A COMPREHENSIVE FRAMEWORK FOR ANALYZING THE MANAGEMENT OF A BUSINESS ENTERPRISE

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This presentation deals with a conceptual framework for analysis and appraisal of management called the Management Audit, which has been developed and used for many years by the American Institute of Management. This is not offered as a model, but as a piece of work that is continually under development, to be analyzed, criticized, discussed, and improved.

The Management Audit grew out of a problem faced by its originator, Jackson Martindell, in 1931. He was a security analyst who had been so successful in the late 1920s that he was able to found an investment counseling firm which eventually managed between $500 and $600 million of other people's money. He observed that by the security analysis criteria of about 1928 a number of large companies had looked about equally good as stock investments but by 1931 had produced vastly different results. Some were on the verge of bankruptcy, others were still doing well. The security analysis criteria of 1928 had not been adequate to distinguish among them.

Mr. Martindell then asked his staff to find out what constituted the difference.

The answer was *the quality of management*.

Mr. Martindell next asked his staff to devise a system for analyzing company management and determining its quality for investment purposes. "Investment purposes" meant to Mr. Martindell good financial results over a period of at least three to five years. Anything shorter would have meant short-term stock trading—speculation—in which his clients were not interested.

By 1938 his staff had devised such a system. This was circulated in draft form to about a thousand major corporation executives, who were invited to comment. Then came World War II, and nothing much was done with the system until about 1948, when Mr. Martindell, by then a rich man, retired from his investment counseling firm and founded the American Institute of Management as a suitable means of keeping himself publicly useful.

In 1948 Harper Brothers issued the first public version of the Management Audit framework under the title—which they im-

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posed—*The Scientific Appraisal of Management*. This title was a misnomer, for the appraisal is *systematic* rather than *scientific*. In later editions the title is simply *The Appraisal of Management*.

The American Institute of Management then began to make and publish Management Audits of well-known companies illustrating the application of the system. It was expected that the investment community would be avid for such studies. This proved to be an error—only the most conservative investors were interested in a long-range approach.

Somewhat to Mr. Martindell's surprise, however, another section of the public proved to be interested—company executives. They wanted such studies in order to see how others manage, as diagnoses of their own companies, and in some cases, as recognition of the excellence they had achieved in terms of this system and its criteria. Another intensely interested group proved to be the management consultants, who found in the Management Audit a very powerful diagnostic tool.

The American Institute of Management has now published 75 or 80 of these studies. Several companies have undergone two of them, some years apart. There have also been several dozen such full-scale studies which were not published. The system has also been used on over five thousand other companies just to the extent required to determine whether or not each of them met the criteria for listing as an "Excellently Managed" company. Every two years each Excellently Managed company is reappraised to see whether it still deserves that rating. Hence the total experience in using the Management Audit system is extensive.

At a very early stage in the development of the Management Audit it became apparent that the ten categories used were not of equal importance. Relative weights were therefore decided by asking a panel of approximately one hundred experts in management and investment to give their views, and then striking a balance. The use of a total of 10,000 points as the maximum for the rating system implies, of course, that the judgments can be made to an accuracy of a hundredth of a percentage point—which is ridiculous on the face of it.

The whole rating aspect of the Management Audit constitutes its weakest point. The grades are precisely no better than, and no worse than, the grades we give our students in our courses. Similarly, they represent a combination of more or less systematized factors of which a few are objective but most are subjective. As yet, however, nothing better has been devised.

With respect to the ten categories themselves, they were initially convenient pigeonholes for sorting data. In no sense did they represent pure variables. The same factors appear in several of them; some of them cannot be appraised independently; some can. They have two merits, however: they conform more or less to customary business usage, and as now defined they cover every recognized aspect of the art of management. Their comprehensiveness may make them useful to historians also.

In the initial development of the Management Audit system, a questionnaire was devised to cover the entire field of company activity. This questionnaire was sent to a list of some 150 companies selected by a panel of experts on the basis that each company obviously had an excellent management. Just under a hundred of these companies supplied usable responses.

The assumption was that as these responses were analyzed there would be a numerical convergence in the use of certain patterns of dealing with each of the various aspects of management and that this convergence would define the nature of excellent management.

This assumption was not supported. It was found that among companies which were clearly outstanding in management, there were widely diverse and even opposite ways of dealing with particular tasks of management.

At this point the researchers began to turn their attention away from large publicly held, long-established, successful companies to examine new or unsuccessful ones. They began also to examine the managements of nonbusiness entities such as colleges, hospitals, charitable organizations, government units, and even church organizations. It began to become evident that what distinguished clearly successful and excellent managements from clearly poor ones was that the latter either did not take care of certain functions or took care of them ineffectively.

This idea suggested that what the excellent managements might have in common was adequate provision for all essential functions even though they might differ greatly in how they provided for them.

This hypothesis proved to be correct.

A further idea was suggested by comparisons of successful new companies with floundering new ones, and of vital old companies with moribund old ones: success depended on finding a valid entrepreneurial plan, revising it, and bringing it up to date at frequent intervals.

This hypothesis also proved to be correct.

At this point the lack of a clear understanding of what was meant by the word *management* became evident. The Institute's researchers, therefore, went through all the books on management and administration and listed every aspect of behavior that had ever been considered part of management or administration. This material was then culled down to the most general concepts and the most universally recognized elements. Finally the resulting statement was checked by working analysts to make sure it covered every aspect of management that had been observed in the contemporary management world, and in 1959 the work was published under the title *What Is Management?* Careful examination showed that none of the previous findings was inconsistent with the definition arrived at in this work.

As indicated above, the Institute has found the common element in excellently managed companies to be their attention to provision for certain essential functions, and that poor managements fail in regard to some or all of these functions. It has also been discovered that by making comparatively minor adjustments in this list of functions they apply with equal validity to every type of managed undertaking, whether it deals with business, education, charity, religion, government, health care, or whatever.

What are these functions?

The Institute has never published a list of them, because agreement has never been reached on how detailed to make such a list, but here are at least the main headings. They apply to every undertaking that is intended to endure. Note that restriction: *that is intended to endure*; it automatically excludes a whole class of business and other undertakings. Even these, however, can be included by suitable modifications.

The first of these functions is entrepreneurship.

We have defined an entrepreneur as *a man who perceives an economic opportunity and organizes and activates the means for taking advantage of it.* We could substitute several other words for *economic*, such as *religious, political, military, social, educational,* or *charitable,* and the statement would remain valid.

Every business starts with an entrepreneurial insight. This has to be reduced to a plan, an entrepreneurial rationale. It must be realistic. It must be suited to the circumstances surrounding the proposed enterprise. It must detail what goods or services the enterprise will deal in, by what means it will obtain or produce them, at what costs, to what markets it will distribute them, by

what means, at what prices, in what volumes, and with what expected return.

The entrepreneurial rationale forms the first part of the Institute's category, Economic Function. It is what the enterprise expects to do to justify its existence and earn its living.

Implicit in the definition stated is the need to allow for the factor of *time*, because the "realities" of the "circumstances surrounding" are subject to continual and often unpredictable change. If nothing else changes, the ages of the participants in the enterprise, and therefore their energies, capacities, and desires, change as time passes; thus the rationale gets out of step with reality. This means that to succeed and survive the managers of an enterprise must continually scrutinize their plan to keep in touch with changing realities.

When A.I.M. first set up the Management Audit on the basis of studies of successful companies, this element, the entrepreneurial rationale and its continual revitalization, was not understood and the weight attached to the entire category of Economic Function was only four percent. When better understanding came later, the weight was changed to ten percent. I am not sure even now that this is enough, but since this element is a matter of executive leadership perhaps it is adequately allowed for in the large weight attached to the category called Executive Quality.

The second part of Economic Function deals with morals and ethics—*how* the company does what it does. The traditional definitions are used: morals are usages accepted by custom; ethics are principles of right conduct based on reason.

It is clear that there are many entrepreneurial rationales—for example, the narcotics business—that are highly viable but that society will not tolerate. There are others that society has tolerated in the past but that some groups are trying to restrict or ban, such as the cigarette business. These factors enter into analysis of the entrepreneurial rationale. Every group of men who carry on an undertaking falls into some sort of pattern of behavior, some code, some philosophy, for regulating their daily affairs. Human activities in business as everywhere else rest on the contracting and discharging of moral obligations—if possible, in an acceptably ethical manner. Every enterprise enters into such obligations with several segments of its society: employees, suppliers, distributors, customers, investors, creditors, providers of professional services, competitors, the general community and its political units. Not all of these obligations are of equal moral or, indeed, ethical weight.

The attitude of the enterprise toward each of them is extremely significant. The wise attitude is one of careful regard for the hierarchy among these obligations, and of *balanced fairness* in contracting and discharging them. If a firm is too generous in regard to some claimants, it reduces its ability to meet its obligations to all the others. If it is too niggardly, it risks the withdrawal of the contributions it requires from the maltreated claimants.

There is the further question of how rapidly, in what manner, and with what advantages or disadvantages a firm modifies its moral pattern in the direction of newly forming public opinion of what is morally acceptable—one might hope, what is ethical.

These two elements, entrepreneurial rationale and moral rationale, form the whole of the category, Economic Function.

The second great group of essential functions has to do with the category of Corporate, or more generally, Organization, Structure.

The first, and in many ways least important, cluster of elements in this category has to do with the legal forms of ownership and control: sole proprietorship, familial or communal ownership, partnership, stock corporation, self-perpetuating board, government, and perhaps others. Each of these is especially appropriate for certain types of purposes and activities and not for others. Hence the action of the conductors of the enterprise in choosing one or another of them is significant.

The second cluster has to do with the functions for which the conductors decide provision must be made in this structure. A few seem obvious: top direction, financing, accounting and custody, production, purchasing, selling, recruiting, supervising, disciplining, instructing. These are all essential. Yet there is a question: shall they be provided for *within* the organization's structure, or shall outsiders be engaged to provide some of them or at least relied on to provide them? It seems clear that small firms can and should engage outside accounting services, perhaps even bookkeeping services. Many have their purchasing done outside. Even large companies often use outside sales agents (manufacturer's representatives). It takes a fairly good-sized firm to support its own product research and development unit, and many firms even farm out ordinary engineering of certain kinds. Market research is often farmed out, as are many aspects of advertising. Most firms rely heavily on schools and colleges for their instruction functions.

The important point is not whether any of these functions is performed inside or outside the enterprise; it is rather that the

necessity of having them performed be recognized consciously, and that formal provision be made for each and every one of them; none may be omitted with impunity.

The third cluster of organizational elements has to do with the pattern adopted for delegating responsibility and authority, and defining accountability. The requirements here are effectiveness, clarity, definiteness, completeness, the inherent logic of the relationships among functions, enhancement of ease and fluency of communication, ease of coordination, relevance of control, and facilitation of prompt decision and action. Each of these concepts requires a separate evaluation. Such concepts as span of control, span of contact, span of information, length of the chain of command, relevance of divisionalization by geography, product, process, market, or other criterion, suitability of titles, and the like, come to mind.

Still another organizational cluster deals with the provisions for organizational change and transition.

There are probably others.

Only the skeleton of the enterprise is being discussed here. How the total body performs depends not so much on the skeleton as on the muscles and nervous system which are supplied by the executives and their leadership. Extra effort enables many a body with a poor skeleton to turn in an acceptable performance. Hence the importance assigned to organizational structure is relatively low. Analyzing organizational structure, however, is one of the two most difficult parts of the entire Management Audit because so many judgments are entirely interdependent and relative.

Let us skip now to the category of Executive Quality—the most important and heavily weighted of them all. The functions included here are the recruiting, training, assigning, developing, compensating, motivating, and promoting of executives; the creation of a suitable psychological and social climate for communication, teamwork, and the exercise of responsibility, initiative, and creativity; the provision of leadership; the creation and maintenance of a pattern of corporate and executive citizenship; and above all provision for executive succession. Each of these is essential, and each must be evaluated separately. An important aspect of provision for executive succession is establishment and maintenance of a fairly uniform distribution of major executives over all the five-year age intervals from 40 to 65.

Next let us consider the category of Directorate Effectiveness. The functions included here are primarily those of trusteeship: to

assume ultimate moral and legal responsibility for the enterprise's obligations and patterns of behavior; to select and assign its principal officers; to pass on their proposals for all major purposes and activities, and to make sure that they have been considered from every conceivable angle; to assure cross-fertilization of ideas and points of view; to assure unquestionable fairness in officer compensation. The good board has a majority of nonofficers and represents a wide range of points of view, background, and age groups.

The functions examined in the category of Fiscal Policy are these: raising and providing funds as needed through appropriate and balanced use of equity capital, borrowing, and internally generated funds; accounting for and safeguarding all assets; coordinating all projections of income and outgo as in budgets; providing timely data on variances from all projections to facilitate prompt action to correct errors and exploit opportunities; evaluating the financial aspects of all proposed changes in activities; and supervising the contracting and discharge of all financial obligations.

The category of Production Efficiency deals with these functions: proper design or selection, layout, and maintenance of all production assets; proper selection, training, assignment, supervision, promotion, and compensation of all production personnel and maintenance of good labor relations and employee morale; coordination of product or service design to meet customer requirements and to facilitate production at proper quality levels and minimum cost; scheduling of production to combine efficient use of assets and personnel while meeting delivery schedules for customers; warehousing; shipping; provision of reliable cost estimates on new or changed products or services; and provision of accurate data for accounting purposes. Efficiency is measured, somewhat inadequately, by the trends in the ratios of sales to plant investment and to payroll. Such figures reflect, however, not only production efficiency but also sales efficiency and changes in the prices, volume, and mix of goods sold.

The category of Sales Vigor includes these functions: market research and analysis; promotion; advertising; recruiting, training, developing, supervising, motivating, and compensating related personnel; assignment of sales territories and quotas; pricing; packaging; provision of data on the changing needs of the market and coordination with product development and production; provision of reliable forecasts of income and of variances therefrom; and coordination of sales scheduling with production scheduling. Sales Vigor undoubtedly should be renamed Marketing Effectiveness

The category of Research and Development includes the functions related to the gathering of information in the military intelligence sense, to investigation of ideas, to technological research and both product and process development, and to research into management methods. In theory it probably should include market research, but in practice this is usually included in the category Sales Vigor. R&D functions are among the most difficult to manage for they are latecomers on the management scene, and we have really begun to find out how best to perform them only in the last two or three decades. This is the most difficult of the ten categories, because accepted criteria for excellent performance here are very few in number.

The results of the performance of these various groups of functions are ultimately reflected in the data which are examined in the category Health of Earnings. This category, unlike the others, is not based on performance of specific functions peculiar to it. It might be thought that earnings alone would be sufficient to demonstrate whether or not a management is of high quality. A little reflection on what can go wrong in the other categories we have examined, however, or on what can be inherited from past mismanagement, will show that earnings are not a sufficient criterion of management quality. Too much depends on luck. Nothing really significant about quality of management can be learned from study of earnings unless they are taken over a considerable period of time. Ideally, the minimum period is a full economic cycle. Practically, ten years is about the minimum. Earnings for single years show nothing; only trends provide information usable for evaluations. For a modern stock corporation, regardless of size or number of stockholders, the ultimate criterion in analyzing earnings is the earnings per share of common stock.

A number of other financial analytical tools are useful, however; the percentage increase from year to year, the compound rate of increase over a period, the ratios of earnings to sales, to total capital employed, to gross and net fixed assets, to total payroll, to total equity, to common equity, all are useful. The ratios of sales growth to population growth, to growth of Gross National Product, to total volume of the industry (if that is determinable) are also useful. The percentages of sales and profits attributable to products or services introduced within the last five years are useful. Comparisons of any or all of these figures with those for similar companies are helpful. Trends in data on share of the market can be very significant, if they can be obtained. Healthy earnings

are those which resist declines in the enterprise's specific industrial fields, or in the general economy, which rise faster than those in other fields, which show increasing rates of return on equity capital, and which show at least the previous rate of return on each new addition of capital.

This is a highly technical field and calls for the skills and insights of the financial analyst. What appears to be superficially obvious can often be highly misleading. The accounting system employed must be taken into careful consideration, for identical companies with operating figures identical in every detail can show very large differences in reported earnings according to the choices they make among the different kinds of *generally accepted accounting practices*. This is currently the subject of much controversy in the accounting profession.

The final category has the name Service to Stockowners. Here we return to the performance of functions. All have to do with management's recognition of the rights of ownership. It is irrelevent whether ownership resides in private stockholders, a proprietor, partners, a government unit, or a communist state. The functions involved are these: safeguarding invested principal from unnecessary risks; determination and execution of a stated dividend policy consistent with the needs of the business and the interests of the owners; enhancement of both earnings and net worth through proper employment of retained earnings; maintenance of the marketability of the company's securities at price levels that carry out a rational policy with regard to the needs of owners to sell or buy; informing owners fully, accurately, and in a timely manner of the state of the company and its problems and progress in order that owners can make rational decisions; and providing properly for owner participation in the decisions that it is their prerogative to make.

We have now run through the ten categories of the Management Audit, but have said little about evidence or criteria of judgment. The company analyst has to ask exactly the same questions as the historian. What evidence can I get? How reliable is it? What does it mean?

When he has answered these questions, he has a task beyond that of the historian. He must make judgments based on some sort of criteria, for he is evaluating the quality of management. These criteria must be based upon defensible concepts of what constitutes *superior, average,* and *harmful* management performance in each area. This is often difficult to determine. Perhaps it is most

useful here to ask "What difference would it make if such and such a function were performed differently?" and then to answer with the best combination of realism and imaginative construction of possible dangerous situations that one can achieve. Changes in some areas would have very little significant effect.

The system presented here was not devised for historical research. It is so flexible, so comprehensive, so universal in application, however, that given a few minor adjustments to fit particular needs it can be used historically with great success. Professor Kennedy of the University of Nebraska and his students have been using it in their work on the history of the early New England railroads. The limiting factor is the availability of evidence.

One more thing probably needs to be said. The Management Audit is designed around the most modern concepts of management. Many of these concepts did not exist even half a century ago. Hence in using this system to analyze and appraise managers of the past we may be judging them in terms of performance that had not been dreamed of in their own period. We certainly should not judge adversely a manufacturer of the nineteenth century, for example, because he had not solved scheduling problems, say, with techniques that were invented only at the time of World War II. On the other hand, we are justified in pointing out that he got into difficulties because he did not have the means of scheduling adequately. This is a historical fact, possibly a significant one, that might not come to our attention unless we had a framework for analysis as modern and as comprehensive as the present Management Audit.

One of the major advantages of this system of analysis is that it can be used with reasonably good results at almost any level of sophistication and depth. Another is that it can be adapted and modified for special purposes without necessarily destroying its validity and usefulness. A growing number of graduate students and professors are using the system in their researches, especially in making comparisons of companies.

The system of course needs improvement. AIM and others are working on it constantly, and from time to time the Institute will publish changes. The validity of the findings of Excellence in Management made in past years also needs study. A follow-up study for validation and reliability has been discussed with a group of professors at the Wharton School, but time, personnel, and funds to do the work probably will not be available in the near future, I am sure, nonetheless, that eventually such a study will be made and published.