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Audit of a Sales Engineering Department— A Case Study of a Management Audit

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IN SELECTING MATERIAL for my talk tonight, I have attempted to find a subject that might be considered a bit out of the ordinary from the standpoint of operational auditing. As you all know, The Institute of Internal Auditors has conducted a number of research studies and has issued reports on such subjects as Purchasing, Traffic, Receiving, Facilities, Insurance, and so on. Furthermore, I am sure that many of you have attended Institute seminars and meetings for the discussion of audit approaches in many other so-called “operating” areas of a business.

However, one area that I believe has been touched only lightly in internal auditing literature might be termed “technical” operations—those relating to the activities of engineers and other technicians assigned to projects of a creative or development nature and working in a climate that provides considerable latitude for individual effort.

I shall discuss tonight an audit made in one such organization—the Sales Engineering Department of a company in the aerospace industry. Although it is a case study of an actual audit, certain aspects of the Department’s activities have been disguised to prevent its identification with any specific company.

BACKGROUND OF THE AUDIT ASSIGNMENT

The Marketing Division of the company consisted of three major organizations—Sales, Sales Engineering, and Contract Administration. The principal function of Sales was to interview prospective customers and lay the groundwork, so to speak, for future sales efforts. The customers were major companies in private industry and governmental defense agencies, both in the United States and in many foreign countries.

When a specific customer-interest was developed, the Sales Engineering Department was called in to present the technical aspects of the company’s products and to make further promotional contacts with the prospective customer’s own engineering staff.

After the signing of a sales contract, the Contract Administration Department took over to ensure the satisfactory fulfillment of the contract. For several years the Auditing Department had been expanding the scope of its audit program into operating areas and had made previous reviews of Contract Administration. It had perhaps been con-

sidered logical that an auditor could review contractual obligations, determine whether delivery schedules had been met, review customer correspondence to determine whether complaints had been resolved in a timely manner, and so forth. On the other hand, the activities of Sales and Sales Engineering had been considered somewhat "nebulous" from an audit standpoint and these organizations had been by-passed.

However, in keeping with his desire eventually to include all areas of the company within the audit program, the General Auditor decided that the next logical step should be a study of the Sales Engineering Department. This perhaps illustrates the transition that many auditing departments have made in recent years in moving from areas where they feel comfortable into areas that appear less susceptible to auditing techniques and yet afford opportunities for service to management.

DEVELOPMENT OF THE AUDIT APPROACH

As the Auditor's first step in developing an audit program he obtained organization charts of the Marketing Division and the Sales Engineering Department. The Department consisted of the Department Manager, secretary, and five groups. Four of the groups, having a Senior Sales Engineer, from four to six sales engineers, and a secretary, were assigned to promote separate major product lines. The fifth group, called Market Research, consisted of a Senior Sales Engineer, a Sales Engineer, and a secretary.

The Auditor's second step was to search for written policies or procedures that would establish the functions management had assigned to the Department and the ground rules under which it should operate. The search was rather disappointing. A corporate policy statement listed the responsibilities of the Sales Engineering Manager in very broad terms. The only departmental "manual" available was a notebook containing a number of memos issued over the past several years to Department personnel. The Auditor found that he would have to depend on discussions with the Director of Marketing, the Manager, and various members of the Sales Engineering Department to develop his own list of functions and activities of the Department.

Briefly, these functions were as follows:

To prepare technical analyses and reports showing the expected performance of the company's products, based on the specific conditions and requirements of the customer, and comparing such performance to that of competitors' products.

To make attractive presentations of the reports in a variety of forms such as brochures, easel flip-charts, and color slides.

To consult technical personnel on the staffs of prospective customers.

To keep informed of new developments in the company's engineering design, manufacturing process, and assembly areas, and to communicate new customer requirements to the Engineering Department.

To maintain records of product failures, both those of the company and of competitors.

In the Market Research Group, to maintain records of equipment owned by customers and to make projections of expected customer expansion and changes in requirements over the next five to ten years.

Having found that the technical analyses and reports were the major "product" of the Department, the Auditor asked for a list of the projects worked on over the past year. He was informed that no such list was available—projects were usually initiated by Senior Sales Engineers based on requests from members of the Sales Department or on information developed during the Sales Engineers' contacts with prospects. The Sales Department requests were sometimes contained in a written memorandum and sometimes covered in oral discussions. The Department Manager stated that he was kept informed of the status of projects in process through various meetings and discussions with Sales personnel and his own people.

Because the Auditor felt he needed an over-all picture of the Department's activity, he began to develop a set of worksheets with column headings *Project Description, Name of Customer, Source of Job Request, Personnel Assigned, Date Started, Date Completed, Type of Presentation*, and so on. Several approaches were necessary in building up the worksheets. Copies of completed brochures were available in "closed" files and the Auditor worked backward from these, asking various Department personnel such questions as: Who worked on this project? When was it begun? Where did the request originate?

Of course, there was no assurance that copies of all brochures had been filed. Furthermore, this approach did not disclose all projects that had resulted in the preparation of flip-charts or color slides, because of difficulties in storing such material. To determine the projects

in process the Auditor asked each Senior Sales Engineer for a list and then reviewed working-paper files or discussed the projects with the personnel assigned.

The completion of these master worksheets actually was accomplished in piecemeal fashion throughout the period of the audit work. The Department Manager and the Sales Engineers were frequently on trips away from the home office and when they returned were engaged in many meetings or were working under pressure to complete a priority project. However, the worksheets provided a means of "slotting in" various information as it came to the Auditor's attention. For example, in reviewing correspondence files the date of the original request for a job and the name of the Sales Engineer concerned might be found, and this information was then posted to the worksheets. At the completion of the audit, these worksheets provided a wealth of factual data that the Auditor was able to use in supporting his findings and conclusions. In addition, the exercise of preparing them provided an opportunity to discuss specific points with various persons, and these discussions then led to a variety of findings and conclusions.

AUDIT TESTS CONDUCTED

Performance Analyses and Reports

One of the more traditional audit techniques is to make tests of documents, records, and reports to determine whether they have been prepared accurately and on time. With these things in mind, the Auditor made an attempt to review three of the Sales Engineering reports. He obtained the background assumptions made by the man who had performed the technical calculations and enlisted the services of a Junior Sales Engineer who was somewhat familiar with the mathematical formulas used.

Two of the reports contained some calculations that had been made by an electronic computer. However, the computer runs had been destroyed and there was some indication that the Sales Engineer had rounded or "guesstimated" certain figures, supposedly based on his knowledge of the peculiar conditions and requirements of the customer concerned. The third report had been prepared by a Sales Engineer who had left the company and there was nothing available in the files to indicate the basis or formulas used in making the calculations.

From the standpoint of timeliness, although the three reports contained about the same number of pages, two of them had required from

four to six weeks to prepare and the third had been completed about three months after it had been requested. The Department Manager stated that projects were frequently delayed because of the need for additional information, or the Sales Engineers were called out of town for another assignment, and so on.

Needless to say, the Auditor quickly came to the conclusion that he was not qualified to appraise the performance of the Department from a technical standpoint. But he did ask himself the question, How do the Department Manager and the Senior Sales Engineers *assure themselves* that the Department's performance is appropriate, accurate, and timely? He was assured that all projects were thoroughly reviewed and approved by supervision. However, he found no formal approval system in effect, and based on his observations of the comings and goings of Department personnel over a period of several weeks and the continuous series of "fire drills" in progress, he seriously doubted whether all projects were being adequately reviewed and approved.

Review of Presentation Format

The Auditor found that the Sales Engineering projects frequently resulted in the preparation of very attractive brochures including a variety of covers, professional artwork, and printing. For instance, some covers were made of expensive leather with gold lettering. The Auditor did not question whether the expense in any given instance was appropriate to the sales effort expended. However, he did inquire into the Department's procurement practices. It was disclosed that in many instances Sales Engineers negotiated directly with outside vendors and professional art agencies and performed their own expediting and follow-up. Some Sales Engineers indicated that a high percentage of their time was taken up in performing these negotiation and expediting functions. Furthermore, because of the need for speed, purchase orders were often requested from the Purchasing Department on an after-the-fact basis.

It seemed to the Auditor that here was an area crying for improvement in the efficient use of Sales Engineers' time and in the need for tighter procurement controls.

Customer Contacts

One of the Departmental directives noted by the Auditor called for the preparation of "Contact Memos" by Sales Engineers either at

the conclusion of visits to prospective customers or, if on an extended trip, at least at weekly intervals. To determine whether Sales Engineers were complying with the directive and whether the Department was exercising follow-up, the Auditor reviewed Travel Expense Reports for the previous year and developed a worksheet showing the locations visited by various personnel. The worksheet was then compared to the files of Contact Memos.

The test disclosed that some Sales Engineers had conscientiously followed the directive but that others had been exceedingly lax. In discussing this matter with the Department Manager, the Auditor was informed that in addition to the written Contact Memos, the Manager received frequent telephone calls or cablegrams from the Sales Engineers who were in the field. Thus, the Manager felt that he was being kept adequately informed of their activities, even though formal Contact Memos were not always prepared.

At this point, the Auditor was faced with the questions: "Is there a deficiency finding here, or not? If the Department Manager is satisfied with the situation, what basis is there for demanding compliance with the directive?"

The Auditor concluded that he should mention the laxity in preparation of Contact Memos in his report for several reasons. First, it was important to make a record of the names of key customer personnel consulted and the subjects discussed for possible later use by other Marketing personnel. Second, if a Sales Engineering analysis or report was later developed by a person other than the Sales Engineer who made the contact, that person should have the benefit of all background information available. Third, the Contact Memos might be of interest to the Director of Marketing to assist him in keeping informed of the progress of sales efforts.

Contacts With Other Company Organizations

As mentioned previously, the Sales Engineers were supposed to keep informed of new developments in the company's engineering design, manufacturing process, and assembly areas. This appeared to be no small task, and during the course of the audit the Auditor asked each of the Sales Engineers how he personally accomplished it.

The usual answer was to the effect that, whenever the work load permitted, the Sales Engineer would make a tour of various engineering and manufacturing departments and query key personnel about new

developments. The term "key personnel" turned out to be persons with whom the Sales Engineer was personally acquainted.

Here again was a function that defied the application of audit techniques. The Auditor could only form an impression that the company should have some better method of bringing new developments to the attention of Marketing personnel.

Records of Product Failures

One of the Sales Engineering groups had been assigned the responsibility for maintaining records of product failures, both of the company's products and of the competitors' products. The Auditor found that this responsibility had been further delegated to the secretary of the group.

His review of the records left him with the conclusion that there was no possible way to test the accuracy or completeness of the items recorded. Discussion with the secretary indicated that her information was usually received in some form of written memo from the Department Manager or Senior Sales Engineers. Occasionally she received oral instructions, in which case she prepared her own memo. However, in some instances certain elements of information were lacking and she was required to follow these up as best she could.

It occurred to the Auditor that the use of a special *Report of Product Failure* form might ensure that all necessary items of information would be reported. Furthermore, it seemed that these should be routed through the Department Manager for his information and approval before recording.

Review of the Market Research Group

The Auditor held discussions with the Senior Sales Engineer in charge of the market research function and his assistant, and reviewed several projects on which they were working. The projects were very broad in scope, including the gathering of a variety of statistics on which projections of future market trends were based.

The Auditor found nothing subject to audit techniques in this group. He did observe that the working tempo was very relaxed. When he asked how the group's assignments were initiated, he was informed that they were usually based on oral requests from the Director of Marketing. Because of the nature of the studies, no attempt was made to schedule the work or set target dates for completion.

DEFINITION OF OPERATIONAL AUDITING

I should like to digress for a moment to discuss the nature of objectives of operational auditing. The Statement of Responsibilities issued by The Institute of Internal Auditors states, in part, that internal auditing is a managerial control that functions by measuring and evaluating the effectiveness of all other controls.

Other Institute literature indicates that internal auditing can be further described as serving in two broad areas: protective functions and constructive functions. The protective functions are generally held to be related to accounting and financial controls, and audits in these areas are often referred to as *financial audits*. The constructive functions are broadly considered to be connected with administrative controls, and reviews of these controls have come to be known as *operational audits*, or *management audits*.

It is perhaps an oversimplification to define an operational audit as a review of administrative controls. However, the definition has been found to be a useful guide to internal auditors working in areas that seem to defy the application of traditional auditing techniques, such as the organization that is the subject of the case study.

THE AUDITOR'S CONCLUSIONS AND RECOMMENDATIONS

From the preceding discussion of the Sales Engineering audit, it should be obvious that the Auditor found few activities to which he could apply traditional tests. There were no documents or records that he felt qualified to test for accuracy or completeness. It was not possible to appraise the timeliness of actions taken or to determine whether the Department had performed its assigned functions satisfactorily. What, then, was to be the result of his work?

His objective had been to appraise administrative controls and his over-all conclusion, of course, was that formal controls were either very weak or nonexistent. However, in developing recommendations for improvement, he had to make certain that any changes would be of value to management and not simply designed to assist the next auditor in conducting his review.

Briefly stated, the Auditor's recommendations were as follows:

To develop a job assignment form that would provide for such information as job number and title, priority code, start date, target completion date, names of persons assigned, and brief description of the job. The forms were to be approved by the Department

Manager and the Director of Marketing. Upon completion of the job, the forms were to be signed by the Senior Sales Engineer and the Department Manager indicating their review and approval of the finished product.

To provide a Departmental log of the job assignment forms from which a weekly status report of jobs in process would be prepared.

To require Sales Engineers to submit a weekly time summary indicating the man-hours spent on each job. The time was to be posted to a Departmental summary record.

To schedule a weekly meeting attended by the Director of Marketing, the Manager of Sales, and the Manager of Sales Engineering to review the Job Status Report, revise priorities as indicated by the current sales effort, and ensure good communications between Sales and Sales Engineering.

To assign the responsibility for procurement of brochure covers, art work, and printing to one qualified individual, and to insist on compliance with standard Purchasing Department procedures.

To develop a standard form for Contact Memos and to enforce the Departmental directive requiring their preparation by Sales Engineers.

To negotiate with the Engineering and Manufacturing Departments toward the establishment of a system for regularly reporting new product developments to Sales and Sales Engineering.

To develop a standard form for reporting product failures and to route the forms through the Department Manager before recording.

MANAGEMENT REACTION TO THE AUDIT REPORT

A draft of the report was first reviewed in a meeting with the Senior Sales Engineers and the Department Manager. At first, the Manager was on the defensive because the report appeared to be critical of his administration. However, the Senior Sales Engineers were, for the most part, highly in favor of most of the recommendations and their attitude gradually thawed the Department Manager. In a subsequent meeting with the Director of Marketing, the Department Manager gave his full support to the audit recommendations and the concurrence of the Director was obtained.

In this company, following the issuance of an audit report, it was customary for the management of the affected organization to submit

a written reply to the General Auditor. The reply would state agreement or disagreement with the audit findings and recommendations, and outline any corrective action to be taken. However, in this instance, the Manager of Sales Engineering not only prepared a reply, but also enclosed copies of forms designed, and Departmental directives issued, in connection with the implementation of the audit recommendations. The Auditor in charge was highly gratified by the reaction of the "client."

