Senate

The Academic Senate is the internal body responsible for the academic affairs of the University. Members consist of the following:

Chairman

The Rector is the Chairman of the Academic Senate.

Ex Officio

- Chairman, School of Home Economics
- Chairman, School of Law
- Chairman, School of Communication Arts
- Chairman, School of Political Science
- Chairman, School of Management Science
- Chairman, School of Health Science
- Chairman, School of Liberal Arts
- Chairman, School of Educational Studies
- Chairman, School of Economics
- Chairman, School of Agricultural Extension and Co-operatives
- Director, Office of Educational Technology
- Director, Office of Educational Services
- Director, Office of Academic Affairs
- Director, Office of Registration, Records, and Evaluation

Academic staff members holding the rank of professor are also ex-officio members of the Academic Senate.

Elected Members

The following members are elected by the academic staff of each school. They hold office for a term of two years but may be re-elected.

- Representative, School of Home Economics
- Representative, School of Law
- Representative, School of Communication Arts
- Representative, School of Political Science
- Representative, School of Management Science
- Representative, School of Health Science
- Representative, School of Liberal Arts
- Representative, School of Educational Studies
- Representative, School of Economics
- Representative, School of Agricultural Extension and Co-operatives

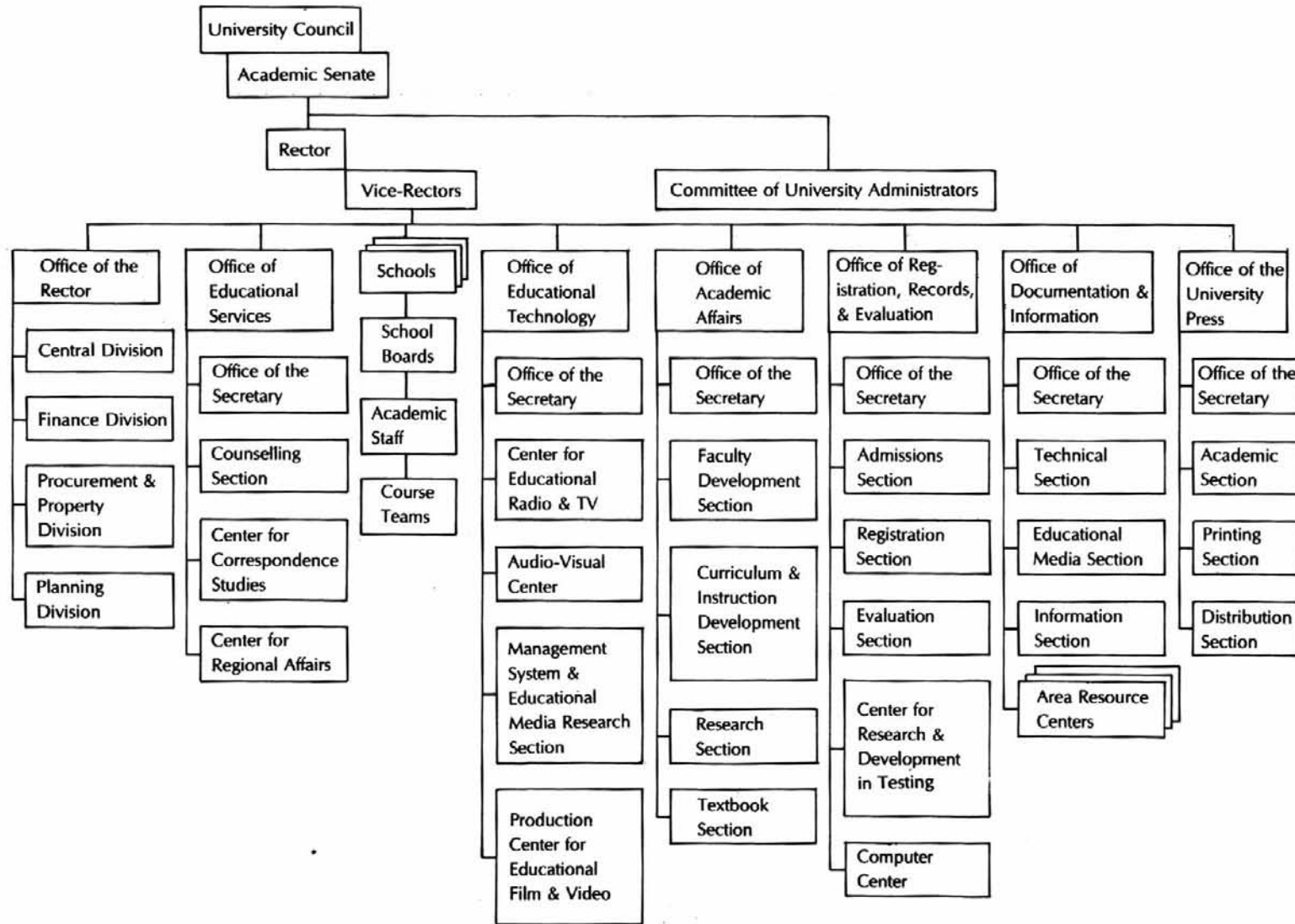
Secretary The Vice-Rector for Academic Affairs serves as the Secretary of the Senate.

The Academic Senate has the following powers and duties:

- (1) to consider and prescribe curricula, teaching, and evaluation;
- (2) to propose the granting and conferring of degrees, diplomas, and certificates;
- (3) to propose the establishment, merger, and abolition of institutes, offices, and schools;
- (4) to consider the affiliation of higher education institutions;
- (5) to propose the appointment of distinguished members of the University Council;
- (6) to consider the appointment and dismissal of professors, associate professors, and assistant professors;
- (7) to find ways and means to improve and develop the teaching, research, and public services of the University;
- (8) to advise the University Council on academic matters; and
- (9) to appoint a committee to carry out any matter as entrusted to it by the Senate.

The University Council and the Academic Senate are the governing bodies of the University as indicated in Chart 1. Whereas these two governing bodies are typical in higher education institutions in many other countries, in Thailand, STOU is the only university to have an Academic Senate. Having two governing bodies facilitates decision-making. The University Council is concerned with general policy-making while the Senate is more concerned with curriculum and instruction. The appointment of course team committees, which is unique to distance education, is effectively made by the Academic Senate.

Chart 1: ADMINISTRATIVE STRUCTURE OF THE UNIVERSITY



1.2 Supportive Units.

There are at present seven offices providing administrative and technical support for the operation of the University. They are:

- (1) Office of the Rector
- (2) Office of Educational Services
- (3) Office of Educational Technology
- (4) Office of Academic Affairs
- (5) Office of Registration, Records, and Evaluation
- (6) Office of the University Press
- (7) Office of Documentation and Information

The responsibilities and duties of these offices are as follows:

(1) The Office of the Rector is responsible for record-keeping, public relations, buildings and grounds, finance, personnel administration, planning, and the purchase and maintenance of supplies.

(2) The Office of Educational Services is responsible for providing educational and vocational counselling and guidance to students, organizing tutorials, sending educational materials to students, and co-ordinating STOU study centers throughout the country.

(3) The Office of Educational Technology is responsible for producing supporting media such as radio and television programmes, films, audiotapes and videotapes.

(4) The Office of Academic Affairs is responsible for administrative and academic work assigned to it by the Academic Senate and the board of each school. It is also responsible for supporting research of the academic staff, translating and selecting books and texts for printing and distribution, and setting up staff training programmes.

(5) The Office of Registration, Records, and Evaluation is responsible for admitting students, registration, keeping student records, supervising examinations, conducting research, and developing test instruments.

(6) The Office of the University Press is responsible for all types of printed matter, including books, texts, and workbooks.

(7) The Office of Documentation and Information is responsible for providing books and documents for staff and students, providing educational materials for STOU Corners, and co-ordinating Area Resource Centers throughout the country.

1.3 Academic Units

STOU does not follow the traditional practice of organizing into faculties and department. Rather it consists of major study areas or schools. Each school has a board of studies, consisting of the chairman of the school and 3-7 members elected by the full-time staff of that school. The chairman and the board members hold office for four years. Each board of studies is in charge of all the academic and administrative matters of the school as well as other assignments entrusted to it by the University Council or the Academic Senate. At present STOU has 10 schools:

- (1) School of Home Economics
- (2) School of Law
- (3) School of Communication Arts
- (4) School of Political Science

- (5) School of Management Science
- (6) School of Health Science
- (7) School of Liberal Arts
- (8) School of Educational Studies
- (9) School of Economics
- (10) School of Agricultural Extension and Co-operatives

STOU also has a project to establish a School of Science and Technology in the Sixth National Economic and Social Development Plan (1987-1991).

By organizing the University into schools and having 3-7 board members, STOU realizes the following advantages:

(1) The dividing line between schools is reduced by promoting teamwork and close collaboration among staff members. This kind of co-operation is very important for the Open University.

(2) Decisions can be made quicker since decision-making is facilitated by having a small number of board members.

(3) The board of studies is active since election is held every four years. Having the election helps assure representation of academic staff interests in decision-making.

In addition to the board of studies each school has some 5 - 11 academic assessors to advise on academic standards, curriculum development, instruction, evaluation, and educational services.

Apart from their advisory capacity, academic assessors also serve as the University's external examiners.

Academic assessors are appointed from those considered outstanding in the academic community.

2. The Management

The management of distance education at STOU can be conceptualized as consisting of the following systems: admission and registration, production, delivery, instruction, examination, and administration. Table 5 illustrates system functions and support units to carry out the respective functions.

Table 5: System Functions and Support Units

Admission and Registration System	Office of Registration, Records, and Evaluation <ul style="list-style-type: none"> – admitting students – registration – record-keeping
Production System	Office of Academic Affairs <ul style="list-style-type: none"> – preparing manuscripts for course teams – providing training for outside writers – organizing workshops for course writers Office of Educational Technology <ul style="list-style-type: none"> – producing radio programmes – producing television programmes – preparing films, audio tapes, and videotapes Office of the University Press <ul style="list-style-type: none"> – printing textbooks and workbooks – printing examination papers
Delivery System	Office of Educational Services <ul style="list-style-type: none"> – sending materials to students
Instruction System	Office of Educational Services <ul style="list-style-type: none"> – organizing tutorials – co-ordinating study centers – providing counselling and guidance – co-ordinating student clubs and associations Office of Academic Affairs <ul style="list-style-type: none"> – organizing professional experience workshops – organizing enrichment programmes for graduates Office of Information and Documentation <ul style="list-style-type: none"> – sending materials to STOU corners – providing library services to students – co-ordinating resource centers
Examination System	Office of Registration, Records, and Evaluation <ul style="list-style-type: none"> – supervising exams – developing test instruments – organizing workshops for exam writers

Administration System	Office of the Rector
	– record-keeping
	– public relations
	– finance
	– personnel
	– planning and development
	– materials and supplies

2.1 Admission and Registration System

STOU admits students once a year. Normally the University opens for admission from January to April. Information and application forms are made available from January to March. During the period February to April, prospective students fill in application forms and mail them to the University. Enclosed together with their applications are postal money orders for tuition fees and course materials. Those who meet admission requirements are admitted without entrance examination.

2.2 Production System

Courses offered by STOU are arranged in blocks to provide an integrated study of interrelated subjects. Each course block is worth 6 credits. A student must take at least 1 course (6 credits) but not more than 3 courses (18 credits) per semester. A four-year programme leading to a bachelor's degree requires 22 - 24 courses (132 to 144 credits).

Since opening, STOU has produced 243 new courses. The number of new courses produced for each semester is presented in Table 6.

Table 6: Number of New Courses Produced between 1980 - 1985

Academic Year	1st Semester	2nd Semester	Total
1980 - 1981	9	12	21
1982	22	30	52
1983	23	33	56
1984	29	35	64
1985	21	29	50
All totals	104	139	243

To produce course materials, STOU uses a team approach by setting up a course team. As of 1985, STOU had appointed 243 such course teams to produce course materials.

The course team consists of five categories of specialist:

- (1) subject or content specialists (not more than 7 persons)
- (2) media specialist
- (3) evaluation specialist
- (4) editor
- (5) secretary

Course team members may be assigned additional tasks as editor or secretary. Experts from outside organizations and staff members of other universities whose academic achievements are outstanding are invited to be course team members and co-writers. About 1,000 qualified outsiders have served as course producers. STOU organizes an intensive workshop for them before they start writing course materials.

There are two important components in the infrastructure of the production system: one is the Educational Broadcasting Production Center and the other is the Office of the University Press.

The Educational Broadcasting Production Center, donated by the Government of Japan, is equipped with modern production equipment. The construction started in December 1982 and was completed in February 1984. The Center comprises three television programme production studios and six radio programme production studios together with a wide variety of other useful facilities. It is capable of producing approximately 10,000 radio programmes and 2,000 television programmes per year.

The Office of the University Press is the other important element in the infrastructure for the production of printed materials. The University is using its own revenue for the construction of the building – 5,169 square metres – and the provision of printing machines. The building will be completed in 1986. At present the University has its own small print shop and relies on about 30 - 40 local printers outside the University for the printing of course materials.

As shown in Table 5, three offices are responsible for course production: the Office of Academic Affairs, the Office of Educational Technology, and the Office of the University Press. The management of the production system requires a great deal of planning and co-ordination among these three offices.

2.3 Delivery System

STOU students, who are spread throughout the country, receive all instructional materials by mail. As shown in Table 7, a large quantity of printed material is mailed to students each semester.

Table 7: Quantities of Materials Mailed to Students, 1983

Types to Material	1st Semester	2nd Semester
1. Registration materials	96,265	157,945 (copies)
2. Examination handbooks	151,335	127,903 (copies)
3. Broadcasting schedules	153,046	156,548 (copies)
4. Newsletters	960,000	822,208 (copies)
5. Instructional materials	405,188	350,221 (packages)

Table 7 shows only the major items. Other materials such as application forms and information booklets are also sent by mail. This poses a problem to postal services. To solve the problem, STOU works closely with the Communications Authority of Thailand. Successful operation of the delivery system requires planning, communication, co-ordination, and co-operation.

The Office of Educational Services is in charge of the delivery system. At present, STOU rents a warehouse to store and package materials. The University is now building its own warehouse of 7,450 square meters at its headquarters. This warehouse, which will be completed in 1986, will be an important component in the infrastructure for effective management of the delivery system.

2.4 Instruction System

Article 6 of the Sukhothai Thammathirat Open University Act B.E. 2521 (1978) prescribes the methods of instruction as follows:

“The education provided by the University shall be given through correspondence, radio and television broadcasting or other media which will enable students to learn by themselves without having to attend classes.”

To help students study on their own, STOU employs distance teaching methods by using the following media to impart instruction:

- (1) Main media: correspondence texts, textbooks, workbooks, radio and television broadcast handbooks, etc.;
- (2) Support media: radio and television broadcasts, including broadcasting of video-tapes, and course materials recorded on audio cassette tapes; and
- (3) tutorial and counselling sessions at various local and regional study centers throughout the country.

Since the management of the instruction system is quite complex and involves many outside agencies, considerable planning, communication, and co-ordination are needed for effective operation. The University responds to this challenge in the following ways:

2.4.1 Main media

The University sends all instructional materials to the students by mail as soon as they register.

2.4.2 Support media: radio and television

STOU broadcasts radio and television programmes daily. As shown in Table 8, over 150 radio programmes of 20 minutes' duration are broadcast weekly, totalling approximately 7,800 radio programmes per year. As for the television programmes, the University has permission from the Government to broadcast three programmes daily from 18:30 - 20:00. About 1,100 television programmes are broadcast per year.

Table 8: Radio and Television Broadcasts

Type of Programme	Duration of Programme	Number of Broadcasts
radio	20 minutes	150 programmes per week (7,800 per year)
television	30 minutes	3 programmes per day (1,100 per year)

2.4.3 Tutorials

Tutorials are organized to provide face-to-face interaction with students. To make tutorial sessions flexible and accessible to distance learners, the University has instituted the following procedure:

- (1) organizes the tutorials on Saturday and Sunday;
- (2) makes tutorials optional to students rather than compulsory;
- (3) holds the tutorials at local study centers close to students; and
- (4) selects appropriate courses for tutorials and holds the sessions for about 10 hours per course per semester.

At present tutorials are held for about 30 per cent of the courses, and about 30 per cent of the students attend these sessions. The sessions are organized at regional, local and special study centers as illustrated in Table 9. Regional universities and teachers' colleges serve as regional centers. Local study centers are located in secondary schools in the provinces. They provide facilities for tutorials and also for examinations. Regional study centers help the University select local tutors in the regions.

Table 9: Regional, Local, and Special Study Centers

Regions	Regional Centers	Local Study Centers	Special Study Centers		
			Library Corners	Agricultural Extension and Co-operative Centers	Health Science Centers
Bangkok Metropolis	3	—	3	1	5
Central Region	—	9	9	1	3
Northern Region	2	15	16	1	5
North-eastern Region	2	16	17	1	4
Eastern Region	1	7	8	1	2
Western Region	1	7	8	1	—
Southern Region	2	12	14	1	3
Total	11	66	75	7	22

2.4.4 Practical Work

It should be noted that in Table 9 there are special study centers for the School of Agricultural Extension and Co-operatives and the School of Health Science. These special centers serve as places for special tutorials and practical work. The University seeks co-operation from the Ministry of Agriculture and Co-operatives and also the Ministry of Public Health to establish these centers. For students in the nursing programme of the School of Health Science, co-operation is also obtained from the Ministry of Public Health to use hospitals and health centers where STOU students are employed as centers where students may gain practical experience.

2.4.5 Guidance and Counselling

The University uses a variety of means to provide guidance and counselling to distance learners. Staff members of local study centers who work for STOU on a part-time basis provide guidance to students who come to the centers. Group counselling is also encouraged. A half-hour meeting, normally between 08:30 - 09:00 before the start of the tutorial session, is conducted by STOU staff. In June 1985, the University organized a seminar on "Roles and Duties of Student Clubs" for the first time. About 80 students from 31 associations throughout the country attended the seminar at STOU headquarters. Student Clubs are expected to play active roles in guidance, counselling, and peer group teaching.

2.4.6 Library Services

The University seeks co-operation from the Non-Formal Education Department, Ministry of Education, to use public libraries throughout the country as STOU Corners. Educational materials produced by the University and additional reading materials are deposited at STOU Corners so that students can come for additional study. As illustrated in Table 9, there are 75 STOU Corners throughout the country.

2.5 Examination System

STOU organizes the final examination in every province every semester. Those who fail have a chance to take the examination again. In the second semester of the academic year 1984, STOU organized examinations in 91 centers throughout the country — 13 in Bangkok and 78 in the provinces. Normally regional and local study centers serve as examination centers.

The examinations, like the tutorials, are held on Saturday and Sunday. STOU's staff bring the examination papers to the examination centers, and staff members of local schools and colleges serve

as invigilators. As shown in Table 10, STOU's examination system requires a large number of facilities and invigilators. During an examination day, about 5,000 local staff members are working as invigilators. This requires a great deal of co-ordination.

Table 10: Number of Examination Rooms and Invigilators – First Semester 1984

	Saturday		Sunday	
	09:00 - 12:00	13:00 - 15:00	09:00 - 12:00	13:00 - 15:00
Number of Examination Rooms	2512	2246	2763	1978
Number of Invigilators	5024	4492	5526	3956

2.6 Administration System

This system concerns the general administration of the University and includes planning, budgeting, and finance. Some significant features in the administration of distance education are as follows:

- (1) All decision-making is collective. A team approach is employed in the management of the University.
- (2) As the distance education system requires a great deal of planning and co-ordination, the University puts a great deal of effort into preparing the annual operational plan. A two-day intensive workshop on operational planning is organized, and administrators from all offices and departments of the University, together with members of the Academic Senate, attend the workshop to map out the annual plan.
- (3) A Planning-Programming-Budgeting-System (PPBS) has been initiated in order to ensure efficient allocation of resources for distance education.

PART III THE ECONOMICS OF DISTANCE EDUCATION

In this part, the costs of distance education are presented. Three types of cost are discussed: cost to the institution, cost to individuals, and cost to society.

1. Institutional Costs

1.1 Institutional costs from Government Budget

Generally in Thailand, government universities receive about 90 per cent of their expenditure from the Government. STOU, however, receives a smaller portion. As shown in Table 11, STOU received only 0.5 per cent of the total higher education budget in 1980. In 1985, this was 1.3 per cent.

Table 11: Government Budget Allocated to STOU Compared with Total Higher Education Budget, 1980 - 1985

Unit = Baht			
Budget Year	Total higher education budget	Budget allocated to STOU	Percentage
1980	3,475,909,500	17,731,800	0.5
1981	4,019,747,300	46,857,900	1.2
1982	4,453,835,850	55,037,800	1.2
1983	5,068,237,620	69,647,800	1.4
1984	5,215,200,000	89,573,700	1.7
1985	5,419,621,000	68,136,000	1.3

1 US\$ = 27.00 Baht

1.2 Institutional Costs from University Revenue

In addition to the budget drawn from the government, STOU uses its own revenue for the operation of the University. Total expenditure from the two sources – government budget and university revenue – is presented in Table 12. From this table it can be seen that on average about 75 per cent of the total expenditure is from STOU's own revenue.

Table 12: STOU Total Expenditure from Government Budget and University Revenue, 1980 - 1985

Unit = Baht				
Budget Year	Government Budget		University Revenue	
	Amount	%	Amount	%
1980	17,731,800	32.07	37,558,000	67.93
1981	46,857,900	30.76	105,840,000	69.24
1982	55,037,800	24.57	168,931,800	75.43
1983	69,647,800	21.10	260,400,000	78.90
1984	89,573,700	22.72	304,600,000	77.28
1985	68,136,000	18.32	303,808,460	81.60

1 US\$ = 27.00 Baht

1.3 Institutional Cost Per Head

Operating costs per head of restricted-admission universities and open universities are presented in Table 13. From this table it can be seen that open universities have a much lower average cost. It should be noted that the open universities in this Table are STOU and Ramkhamhaeng University, which is the other open-admission university.

Table 13: Operating Cost Per Head from Government Budget and University Revenue of Restricted-Admission and Open Universities by Disciplines 1980

	Unit = Baht
Disciplines	Per Head
Restricted-Admission Universities	
1. Medical Science and Public Health	61,810.87
2. Agriculture, Forestry, and Fishery	36,718.37
3. Fine Arts and Applied Arts	28,920.36
4. Architecture and Regional Planning	22,111.73
5. Education and Teacher Training	20,507.39
6. Engineering	20,306.83
7. Natural Science	19,778.15
8. Mass Communications and Documentation	18,308.84
9. Mathematics and Computer Science	16,633.22
10. Others	15,208.63
11. Business Administration and Commerce	14,942.07
12. Humanities	14,332.56
13. Social-Behavioral Science	13,435.97
14. Law	11,970.81
Open Universities	
1. Business Administration and Commerce	1,695.95
2. Natural Science	972.72
3. Education and Teacher Training	638.08
4. Social-Behavioral Science	591.84
5. Law	461.34
6. Humanities	305.36

Source: Ministry of University Affairs, *Research Report on Operating Cost Per Head Fiscal Year 1980* (Bangkok 1984), Table 4, P. 25

It should be noted that the figures in Table 13 represent only operating costs. Investment costs such as those for building programmes, equipment, and other infrastructure are not included. From this Table it is possible to study the effects of the economy of scale. The large number of students in the open universities helps to reduce the average cost.

A comparison of operating costs per head in the same discipline is provided in Table 14. It can be seen from this Table that the average cost per head per year in the same discipline is much greater in restricted-admission universities. Comparison between the two types of university system in the discipline may be made, and it may be seen that the cost of the open universities varies from 2.13 per cent in Humanities to 11.35 per cent in Business Administration.

Table 14: Comparison of Operating Costs Per Head between Restricted-Admission Universities and Open Universities, 1980

Discipline	Type of University		Percentage
	(1) Restricted	(2) Open	
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-Behavioral 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

2. Private Costs

Personal costs to be borne by students are as follows:

2.1 Expenses for tuition fees and study materials

Expenses for fees and study materials charged by the University are:

- (a) Admission fees 150 Baht
(single payment on entering)
- (b) University fees per semester 150 Baht
- (c) Tuition fees per course 200 Baht
- (d) Educational materials per course 200 Baht

Educational materials include textbooks, workbooks, and recorded cassette tapes. All of these materials are mailed to students homes.

On average students take two courses per semester. The full load for students is three courses. If a student in the two-year programme takes three courses per semester and passes all courses, he will take two years to obtain his bachelor's degree. His expenditure may be as presented in Table 15.

Table 15: Student Expenditure on Fees and Materials in the Two-year Programme

Types of Expenditure	Unit = Baht			
	1st Year		2nd Year	
	1st Semester	2nd Semester	1st Semester	2nd Semester
1. Admission fees	150 Baht (5.6 US\$)	—	—	—
2. University Fees	150 Baht (5.6 US\$)	150 Baht (5.6 US\$)	150 Baht (5.6 US\$)	150 Baht (5.6 US\$)
3. Tuition Fees (3 courses)	600 Baht (22.2 US\$)	600 Baht (22.2 US\$)	600 Baht (22.2 US\$)	600 Baht (22.2 US\$)
4. Educational materials (3 courses)	600 Baht (22.2 US\$)	600 Baht (22.2 US\$)	600 Baht (22.2 US\$)	600 Baht (22.2 US\$)
Total	1,500 Baht (55.6 US\$)	1,350 Baht (50 US\$)	1,350 Baht (50 US\$)	1,350 Baht (50 US\$)

All totals = 5,550 Baht (205.6 US\$)

From the table it can be seen that a student who takes a full load and passes all final examinations spends 5,550 Baht for tuition fees and materials throughout the programme. The average income of students in 1984 was about 3,500 Baht per month (Appendix 5). The student thus spends about 6.6 per cent ($5,550 : 3,500 \times 24$) of his income for University expenses.

2.2 Personal Expenses

Personal expenses are composed of the following:

- (a) Travel expenses for tutorial sessions, final examinations, and intensive workshops and training.
- (b) Other expenses, such as costs of make-up examinations and sending letters and requests to the University.

As STOU provides tutorial sessions, final and make-up examinations in every province, travelling expenses are minimal.

3. Opportunity Costs

There are no opportunity costs or foregone earnings. STOU students are generally in full employment and contributing to the GNP of the country.

In fact, STOU has helped to reduce social costs. For example, in 1985 there were some 90 convicts enrolled with STOU. With the co-operation of the Department of Correction, Ministry of the Interior, the University provided distance education to these people. Graduates of this programme are expected to function as good citizens and thus the programme will be of real benefit to society.

Conclusion

From the previous discussion about STOU, the following conclusions may be drawn:

1. STOU has been in operation since 1978. Through flexible design the University has been able to extend educational opportunities to people in all walks of life, especially those in remote areas.
2. Learners in the distance education system need a flexible curriculum structure. STOU has provided both degree and non-degree programmes. Short courses, such as those provided in Certificate programmes, the Certificate of Achievement programme and Associate Student programmes, are offered in order to meet the demands of individuals and agencies for personal and professional development.
3. Adult learners need flexible learning schedules. The multi-media approach helps to meet these needs. Tutorials are optional and held on Saturdays and Sundays. Examinations are also organized on weekends at local study centers. These arrangements are necessary for successful teaching at a distance.
4. Existing facilities and resources are necessary for distance education. As students are spread throughout the country, existing local facilities and resources have to be utilized for the benefit of students. STOU has maximized the use of these facilities, such as secondary schools, teachers' colleges, hospitals, health centers, agricultural stations, and public libraries. Human resources, such as businessmen, lawyers, bankers, and nurses, are recruited as part-time tutors.
5. Flexible learning systems of distance education require efficient management systems. The management of distance education at STOU is conceptualized as consisting of different integrated systems: admission and registration, production, delivery, instruction, examination, and adminis-

tration. Each system requires sound planning, communication, co-ordination, and co-operation. It also needs appropriate infrastructure.

6. From STOU's experience, the cost of providing distance education seems to be less expensive than in restricted-admission universities. The economy of scale helps to reduce the average institutional cost. Costs to society are also less as taxpayers contribute only about 20 percent of the total institutional costs. Also, students themselves are adult workers and do not, therefore, forego their income. Costs to the students themselves are less as they study at home.

APPENDIX 1: PERCENTAGE DISTRIBUTION OF NEW STUDENTS BY SEX

School	1980 - 1981		1982		1983		1984	
	Male	Female	Male	Female	Male	Female	Male	Female
1. Home Economics	—	—	0.9	91.1	0.7	99.3	1.2	98.8
2. Law	—	—	91.2	8.8	82.9	17.4	85.6	14.4
3. Communication Arts	—	—	—	—	—	—	40.2	59.8
4. Political Science	—	—	—	—	76.6	23.4	78.9	21.1
5. Management Science	98.2	1.8	46.5	53.5	40.9	59.1	35.6	64.4
6. Health Science	—	—	46.7	53.2	29.4	70.6	15.9	84.1
7. Educational Studies	46.6	53.4	43.3	56.7	41.8	58.2	42.9	57.1
8. Economics	—	—	67.7	32.3	56.5	43.5	56.3	43.7
9. Agricultural Extension And Co-operatives	—	—	89.0	11.0	81.9	18.1	78.1	21.9
All Schools	50.8	49.2	67.2	32.8	55.7	44.3	50.9	49.1

APPENDIX 2: DISTRIBUTION OF NEW STUDENTS BY AGE

Age	1980 - 1981		1982		1983		1984	
	Number	%	Number	%	Number	%	Number	%
17 - 22	4,171	5.4	5,849	8.4	10,090	20.1	20,176	23.7
23 - 25	19,626	25.5	13,601	19.6	12,094	24.1	21,812	25.7
26 - 30	27,195	35.4	19,963	28.7	12,292	24.5	21,517	25.3
31 - 35	12,358	16.1	13,982	20.1	6,573	13.1	10,297	12.1
36 - 40	6,946	9.1	8,540	12.3	4,051	8.1	5,650	6.6
41 - 50	4,674	6.1	4,972	7.1	3,090	6.2	4,026	4.7
51 - 60	713	0.9	651	0.9	424	0.9	491	0.6
over 60	73	0.1	66	0.1	22	0.1	45	0.1
No response	974	1.3	1,937	2.8	1,476	2.9	1,027	1.2
Total	76,730	100.0	69,561	100.0	50,112	100.0	85,041	100.0

APPENDIX 3: DISTRIBUTION OF NEW STUDENTS BY AGE
(Average and Median)

School	1980 - 1981		1982		1983		1984	
	Mean	Md	Mean	Md	Mean	Md	Mean	Md
1. Home Economics	–	–	26.92	25	25.79	24	25.03	24
2. Law	–	–	32.50	31	31.07	30	29.98	28
3. Communication Arts	–	–	–	–	–	–	24.77	23
4. Political Science	–	–	–	–	26.08	24	26.37	24
5. Management Science	33.00	31	27.86	27	25.97	24	25.66	24
6. Health Science	–	–	30.97	30	28.20	26	29.05	27
7. Educational Studies	29.20	27	28.80	27	28.37	26	28.15	27
8. Economics	–	–	28.44	27	25.10	24	24.57	23
9. Agricultural Extension And Co-operatives	–	–	29.49	28	26.87	25	26.83	25
All Schools	29.50	28	30.27	29	28.15	26	27.37	26

APPENDIX 4: DISTRIBUTION OF NEW STUDENTS BY OCCUPATION

Types of Occupation	1980 - 1981		1982		1983		1984	
	Number	%	Number	%	Number	%	Number	%
Government Service	68,984	83.98	48,457	69.66	29,739	59.4	46,978	55.2
State Enterprise	942	1.15	5,457	7.84	2,953	5.9	4,787	5.6
Private Sector								
Employment	6,552	7.98	9,659	13.89	7,069	14.1	12,961	15.2
Private Business	275	0.33	1,438	2.07	2,183	4.4	3,463	4.1
Agriculture	43	0.05	89	0.13	567	1.1	924	1.1
Others	57	0.07	932	1.34	1,621	3.2	4,949	5.8
No employment					4,260	8.5	8,803	10.4
No response	5,286	6.44	3,529	5.07	1,720	3.4	2,176	2.6
Total	82,139	100.00	69,561	100.00	50,112	100.0	85,041	100.0

APPENDIX 5: DISTRIBUTION OF NEW STUDENTS BY MONTHLY INCOME

Monthly Income	1980 - 1981		1982		1983		1984	
	Number	%	Number	%	Number	%	Number	%
Under 1,000 Baht	526	0.7	1,683	2.4	3,623	7.2	1,265	1.5
1,001 - 2,000 Baht	14,097	19.6	8,144	11.7	6,793	13.6	9,698	11.4
2,001 - 3,000 Baht	42,452	55.5	24,054	34.6	16,089	32.1	26,694	31.4
3,001 - 4,000 Baht	12,561	16.4	16,300	23.4	9,006	18.0	12,918	15.2
4,001 - 5,000 Baht	4,280	5.6	7,675	11.0	4,807	9.6	6,844	8.0
5,001 - 6,000 Baht	1,024	1.3	4,035	5.8	2,476	4.9	3,150	3.7
6,001 - 7,000 Baht	573	0.8	2,199	3.2	1,571	3.1	2,192	2.6
Over 7,000 Baht	—	—	3,457	4.9	2,392	4.8	3,268	3.8
No response	45	0.1	2,014	2.9	3,355	6.7	19,012	22.4
Total	82,139	100.0	69,561	100.0	50,112	100.0	85,041	100.0

APPENDIX 6: PERMANENT STAFF MEMBERS *

School	Educational Level		Total
	Doctor's degree	Master's degree	
1. Home Economics	1	8	9
2. Law	2	13	15
3. Communication Arts	—	2	2
4. Political Science	3	4	7
5. Management Science	1	15	16
6. Health Science	—	9	9
7. Liberal Arts	3	14	17
8. Educational Studies	14	15	29
9. Economics	2	7	9
10. Agricultural Extension and Co-operatives	2	12	14
Total	28	99	127

* As of 30 June 1985

APPENDIX 7: PERMANENT ADMINISTRATIVE STAFF *

Office	Educational Level			Total
	Associate or lower	Master's degree	Bachelor's degree	
1. Office of Registration, Records and Evaluation	49	7	21	77
2. Office of Educational Technology	85	29	62	176
3. Office of Educational Services	27	10	22	59
4. Office of Academic Affairs	45	6	21	72
5. Office of the Rector	57	4	42	103
Total	263	56	168	487

* As of 30 June 1985