

The Need for Extension of the Validation Process in Auditing

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The quality of a company's internal control is a keystone in the construction of an audit program, particularly the determination of the extent of the audit tests of individual accounts. However, abject reliance can result in overreliance and, especially, distract from the need for adequate validation of accounts and transactions.

The accounting profession's justified preoccupation with the need to narrow the alternative application of generally accepted accounting principles has diverted attention from another area in need of significant change and improvement. This is the area of the audit function. A critical examination of the profession's problems of late, reveals that most of them are rooted in inadequacies of the audit function and in the public understanding of what that function is supposed to achieve.

For example:

- Many of the recently publicized lawsuits against accounting firms have as their main feature an alleged audit failure rather than a reporting failure due to the proliferation of alternative accounting principles.

- In a recent speech, a leading banker, addressing himself to loan officers, had this to say:

"if inventory, particularly "Work in Process" including accrual accounting

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under government or similar contracts is at all important in the overall picture, be sure to require a lucid and understandable explanation of the method used in arriving at the figures; here, more than anywhere else, what the auditor considers "generally accepted auditing standards" and what you as a banker with your money on the line consider reasonable may be far, far apart. What may be a good asset in a strong money-making business may be almost worthless scrap in one which is about to get into financial difficulties. That is why it is so essential that you get the necessary, underlying information to make a value judgment of the situation and not depend on the interpretation of the auditor."¹

CAUSES OF AUDIT SHORTCOMINGS

What accounts for these alleged shortcomings of the audit function? As any person versed in the profession's pronouncements on auditing knows, it is not a lack of well defined standards of personal qualifications or of field work or of reporting. If anything, these standards are far more explicit, better codified and more uniform than anything we have on accounting principles. The reason, it is the thesis of this writer, is that audit techniques have not kept up with advances in methods of financial data analyses and interpreta-

¹ Everett W. Smith, "Some Comments on Current Banking Problems," *The Journal of Commercial Bank Lending*, September 1967.

tion, and with the expectations society has of the attest function.

Basic Auditing Aims—First Stage.
Let us examine why this is so. The basic aim of auditing is the obtaining of the greatest possible degree of assurance about the fair presentation of a set of financial statements prepared in accordance with generally accepted principles of accounting. From the earliest stage of the discipline, the proverbial "tick and holler" period, there was the recognition that assurance about the whole must be gained from a sampling of its parts.

One reason why the early practices are now regarded as rather primitive is that the testing was not only mechanical but also very extensive because it was not based on a comprehensive theory and plan. Assurance was gained by immersion and saturation rather than by integration of the testing within the framework of a definite plan of action. Moreover, the focus was on the data themselves rather than on many important related external factors.

The books of account, to borrow from the statistician's nomenclature, were the auditor's entire universe. Thus, it was not surprising, to those who recognized this state of affairs, to find at the time the McKesson Robbins case broke, that the auditing experts were in almost unanimous agreement in their testimony that an examination of inventories was not within the province of the auditor's work. He concentrated on the figures and on the records which contained them.

Basic Auditing Aims—Second Stage.
The next advance in auditing was very significant. It aimed at removing one of the above deficiencies i.e. the lack of a philosophy and of an integrated plan behind the testing. The reasoning behind this approach is well known; in-

deed it is the cornerstone of present day auditing in the United States.

Briefly stated, its basic theory is as follows: to gain assurance about financial summarizations the auditor must examine the accounting system of which they are a final product. If that system is well conceived, properly maintained, and implemented, it should provide us with the right answers. Thus we determine the need for and extent of testing by getting satisfaction about the validity and the proper operation of the system of internal control and check.

This approach resulted in the development of a dual objective, (1) tests aimed at establishing the existence and proper functioning of the system of internal control (procedural tests) and (2) those designed to establish the validity of a transaction, account, or balance (bona fide or validation tests).

It is in the nature of progress that new approaches are never confidently embraced to the immediate exclusion of the old. Witness the parallel "manual" accounting systems maintained when computers were first introduced. In auditing, however, the period of overlap seems to have run for too many years.

THE NEED AND USAGE OF VALIDATION TESTS

Under the most literal interpretation of the "reliance on internal control" doctrine, substantial assurance about the existence and functioning of a system of internal control, gained by means of inquiry and procedural tests, should result in substantial assurance about the results it produces and a significant curtailment of validation tests.

The Need For Additional Assurance.
If that is so we may ask to what purpose are the substantial additional validation tests performed? The most ob-

vious answer is that they are performed to gain additional assurance. That is another way of saying that we cannot rely solely on the workings of the system that produces the results. It is like "flying entirely by instruments." There is obviously a difference between the system through which data are processed and the data themselves.

Other Reasons For Use of Validation Tests. The above answer is, however, too simple a conclusion to a complex question. There are additional reasons for the continued use of validation testing. First there is the lingering reluctance among those brought up under the heavy-testing school to abandon this approach in favor of complete reliance on the "check-out-the-system" approach. This reluctance is not due solely to a resistance to the unfamiliar. The internal control theory has by now been with us for a good many years.

Superiority Over Procedural Testing. This reluctance is also due in great measure to a central fact in auditing, i.e. that there can never be complete assurance under a procedural testing system. Thus, if testing is to be extended in order to gain additional assurance then validation tests of specific important accounts will give more, and more direct, assurance than could be obtained by additional procedural testing. Moreover, validation testing can be applied much more selectively (as far as dollar coverage goes) than can procedural testing. Yet, this type of additional testing may or may not fit into the strict framework of the "internal control" theory of auditing.

Trap in Reliance on Internal Control. The second reason for use of validation tests falls squarely within the "internal control" theory of auditing. In this instance validation tests are performed whenever procedural tests

reveal a defect in the system of internal control. The more serious the defects the greater the need for intensive validation testing. Ultimately, if the system affords no confidence at all, massive doses of validation testing may be required and their timing shifted substantially towards the end of the fiscal period.

The advance from the "massive testing" approach to the testing theory based on an evaluation of the system of internal control was an important milestone in auditing. It provided a realistic and logical framework within which the data under audit could be tested.

However, as will be discussed later, this advance in theory did not go far enough. Moreover, this latest innovation is by now over a generation old and auditing has not kept up with the drastic changes in the world of business administration, changes which have affected the business decision process, the complexity of its data and the technology of its data processing.

LACK OF CURRENT AUDITING DISCUSSION AND LITERATURE

The auditing process as such, as opposed to auditing standards or ethics, or liabilities, is only seldom the subject of discussion in the professional and learned periodical literature. A similar scarcity of discussion is, especially in recent years, also to be found in the official pronouncements on auditing by the American Institute of Certified Public Accountants.

While the reasons for this state of affairs cannot be conclusively determined they are undoubtedly affected in part by a conviction that the audit process is one of judgment and that few generalizations can usefully be made about it outside the framework of specific conditions and circumstances.

Moreover, the feeling prevails in

some quarters that explicit description of auditing steps or procedures may be taken too literally with the resulting omission of other steps which are justified by circumstances.

While there is merit to the profession's endeavors not to become too explicit in a discussion of audit steps, we must recognize that the better we define the nature of the audit process, its objectives, and its limitations as well as the array of means by which assurance is obtained, the more respect and understanding are we likely to gain from those who rely upon our representations.

FRAME OF REFERENCE FOR AUDITING PROGRESS

In order to evaluate the current state of auditing theory and to outline the avenues of further progress, we need a frame of reference by which to judge this theory. Here are some generalizations about the auditing process which are useful for this purpose:

Basic Objective of Auditing. The basic objective of the financial audit is the detection of errors and irregularities, intentional or unintentional, which if undetected can materially affect the fairness of presentation of financial summarizations or their conformity with generally accepted principles of accounting.

Assurance Can Never Be Complete and Final. To be economically feasible and justifiable auditing can aim only at a satisfactory or reasonable level of assurance about the data under review. This means that assurance can never be complete and that the final audit conclusions are subject to this inherent probability of error.

Time Investment Affected By Company Conditions. The conditions inherent in the organization under audit,

such as those related to financial conditions, external pressures or system of internal control, determine the investment in time required to obtain a reasonable level of assurance. That level of assurance is also determined by the appropriate mix of tools and techniques used in the conduct of the audit and by the efficiency of their application.

Time Must Be Allocated According to Importance of Items. Most of the data covered by audit tests is "neutral" i.e. of no significance to the auditor from the point of view of his major audit objective (see point 1). Thus, a major determinant of audit efficiency is the ability to avoid "neutral" data and to devote the most time and effort to "active" data i.e. data which contain most of the significant factors and important changes. The objective here is that the testing effort should not be proportional to the mass of the data to be tested but should rather be proportional to its significance and its vulnerability and exposure to error and irregularity.

Audit Assurance Cannot Be Standardized or Automated. The process of gaining audit assurance is cumulative and complex. Assurance is gained by means of the application of tests and procedures, each of which reinforces and corroborates the other thus creating a "net," "web" or system of assurance. This process cannot, as a whole, be standardized and hence it cannot be automated. At the conclusion of his work the auditor has but two major types of tests which he can apply in order to measure the degree or quality of assurance he has gained:

a) He can obtain satisfaction about the validity of a specific account (such as an asset or a liability) by means of direct verification, confirmation or other tests.

b) He can feel satisfied about the fairness of presentation of the financial statements as a whole in proportion to his ability, to explain, as far as possible, changes, trends, relationships and causal factors revealed therein.

The first test is direct and important but relates, at best, to specific components of the statements taken as a whole. The second test represents the stuff of which the best and most competent audit satisfaction is built.

INTERNAL CONTROL SURVEY ALONE IS NOT SUFFICIENT

Evaluation of the system of internal control is currently the only acceptable starting point for an audit. It is the condition precedent to testing, because it is the major guide to the degree of testing necessary. The value and logic behind reliance on internal control have already been recognized and discussed. It is an important part of the audit tool arsenal. It cannot, however, serve as the cornerstone of the entire edifice of auditing. For that the concept is too limited and subject to too many shortcomings. Here are some reasons:

Reasons for Insufficiency.

- The examination of the system of internal control is an examination of the system through and by which data are handled and processed. A focus on the processing mechanism above must be strictly distinguished from a focus on the complex facts and data which it processes.

- Although the system of internal control has a governing influence on the recording and summarization of routine transactions, reliance on it to produce the "right statements" must be seriously qualified because:

- Non-routine transactions, which are the most important and critical variety, do not necessarily fit the mold of the system.

- Omitted items do not necessarily affect

the system, nor are they necessarily affected by it.

- The internal control system does not encompass the effect of external factors, nor does it tell us about the particular pressures under which management operates and the resultant tendencies and propensities. Thus, the changing conditions to which an entity is subject are not necessarily reflected by the system of internal control. And yet, the degree of testing necessary and, especially its emphasis, should be greatly influenced by such changing conditions.

- Assurance with regard to the working of the system during selected test periods does not constitute assurance about the workings of the system throughout the entire period covered by the examination. Thus, audit tests which provide assurance regarding the entire time span under audit are needed as supplements.

- The system of internal control is just that—it is *internal*. Yet the ramifications of today's problems and challenges in auditing extend beyond that. In fact, the trails of the new challenges to the attest function, such as those related to problems of conflict of interest, intercompany pricing, etc., begin precisely where the internal system of control ends. As demonstrated by recent cases, the repercussions of external factors can be considerable.

The limitations to which reliance on the system of internal control is subject suggest one reason why there is an urgent need for research into the totality of available audit tools and techniques. But there are other important reasons for the need for such research.

THE NEED FOR RESEARCH ON NEW AUDIT TECHNIQUES

The ever increasing complexity and variety of business situations has en-

larged the area of uncertainty in auditing. At the same time it can be safely assumed that the amount of testing done today in relation to the sheer mass of data audited is less than it has been in the past. This increased exposure requires that we bring to bear upon the modern audit the best and most sophisticated mix of tools available. It also requires that we have both the theoretical justification and the practical ability to integrate these tools and approaches into a plan which will result in the maximum possible audit assurance under prevailing circumstances.

The advent of automatic data processing has created a veritable flood of information available for study and analysis. Auditing must have both the flexibility as well as the ability to utilize this information in order to achieve its objective of getting maximum assurance for its necessarily limited investment of time.

Finally, we can never afford to fall too far behind the methods used by or the sophistication of the system used by those whom we audit.

AVENUES OF RESEARCH

What are some of the indicated avenues of research towards further progress in auditing?

Enlarge the Conceptual Base of Audit Procedures. First, we must enlarge the conceptual base of the audit process. While the evaluation of the system of internal control is a valuable component in most audit situations it can no longer serve as the only major base on which audit assurance is built. We must incorporate the evaluation of internal control as one component in a much larger and open ended system of auditing. Such an open ended system must recognize the availability and pertinence of a wide variety of tools based on data analysis and industry knowledge and must provide for their

proper integration. The application of judgment will result in the best mix of such tools in any given situation.

New Range of Audit Tools. Second, we must perfect approaches which are oriented towards an overall assessment of the data under audit and their relation to the environment, economic and otherwise, under which the enterprise operates. Such an approach must be distinguished from an inward or data oriented approach which permeates so much of our present day standard audit procedures. One category of such approaches would submit the data under audit to the tests of financial and economic feasibility and reasonableness.² Another category views the audit as an integral part of a continuing verification and evidence gathering process and builds on such cumulative experience.³

Such approaches are not easy to devise and much less easy to implement. They cannot be codified nor reduced to cook-book type audit programs. They require a high level application of knowledge about industries, about economic and business cause and effect relationships and about business functions. But these tools are needed today and will be needed even more tomorrow.

They should help us spot the areas of greatest change and vulnerability before we decide on where to assign our audit effort for the year. They can cover relationships over an entire period thus closing some of the coverage gaps left by procedural texts. They should also help in a review and assessment of the results of operations at a time when the income statement is

² See articles by the author in the June 1960 and the September 1964 issues of *The Journal of Accountancy*.

³ A. Carl Tietjen, "A Suggested Change in Examination Approach" *The Journal of Accountancy*, April 1956.

gaining in importance and when new demands for divisional disclosure are made. Above all, such tools and approaches should result in the best type of audit satisfaction known i.e. that based on a thorough understanding of what had transpired in an enterprise during the year under review and why.

In retrospect these appear to be the tools which could have prevented many of the audit failures which have been alleged to have happened in cases which became the subject of lawsuits.

Methods of Assessing the Cumulative Effects of Audit Evidence. Third, research is needed into methods of assessing the cumulative effect of audit evidence and its effect on the level of audit assurance desired. This is a problem of integrating judgments of various degrees of subjectivity with judgments as objective as those derived by means of statistical sampling.

Today we can arrive at decisions about the desired level of confidence and precision in statistical sampling only by intuition. This limits somewhat the usefulness and applicability of this tool. Research may disclose new approaches to the integration of audit evidence and conclusions.

We must never lose sight of the fact that audit coverage of data is a *cost* factor for the profession. It does not per se automatically result in assurance. Audit assurance is the product of perception, analysis, and integration guided by ingenuity and judgment.

Education in Analytical Approaches to Auditing. Fourth, research is needed into the best methods of educating auditors of the future in the analytical approaches to auditing. This will represent a very great challenge since the conveying of concepts of analysis and data interpretation is far more difficult than the teaching of auditing by means of recitation of standardized audit steps.

Inform Readers of The Audit Limitations. Finally, research is needed on how best to convey to the reader, by means of the audit report and otherwise, the purposes, the realistic expectations, as well as the limitations of an audit. A clear distinction must be made and conveyed about the various levels of uncertainty to which published accounting determinations are subject, to wit:

- Uncertainty inherent in the business process. This uncertainty is *the* major element in business risk.
- Uncertainty inherent in accounting estimates which must, of necessity, contain assumptions about future conditions which may or may not be borne out by events.
- Uncertainty inherent in the testing and sampling system so extensively used in the auditing process.

There are, no doubt, many more areas of auditing in need of fruitful inquiry and research. A beginning must, however, be made. Even moderate success can hold widespread benefits for the profession. One of the most promising methods of research would be the use of case studies along the lines of the AICPA sponsored studies in internal control.

TANGENTIAL BENEFITS FROM SUCCESSFUL RESEARCH

Success can result in attracting to the profession some of the best graduate business school students who can recognize new scope and challenge in the profession where they see them. The successful application of such research would, in turn, require just such type of brain power. Consequently this would result in a self-reinforcing process.

Success, moreover, would prepare us, as nothing else can, for the inevi-

table extension of the attest function into new, vital and rewarding areas. These opportunities for further service will be here when the profession will be tooled up and ready to meet them.

Who Should Engage in Research?

Who should engage in research on the audit process? This certainly appears to be a prime field for an AICPA sponsored effort. Such an activity makes sense from a professional advancement point of view and is eminently justified from an economic point of view. From no other area of research can we expect more in the way of results in terms of the economics of the accounting prac-

tice and in terms of the profession's ability to offer quality service at an economically justifiable cost.

A great contribution to such research can and must be made by the academic segment of the profession. We already have a basic contribution to the field by respected members of this segment.⁴ The time has come for a thorough reexamination and reevaluation of our assumptions about the audit process and the factors which make it most effective.

⁴ R. K. Mautz and H. A. Sharaf, *The Philosophy of Auditing* American Accounting Association, 1961.

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