INDEPENDENT AUDITOR'S GUIDE TO OPERATIONAL AUDITING

Dale L. Flesher
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PREFACE

An operational audit is an organized search for ways of improving efficiency and effectiveness. Although popularized by internal auditors and the federal government's General Accounting Office, operational auditing is increasingly being performed by independent auditors and management consultants. Many industrial managers are performing self-audits. Since operational audits are undertaken to produce greater efficiency, effectiveness, and economy, the problems of inflation and energy use mean a greater number of audits are going to be conducted in future years. Some large CPA firms are specializing in operational audits of energy use called energy audits. In addition, CPA firms that perform audits for federal or other government agencies are required to perform an operational audit along with the traditional financial audit.

As more accounting firms, management consulting firms, and corporations have realized the potential of operational audits, the demand for practical guidelines has increased. This book is a "how-to-do-it" guide, which should probably be the constant companion of the operational auditor. The first two chapters give an overview of operational auditing. The third chapter deals with the procedural aspects of engagement letters, working papers, and audit reports. Chapter 4 discusses the implications of program evaluation audits for government agencies. Chapters 5 through 16 consist of individual programs (questionnaires) for auditing each department or function of a company. One chapter is devoted to energy use (although no company has a separate energy department or function, the subject of energy audits is worth separate mention because of the importance of energy conservation).

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BACKGROUND FOR AN OPERATIONAL AUDIT

OPERATIONAL AUDITING—A JOB FOR THE INDEPENDENT AUDITOR

An operational audit is a nonfinancial audit whose purpose is to appraise the managerial organization and efficiency of a company or part of a company. It can be considered a form of constructive criticism.

Known by many names, it appears in the literature as operations auditing, management auditing, performance auditing, systems auditing, efficiency auditing, expanded scope auditing among others. As might be expected of a concept bearing many different names, its purposes and objectives have been defined in a variety of ways. At one extreme, operational auditing is "characterized more by a state of mind than by distinctive methods."[1] At the other extreme, it "results in a statement of opinion by a CPA with regard to the performance of the management function."[2] The authors of one article even attempted to develop the underlying postulates of the theory of operational auditing as it might be performed as merely an extension of the annual financial audit.[3]

Perhaps the following "middle-of-the-road" definition is more appropriate and useful in explaining the scope of this book. Operational auditing is:

[1]Bradford Cadmus, *Operational Auditing Handbook* (New York: Institute of Internal Auditors, 1964), p. 51.

[2]Neil C. Churchill and Richard M. Cyert, "An Experiment in Management Auditing," *Journal of Accountancy* (February 1966), p. 39.

[3]Harold Q. Langenderfer and Jack C. Robertson, "A Theoretical Structure for Independent Audits of Management," *Accounting Review* (October 1969), p. 777.

> A systematic review and evaluation of an organization, or subunit thereof, made with the purpose of determining whether the organization is operating efficiently. It is, in effect, an organized search for efficiency-related problems within the organization.[4]

There are two reasons for not accepting the definition that equates operational auditing with the CPA's opinion of the performance of management. First, there are no objective and generally accepted measurement standards for determining the efficiency of management. Second, CPA's would be exposed to an unprecedented degree of liability to third parties if they attempted to give opinions on various human qualities. The search for efficiency-related problems avoids these two pitfalls.

Other helpful published definitions of operational auditing include tne following:

> Operations auditing is a technique for regularly and systematically appraising unit or function effectiveness against corporate and industry standards by utilizing personnel who are not specialists in the area of study with the objectives of assuring a given management that its aims are being carried out and/or identifying conditions capable of being improved.[5]

> Operations auditing is a review and appraisal of the efficiency and effectiveness of operations and operating procedures. It carries with it the responsibility to discover and inform top management of operating problems, but its chief purpose is assisting management to solve problems by recommending realistic courses of action.[6]

This last definition is not completely acceptable because it states that the auditor should include specific recommendations and courses of action. Although many authors have defined operational auditing as both a problem-finding and problem-solving tool, the most recent works on the topic have emphasized that the tool is useful only to determine what efficiency- and effectiveness-related problems exist. There is nothing new about trying to solve problems; it is the technique of trying to find problems that is more recent. The job of operational auditing is not necessarily to suggest how problems could be solved.[7] The job is usually

[4]Corinne T. Norgaard, "The Professional Accountant's View of Operational Auditing," *Journal of Accountancy* (December 1969), p. 46.
[5]Roy A. Lindberg and Theodore Cohn, *Operations Auditing* (New York: American Management Association, 1972), p. 16.
[6]Peter A. Phyrr, "Operational Auditing: A Run for Day-Light," *Financial Executive* (May 1969), p. 19.
[7]Lindberg and Cohn, *op. cit.*, p. 8.

considered finished when the problems have been located, identified, and defined. Developing solutions is the job of management, management consultants, or the management services department of a CPA firm.

Solving identified problems is not a new concept: the systematic search for problems and for opportunities to increase efficiency is new. However, this is not to say that the typical engagement for a CPA firm does not entail solving problems. Indeed, the client often wants the CPA to recommend solutions for problems that are uncovered. However, by definition, recommending solutions is not an auditing job, but a management services function. This book cannot tell how to solve a problem since the solution will depend on the company under audit. This book covers the basic field of operational auditing, defined as the problem-finding stage of the typical operational audit engagement. The problem-solving stage, if requested by the client, follows the audit and relies on the auditor's experience.

In the operational audit, the auditor tries to determine the extent to which company objectives have been achieved. One author defined the audit as follows:

> Operational auditing is using common sense, or logical audit techniques, with management perspective, and applying them to company objectives, operations, controls, communications and information systems. The auditor is more concerned with the who, what, when, where, why and how of running an efficient and profitable business than just the accounting and financial aspects of the business functions.[8]

Of course, not everyone supports the concept of operational auditing. One corporate finance director stated that the "management audit would seem to be the latest in the series of cure-all packages thrust upon unwary industrialists by well-meaning academics or more commercial profit-seekers."[9]

Despite a few critics, operational auditing does fill a need for a valuable management tool. As business and government grow increasingly large, management finds it increasingly difficult to keep informed in all areas under its responsibility. Traditional sources of managerial information do not meet all the needs of management in large organizations:

> Central to the whole concept of operations auditing is the idea that, if they are to operate incisively and creatively, managers need some kind of early

[8]Anton Steven, "Operational Audits of Construction Contracts," *The Internal Auditor*, XXX (May–June 1973), p. 10.

[9]J. Santocki, "Management Audit—Chance, Challenge, or Lost Opportunity," *The Accountant*, CLXX (January 3, 1974), p. 16.

warning system for the detection of potentially destructive problems and opportunities for improvement. That is, modern business has had to develop ways to anticipate and cope with the heightened risks and more sophisticated resources involved in reaching its objectives.

Operations auditing is one of those ways.[10] With the use of operational auditing, management can maintain its effectiveness despite the growing complexity of the company and the constantly increasing demands on management's time from inside and outside the office. Many managers could perform their operational auditing tasks themselves, but most managers are so busy implementing policy that they have little time to take adequate readings of department positions or directions.

THE ROOTS OF OPERATIONAL AUDITING

It is difficult to know exactly when operational auditing began. The Krupp Company in Germany apparently carried on some form of operational auditing as early as 1875, if the company audit manual is any indication:

> The auditors are to determine whether laws, contracts, policies and procedures have been properly observed and whether all business transactions were conducted in accordance with established policies and with success. In this connection, the auditors are to make suggestions for the improvement of existing facilities and procedures, criticisms of contracts with suggestions for improvement, etc.[11]

In the United States in about 1919 one leading railroad utilized its internal auditors to perform an operational audit of dining car service.[12] The auditors' report outlined a wide range of inefficiencies, extravagance, and dishonesty.

Perhaps one speaker summarized the history of operational auditing best with the following statement:

> It seems likely that the operational audit is even older than double-entry bookkeeping, inasmuch as it is purely the product of applied common sense.[13]

[10]Lindberg and Cohn, *op. cit.*, p. 6.
[11]Ronald S. Brown, "The Operational Audit," *Lester Witte Report*, V (No. 4, 1974), p. 1.
[12]Reginald H. Jones, "Audit of the Future" (Unpublished speech before the New York City Chapter, Institute of Internal Auditors, February 6, 1969), mimeographed.
[13]*Ibid.*

The development of modern operational auditing has followed two paths. Some aspects of operational auditing were developed by the internal auditing profession. Others came out of the management profession.

The development of operational auditing among internal auditors roughly parallels the history of internal auditing in general. Although the roots of internal auditing go back to the nineteenth century, real growth in the United States began in the early part of the twentieth century, with the rise of the large corporation. Tracing the history of internal auditing:

> The principal factor in its emergence was the extended span of control faced by management in conducting operations from widespread locations. Defalcations and improperly maintained accounting records were obvious problems under these circumstances, and the growth in the volume of transactions presaged a substantial bill for public accounting services for the business that endeavored to solve the problem by continuing the traditional form of audit by the public accountant.[14]

The link between large company size and the employment of internal auditors is demonstrated by a study that showed that in companies that employed internal auditors, there was an average of 769 other employees for each internal auditor.[15]

Early internal auditors focused primarily on the protection of company assets. The National Industrial Conference Board's study of internal auditing explained this early role as follows:

> Protection of company assets and detection of fraud were the principal objectives. Consequently, the auditors concentrated most of their attention on examinations of financial records and on the verification of assets that were most easily misappropriated. A popular idea among management people a generation ago was that the main purpose of an auditing program was to serve as a psychological deterrent against wrongdoing by other employees.[16]

There was little need for the pioneer internal auditor to perform the expanded functions handled by today's internal auditors:

> In less complicated times, of course, management frequently maintained control over company operations by personal supervision. There were not

[14]Howard F. Stettler, *Systems Based Independent Audits*, 2nd ed. (Englewood Cliffs, New Jersey: Prentice-Hall, 1974), p. 78.

[15]*Internal Auditing*, Studies in Business Policy, No. 111 (New York: National Industrial Conference Board, 1963), p. 9.

[16]*Ibid.*, p. 4.

> so many levels of authority separating policy makers from production workers, and demands on senior executives' time were neither so numerous nor so urgent. The need had not yet arisen to adapt the internal auditing function to the requirements of an elaborate management control system.[17]

This old, defensive concept of internal auditing was really a form of insurance. Its major objective was to uncover fraud before it could be detected by a public accountant during the annual audit. The modern internal auditor, on the other hand, is an "arm of management." He is no longer strictly a policeman, but an integral part of the management process.

The year 1941 marked a major turning point in the development of internal and operational auditing. The first major book on the subject, Victor Z. Brink's *Internal Auditing*, was published and the Institute of Internal Auditors was formed by 24 individuals. The institute grew rapidly during the 1940s.

During the 1940s, internal auditors began to expand their audits to encompass much more than the traditional financial audit. The term "operations" or "operational" auditing was adopted to describe the expanded activity. The first article in *The Internal Auditor* to describe the expanded scope audit was in March 1948, when Arthur H. Kent's "Audits of Operations" appeared. In that article, Kent made frequent mention of an "operations audit." Earlier authors had discussed the subject, but had referred to "non-accounting matters," instead of "operational" subjects. The first technical paper to use the phrase "operational auditing" in the title was published in *The Internal Auditor* in June 1954. That article was written by Frederic E. Mints. Mints later recalled that the term "operational" evolved in a 1953 brainstorming session with Arthur Kent before Mints was to deliver a speech. The two men considered several labels and finally decided that "operational" had the most ear appeal. Mints has stated that he later had some regrets about using the term. Following the publication of Mints' article, there have been hundreds of publications in professional journals on the subject.

Perhaps the Institute of Internal Auditors best described the broad role of internal auditing in its 1957 *Statement of Responsibilites of the Internal Auditor*. According to that publication, the services that the internal auditor provides to management include such activities as:

1. Reviewing and appraising the soundness, adequacy and application of accounting, financial and operating controls.

[17]*Ibid.*, p. 4.

2. Ascertaining the extent of compliance with established policies, plans and procedures.
3. Ascertaining the extent to which company assets are accounted for, and safeguarded from, losses of all kinds.
4. Ascertaining the reliability of accounting and other data developed within the organization.
5. Appraising the quality of performance in carrying out assigned responsibilities.[18]

Note that three of the above categories (1, 2, and 5) are activities normally included in the duties of an operational auditor.

The author of a more recent book on the subject of internal auditing emphasized the management services and management auditing aspects of the profession.[19] An article by the same author tends to indicate that "operational auditing" and "modern internal auditing" are virtually synonymous.[20] Although this writer realizes that there has been a great change in the duties of the internal auditor during the past decade, there is some doubt that the two functions are as similar as many internal auditors believe.

The 1963 study by the National Industrial Conference Board surveyed 177 companies about the principal objectives of the companies' internal auditing programs. The five primary objectives were as follows:

1. Determine the adequacy of the system of internal control.
2. Investigate compliance with company policies and procedures.
3. Verify the existence of assets, see that proper safeguards for assets are maintained and prevent or discover fraud.
4. Check on the reliability of the accounting and reporting system.
5. Report findings to management and recommend corrective action where necessary.[21]

These primary objectives of internal auditing were followed by several secondary objectives:

Aid in promoting accounting efficiency

[18]*Statement of Responsibilities of the Internal Auditor* (Orlando, Florida: Institute of Internal Auditors, 1957).
[19]Lawrence B. Sawyer, *Modern Internal Auditing* (Orlando, Florida: Institute of Internal Auditors, 1973).
[20]Lawrence B. Sawyer, "Just What is Management Auditing?," *The Internal Auditor*, XXX (March–April, 1973), pp. 10–21.
[21]Internal Auditing, *op. cit.*, p. 5.

Provide a training ground for personnel

Supplement the work of the public accountants and cooperate with them on the annual audit

Appraise personnel performance

Investigate compliance with rules of regulatory agencies

Assist in profit improvement activities

Provide general assistance to management

Assist in instituting new procedures[22]

It is interesting to note that the objectives of "appraise personnel performance," "assist in profit improvement activities," "provide general assistance to management," and "assist in instituting new procedures" were included in the list of secondary objectives. Yet all these would be considered an aspect of operational auditing. Perhaps another study of the principal objectives of internal auditing is needed to determine whether the objectives have really changed during the past decade or whether internal auditors are only fooling themselves.

Various governmental audit agencies have led in the development of operational auditing procedures. The General Accounting Office (GAO), particularly, has played a major role in broadening the scope of the auditor. That organization's publication, *Standards for Audit of Governmental Organizations, Programs, Activities and Functions*, explains the metamorphosis in the following manner:

> This demand for information has widened the scope of governmental auditing so that such auditing no longer is a function concerned primarily with financial operations. Instead, governmental auditing now is also concerned with whether governmental organizations are achieving the purposes for which programs are authorized and funds are made available, are doing so economically and efficiently, and are complying with applicable laws and regulations.[23]

The auditing standards laid down in that publication apply to all audits relating to government activities whether performed by internal auditors of federal, state, or local governments, or by independent public accountants.

The GAO standards include all of the standards adopted by the AICPA

[22] *Ibid.*, p.5.

[23] *Standards for Audit of Governmental Organizations, Programs, Activities and Functions* (Washington, D.C.: U.S. Government Printing Office, 1974), p. i.

for use in audits to express an opinion of the fairness of financial statements. The governmental audit standards, however, go a step further:

> The interests of many users of reports on government audits are broader than those that can be satisfied by audits performed to establish the credibility of financial reports. To provide for audits that will fulfill these broader interests, the standards in this statement include the essence of those prescribed by the American Institute of Certified Public Accountants and additional standards for audits of a broader scope as will be explained subsequently.[24]

The scope of a governmental audit (i.e., an audit of or for a government agency) is composed of three elements. These are:

1. *Financial and compliance*—determines (a) whether financial operations are properly conducted, (b) whether the financial reports of an audited entity are presented fairly, and (c) whether the entity has complied with applicable laws and regulations.
2. *Economy and efficiency*—determines whether the entity is managing or utilizing its resources (personnel, property, space, and so forth) in an economical and efficient manner and the causes of any inefficiencies or uneconomical practices, including inadequacies in management information systems, administrative procedures, or organizational structure.
3. *Program results*—determines whether the desired results or benefits are being achieved, whether the objectives established by the legislature or other authorizing body are being met, and whether the agency has considered alternatives which might yield desired results at a lower cost.[25]

The typical financial audit would not include elements 2 and 3, which are operational auditing techniques.

Not only was the GAO innovative in defining the scope of its audits, but it has also been quite successful in performing the broadened audits. The successes of the GAO auditors have been reported in newspapers and in accounting journals such as *The Internal Auditor*. As a result, internal auditors in private industry have taken steps to broaden the scope of their audits. Thus the concept of operational auditing is becoming more and more common among internal audit staffs everywhere. A 1971 edition of one leading auditing textbook states:

[24] *Ibid.*, p. 1.
[25] *Ibid.*, p. 2.

> Internal auditing activities fall into two major categories: (1) financial and (2) operational or management auditing.[26]

The work of the GAO has led the AICPA to get more actively involved in the subject of operational auditing. The AICPA has recently published a small book entitled *Guidelines for CPA Participation in Government Audit Engagements to Evaluate Economy, Efficiency, and Program Results*.[27] Earlier, an AICPA committee acknowledged the contributions of the GAO in this area:

> The members of the Committee agree with the philosophy and objectives advocated by the GAO in its standards and believe that the GAO's broadened definition of auditing is a logical and worthwhile continuation of the evolution and growth of the auditing discipline.[28]

At the same time that internal auditors were developing the concept of operational auditing, a similar practice called "management auditing" was being developed by the management profession. The first book on the subject, *The Management Audit*, by T. G. Ross, was published in 1932 in London.[29] The book recommended a questionnaire-type interview which was designed to analyze departmental activities. In 1940 the Metropolitan Life Insurance Company published a similar guide entitled *Outline for a Management Audit*. The Metropolitan Life publication expanded on the work of Ross, but was not nearly as sophisticated as Howard G. Benedict's *Yardsticks of Management*,[30] published in 1948. Benedict's questionnaire had nine major divisions and attempted to evaluate management by means of factorial analysis. These works represented the earliest attempts to develop the interview type of management audit, but none of them generated much interest among management professionals. In the 1950s the subject of management auditing received a great deal of attention in management literature. Throughout the 1950s, the American Institute of Management published books and case studies on the subject of management audits. The institute even published a periodical for a

[26]Arthur W. Holmes and Wayne S. Overmyer, *Auditing Principles and Procedures* (Homewood, Illinois: Richard D. Irwin, 1971), p. 133.

[27]*Guidelines for CPA Participation in Government Audit Engagements to Evaluate Economy, Efficiency, and Program Results* (New York: AICPA, 1977).

[28]*Auditing Standards Established by the GAO—Their Meaning and Significance to CPAs* (New York: AICPA, 1973), p. 12.

[29]T. G. Ross, *The Management Audit* (London: Gee & Co., 1932).

[30]Howard G. Benedict, *Yardsticks of Management* (Los Angeles: Management Book Company, 1948).

short while entitled *The Management Audit*. By the early 1960s, the fields of management auditing and operational auditing began to merge, as internal auditors saw the merits of the management literature. Today the two terms are considered to be synonymous.

The Scope of the Engagement

The biggest difference between the traditional financial audit and the operational audit is in the scope of the engagement. The traditional financial audit has the objective of determining the fairness of financial statements, placing great emphasis on the internal controls of the company. The operational audit includes a review of the objectives of the company, the environment in which the company operates, its operating policies, personnel, and even its physical facilities. The operational auditor uses a great variety of tools to obtain the information necessary to fulfill the objectives of the audit.

The evaluation aspects of an operational audit require the auditor to utilize several procedures that are not usually part of the financial audit. The similarity of the two types of audits is that the auditor measures against certain standards in performing both audits.

The standards used in an operational audit come from two basic sources. These two sources are the individual company and the industry of which the company is a part. Company standards include lists of objectives, goals, plans, budgets, records of past performance, policies, procedures, and directives. Industry sources include industry averages and common business practices. These are not always objective standards, so the auditor should not accept an engagement to render an opinion to a third party, but subjective judgments can be used to identify possible problem areas. Remember, the objective of an operational audit is to point out situations where efficiency and effectiveness can be improved.

In the overall approach to an operational audit, the auditor:

1. Seeks out and identifies company objectives.
2. Determines the pertinent facts and conditions.
3. Defines problem areas or opportunities for improved efficiency, effectiveness, and economy.
4. Presents the findings to management.

Since operational auditing standards can never be precisely defined, it is the responsibility of the auditor to use good judgment in all phases of the work. Because of the judgmental nature of the work, operational auditing can provide its practitioners an outstanding opportunity for professional fulfillment.

SOURCES OF DATA

The sources of the operational auditor's data include a physical tour of the plant or department, interviews in each functional area with the use of management and operational control questionnaires, and financial analysis work.

An operational audit normally begins with an orientation meeting with high-level management to discuss the scope of the audit, the reason for the audit, and the broad policies, goals, and objectives of the company. This orientation meeting is followed by a preliminary audit of the company. The preliminary audit usually includes a physical tour of all facilities and interviews in each functional area (or at least those areas that might economically gain from an intensive operational audit effort). Occasionally the preliminary audit can be eliminated because management already knows what departments it wishes to have audited in depth. A company might want an audit of a production department, for example, where frequent slowdowns occur or a purchasing department where there have been costly delays in obtaining key materials. Energy use is another area that has been subject to audit quite often in recent years; some large CPA firms and management consultants now even specialize in energy audits. In practice, the one or two departments that are audited are those where an audit will yield the greatest savings to the company. It should be remembered that operational audits are not mandatory and such audits must be justified to management on the basis of their cost/benefit ratio. Therefore the auditor must limit his study to the areas where he can do the most good.

Financial analysis plays a key role in the preliminary part of the operational audit. Various financial ratios for the company for the current year, for previous years, and for the industry as a whole can be useful tools to help the auditor spot trends of increasing efficiency or patterns of decreasing efficiency. It is often argued that, because these ratios are already available to management, the operational auditor is not performing a unique service. The question is, though, does management have time to find out what the ratios are and does management know what the ratios really mean? The auditor's first recommendation might just be that management start utilizing the ratios that are available to them.

Once the preliminary audit has been completed, the auditor should prepare an audit report (often called a survey memorandum), but this is