

**ELECTRONIC MACHINES**

- A. What progress is being made in the application of electronic data processing machines to smaller company operations?
- B. What considerations are important when deciding when the application of electronic data processing machines will be economical?

MR. L. H. BARNHART commented that the most important consideration was to take an over-all view of the company's operations and company record-keeping procedures. Most companies developed their early records when they had no punched cards or machines. As the company increased its volume, departmentalization took place and each supervisor became a little kingmaker in his own right, developing his own records without the outlook of the whole company. District agency offices felt that they needed to have duplicate sets of records.

Later new systems were set up but old systems were not completely destroyed. The result has been, in many instances, that even the installation of punch cards merely added another system and did not increase the over-all efficiency. As a result of the publicity incident to electronic processing equipment, top management is taking more interest in the record-keeping aspects and setting up planning committees with a view to adapting record systems to the new equipment. It will be tragic if electronic devices are merely installed without discontinuing older systems providing the same functions.

The consolidated functions approach is discussed as though it were something new for office management. The approach is not new; it applies to the application of punch card systems as well. No company can ever conveniently use high speed equipment unless its records are consolidated. In fact, some small companies are finding savings ranging up to 20% by consolidating functions using punch cards.

The Fidelity Life Association has implemented the following changes in order to have a consolidation of functions:

- 1. A punch card procedure has never been installed without eliminating the manual system at the same time.
- 2. Punch cards are used as an accounting tool without duplication of manual records.
- 3. Posted premium history cards have been eliminated.
- 4. Posted policy loan and accounting manual systems have been eliminated.
- 5. Policy loan interest, dividend allocations, and premium income payments are handled in one collection department as a combined function with the use of punch card combined stub notice.

6. Receipts have been eliminated.
7. Commissions are based on a mechanical system with no manual posting.
8. Commissions and production records are combined in one file.
9. Periodic review is made of all prepared statements.

The small company may not be as handicapped as it appears at first blush from the adoption of electronic data processing equipment. As an illustration, the representative of one company stated that they were about to install a 650. After working many months programming they thought certain procedures were ready to go until, lo and behold, they found the agency department was installing a new agency contract. Another company mentioned that more than 1,400 characters were required to place each policy record on a magnetic tape. These items illustrate that when a company with electronic data processing equipment makes a change, the cost of retooling will be very high. It is apparent, then, that a small company with its greater flexibility will be able to compete in spite of the fact that it will require more time to secure figures requiring elaborate calculations.

MR. R. E. LARSON expressed the belief that the principal benefit which is secured from an electronic machine installation is the fresh look at reports, general systems, and procedures, which goes hand in hand with the installation. Probably a rather large percentage of the savings arising from the installation of electronic equipment will come from taking an intelligent, new and mid-20th century look at record keeping. Mr. Larson's recommendation is that those companies not in position to spend money for a 650 pretend that they have a 650 and govern themselves accordingly when it comes to looking at records.

MR. P. M. BAILEY stated that the Security Life and Accident Company is scheduled to receive an IBM Model 650 EDPM early next September. The company has approximately 83,000 policies and \$275 million of ordinary business in force, excluding group.

The company is planning to use the consolidated functions approach and intends to use the machine as much as possible. The planning has centered principally in the area of daily routine clerical operations with initial applications planned in two primary areas of new business and business in force. In addition, one of the first applications will be to process and compute claims in its student and athletic insurance program.

An initial survey of the company operation was completed in the Fall of 1954. The studies indicated that a saving of 28 employees could result from installation of a 650 and the order was placed as a result of that survey.

In the Fall of 1954 the company held its first of three advanced programming schools for home office employees. So far over fifty employees (representing approximately 25% of the total home office staff) from all echelons of the company have been trained. The thought behind this procedure was not only to train expert programmers but also to explain the nature of the machine to other employees in an attempt to dispell any atmosphere of mystery that surrounded the machine.

The company has appointed a number of special committees to work in special areas such as new business, commission accounting, renewal premium billing and collection, student and accident insurance, *etc.* The committees have consisted normally of from two to four persons and have been charged with the responsibility of preparing complete block diagrams and programs in their specific areas. So far, programs have been completed, checked and used to compute gross life premiums and nonforfeiture values for the September 1955 edition of the company's life rate book.

The most important considerations in deciding when the application of EDPM machines will be economical are cost studies, which need to be made to determine that the machine will pay its own way; time factors, that is, the extent of present mechanization and of preliminary changes required before EDPM can be installed; and the availability of personnel to be trained to carry the program through. Most importantly top management must be sold and must provide the proper atmosphere for making the change.

MR. J. S. HILL suggested that there were three approaches which a small company might take to justify a computer which otherwise might not appear justifiable. \$3,750 monthly rental is generally considered to be about the minimum rental cost for a stored program computer. However, there are computers on the market today which will do a very satisfactory job which are available at substantially lower prices, particularly if purchased outright. Over a ten-year program, an average figure of \$2,000 a month will provide a card fed drum storage, internally stored program machine, or alternatively about \$4,200 a month will provide a card fed machine with four to six tapes and four to six tape units.

Companies differ in internal operations also, and it has been demonstrated that after analysis one company will turn down a machine when they have 200,000 policies in force while another company will install a machine with half that number or less in force. It therefore behooves each company to analyze its own problems, study them carefully and view the problem in its broadest aspects before deciding that a computer is not yet justifiable.

The third approach is in connection with research work. Many companies attempt to justify a computer on the grounds of clerical savings alone. This is understandable since clerical savings are relatively concrete whereas additional company profits as developed through research are highly nebulous and difficult to pin down. Nevertheless, it is essential to evaluate carefully the value of research work in the operation of the life insurance business.

MR. H. B. STALEY of the Iowa Life stated that his company has about a quarter of a billion in force and its internal operations are relatively simple so that it could not justify a computer for its own use only. The company operates, however, in conjunction with a casualty company and a fire and crop hail company, and the computer will be used to service all three.

Most of the company's proposed procedures have been patterned after those developed by Mr. Glenn Head at the U.S. Life. One procedure which is different from the U.S. Life operation is that dividends will be computed in the main program (billing and up-dating status in the master consolidated file) instead of in a separate program on the billing cards.

The company's master file will consist basically of two cards, a permanent and a variable card. This is really a one-unit record but the variable card will have concentrated on it those things which change frequently, such as paid-to date, dividend accumulations, paid-up additions, mode of payment, dividend options, *etc.* The permanent card will be changed only infrequently.

There will be an additional card in the master file for those cases which have premiums paid in advance or loans. In the basic program for billing and up-dating status the company will also have in the input premium payments accounts affecting dividends, loan entries, advance premium entries, and a change card for change of dividend option or mode of payment, so that all the service department would have to do would be to prepare a card with the due date, the policy number, card number and new mode or option.

In the output of the primary program the company intends to develop billing cards which will be used off line to prepare the notices and also as an outstanding and unpaid file. Up-dated variable cards, error cards, summary cards, and certain accounting entries on loans and advance premiums will also be prepared. The basic daily processing will be to merge a pending file, which will accumulate over a month period for each due date, with the master file; run these cards through the 650; sort the output into the various kinds of output cards; and reproduce

them on the proper card stock. The cards will then be interpreted and sorted and an additional collation will be made after the 650 run to put the new variable card into the master file. Status would be obtained by reproducing the cards in the master and pending files, thus making it necessary to go to two places for status.

MR. R. P. WALKER mentioned that at the meeting of the Insurance Accounting and Statistical Association, which had been held recently in New York, a group of fire companies covering an area of about 275 miles in circumference were considering on a tentative basis having a service bureau for the companies, and he wondered whether there were any life companies that had considered this possibility. Apparently none had.