

Benefits computer system in college

[Technology](#), [Computer](#)



The increasing complexity of administrative operations in today's colleges and universities are the effects of the growing students, faculty and administrative populations and the physical expansion of the institutions. The increase in complexity means additional administrative manpower, workloads, and management information and data processing system. To meet the growing needs of education, colleges and universities as a result formulated new innovations, techniques and methods and streamline the complexity of operations. New facilities such as the computer were developed not only for the instructions, research and academic applications.

Statement of the Problem Since 1970 the Mountain State Agricultural College witnessed the upsurge in student enrollment, faculty and administrative personnel, research projects, degree programs and college functions. As a result of complexity of management, academic research and research operations have developed.

The study aimed to develop a computer application on its information system and the data processing system to streamline such complexity. The problem areas are as follows: 1. The analysis of the present system 2. The design of the proposed system 3. Selection of the proposed computer system its cost study and the computer department organization. Methodology The research is adopted to a descriptive method. This employs the systems analyses method oriented towards computer approach like wise with the utilization of questionnaire on the survey of the information flow within the organization.

FINDINGS The Present System In the survey and systems investigation of the present system reviewing the existing procedures and information flow,

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emphasis is made on the documents and information flow used in management, academic and research operations. All documents are to be investigated according to the origin, distribution, materials and format. The present organization of the institution is divided into three groups namely:) Management Group a) Personnel and Records Division] b) Finance Division c) Property, Housing and Auxiliary Services Division 2) Academic Group a) Admission Office b) Student Affairs c) Graduate and Undergraduate Office d) All College Division 3) Research and Development Organization a) Physical Plan Division b) Research and Experimental Station c) Philippine Training Center d) Northern Philippines Root Crop Research The problems of the present system are mainly due to the manual nature of the data processing and are materialized as follows: 1. Accuracy of Academic Data 2. Student Records and File Maintenance 3. Personnel Records and File Maintenance 4. Payroll, Accounting and Finance Files 5.

Research Statistical Analysis and Evaluation of the Experimental Data 6. Manual Grade Processing Enrollment Future Requirements and Constraints Based on a five-year projection plan, the student and the faculty-administrative personnel population will increase as follows: Number of Enrolled Students as of 1984- 4, 817 Number of Faculty as of 1984- 608 The increase of the administrative personnel would be proportional to the increase of faculty staff. The increase of student and personnel would relatively increase the following: 1. Administrative Workloads 2. Research Projects 3. Enrollment Requirements 4. Data Processing Requirements 5.

Academic and other Physical Facilities Proposed Computerized Information System The proposed information system would use the individual file data base method and is centralized and managed by the EDP department. This total information system would handle the following files: A. Management 1. Payroll, Accounting and Financial 2. Inventory 3. Personnel B. Academic 1.

General Student Data 2. Grade Report 3. Student Accounts C. Research and Development 1. Statistical Evaluation of Data 2. Project Management The total information system with the proper computer hardware can replace a number of independent existing files in the college, which is being managed by the different departments. System Requirements Since the proposed system is used as a management, academic and research information system it requires the proper computer hardware and its peripherals.

The memory size of the computer as recommended by three-computer system dealers ranges from 40 Kbytes to 64 Kbytes. This is classified as minicomputer. Computer Systems Proposal and Configurations The proposed hardware capacity as recommended by three-computer dealers in the Philippines as selected by the writer is the following: Dealer Memory Size Hardware IBM Philippines Dataprep MAI Philippines 48 Kbytes 64 Kbytes 40 Kbytes Systems 34 NOVA 3/12 BASIC FOUR The selection was based on the cost of the computer hardware, the software capabilities and the hardware components. The writer selected NOVA 3/12 for the following reasons: 1. The cost of the system is low. 2. The operating system suits the proposed information system relative to real time processing.

3. The wide variety of computer languages utilized for the research, academic and management processing. The initial systems configuration for the NOVA 3/12 has a higher core capacity and also the expansion capacity is excellent. These items are very important in the selection process since the prime concern of the user is a system that meets the odds of obsolescence.

The Cost Study The various cost of implementing a computer system is important in the feasibility study of acquiring a computer. The summarized form of the cost involved are the following: 1. cost of the computer system 2. cost of the computer housing 3. cost of the computer conversion 4. cost of computer operations a. cost of operating personnel b. cost of supplies c. cost of supporting facilities d. cost of utilities e.

maintenance cost Proposed EDF Organization The proposed computer department should be a separate service oriented department. This group could be group within the management group since it is service oriented. The idea is to create a separate and identifiable computer in the college so that the users can view the EDP as an organizational resource. This would be composed of the EDP head, systems analyst, programmers, operators and data control clerks.

CONCLUSIONS The following conclusions arising from this study shows the feasibility of the proposed computerized data processing and information system. 1. Since the present system at its manual nature of operation leads to high turn around time of the information and data processing, the introduction of a computer and a computerized processing would shorten the turn around time for the reports, files, and the information would be up-to-date and also accurate.

2. The growing rate of the student population, personnel and the faculty has a direct effect on the present information and the data processing system would remedy the adverse effects of the present system. 3. A computerized anagement information system would enable the administrative decisions since up-to-date informations, reports and other data could be produced at a fast and accurate mode. Detailed study of the future requirements using the computer from the current data can be done. 4. A computerized data processing would benefit the academic staff, faculty and students in the enrollment processing, grade processing and the in formation flow.

5. A computerized data processing would speed up the development of research projects and give more way to research projects. 6. The required size of the computer hardware would be between the 40 Kbytes of core memory capacity size of the CPU. 7. The EDP department is a separate department to serve all the other departments; since it is a service group, it should be under the management group. RECOMMENDATIONS 1.

Since the study covers a preliminary survey and is a feasibility study, it is recommended to the Mountain State Agricultural College that the detailed specification and implementation of the system would ensue as soon as the college approved the acquisition of the computer system. The implementation concerns the following: a) file design b) programming requirements c) program testing d) documentation e) training personnel f) conversion g) installation 2. It is also recommended that if the college agrees to push through with the acquisition of the computer system, a computer committee should be organized to compose a group of top management and

one computer specialist. 3. Since the proposed computer installation is a minicomputer installation, the individual file database is recommended for the information system. This is to minimize programming cost. .

The economical size of the probable computer system as recommended for the information system by the computer dealers of the Philippines ranges from 40 K to 64 K. It is further recommended that the NOVA 3/12 is the most probable computer to be recommended. 5. Since the EDP group is considered as service bureau, all the departments in the Mountain State Agricultural College are to be served by this office. A cooperative effort by these departments and the EDP department would contribute to the effective workability of the proposed system.