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Auditing Techniques

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This evening we continue our survey entitled "Operation Internal Auditing" with a discussion of the auditing techniques that the auditor employs in his work.

Let's define our terms.

The word "audit" comes to us from the Latin, from the word "auditus," meaning "hear." The words "audio," "auditory," and "auditorium" are derived from the same source. In the dim dawn of history authorities heard accounts rendered by stewards by word of mouth. Hence the association of auditing and hearing. The connection is not as remote as one might think. The auditor is not a finder of fact. His function is to express professional opinions with respect to accounting data. His work is to review, to "hear," if you like, the evidence supporting accounting data and to formulate a professional opinion concerning the data he has examined.

The word "technique" comes to us from the Greek, from the word "technikos," meaning "art." Traditionally the word "technique" has had reference to manner of artistic performance, as when we refer to a musician's or a painter's technique. In our time the word "technique" has taken on the broader meaning of working methods in art, science, industry, and other fields.

Consequently, when we speak of "auditing techniques" we have reference to the auditor's art, to the working methods by which he examines accounting evidence and formulates an opinion with respect thereto. Consider the implications of the proposition that auditing is an "art." Auditing is not mechanical, routine checking. Auditing is not a set of rules to be memorized and followed. Auditing is not a standard work program to be universally applied. Auditing is the mind of man bringing ingenuity, education, training, and experience to bear on the critical review of accounting data. Auditing techniques are the tools of this art, a set of skills the auditor has mastered; to each audit he brings that combination of techniques he believes will most efficiently lead him thought by thought to the formulation of a sound professional opinion.

According to my personal view, there are ten types of auditing techniques. Three of these techniques are commonly used in the examination of the books and records, that is, the internal evidence supporting accounting data. These techniques are checking, vouching, and analysis. A second group of techniques is designed to obtain external evidence, that is, evidence outside the books and records, to substantiate accounting data. These techniques are counting, observation, and confirmation. A third group includes four techniques that are general in character and may be utilized in conjunction with or as a supplement to the application of any of the six basic techniques. These four general techniques are sampling, inquiry, analytic review, and correlation.

In the brief time at our disposal this evening, it will be impracticable to present a detailed discussion of each technique. At best, we can suggest a few general rules to be followed in using each technique and point out typical situations in which each technique may be usefully employed. As an independent certified public accountant, my remarks will necessarily relate to techniques employed in the examination of financial statements. In appropriate circumstances each of these techniques may be equally useful in internal auditing, and I will leave it to you as internal auditors to visualize how and to what extent each of these techniques can be used in your work.

INTERNAL EVIDENCE

CHECKING

Checking is the simplest, and least imaginative, but a necessary technique employed in auditing. By checking I mean the repetition of an act the bookkeeper has previously performed. Checking may take the form of recomputation, as when an auditor checks footings, extensions, and other mathematical calculations. On the other hand, checking may take the form of retracing bookkeeping entries, as when an auditor checks from the supporting documents to books of original entry, traces postings to general and subsidiary ledgers, traces ledger-account balances to trial balances, and the like.

The uses of the checking technique are legion, and there is no need to suggest to you more specific instances in which it may be usefully employed. Checking is a necessary part of any audit. When internal control is lacking, extensive checking may be necessary to establish the reliability of the accounting records. When the internal control is thought to be excellent, limited checking is necessary to establish that the system of internal control is in fact operating effectively so as to provide reasonable assurance that the accounting records are reliable.

Checking, however, is a time-consuming technique. In many instances, it is non-productive of results, if results be expressed in terms of errors of consequence detected. To every auditor, therefore, comes the challenge to hold the time devoted to checking to the minimum consistent with good professional practice.

In this era of punched-card accounting, the auditor should consider the use of accounting machines to reduce manual checking operations. All of us use adding machines and calculators, and if we are in a position to control the input of data and the output of results, we have implicit faith in the reliability of these machines. The same principle applies to punched-card machines. If the auditor understands the machine's operation; if he is satisfied that the data punched in the cards is in agreement with the source documents (this is usually accomplished by preparing, under the auditor's control, machine listings that may be tested against the source documents); and if he observes and controls the machine operation to prevent manipulation by the operator, he may reasonably accept footing, sorting, collating, and multiplying operations performed by the machines in lieu of manual checking. Electronic computers, it is my personal opinion, can similarly be used to great advantage. If the auditor understands the machine's operation, if he reviews the program and controls the reading of the program into the computer, and if he makes adequate tests of the input data against the source documents, he should be able to control and observe the processing of the cards by the computer in lieu of manually checking the operations covered by the program.

VOUCHING

A second auditing technique is vouching. In importance and usefulness it is second to none. By vouching I mean tracing an entry or a transaction to its source documents and examining the same for evidences of internal checking, for the regularity of the transaction, and for conformity of the entry to the code of accounts and to generally accepted accounting principles.

The instances in which the vouching technique is used are numerous and varied. The auditor vouches cash-disbursements book entries by reference to the endorsed checks returned by the bank. He vouches merchandise purchases or property additions by reference to invoices, receiving reports, purchase orders, and contracts. He vouches labor costs by reference to payrolls, time slips, clock cards, and personnel files. He vouches sales by reference to invoices, shipping records, cash register tapes, etc. He vouches journal entries by reference to supporting records and work sheets. In such documents he finds the evidence that gives authenticity to the entries he finds in the accounts.

As an auditing technique, vouching calls for great concentration, insight, and imagination on the part of the auditor. If not carried out in this manner, vouching degenerates into mechanical, routine checking. When done with competence and skill, vouching gives substance to the ledger entries, it reveals to the auditor's trained mind the day-to-day transactions of the business, the policies and procedures followed in keeping its accounts, and the workmanship of the persons who perform accounting functions.

Vouching technique requires painstaking attention to an infinite number of details. Any document which the auditor examines may contain the evidence that there has been a violation of generally accepted accounting principles or a departure from the policies and procedures prescribed by the management. It may contain the evidence that a clerical error has been committed or that an error committed by a vendor has gone undetected. In some instances it may contain the evidence, however obscure, that the document has been fraudulently introduced or altered to support an irregular transaction.

Vouching technique is generally improved when the auditor so arranges his work as to bring related types of entries under examination at approximately the same time. To illustrate what I mean, consider the examination of cash vouchers. Now, the auditor could proceed through the vouchers for the audit period in chronological order, just as is done in the pre-audit of vouchers by the accounts payable section, looking for all varieties of errors that may exist. On the other hand, an advantage is gained if all vouchers relating to plant additions are examined in one operation, all vouchers relating to repair charges are examined in another, all vouchers supporting inventory prices are examined in another, etc. This technique temporarily narrows the range that the auditor's mind must span and brings into focus in his mind many entries governed by substantially the same accounting principles, policies, and procedures.

ANALYSIS

Analysis is the third auditing technique I have listed. When a chemist makes an analysis, he breaks a given substance up into its component elements and compounds. So, in auditing, analysis is the technique of breaking an account up into its component parts and in such fashion as to enable the auditor to review and critically appraise the entries contained therein.

Analysis may be directed toward the transactions that appear in an account during the audit period, or the technique may be aimed at the composition of the account balance at the end of the period. If the auditor's purpose is to review transactions he may list all entries in chronological sequence, or he may list all entries of consequential amount. Usually, however, the work sheet is more useful if the entries are classified according to some appropriate plan. Thus, the entries may be classified as to source, as to type of entry, as to expense classifications, or by departments, districts, or states. If on the other hand, the auditor's purpose is to review balances at the end of the period, he will list the subsidiary accounts balances or the items comprising the final account balance shown by the ledger.

The most important thing that can be said about analysis as an auditing technique is this: Copying the books is not auditing. The preparation of an analysis is a useful technique only to the extent that it serves as a tool enabling the auditor more efficiently to review and appraise the entries in an account or the closing balance thereof or to preserve for later use figures needed in report preparation.

To every auditor, therefore, comes the challenge to hold his use of the analysis technique to a reasonable minimum. Where possible, review entries without listing them, direct from the ledger account. Make full use of all reports and records prepared by the client, obtaining copies for the work papers when this is required. This above all, let it never be said that our work papers contain the evidence that the auditor has used his pencil, but not his mind.

EXTERNAL EVIDENCE

COUNTING

Counting, or inspection, is a technique by which the auditor obtains external evidence to corroborate evidence contained in the books and records. The general ledger discloses the amount of an imprest fund, and the reimbursement vouchers testify to its existence, but a count of the fund provides maximum assurance that the fund is intact. The accounts disclose the existence of security investments. Cash vouchers substantiate their purchase, and dividends received indicate that they are owned, but inspection of the securities is the best proof that they are on hand. The same principle holds with inventory quantities: Physical counts provide maximum assurance that book inventory quantities are correct.

Counting, or inspection, however, is a technique that provides conclusive evidence only if skillfully employed. Two basic principles must be observed:

The count must be conducted under circumstances that will permit a matching of the count with the books and records. For example, cut-off of cash book entries or inventory transactions at the time of count is absolutely necessary if the results are to be satisfactory.

The count must be made under circumstances that will prevent the substitution of assets to temporarily cover a shortage. Use the surprise count whenever possible. Control and count all funds to which the custodian has access. Count cash and securities and verify cash on deposit simultaneously unless the opportunity for substitution or "kiting" is not present.

OBSERVATION

Observation is an audit technique that is used to good advantage in certain phases of the auditor's work. Perhaps the best example of the use of this technique is the observation of physical inventories. Actual counts of inventories by the auditor are necessarily limited in number. If, however, the auditor observes the work of the client's inventory crews, ascertains that prescribed instructions are being followed, and makes selected counts as a test of the accuracy of their work, he obtains satisfaction with respect to the inventory as a whole.

The observation technique is useful in other ways. A trip through the factory to observe the manufacturing process gives the auditor a better understanding of the business and of its accounts. A visit to the site of new construction provides a better basis for understanding the vouchers to be examined in auditing property additions. Observing the activities of employees as they go about their daily work confirms the existence of many features of internal control or reveals that the system breaks down in one respect or another. In the field of internal auditing, observation may relate to all manner of items that may be of interest to management such as poor housekeeping, infraction of safety rules, personality conflicts, poor morale, etc.

CONFIRMATION

One of the most effective ways to establish the reliability of certain features of the accounts is to obtain confirmation that the client's accounts agree with related records kept by other parties.

This technique has several common uses. Confirmations are obtained with respect to cash on deposit, undeposited receipts, notes and accounts receivable balances, surety deposits, securities held for safekeeping, inventories in the hands of outside custodians, notes payable, capital stock outstanding, etc. Some accountants regularly use the technique in auditing trade accounts payable, but this practice is not common. This is so for at least two reasons, which are as follows:

The vendors' monthly statements contain external evidence (barring suppression or alteration of the statements) of the accounts payable items that should be shown by the clients' books.

The principal danger in accounts payable is that accounts may be omitted from the books and unless all vendors with whom the client ever has occasion to do business are circularized the results cannot be conclusive.

Accountants generally use the confirmation technique for accounts payable of unusual nature or exceptionally large amount.

Confirmation is an effective technique only when the following conditions are met:

There must be direct communication between the auditor and the person who is to supply the confirmation. This is the reason for mailing the request for confirmation in an envelope bearing the auditor's return address and for providing a business reply envelope bearing the auditor's address.

The data shown by the confirmation request must be in agreement with the accounting records. The auditor must take appropriate steps to make certain that it does agree. As an example, it is unsafe to confirm the balances in individual customers' accounts unless the aggregate of such accounts is balanced against the control account.

Confirmation, as an auditing technique, is sometimes less effective than it should be. Auditors sometimes err in failing to provide all the information that the addressee will need to check the request against his records. Addressees sometimes defeat the purpose of confirmation by failing to answer the request, by signing a request without checking its accuracy, by communicating orally with the person who keeps the accounts, or by failing to mail the reply direct to the auditor.

Confirmations, nevertheless, are an important element of present-day auditing technique. Auditors, for their part, should do every-thing possible to aid the addressee in checking the request and in submitting a prompt reply. All recipients of confirmation requests should extend their full cooperation to the end that business may be protected through this important auditing procedure.

Confirmation technique occasionally means reference to public records rather than correspondence with specific persons. For example, dividends may be checked against published dividend records, security prices may be checked against market reports, and foreign exchange rates or commodity prices may be checked against published reports in newspapers or trade publications.

GENERAL APPLICATION

Thus far we have considered six auditing techniques: checking, vouching, and analysis, which are used in the examination of internal evidence in the books and records; and counting, observation, and confirmation, which are used to obtain evidence outside the books and records. Now we consider four techniques of general application, which may be used in conjunction with any of the six basic auditing techniques.

SAMPLING

The first of these is sampling. As an auditing technique, sampling is based on the premise that if a representative number of items are examined, it may be assumed that similar items not examined have the same characteristics as those included in the test. Samples may be selected in various ways. One approach is to examine all entries of a given class for a selected period or periods. Sometimes the periods are selected at random, as when the cash-receipts book is footed for any two months of the year. Often, however, the period selected is one that contains more than a normal probability of error, as when the auditor tests cash discounts for the month showing the highest ratio of discounts to accounts receivable credits, foots a payroll showing a material increase over the preceding one, or traces entries in the shipping record immediately before and after the balance-sheet date to the related invoices and sales records. Sometimes, samples are selected on the basis of minimum amounts, as when an auditor tests all property additions over $500 or all charges to repairs exceeding the same amount. Often a selection based on minimum amounts for selected periods is used.

It has long been recognized that the size of samples should be related to the presence or absence of good internal control over the records affected, but the exact size of the sample has been left to the judgment of the auditor.

Since World War II, statistical sampling has been advocated in certain quarters. This method is based on the use of the random sample, that is, a sample selected by chance from the entire audit period and without reference to the amounts concerned. Such a sample permits the application of the laws of probability in determining sample size. Judgment is required in that the auditor must make certain assumptions as to the degree of risk to be taken. Once these assumptions are made, the size of the sample is mathematically determined and is fixed, in the final analysis, not by the number of items in the body of data, not by the presence or absence of internal control, but by the number of errors detected in the sample initially or sequentially selected. Statistical sampling, I think, is not likely to entirely replace the traditional methods. Admittedly it offers a more or less objective basis for fixing sample-size. It appears to me to be especially useful in situations where the auditor is concerned with the general reliability of records or is confronted with so large a number of items that the cost of testing a sizeable percentage thereof would be excessive. Yet, I think the auditor will continue to use sampling methods (including variations of the statistical sampling technique) directed at material items, at potential trouble-spots in the accounts, and at departures from regular practices that may be dictated by management in their zeal to show satisfactory results.

INQUIRY

The second general auditing technique that I have listed is inquiry. Traditionally the auditor has been pictured as a man who pores over records, pencil in hand, to check their correctness. Actually, the auditor is more accurately pictured as an interviewer, as an asker of questions, for the written record standing alone often must be supplemented with oral data and explanations.

Inquiry or interview is a technique that requires considerable skill. These suggestions may be helpful:

Select for interview the person best informed on the matter to be discussed. In a large organization this is especially important.

Select an appropriate time for the interview; before audit work, if your purpose is to ascertain the nature of records, procedures, and policies; after audit work, if your purpose is to question an entry, a policy, or a procedure.

- Prepare yourself for the interview. Refresh your memory concerning the subject. Plan your opening line of questions. Consider follow-up questions to be asked.
- Be a good listener. Mentally digest each reply before you ask further questions.
- Be alert to follow up your original questions until you have all the facts so as to avoid the necessity for a second interview.
- Promptly make a record of the results of your interview while the facts are fresh in your mind.

The technique of inquiry includes also the matter of questionnaires and written representations. When the subject matter is complicated, a questionnaire is a definite aid to the auditor. An internal-control questionnaire is a good example in this connection. Questionnaires, or checklists, are also useful as reminders to the auditor to make inquiry concerning miscellaneous matters that may easily be overlooked. Written representations from the client are used when the auditor desires that the client's answer to inquiries be formalized or approved by two or more persons. Inventory and liability certificates are common examples, but any matter of unusual importance may well be covered by a written communication from the client.

ANALYTIC REVIEW

The nature of accounting records is such that an unusual transaction or a change in accounting practice bearing upon material amounts will produce some fluctuation, or fluctuations, in the financial statements and the underlying accounts. Accordingly, auditors have developed a technique that we call analytic review. In its simplest form this technique consists of scanning the monthly entries to an account for the audit period for the purpose of noting entries of unusual amount. In the case of profit-and-loss accounts comparisons are also made with the amounts in the same account for the corresponding period of one or more prior years. Analytic review also includes the review of such operating statistics as gross profit ratios, selling prices and production costs per unit, inventory turnover, accounts-receivable turnover, and the like. The analytic review may properly make use of the client's interim financial statements and operating reports, its budget, and similar records that may be available.

Analytic review leads to the discovery of fluctuations. Vouching, checking, analysis, or inquiry may be used to determine the cause of each fluctuation. In many cases the fluctuation proves to be the result of changed business conditions. Often, however, the fluctuation reflects some unusual transaction or series of transactions or some change in accounting practice that the auditor should investigate.

Analytic review probably began as a technique for applying the test of reasonableness to portions of the audit period not included in samples selected for test. Its maximum usefulness is accomplished, however, when carried out, to the extent possible, in the early stages of the engagement so that particular attention may be directed toward accounts affected by fluctuations in preparing the audit program and selecting samples for tests. Its principal merit lies in the fact that it requires the auditor to adopt an over-all and a common-sense point of view with respect to the accounts and often leads him quickly to problem areas requiring his attention without the necessity for any preliminary checking, vouching, or other detail work.

CORRELATION

For want of a better word, I have called the tenth audit technique "correlation." By this term, I mean proving the accuracy of one account on the basis of its logical relation to another account, or accounts.

The use of the correlation technique may be illustrated by the following examples:

Proving dividend income in relation to the number of shares of various stock issues owned as disclosed in the investment accounts.

Proving interest income in relation to the principal amount of notes and securities owned as shown by assets accounts.

Proving interest expense in relation to the entries in the notes- and bonds-payable accounts.

Accounting for rental income in terms of properties owned and periods of occupancy or vacancy.

Checking oil and gas revenue records against producing lease investment accounts as a means of determining that all abandonments have been recorded.

Checking lease rental payments against non-producing lease investment accounts as a means of determining that surrendered and expired leases have been written off.

Examining ad-valorem tax receipts in relation to real and personal property owned as proof of the expense and as evidence of property ownership.

The auditor with ingenuity will find many other instances in which his examination can be expedited through the correlation of one account with others interrelated with it.

In a deeper sense, an audit is a gigantic problem in correlation. Making an audit is similar to working a jig-saw puzzle. At the outset, the auditor is confronted wtih a multitude of individual entries concerning which he has no opinion. Using whichever auditing technique, or combination of techniques, is appropriate in the circumstances, he examines the evidence relating to each separate phase of the accounts. But, this is not the whole of an audit. For, as the worker of a jig-saw puzzle must not only study each piece of the puzzle but must also fit it into proper relation with all other pieces in the puzzle, so the auditor must, as each new item of evidence is collected, engage in a continuous mental process in which the new evidence is evaluated and considered in relation to all the information he has previously assembled concerning the accounts. At long last comes the moment when all the pertinent evidence has been assembled, when the auditor is satisfied that all the evidence taken as a whole indicates that the financial statements represent a fair presentation of financial position and operating results or that any exception thereto has been thoroughly investigated and an appropriate report qualification prepared. At that moment, an opinion is formed, an audit is completed.