

**การนำเสนอรูปแบบการจัดการสำหรับการศึกษาทางไกลในสถาบันอุดมศึกษา  
ของประเทศไทย**

**A Proposed Management Model for Distance Education  
in Thai Higher Education Institutions**

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**บทคัดย่อ**

วัตถุประสงค์ของการศึกษาเรื่องนี้เป็นกรนำเสนอรูปแบบการจัดการ  
สำหรับการศึกษาทางไกลในสถาบันอุดมศึกษาของประเทศไทย การนำเอาระบบ  
การศึกษาทางไกลเข้ามาใช้ในสถาบันอุดมศึกษาในประเทศไทยนั้นต้องมี  
การเปลี่ยนแปลงระบบการบริหารจัดการเพื่อให้เหมาะสมและสอดคล้องกับเป้าหมาย  
ในการดำเนินงาน ทำให้ประสบกับปัญหาต่าง ๆ มากมาย ไม่ว่าจะเป็นเรื่องของ  
การดำเนินงานในการร่วมมือประสานงานกัน ความพร้อมในเรื่องของเทคโนโลยีที่นำมาใช้  
ปัญหาด้านบุคลากรที่ยังไม่เข้าใจและขาดประสบการณ์ในการสอนทางไกล  
ปัญหาเรื่องการขาดงบประมาณที่จะใช้ในการสนับสนุน รวมถึงปัญหาเรื่องการติดต่อ  
สื่อสารทั้งภายในและภายนอกองค์กร

กลุ่มตัวอย่างที่ใช้ในการศึกษา ได้แก่ สถาบันที่มีการจัดการศึกษาทางไกลซึ่งมี  
ด้วยกัน 3 รูปแบบคือ สถาบันอุดมศึกษาระบบเปิด สถาบันอุดมศึกษาระบบคู่ขนาน และ  
สถาบันอุดมศึกษาระบบผสมผสาน ซึ่งผู้วิจัยได้ทำการศึกษาอย่างเป็นระบบ โดยศึกษา

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จากเอกสาร ตำราและผลงานวิจัยต่าง ๆ ที่เกี่ยวข้อง รวมถึงการนำเทคนิคเดลฟาย (Delphi Techniques) มาใช้โดยการสอบถามความคิดเห็นจากผู้เชี่ยวชาญที่มีความรู้เกี่ยวกับการจัดการศึกษาทางไกล

เทคนิคเดลฟายเป็นเทคนิคที่มุ่งแสวงหาข้อมูลจากความคิดเห็นของกลุ่มผู้เชี่ยวชาญในเรื่องใดเรื่องหนึ่ง ด้วยการตอบแบบสอบถามโดยผู้เชี่ยวชาญ จะต้องตอบแบบสอบถามครบทุกขั้นตอน เพื่อให้ได้ความเห็นที่สอดคล้องกันและเชื่อถือได้จึงต้องมีการใช้แบบสอบถามหลาย ๆ รอบ ซึ่งโดยทั่วไปแบบสอบถามในรอบที่ 1 มักเป็นแบบสอบถามแบบปลายเปิดและในรอบต่อ ๆ ไป จะเป็นแบบสอบถามปลายปิด สำหรับการศึกษานี้ กลุ่มผู้เชี่ยวชาญในด้านการศึกษาทางไกลจำนวน 18 ท่าน ตอบแบบสอบถามทั้งหมด 3 รอบ เพื่อที่จะกำหนดองค์ประกอบของการจัดการ สำหรับการศึกษทางไกลในสถาบันอุดมศึกษา และให้กลุ่มผู้ทรงคุณวุฒิจำนวน 4 ท่านเป็นผู้ประเมินและยืนยันประสิทธิภาพของรูปแบบการจัดการสำหรับการศึกษทางไกล โดยการวิเคราะห์ด้วยค่ามัธยฐาน (Median) ฐานนิยม (Mode) และค่าพิสัยระหว่างควอร์ไทล์ (Interquartile Range)

จากผลการวิจัยพบว่า การจัดการสำหรับการศึกษทางไกลในสถาบันอุดมศึกษาในประเทศไทยสามารถดำเนินการได้หลายแนวทาง หรือเรียกอีกอย่างว่า ไม่มีรูปแบบการจัดการใดที่ดีที่สุด และยังพบว่า การจัดโครงสร้างในการบริหารจะมีความแตกต่างกันในแต่ละสถาบัน ซึ่งขึ้นอยู่กับความต้องการของผู้บริหารของสถาบันอุดมศึกษานั้น ๆ จึงทำให้ได้ผลสรุปองค์ประกอบของรูปแบบที่จะใช้ในการจัดการสำหรับการศึกษทางไกลในสถาบันอุดมศึกษาของประเทศไทยได้ 9 องค์ประกอบดังนี้ (1) การวางแผนกลยุทธ์ (strategic planning) ได้แก่ วิสัยทัศน์ (vision) พันธกิจ (mission) และวัตถุประสงค์ (objective) (2) โครงสร้างการจัดการบริหาร (organizing) (3) การจัดการบุคลากร (man power planning) (4) งบประมาณ (budgeting) (5) ภาวะผู้นำ (administering) (6) การร่วมมือ ประสานงาน (supporting) (7) การสร้างเครือข่ายระหว่างสถาบัน (synergizing) (8) การประเมินผล (assessing) (9) การประกันคุณภาพ (quality assuring) นอกจากนั้นแล้ว แนวโน้มในการจัดการสำหรับการศึกษทางไกลในปัจจุบัน ต้องการให้มีการเรียนการสอนร่วมกัน ระหว่างการเรียน ในห้องเรียนและการเรียนทางไกล

ในปัจจุบัน สถาบันอุดมศึกษาส่วนใหญ่ได้นำเอาระบบ E-Learning ซึ่งเป็น การเรียนการสอนผ่านทางสื่ออิเล็กทรอนิกส์ ที่มีการใช้คอมพิวเตอร์ เว็บไซต์ (websites) และสื่อมัลติมีเดียทุกชนิด เพื่อเพิ่มประสิทธิภาพในการเรียนการสอน และยังมีสถาบัน อุดมศึกษาบางแห่งได้มีการวางแผนที่จะนำนโยบาย E-University มาใช้เพื่อพัฒนาระบบ การเรียนการสอนทางไกลในสถาบันอุดมศึกษาของไทยให้มีประสิทธิภาพมากยิ่งขึ้น

ดังนั้น วัตถุประสงค์ของการวิจัยนี้ก็เพื่อเป็นแนวทางในการจัดการสำหรับ การศึกษาทางไกลในสถาบันอุดมศึกษาของประเทศไทยให้มีประสิทธิภาพมากยิ่งขึ้น และ ยังเป็นแนวทางในการดำเนินงานในอนาคตให้กับสถาบันอุดมศึกษาที่กำลังจะจัดให้มี การศึกษาทางไกล

### **Abstract**

*This study proposes a management model for distance education in Thai higher education institutions. The study describes management issues in the implementation of distance education with particular reference to its usage in higher education abroad and in Thailand. The samples of this study comprised three kinds of distance educational institutions, namely Single Mode, Dual Mode, and Mixed Mode. The data were collected by a review of reports, research papers, and information retrieval via the Internet. The Delphi techniques, enhanced by face-to-face interviews, were used to collect data. For this study, eighteen experts in distance education completed three rounds questionnaires to determine the components in managing distance education in higher education institutions. Moreover, four professionals in distance education management were asked to evaluate and verify the management model of the study. The data were analyzed by median, mode and interquartile ranges. The findings provided information on different ways of managing*

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*distance education in Thai higher education institutions. Based on the findings of this study, a management model was developed to address the administrative and managerial needs of distance education programs. It is recommended that the components of managing distance education in Thai higher education institutions compose of nine components as (1) Strategic planning: vision, mission, objectives, (2) Organizing, (3) Manpower planning, (4) Budgeting, (5) Administering, (6) Synergizing, (7) Supporting, (8) Assessing, and (9) Quality assuring. Moreover, the current trends indicate that distance education programs would operate simultaneously with traditional classroom teaching in higher education institutions. Some of the higher education institutions have definite plans to adopt E-University policies. Thus, the proposed management model developed from this study will be useful for all institutions with intention to provide or planning to provide distance education programs in Thailand.*

### **1. Introduction**

With the rapid evolution of new information and communication technologies, many educational institutions now routinely employ two-way, interactive videoconferencing, and internet technologies to enrich their traditional classes, or to increase through distance education the reach of their programs to learners separated geographically from the institution (Walsh and Reese, 1995). Higher education is changing, and many institutions are in a state of important transition. It is both exciting and unsettling that new educational models and the means of delivering educational programs and services are evolving at all levels of higher education. Nowadays, many have turned to the

new paradigm, "online distance education," which merges conventional distance education with computer and telecommunication technologies (Brown and Duguid, 2000).

For Thailand, Distance education has been promoted in relation to vocational education, higher education, and continuing education at the post-secondary level. Many universities and colleges have tried to utilize the benefits of technological advancements. As of 2002, approximately 20% of Thailand's 70 + universities were offering some form of e-learning/distance education program in Thailand, with most of these offering broadcasting of video from one institution to another and utilization of internet-based e-learning environments (UNESCO, 2002). However, this expansion and diversification of Thailand's education system has brought new challenges to the administration and management of education in general, and in the management of educational institutions in particular. In addition, a university's administrative system must be modernized and integrated into a single platform, with a network designed to create an interface between the campus and the worldwide community (Wanwipa Titthasiri, 2000: 153).

As higher education institutions increase the use of technology to further distance education initiatives, it is important to recognize the role that perspectives within the institution play in formulating a strategy for effective development and implementation of distance education. The availability and applicability influences the structuring of institutions, culture, administrative style, and the flow of communication (Brown and Duguid, 2000). Also, the unexpected demand and rapid success in these new distance programs have presented challenges in terms of providing student support, faculty training, and course quality (Panda, 2003). In order to expand distance education offerings while maintaining quality, institutions must often develop new management

models for each aspect of their distance support function. The management of distance education operations is as much the responsibility of organizational leaders as that of the staff, with staff having responsibility varying across organizational types.

According to Bates (2000: 96), the success of the Distance education program depends on the management skills of all the administrators, ranging from the supreme governing board (called University Council) to the management team (i.e. president, vice-presidents, deans, and directors) of each distance education institution. These administrators need a management plan to guide the future development of their distance education programs. Such a plan would help universities address the challenges of budget constraints for new or increased investments in technology, provide technical support, develop software and tools for research and enhance teaching-learning and administrative processes. Proper strategic planning and management play a crucial role in the successful maintenance and organization of distance education institutions. An effective management model should address planning, organization, support, staff development, educational development, evaluation, and delivery of effective courses (Panda, 2003). If a distance education institution has a good plan, the risks involved in decision making would be reduced. However, many universities are unable to create this plan because they lack the proper information and experience to strategically plan and utilize distance education in their universities. Therefore, the management model must be carefully developed to ensure effective management of the distance education system.

Clearly, while there is no generic model for the management of distance education program, it is important that these programs be well-planned to insure that the program is efficient. Thus, this study provides future and existing distance education program administrators with data on how to manage

distance education more effectively in higher education institutions in Thailand. The objectives of the study were to identify and examine the problems and needs in managing distance education in Thai higher education institutions and to propose a management model for distance education in Thai higher education institutions.

**Expected Benefits of the Study:**

1) The derived model highlights important processes and functional areas found in the management of Thai higher education distance programs. It is a valuable tool for the Thai government and institution policy makers to pinpoint and prioritize problems behind the management of such programs and to develop policies to resolve those problems.

2) This study will also provide the direction for effective management of distance education programs.

**Conceptual Framework**

Based on review the literature, a conceptual framework is presented as follows. Eight components has been proposed to be a management model for distance education in Thai higher education institutions.

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### Management Perspectives

Conduct Strategic Planning



Develop Organization



Plan for Manpower



Prepare the Budget



Design Administrative



Develop Synergy



Conduct Assessment



Conduct Quality Assurance

### Measurement Perspectives



- o Integrated with institutional mission / vision
- o SWOT analysis
- o Set up goals & objectives
- o Strategies implementation



- o Division of labor
- o Delegation of authority



- o Staff selecting
- o Staff developing
- o Staff retaining



- o Income
- o Resources Allocation
- o Expenditure



- o Qualifications
- o Duty and Responsibilities



- o Collaboration
- o Coordination
- o Network system



- o Formative
- o Summative



- o Internal assessment
- o External assessment

## 2. Research Design

This study followed the pattern of previous distance education studies by utilizing a panel of distance education experts to determine management model. The Delphi technique was selected to structure the group process in the present study. In this study, the intent was to gain insight into the future of managing distance education through the knowledge and experience of selected interviewees and then to apply this to the circumstances in the university. Sampling was purposive and individuals were selected to represent a constituency comprising education leaders, as well as nationally acknowledged experts in distance education.

Three steps were involved in conducting this study:

### **2.1 Studying the Current Status, Problems and Needs in Managing Distance Education in Thai Higher Education Institutions.**

The purpose of this step was to study the primary information concerning how higher education institutions manage their organization when providing distance education. The research process will be discussed next.

#### **2.1.1 Target Population**

The target population of the study was the representative of five universities provided distance education which was Ramkhamhaeng University (RU), Sukhothai Thammathirat Open University (STOU), Burapha University, Naresuan University, and Suranaree University of Technology (SUT). They were selected on the basis of their recognized involvement with the management process in distance education program. To qualify for selection, the institution: 1) must have substantial experience in distance education; 2) is recognized as among the leaders in distance education; 3) is regionally accredited; and 4) offers more than one degree via online distance learning program.

Participants of this study include administrators, coordinators, persons who involved in the distance education management of the university, teachers who teach via the distance education system, and support staff.

### **2.1.2 Instrument Development and Data Collection**

It started with obtaining secondary data obtained from the existing literature on distance education management, followed by, in-depth interviews of administrators and staff from the selected five universities.

The interview questions were open-ended in design and concerned how distance education program are managed in the university. The main aim of the questions was to obtain current information about and the future plans for managing the distance education program. In addition, there were questions addressing management problems and the needs to improve management in the university.

The initial face-to-face in-depth interviews were arranged by the university president. A snowball sampling method was employed as a means to identify and reach other key informants and gain additional interview referrals. Seventeen individuals were interviewed and include 10 administrators, 4 professionals, 2 faculty members and 1 support unit staff.

### **2.1.3 Data Analysis**

After interviewing the 17 participants, content analysis was used to develop a Delphi questionnaire. The main interviewer analyzed the transcribed responses to identify clusters of meaning and commonalities as well as divergences. From this a composite of issue categories aligned with the question topics was prepared from all the interviews. As a final stage in the mediation of the interviews, eight themes emerged from the composite: (1) strategic planning, (2) organizing, (3) manpower planning, (4) budgeting, (5) administering, (6) collaborating, (7) evaluating, and (8) quality assuring. This

review summary enumerating the themes was provided to all interviewees for review and changes.

## **2.2 In Proposing a Management Model for Distance Education in Thai Higher Education Institutions**

The Delphi method was selected to identify the management model, and even create consensus among expert opinion leaders.

### **2.2.1 Target Population**

For this study, the panel of experts in the distance education program possessed the following qualifications: 1) A doctoral degree in the field of education administration, technology education, or any other fields related to this study; 2) Professor or expert who has knowledge or a recognized academic work in distance education program and is in the field of technology education or administration development; and 3) Person involved with the management for distance education in a higher education institution.

28 people were selected as expert panelists. They were selected from the major postsecondary distance education providers in Thailand. The participants were contacted initially through telephone and electronic mail. They were told about the purpose of the study, the proposed format and what was expected of the participants. Twenty-four agreed to participate, but three of those could not begin until round two. Eighteen participated in round one: five of those chose not to do the questionnaires. Nineteen successfully participated in round two, and they also participated in round three.

### **2.2.2 Instrumental Development and Data Collection**

**Phase I:** In the first round, the questionnaires were developed from the review of literature and in-depth interview from the representatives of five universities. The questionnaires consisted of three main sections with 28

major questions and 54 sub questions. The first section asked general information of the respondents, followed by, information about management for distance education in higher education institutions. Finally, the researcher asked the respondents to give recommendations and suggestions for an effective management model for distance education in Thai higher education institutions. These questions reflect the specific objectives of the study, and remain unchanged throughout the study.

The questionnaires were the open-ended questions under the framework of managing distance education, which consisted of strategic planning, organizing, manpower planning, budgeting, administering, collaborating, evaluating, and quality assuring. Out of twenty-four, eighteen experts participated in the first round. The participation rate in this round was 75%. Following standard procedure in Delphi studies, panel member who did not respond to the first round questionnaire were not invited to take part in subsequent rounds. After receiving all the returned questionnaires, a questionnaire comprised of 5-point scale was created for the second round.

**Phase II:** The second round questionnaires were sent out as soon as the last first round questionnaire was returned. Based upon the suggestions and comments from the first round, new items and parenthetical clarifications to several existing items were added in the creation of the second round instrument. According to the returned first round questionnaire, some items had to be re-grouped. Therefore, only 8 items were proposed which were: strategic planning, organizing, manpower planning, budgeting, administering, collaborating, evaluating, and quality assuring. A 5-point scale was employed with items ranging from a 5 as “very appropriate” to a 1 for “very inappropriate.” Space was provided at the end of each section for experts to suggest new ideas. Out of twenty, nineteen experts participated in the second round. The participation rate in this round was 95%.

**Phase III:** In the third round, the same group of experts was asked to participate. Each expert again indicated his/her level of agreement with the items, using summary data from the second round responses as a guide to a new rating. Experts were asked to review their own and the other expert members' responses and assign a value rating based upon the level of agreement with the item as to whether it was appropriate or inappropriate to manage distance education in Thai higher education institutions. All the questions were the same as the second round but shown were the statistic such as median and interquartile (IQR) range (defined as the range between the 25<sup>th</sup> and 75<sup>th</sup> percentiles) of each item together with the position of the respondents answers in order to allow them to compare their rating with those of the other expert members. The participants were also encouraged to further refine existing statements by adding comments and suggestions. Participants were instructed to re-rate or comment on each item for which their original rating fell outside the interquartile range. They were instructed to either support their position or change their score. The third round of the Delphi was completed by all of the participants from the second thus yielding a 100% return rate.

### **2.2.3 Data Analysis**

Only descriptive statistics were used due to the sample selection process. Means, frequency distributions and percentages were calculated for each statement on the third round instrument. The fact that only small changes in the frequencies of retained items were found between the second and third rounds indicated that a consensus had been reached and the Delphi process could conclude. A 5-item scale was employed with categories ranging from 5 as "very appropriate" to 1 as "very inappropriate." The criteria to determine the

consensus of this study was that the item had to have a median and mean of more than or equal to 3.50 and an interquartile range less than or equal to 1.50.

### **2.3 Verifying the Management Model for Distance Education in Thai Higher Education Institutions**

In this step, the management model had been proposed to professionals in order to evaluate and verify whether the model was appropriate to use in managing distance education in Thai higher education institutions.

#### **2.3.1 Target Population**

The target population of this step was four professionals selected by purposive sampling. These people were recognized leaders in the development, administration, or study of distance education. They were also recognized internationally as academic experts and expert practitioners in the field of distance education. For this study, the professionals possessed the following qualifications: A doctoral degree in the field of education administration and A Professor or expert who has knowledge or a recognized academic work in distance education program.

#### **2.3.2 Instrument Development and Data Collection**

After developing the model by using the Delphi technique, all the higher rank score from the last questionnaire were created. Four professionals were asked to evaluate and verify the possibility of the management model being implemented for Thai higher education institutions.

The questionnaire consisted of 3 sections which were: (1) background and general information about the professional; (2) the professional's opinion about proposing the management model for distance education by using a 5 point scale to determine whether the management model was effective; and (3) additional of recommendations and suggestions for the effective management model according to the professional's opinion.

### **2.3.3 Data analysis**

All data were coded and analyzed by using statistical method. The equation was developed to see what were the needs and problems of managing a distance education program in Thai universities. SPSS was used to describe all variables as descriptive statistics such as median, interquartile, means, standard deviation, and percentage.

## **3. Data Analysis and Research Results**

In order to provide the general description analysis, the statistic analysis and the interpretation of the research results, this study contains the following three sections:

### **3.1 Data analysis about the current status, problems and needs of administrators, teachers and personnel involved in managing a distance education program in a Thai higher education institution.**

A total of 17 interviews were given to 11 administrators, 4 professionals, 1 faculty member and 1 support staff among the five participating universities. All interviewees were familiar with distance education technology such as print media, interactive videoconferencing, computer, CAI, internet, e-learning, etc. and had sound knowledge and experience of managing the distance education program in their respective university.

#### **Current status of Distance Education**

From the interviews, all five universities were still at the first stage in providing distance education. The universities, however, do have a Distance Education Center to support the program. Four out of five universities employ a distance education program which enables the students to study by themselves through a network system. The instructors deliver the instruction at the main

campus whereas the students in the distance program receive the instruction through television in the conventional classroom. The universities provide teacher assistants (TA) and telephone lines to help them get in touch with the instructor directly. However, STOU is the only university delivering the lessons in a different format. It has devised a multimedia distance education system "STOU Plan" to enable students to study independently without having a conventional classroom. Textbooks and workbooks which are mailed to students are the main media; supported with audio cassettes, radio and television programs, produced in conjunction with printed materials and other audio-visual aids. The students are responsible for reading the texts at home and submitting assignment papers to the instructors via postal service. If there is a problem or question, the students can call or email the teachers directly.

Instructional media of each university is different depending upon the status of the individual university. Various forms of technology such as satellite, cable television, and radio are used to deliver live or recorded lectures to both individual home-based learners and groups of learners in remote classrooms where some face to face support might be provided. Some systems offer limited audio or video conferencing links back to the lecturer or a moderator at the center. Other additional approaches such as computer-assisted learning, online learning, Internet and web-based instructional media are available to support all students in the program.

All the participating universities have an assessment program in both formal and informal formats. While the formal assessment is similar to a summative evaluation of student learning which includes exams and projects; the informal assessment, which is similar to formative evaluation, provides quick ways for instructors to monitor learning throughout the semester, to provide support and challenges to different ability groups, and to guide teaching

decisions. Assignments and assessments can be posted on course websites and students can submit their work in the format of email messages or facsimiles to the instructors.

Recently all the five participating universities have begun to offer their courses online. The traditional classroom teaching was video-taped and posted on the websites. The students can check the university websites to review the lessons at their own time and needs. The drawback for this new offer is that the number of computers to be used by the students is very limited and the network connection is not always effective. However, some universities have a plan to become an e-university using an e-learning system in the future.

Generally, the participating universities will continue to develop the distance education program with particular development on modern technology and in other necessary areas. Many of these institutions will probably continue to teach successfully using the same technique and format they have used in the past. It is obvious that all higher education institutions are now embarking on distance teaching, producing more technology-based materials (CD, VCD, web pages, etc.) and implementing various forms of technology into classroom teaching and learning.

### **Factors Affecting the Management of a Distance Education in Higher Education Institutions**

Management of distance education is complicated because it is comprised of various sub-systems with different functions and responsibilities. From the interviews, there were many problems in managing distance education in higher education institutions which concluded as management problem, human resource management, financial, instruction delivery, collaboration and coordination, student behaviors and cultures.

### **The Components in Managing Distance Education**

Effective managerial performance depends upon the successful interplay of a number of factors, including personal competence (in terms of skills, knowledge and aptitude). The most important components to manage distance education successfully would conceivably include: vision/mission statement, objective, leadership, organization structure, budgeting, coordination, staffing, quality assurance, and student behaviors.

### **Trends to Improve Distance Education Management Programs**

From the discussions with the university personnel who were involved with distance education management programs in Thailand; several suggestions to improve the quality of distance education program were gathered. The suggestions were:

1) The first thing that administrators should do to improve the distance education program is to have a good plan, clear vision, mission, goals and objectives, and communicate with all staffs about the distance education program in the institutions.

2) In order to establish a qualified institution for independent learning and lifelong learning in the future, there must be valid and strong principles and educational objectives to support the management system of the program.

3) Sufficient budgets must be allocated for technology updates both for human resources and equipments.

4) Cooperation between administrators and instructors is required on identifying and resolving policies, issues, concerns and biases to ensure the achievement of academic goals.

5) Collaboration with other institutions and a network when providing distance courses will reduce expenses and make the courses more efficient.

6) In Thailand, most instructors are not familiar with distance education systems and are not accustomed to teaching in front of cameras. Training in various skills such as how to produce instructional materials using computer programs, how to deliver instruction strategies with graphics and sounds, how to heighten students' interest in using technology support, how to assess students' learning in distance education system, etc. is compulsory.

7) Although the instructors who participated in the structured training programs felt comfortable using high-technology equipment to engage the students in the lessons, they still needed assistance in developing hands-on materials and other kinds of supports such as a team to produce effective video productions. Technical supports in all forms are continuously required.

8) The effectiveness of distance education is based upon not only the management system and technology, but also:

- a) preparation of instructional materials,
- b) the understanding of learner's needs, and;
- c) the instructors who are knowledgeable in the content area and skillful in providing effective communication processes with the students online.

9) The curriculum of the distance education program should be well-designed and age-appropriated in order to serve the needs and interests of students.

10) It is necessary to evaluate the program of each institution in terms of: curriculum design, content organization, delivery modes, materials design, units development, standard or materials, assessment formats, time

duration for assignment completion, feedbacks; and advice from instructors to students, as well as mentoring and counseling.

11) It is necessary to evaluate the institutions in terms of: staff qualifications, teaching and learning processes, resources availability, existing communication technology modes, relevance and appropriateness of the programs, and the adequacy of information for decision making. The evaluation should reflect the quality maintenance of the institutions and programs which enable the institutions to produce outputs that will not in any way be inferior or substandard to those produced by conventional tertiary institutions.

12) Quality assurance is the most important element to guarantee the quality of the institution. Therefore, the institution that provides or tends to provide a distance program should have appropriate procedures of quality control.

### **3.2 Data analysis using Delphi techniques to ask expert's opinions about distance education management in Thai higher education institutions.**

This step was designed to identify the factors needed in higher education to implement and manage a distance education program. As such, it would provide useful information for developing a management model for distance education.

#### **Demographics**

Eighteen experts completed the round-one questionnaire, and nineteen completed the round-two and -three questionnaires. The demographic characteristics of the nineteen experts who completed this study are described next.

The majority (78.95%) of the expert panel was male and 21.05 % was female. The final panel consisted of two vice chancellors, one vice chancellor, one chancellor assistant, one deputy dean, four department heads, three directors,

one deputy director, two instructors, one support staff, one counselor, and two for others. Most panel experts were between 41-60 years (84.22%); 10.52% were over 60 years. The rest (5.26%) were 30-40 years. For the level of education, most of them held doctoral degree which was 89.48%, while 10.52% held master degree. With regard to the current position, most of the experts (63.15%) used to manage a distance education program in the institutions, while 36.85% did not.

### **Data Analysis on Expert's opinions for Delphi techniques**

Eight components had been provided in order to manage distance education in higher education institutions which were strategic planning, organization structure, personal management, leadership, coordination and collaboration, budgeting, evaluation, and quality assurance. The results are shown in form of median, mode, difference between mode and median and IQR, together with its corresponding interpretation.

In order to be considered very important, a statement had to receive a median rating of four or five and an interquartile rating (IQR) of one or less on either scale, indicating consensus that the statement was very important due to its inherent importance. Where the IQR was equal to or less than one, indicating that at least fifty percent of ratings fell within one point, consensus was achieved.

From this study, all statements fell into the range of five and four and IQR fell into zero and one rating scale which showed the level of experts' opinion were strongly agree and agree with the statements. Therefore, the statement in each components can be applied in managing distance education institution in Thailand.

### **3.3 Data analysis to verify the management model for Thai higher education institutions.**

The purpose of this step was to analyze the data by asking four professionals in distance education management to verify the model. They were asked to make a consideration on each subject including the detail of the model which consists of vision, mission, objective, organization structure, personal management, leadership, coordination and collaboration, budgeting, controlling and evaluation, quality assurance and implementation condition.

All four professionals had agreed on Introduction of the management model for distance education in Thai higher education institutions that the introduction part to include Significance of the Study ( $x=4.00$ ), Objective ( $x=4.00$ ), Environmental Scanning ( $x=3.80$ ), and the Expectations of the Study ( $x=3.80$ ). Based on the overall average ( $X=3.90$ ), it can be summarized that part 1 is a good model.

The professionals also strongly agreed on five factors which were Vision ( $X=4.30$ ), Mission ( $X=4.50$ ), Objective ( $X=4.30$ ), Evaluation ( $X=4.30$ ), and Quality Assurance ( $X=4.25$ ). The professionals agreed on Organization Structure ( $X=3.80$ ), Personnel Management ( $X=4.00$ ), Leadership ( $X=3.80$ ), Coordination and Collaboration ( $X=4.00$ ), Budgeting ( $X=3.80$ ), and Expectations of the Model ( $X=4.00$ ). Therefore, from the overall average ( $X=4.07$ ), it can be summarized that the detail of management is a very good model for managing distance education in Thai higher education institutions.

According to the professionals' opinions ( $X=3.90$ ), they all agreed that the proposed management model in this study can be applied to Thai higher education institutions when providing distance education program.

#### **4. A Proposed Management Model for Distance Education in Thai Higher Education Institutions**

The management model for distance education in higher education institutions of this study was derived from the study of principles, concepts, management theories, review of documents and research papers as well from the experts' opinion obtained through the Delphi techniques. Moreover, this model is verified by four professionals who had extensive experiences in management of distance education institutions in Thailand. It provides each process how to manage distance program more effectively by starting with its strategic planning which includes vision statement, mission statement, and objectives; organizing, manpower planning, budgeting, administering, synergizing, supporting, assessing, and quality assuring.

This study provides the management model to be a guideline for administrators or person who involves with managing distance education in higher education institutions. Although there are different type of distance education institutions, this management model can be applied or adapted to use in each institutions.

The objectives of the model are: 1) To be a generic model for managing distance education in higher education institutions; and 2) To determine the important components that can make higher education institutions more successful when providing or tend to provide distance education courses.

##### **The Proposed Management Model for Distance Education: The Sombassaq Model**

The mode comprises components: (1) Strategic Planning which includes vision statement, mission statement, and objectives, (2) Organizing, (3) Manpower

planning, (4) Budgeting, (5) Administering, (6) Synergizing (7) Supporting, (8) Assessing, and (9) Quality assuring.

### **Strategic Planning**

Strategic planning includes 3 components which are:

#### **1. Vision statement**

1) To be a center of learning elaboration and nurture a quality learning society.

2) To improve people's lives, with good education management for either formal education or learning at the learner's convenience.

3) To be a renowned international leader in providing innovative educational opportunities for learners within the global society.

#### **2. Mission statement**

1) To produce quality personnel for community development, as a learning society.

2) To increase the level of knowledge of working people and expand educational opportunities for all people.

3) To develop life long education, occupation, life quality and communities to be aligned with the goals and planning strategies of country development and the global growth of IT.

4) To provide quality distance learning courses that allow the institution to eliminate barriers of time and place for a large number of people, in its service area and beyond, trying to attain their educational goals.

5) To provide directly, and in collaboration with other institutions of higher learning, facilities for university education, including technological and professional education and research.

6) To provide access to academic excellence which will prepare learners to think critically, communicate effectively, and engage in lifelong learning while serving a global community.

### **3. Objectives**

1) To improve and upgrade the life quality of people through life-long learning processes.

2) To promote and produce equal opportunity of education in university level to all learners.

3) To build up learning networks and academic co-operations among universities and occupational organizations.

4) To respond to the national strategies and goals of human resource development.

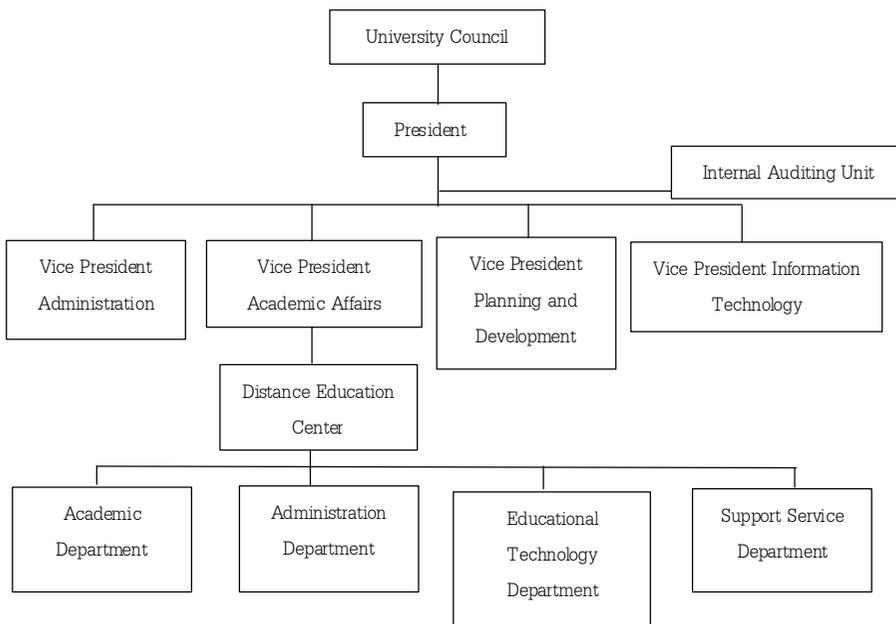
5) To meet the needs of learners' self-development.

6) To develop students' knowledge, skills, and competencies which enhance their employment prospects and their capacity to make a positive contribution to society.

### **Organizing**

An organization chart of Thai higher education institutions should be as follow.

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The details of each department are described in the proceeding sections.

#### 1) Academic Department

##### 1.1 Curriculum Development Division

Its responsibilities are to plan and develop curriculum and instructional content, including instructional content design related to curriculum and objectives of the course.

##### 1.2 Course Development Division

Its responsibilities are to design and develop courseware.

##### 1.3 Research and Development Division

Its responsibilities are to develop and create educational instruction, improve the quality of instructional product, and test the efficiency of instructional materials.

## 2) Administration Department

### 2.1 Policy and Planning Division

Its responsibilities are to determine the policy and planning for the distance education center and working on the center's annual budget.

### 2.2 Human Resource Management Division

Its responsibilities are to recruit and select staff for each division, to provide job descriptions, and to develop and promote staff in the distance education center.

### 2.3 Procurement Division

Its responsibilities are to purchase instructional materials, contact education media production agencies, and repair education instructional equipment.

### 2.4 Public Relations and Marketing Division

Its responsibilities are to inform publics, both internal and external, especially educational media development, of the development of the distance education center; greet visitors, and; perform public relations tasks to attract more students to the program.

## 3) Educational Technology Department

### 3.1 Instructional Media Production Division

Its responsibilities are to produce instructional media for classroom and education materials for teachers in each subject; recommend and suggest how to produce educational media to teachers; plan for producing educational media, and; provide educational media.

### 3.2 Computer/Network Services Division

Its responsibilities are to control the computer and network system within higher education institutions and to facilitate the computer system in any other areas for the classroom.

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#### 4) Support Service Department

##### 4.1 Student technical support Division

Its responsibilities are to let the students borrow any kind of educational media both electronically and audio-visual education. Giving some computer and network system support to students is also its responsibility.

##### 1) Information Center

Its responsibility is to give the information about distance education to students and other people who are interested in the program and the detailed of the administration. Moreover, they need to evaluate the program and collecting data from information services within and outside institutions.

##### 2) Registration Division

Its responsibility is to register the students who apply to the program, including taking care of the course registration.

##### 3) Coordination Division

Its responsibility is to coordinate with other departments and agencies regarding to distance education course.

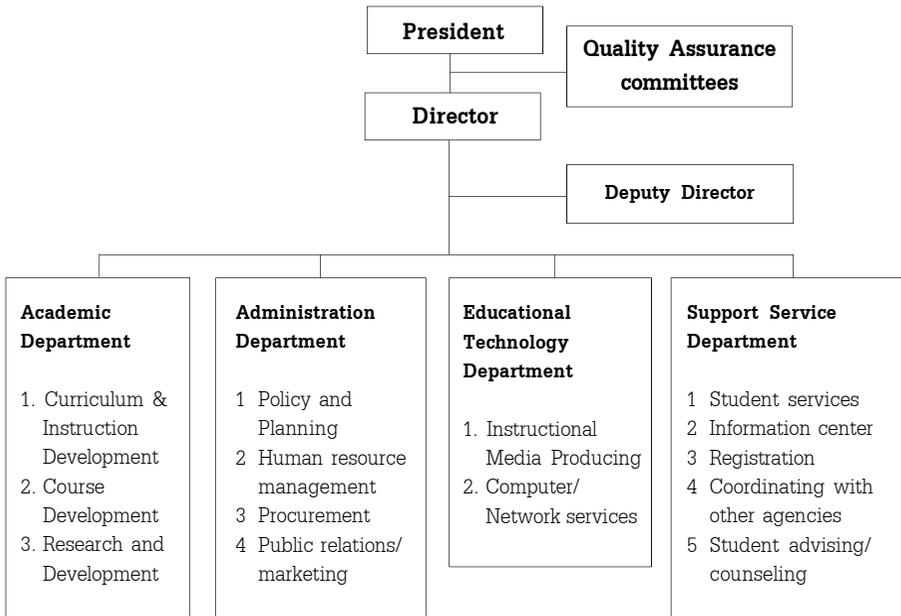
##### 4) Services Division

Its responsibility is to serve technician problems about educational media both software and hardware. This division also repairs and set up the educational media equipment.

##### 5) Advising/Counseling Division

It is the division to assist students in determining whether they are ready to pursue distance and online university-level studies and how to proceed to the program.

The administrative structure for a distance education center illustrated as below.



### Manpower Planning

The numbers of staff members by function in the distance education center are as follows:

1. Management/Executive	2	position
2. Academic (part-time)	10	positions
3. Operational needs	25	positions
4. Technical support staff	10	positions
5. Administrative support staff	10	positions

### Budgeting

When providing a distance education program, the expenditures should come from:

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- 1) Educational administration i.e. the tuition fees, the raise of tuition, and the services charges of learners;
- 2) National budgets and grants;
- 3) Donations, and;
- 4) Investments in support of technological infrastructure, facilities and maintenance services, course production, and development of new multimedia teaching materials.

#### **Administering**

The good characteristics of leadership for distance education are described as:

- 1) Acceptance in innovation technology and able to adopt it for the institution.
- 2) Ability to coordinate and collaborate with other distance education institutions within the country and abroad.
- 3) Have a clear vision and strategic plan for managing the institution.
- 4) Wide acceptance by other people in higher education fields.
- 5) Acceptance of others' opinions and allows them to participate in decision making.
- 6) Ability to work as a team leader.
- 7) Ability to make a quick decisions in policy management.

The responsibilities of leadership should be:

- 1) To determine the policy, criteria, and standards for managing distance education.
- 2) To respond to all management within the institution such as personnel management, financial management, etc.

3) To control, check, and evaluate the quality of the institution in various ways such as the quality of staffs, students, and the institutions.

4) To develop a work-flow tool to control the elaboration and production of teaching materials.

5) To manage the economic transactions between students and the institution and also between professors and the institution.

### **Synergizing**

1) Set up the network system to collaborate with other distance education institutions in teaching via distance.

2) Provide a network system as a learning center in every place in order to coordinate with students.

3) Form alliances among institutions offering distance education programs for the best cooperation and coordination.

4) Establish a specialized center to coordinate with government and private institutions about distance education.

### **Supporting**

1) Student support in technological infrastructure, registration, and advising.

2) Faculty support including technological support for delivery of distance education offerings and appropriate training for faculty in technology.

3) Academic support for educational programs of the institution, including library and learning resources.

### **Assessing**

Assessing should be done regularly, be easily accessible and created with an eye toward the future.

1) Achieving the institutions' mission and objectives.

2) Conducting documented assessment of student achievement in each course and at the completion of the program by comparing student performance to intended learning outcomes.

3) Using institutional resources efficiently.

4) Assuring that institutional processes and resources support appropriate learning and other outcomes for the students and graduates.

5) The quality and effectiveness of teaching materials.

6) Conducting a survey at the end of each semester in order to gather student opinions and improve the quality of the universities studies and services.

#### **Quality Assuring**

1) There should have the standards and made appropriate change to accommodate distance education.

2) There should have the auditing system to check the implementation of each department for the transparency.

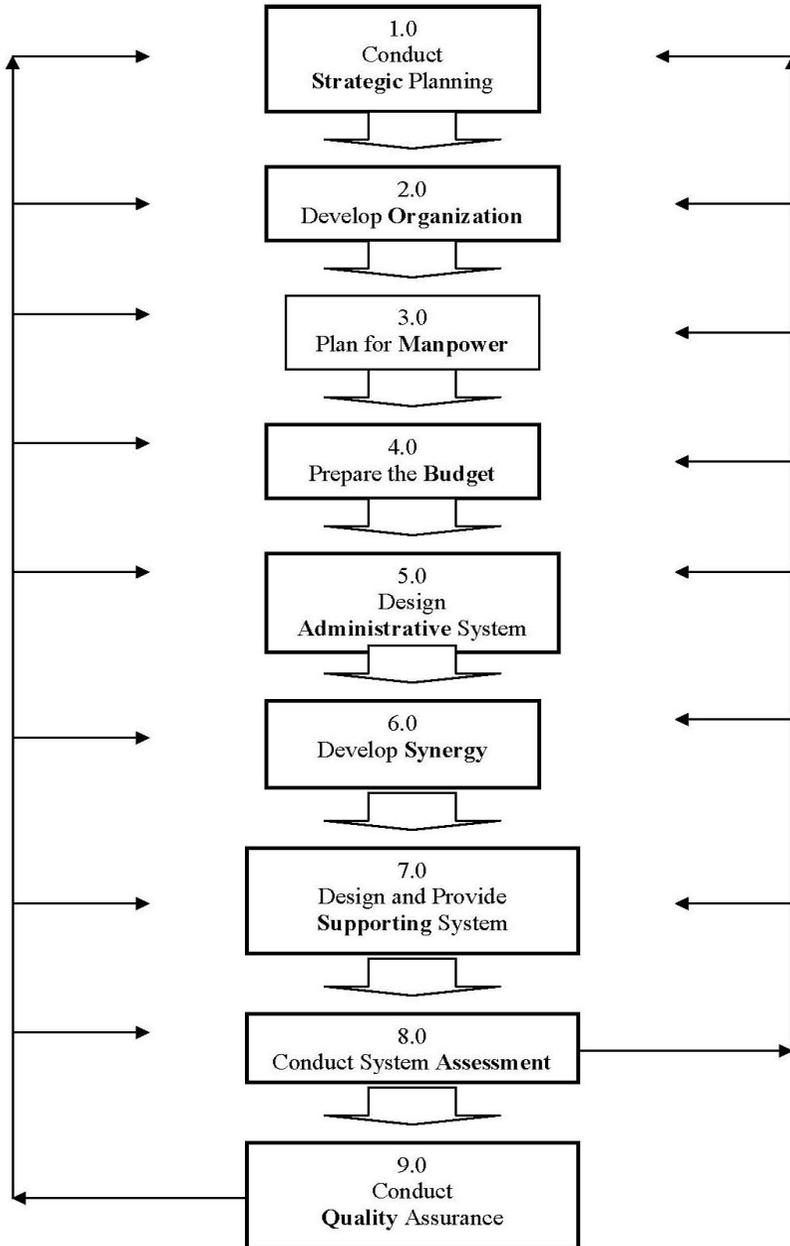
3) The institution should be certified by the International Accreditation Standards for higher education.

4) The process of quality assurance should be in an effective system in order to continued development in the institutions.

#### **The SOMBASSAQ Model**

The diagram presents a non-linear approach which illustrates the interaction and the dynamic between the various elements and decision-making bodies. This model has nine main elements: (1) strategic planning, (2) organizing, (3) manpower planning, (4) budgeting, (5) administering, (6) synergizing, (7) supporting, (8) assessing, and (9) quality assuring. The model will be applied differently according to the different organization structures of the distance education institutions previously mentioned.

**Flow Chart Showing the SOMBASSAQ Model**



## **5. Discussions, Conclusions and Recommendations**

As institutions implement distance education programs, decisions must be made regarding management. Yet, there is little research identifying the management concepts needed to implement distance education in higher education institutions. Therefore, the objective of this study was to propose a management model for distance education in Thai higher education institutions.

This study attempted to provide a framework with the educational transaction and environments, communication technology utilization, service and staff supports in order to analyze the influential factors of the effectiveness of managing distance education in Thai higher education institutions. Through the execution of this study, current data concerning practices and procedures in the management of distance education programs was obtained. Relevant data was found in the areas of: 1) strategic planning: vision statement, mission, objectives; 2) organizing; 3) manpower planning; 4) budgeting; 5) administering; 6) synergizing; 7) supporting; 8) assessing; and 9) quality assuring.

### **Summary and Discussions of the Study**

A panel of distance education experts was appointed to determine the proposed management model for distance education in Thai higher education institutions. The Delphi technique, consisting of three rounds questionnaires, was verified by professional in distance education management. This study was descriptive and therefore relied primarily upon descriptive measures.

For this study, a careful, multi-step process of expert identification and peer nomination, including two criteria, was utilized to identify the pool of distance education experts from which the expert panel emerged. The two were, first the expert must be nominated by a peer; and second, the identified

criteria expert must be willing to participate. Snowball sampling was employed to identify key informants about distance education management in the universities. The in-depth interviews were used to collect current information and future plans for managing distance education. Seventeen participants from five universities were interviewed through face-to-face consisted of 10 administrators, 4 professionals, 2 faculty members, and 1 support unit staff. The interview questionnaires were divided into three parts; (1) general information of participants; (2) current information about the management of distance education in the universities; (3) strategies to solve the problem; and (4) trends for improving distance education program in universities. The results revealed eight themes had emerged from the composite: strategic planning, organizing, staffing, leading, budgeting, collaborating, evaluating, and quality assuring. The eight components of the in-depth interview stage part were used to develop the Delphi questionnaires.

Eighteen experts completed the questionnaires in round-one questionnaire and nineteen completed questionnaires in rounds two and three. The panelists consisted of three vice presidents, one president assistant, one deputy dean, four department heads, three directors, one deputy director, two instructors, one support staff, one counselor, and two others. Most of the panelists reported having dual titles of professor and director, resulting in a total of 18 professional titles. Moreover, four professionals in distance education management had to verify whether the model was acceptable.

The first round survey consisted of eight components: strategic planning, organizing, manpower planning, leading, collaborating, budgeting, evaluating, and quality assuring derived from the literature review and the in-depth interviews of representatives from the five participating universities. It was an open-ended questionnaire, which consisted of three main sections comprising 28 major

questions and 54 sub-questions. After reviewing the results of round one, a questionnaire, employing 5-point scales, was created for the second and third round.

The questionnaire was revised according to the results of the first round questionnaire. Eight items were proposed: (1) strategic planning, vision, mission and objectives; (2) organizing; (3) manpower planning, (4) leading, (5) collaborating, (6) budgeting, (7) evaluating, and (8) quality assuring. A 5-item scale was employed with categories ranging from 5 as “very appropriate” to 1 as “very inappropriate.” The panelist was given lined space to write additional suggestions at the end of each question. In round three, panelists were asked to review their rating of each item in comparison with the group median. If the score from round two fell outside the IQR (defined as the range between the 25<sup>th</sup> and 75<sup>th</sup> percentiles), the panelist was instructed to either support his/her position or change the score.

From the results of this study, a proposed management model for distance education is good for administrators and persons involved with distance education management in Thai higher education institutions. While each institution has unique characteristics, it is important to follow some systematic process to ensure that the program is meeting the needs mentioned by all panel of experts' opinion. For this reason, the nine-step component model has been developed to address the major management needs of most distance education programs.

### **Conclusions**

Traditional universities are beginning to realize the advantages of new technologies, and new distance higher education institutions are making use of them. The number of institutions using distance education models will increase,

but they will apply these new technologies in their organizations in different ways (Verduin and Clark, 1991). Moreover, most universities today are trying to make effective use of information communication technology (ICT) in their teaching and learning systems. However, the way to do this can be very different depending on the tradition of the university, its background, and who in the university is initiating this change. This means that each university will require a different model to make the change. Some of them will need to adapt their structures. Some of them will need to undo some of their structures and rebuild new ones (Keast, 1997).

Higher education institutions where they would like to provide distance education cannot be managed like a conventional institution. A different management system is needed. When a university tries to survive in an increasingly digital world, it needs to be able to make quick decisions. Its management system must be flexible, adaptive and ready to act at any moment. Some conventional universities try to manage their online programs or their virtual extensions in the same way that they manage their 'regular' ones. Based on the findings from this study, it appears that distance education universities need a different kind of organization. Although there is probably no unique model for the virtual organization, bureaucratic systems of organization must be avoided, and shifts made to new and more appropriate systems. Even while this study provides a management model for improving distance education programs in the university, it is necessary to apply, depending on the institutions' environment and technological system that has been used in the institutions.

### **Implications and Recommendations of the Study**

As a result of this study, the following recommendations are made. Included are recommendations for the application of the results of this study, for improving the current study, and for further research.

1) The government should recognize distance education as a viable education approach; grant equivalency of degrees, diplomas, and certificates obtained through distance learning; establish funding policies for distance education institutions, initiate special funding mechanisms for launching or upgrading distance learning systems as appropriate, expand capital and operating budgets for appropriate learning technologies, and so on. It is important to ensure that the national policy on distance education is integrated within the general educational policy framework for the country.

2) The institutions should begin thinking of distance education 'institution-wide' rather than in 'programmatic' terms. This may require some new approaches to program development at the institutional level, as distance education may extend beyond the traditional boundaries between on-campus and off-campus instruction.

3) The institutions should think about how to organize their distance education development and media resources to allow for more flexible combinations of media as required by individual programs. As distance education moves from a single-medium program to a multi-media institution-wide system, new organizational approaches may be needed that open the way for new kinds of collaborative media development and that provide ample space for both distance education and other instructional and non-instructional applications of technology.

4) The institutions must develop a set of vision and mission statements that accurately reflect their distance education capabilities and goals. The

vision and mission should address academic as well as technological and administrative goals for distance education: what academic program can best benefit from distance education? How broad should these programs attempt to reach?

5) To reorganize the increasing potential for distance education innovations to migrate the institutional mainstream, institutions should review their policies and procedures and, where needed, broaden them to include distance education delivery.

6) Distance education demands careful planning and coordination, even prior to its implementation and use. It requires careful design and development; a reliable information and communications infrastructure; human resource development, including orientation, induction, and training; and the relevant organizational mechanisms to coordinate the various elements. Supporting legislation may be required to facilitate meaningful coordination of efforts by all players and stakeholders.

7) In particular, the correspondence institutions should be at the forefront of educational and technological developments. They should be well-positioned to operate efficiently and effectively in creating and sustaining the appropriate learning environment for all groups of learners. They should start restructuring and retooling themselves for the educational challenges of the next decades in, for instance, preparing and retraining their teachers, tutors, mentors and the technical support staff for their new and expanded roles. They should re-examine how best to utilize the present facilities and resources, including the classrooms, laboratories, workshops, dormitories and physical plants. They should also determine the appropriate proportions of full-time, part-time and piece-work staff that would be required to conduct the program, including the opportunities for outsourcing certain services from outside the institutions.

8) The institutions should recognize excellence in the design, development and delivery of distance education courses; systematic and aggressive staff training and reward systems; development of appropriate learner support systems including study skills development; and acquisition of appropriate learning technologies.

9) The issues of quality, quality assurance and enhancement systems, assessment, accreditation and credit transfer are of great concern to many governments and will need to be addressed through the appropriate mechanisms such as the national commissions (or councils) on higher education that have already been established in several countries.

10) Proper budgets need to be allocated to support the efficiency of the program. It is important for programs to establish an annual budget early in the implementation phase of the program. Without consistent monetary commitment, the program cannot be properly marketed, technology cannot be maintained, and the program is unlikely to grow.

11) Strategic planning is the key to link all the elements involved in the implementation of a system for distance education. Through strategic planning is possible to link topics such as pedagogical changes needed for distance education, institutional and cultural issues, and organizational structure. For example, how distance education programs fit within the mission of the institution must first be determined before any major resource allocation should be expected.

12) Effective teaching at a distance is more the result of preparation than innovation. The distance educator can employ a number of strategies focusing on planning, student understanding, interaction, and teaching to ensure a successfully delivered course (Barry, 1992). It is important to include faculty development programs for distance education that take into consideration incentives and reward structures and motivate instructors to develop instructionally effective distance education courses.

13) According to Lockwood (2000: 81) “quality assurance is a set of procedures or systems planned to ensure that an effective, efficient and satisfying experience is provided for learners.” Higher education institutions should have in place quality assurance systems that include general sets of principles and standards that endeavor to get things right the first time, and that can be checked regularly during the whole process.

14) It is not possible to implement a system for distance education without taking into account decisions about the budget, infrastructure, staffing, and policy. This type of decision should come from both academic planners and the implementation team. Leaders championing distance education within their institution must be able to show that such programs are adding value, are relevant, and may increase enrollment and retention, and thus warrant a change in some policies.

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