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Mechanized Accounting

Application for the Small Business

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Mechanical aids have been with us for many years. The typewriter and the adding machine are really a part of mechanized accounting. Most bookkeeping machines are glorified and expanded adding machine and typewriter combinations, the operation of which is readily learned and understood by a capable typist with a flair for bookkeeping.

Since we are in an electronic age, it is only natural that we visualize an electronic computer when mention is made of mechanized accounting, and big business is grasping these to its bosom more each year. But small business must be content with the equipment within its budget and adapted to its type of industry and personnel.

Punch Card Systems

More and more small businesses are considering I.B.M. or similar punch card systems. While in the past it was felt that punch-card accounting systems were too expensive for small businesses, we are being converted gradually to the thought that a "look-see" into them is very much worth while for an expanding organization.

In talking with the accountant of a plastic toy manufacturer, I found some logic in the application of an I.B.M. system for certain small businesses. This particular company has 200 employees. Sales are about five million dollars annually. Because of the variety of small toys manufactured—(toys that wholesale from 5¢ up) there is a tremendous inventory of both material, work in process, and finished product, requiring a detailed cost system and a voluminous sales analysis. This company uses I.B.M. leased equipment for all accounting except the posting the general ledger. They have one accountant assisted by six machine operators who are either at the machines punching the information on the cards, or at other machines interpreting and processing the data. For this organization, the I.B.M. equipment is efficient and satisfactory.

For many companies who wish to experiment or make the transition to punch-card accounting gradually, they may use a tabulating and statistical service bureau. These are located generally in larger cities or areas

where there is a concentration of business, and their function is to convert pre-coded accounting information into punched cards for the accounting machine to process. This function eliminates the necessity for smaller companies to lease certain equipment, and the service bureau charges a fee instead for processing the data. The service bureaus can do as little or as much of the procedure as desired, and here are some advantages and disadvantages of such a system where the work is done (or partly done) away from your own offices:

ADVANTAGES

Provides a representative who discusses requirements and develops procedures which are necessary and best for you.

Cuts down overhead costs in both equipment rental, office space, and personnel.

Gives your own personnel a training period without pressure.

Provides an opportunity to expand as volume requires by gradually transferring to your own office those machines you need as you need them.

Provides for a more efficient operation by the use of skilled personnel.

Provides meticulous, fast planning of your work.

Gives you the information you want when you want it.

DISADVANTAGES

Unless the service bureau is located nearby, there will be a delay in delivering and receiving completed accounting information.

The abrupt paring down of personnel in the office in transferring over may have a demoralizing effect on the remaining personnel. The constant change in adding new machines and new operations would appear burdensome, and prolonged.

The service bureau seems to be for the

company which is rather betwixt and between the small and large business, or for the small business in the process of transition into a large business. For any who may wish to consider this, determine first—if there is such a bureau conveniently located, and then discuss your problems *very carefully and thoroughly* before you proceed with actual installation of a system.

Don't be over-anxious to experiment as it can be costly. I know of one firm that did so experiment. Its volume was not large enough to warrant purchase or contract rental of this equipment so it used an outside tabulating service,—only to find that relying on this service proved inefficient and expensive, particularly in the event that government reports were needed which required week-end work when this service bureau was on an overtime basis if, indeed, it worked at all. At least, it is now satisfied with what it has.

Before leaving the punch card system, let me call your attention to the Key Sort Tabulating Punch; a marginally notched system gaining recognition for smaller businesses. The unit cards are easily and *accurately* sorted to their several classifications and automatically tabulated. It is reported that the Tabulating Punch is actuated by a ten-key keyboard and can be operated by anyone who can use an adding machine.

Before we can walk, we must crawl however;—so let us look at some more or less familiar mechanical aids that most of us are now using or thinking about in relation to application to our own organizations. While some of these are only part of a system, we can adapt them in many ways other than the uses mentioned here. We have done business for decades with the help of our manual typewriters and adding machines, and these are still the principal stand-bys in most small business offices today. But there are many other saving aids that, for a small investment, can mean increased efficiency and sometimes, the saving of adding another employee or two and the resultant increased overhead for office space and supplies.

THE ELECTRIC TYPEWRITER

The fully automatic typewriter will give clear copies on multiple forms for billing, for financial statements, or for letters where copies must be distributed to various branches or people. The ease of operation here permits the typist to keep up a steady output without tiring, and there is the same pressure behind

each typed letter to give uniformity and neatness to the end product. When purchasing the typewriter, keep in mind its intended function and select the type-face best suited to the particular need. For billing, it is wise to have letters and numbers in large, plain type-face to insure accuracy on carbons often required for accounting and other equally important functions.

ADDING MACHINES

These are all sizes, shapes, weights and prices, of domestic or foreign brand. The 10-key is by far the fastest to operate and has increased in popularity in recent years. Even here we have many varieties. If it is necessary to have a machine used jointly by two or more people, you might prefer a light-weight model which is easily moved about. If it is to be in a stationary position, most *men* seem to prefer the old reliable standard American brands,—durable and trouble-free.

CALCULATORS

Here we have such machines as Marchant, Monroe, Olivetti, Victor, Remington-Rand and Friden. These perform the multiplying and division in less time than it takes to write the figures down on paper. The machines that do not have a printed tape are more speedily operated, and in cases where cross-footings prove the totals, or where results are later checked for accuracy, this calculator is the most practical.

However, we have found the printing calculators are more adapted to our bill-of-lading processes at Beverly Hills Transfer and Storage,—particularly where the public is on the phone waiting for an answer. Rather than do the calculations twice to prove a total, the operator can glance at the printed tape to verify that the correct figures were inserted. The tape remains with the papers, and if an error is found later, we know where it was made.

BILLING MACHINES

Here we have numerous makes and models. For those who have a minimum of product description, the symbol billers are used effectively, and certainly reduce time and expense. The typewriter is eliminated and there is a row or rows of symbols on the calculating portion of the machine. As the amount is inserted and the proper key depressed, the symbol appears by the amount. Most probably you have seen restaurant checks passed through this machine. The moving and storage

company, as an illustration, might symbol:

CA for Cash—TR for Transportation—ST for Storage—MA for Material—TX for Sales Tax

For description of the charge or credit on the invoice, only one symbol key is depressed.

National Cash Register has a simple 3-total desk model symbol biller that is really a posting machine. It prepares a Journal in the same operation as invoicing and entering on the ledger. It is little more than a double adding machine, but it is a very effective step toward time and money-saving mechanization. Here the statements and invoices are pre-headed on a typewriter. The process is speedy and a sure way of having the statement to the customer, the accounts receivable ledger card, and the journal all in balance.

The Friden-Computyper is a biller that combines the electric typewriter and the calculator in one unit. It is a fantastic timesaver. Only a typist is required to operate. The operator types the heading, quantity, unit price, and product description. The computyper computes the extensions, additions, deductions and totals. You can start here with the one machine unit, and as you develop, additional units can be purchased,—some that will simultaneously punch cards or tapes for other distribution and analytical purposes.

BOOKKEEPING MACHINES

There are several good bookkeeping machines on the market currently; the one with which I am most familiar is the NCR 3100. This machine by changing the removable program or control bars, can be used for all the bookkeeping functions of a small business. We have one machine that does accounts receivable, bank deposits, accounts payable, payroll, distribution to our general ledger, aging of accounts and miscellaneous reports. It is difficult to describe the simplicity of the operation, but it is just like running a typewriter and an adding machine that will give you 18 different totals, if necessary. Journals are the carbon copies of all processes depending upon future use. We felt our preparation of the bank deposit on the NCR was a real innovation, because it means our cash-credits to accounts receivable are as current as our deposits to the bank.

Payrolls can be written by the machine. The earnings record, pay statement, check, check register and payroll journal are all printed at the same time. Earnings, withholding tax, FICA and other deductions are automatically computed and printed by the machine on each employee's earnings record—in one operation.

ANALYSIS MACHINE

NCR has an Analysis machine (Class 41). As an example of the type of work which this machine does, it has been used by an automotive company for analysis of salesman's commissions. Previously, large sheets were used with each salesman's name heading a list each month, and on this spread sheet the commission amount was manually listed invoice by invoice. Using the Analysis Machine, a total or register is assigned to each of the 13 salesmen. The operator runs through the invoices and enters each commission amount to the proper indentifying button. Each invoice copy is validated by the machine as entries are made. This is accomplished automatically just by slipping the invoice into the machine's printer. The reason the invoices are validated is that if any salesman thinks he has been underpaid, he can refer to the file of invoices. Each amount due him should be validated with his number. If he sees another salesman's number, then he has the right to complain and secure an adjustment.

ACCESSORIES OR AIDS

The COPY MACHINES are becoming more and more invaluable to offices, not only because they save time of copying reports or letters or other data, but because they make an *actual* copy,—the chance for error in incorrectly copying a figure or word is eliminated. While there is not yet a dry process on the market that will take all colors and inks, the many wet or liquid chemical processes are adaptable to most anything you wish to have copied. (And these are acceptable by the Bureau of Internal Revenue in connection with income tax returns and supporting schedules.) The paper for the dry Thermo-Fax copy machine is almost half the cost of the other method, which makes it much more reasonable to use.

ADDRESSOGRAPH PLATES or similar addressing processes and machines are used frequently for heading statements or printing envelopes where repeated mailing go to such as: customers, stockholders, employees, vendors, etc.

PORTABLE TAPE RECORDERS (Stenorette for one) can be used for taking on the spot inventories, checking in merchandise or storage lots, for field audits, recording conversations for reports and taking down information of a technical nature on the phone to eliminate misinterpretation.

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to exceed one billion dollars. This full-length treatise on embezzlement is, in part, a challenge to the accounting profession to extend and develop its services in this separate field of audit surveillance.

While the author recognizes the financial audit, as contrasted with the detailed audit, was a necessary development, he feels audit surveillance is a separate branch of accounting service which could and should be developed.

Apart from the financial losses incurred, the moral and social problems involved are equally as serious. Until detection becomes more prevalent, this is an area of moral degradation, which will continue to lure those who are unable to resist temptation.

The author feels the accountant should base his concept of theft on the proprietorship equation and lists the following as the three elemental theft concepts:

The fraudulent transfers of assets from employers to thieves;

The fraudulent increases in liabilities of employers for the benefit of thieves; and

The fraudulent transfers of proprietorship equities to thieves.

Many case histories are given to illustrate how such thefts have been practiced in particular situations.

The necessary changes, which must occur in the techniques of audit surveillance, are developed. As in a financial audit the accountant must resort to tests, rather than detailed examination.

The author advocates "cyclical auditing"; he would subject the areas where major thefts are more likely to occur to more frequent scrutiny, but following an irregular pattern of timing and constant changes in procedures. The minor areas should be examined less frequently, but all areas should be covered within a two or three year cycle.

The many new technical terms used throughout the volume are explained in a complete glossary.

CONCLUSION

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In making a transition to mechanized accounting, it is well to keep in mind future growth, but not to over-indulge in expensive machines that give no better results for the money spent. One reason we selected our specific NCR Machine, was because of its versatility—it adapts itself to all functions of our accounting. If our business grows to such an extent that more than one machine is required, we can buy a duplicate machine and use the same program bars. There is no need to start systematizing all over.

After all, what all accountants are looking for is a faster, less expensive method of doing the necessary accounting. While there will always be certain people (employees or management) who resist change, we must remember our most valuable employees are just as resistant to a status-quo. You are as likely to lose employees whether you go to mechanized accounting or stay on a manual basis. The thing to do is think of the job to be done, and how best to get the desired results.

Don't think I am advocating a rough-shod advancement into mechanization. PEOPLE are the most important asset any business has. One business executive put it this way: "People will become more important, rather than less important, as more American business leaders follow the trend to scientific management. Computers and automatic production processes will change the nature of work, but they will not eliminate work,—nor will they wipe out people as workers."

The four key landmarks for keeping pace with transition are:

Anticipate the need for change,

Determine the course,

Find out if there is an easy way to effect the change

And put the adjustment into effect gradually.

Everyone can profit by making use of new techniques, but first it is necessary to develop ourselves to prepare for these new ideas, and this includes: the development and application of leadership skills, the substitution of long range planning for running a business on hunches, and the use of specialists in making complex decisions.

