

# Human Organizational Measurements: Key to Financial Success

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*Rensis Likert*

**M**ANAGERS and administrators need no longer wait until "after-the-fact" measurements tell them that they are in trouble before taking corrective steps. All performance, accounting, and financial data are after-the-fact measurements. They reveal the state of a department or organization as it was *yesterday*. As a consequence, often before a problem becomes sufficiently clear to be recognized, it has reached serious proportions.

Recent research developments in the social sciences, however, now can enable any administrator to have data one or more years in advance of trouble. These data can reveal the operating and performance problems which his organization is likely to encounter, the

probable causes of these problems, and the steps which if taken now will correct the situation and prevent the problem from developing.

These *lead time data* are measurements of the state of the human organization of an agency or department. They include such measurements as the leadership behavior of administrators and reveal the extent to which the agency is capable of performing in a highly efficient, productive manner. These measurements of the human organization are objective, impartial, and replicable. They can be used to:

1. Reveal the extent to which the organization as a whole and each of its administrators and supervisors are using managerial principles and practices which yield the highest productivity and the best performance. They will show how well each manager or administrator is building his subordinates into a highly motivated, highly effective unit.

2. Provide evidence concerning the condition for each firm, department, or subordinate unit of such variables as communication, decision-making, attitudes and loyalty, motivation, performance goals, and commitment to the organization's success.

3. Increase the lead time by one to three years concerning awareness of operational and performance problems caused by deterioration

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## *About the Author—*

On October 1, 1970, Dr. Likert retired as Director of the Institute for Social Research, in this University, a post that he had held since 1948. In December 1970, he, with a group of colleagues, established Rensis Likert Associates with headquarters in Ann Arbor, Michigan, and a regional office on the West Coast. This new organization will be devoted to aiding business firms, governmental agencies, school systems, universities, hospitals and other organizations to achieve their objectives more efficiently by applying the management practices and principles employed by the highest producing managers in American business.

One of Dr. Likert's several books, *The Human Organization: Its Management and Value* was published in May 1967. This article is based in part on this book, in which the nature and measurement of the causal human organization variables and those of an intervening nature are described.

of the human organization and its productive capability. Lead time measurements will reveal problems at their early stages, point to the major causes of each incipient problem, provide clues to the course of action most likely to correct the situation, show at an early stage how effective each attempt to solve a problem is proving to be, and indicate the further steps likely to bring additional improvement.

4. Reveal the extent to which greater productivity and better performance represent true improvement, in contrast to that achieved by costly liquidation of the human organization.

5. Establish the basis for improving the compensation of managers and supervisors by providing more objective and more accurate data concerning the effectiveness of each administrator's managerial practices.

6. Improve labor relations by facilitating early awareness of problem situations, more accurate diagnosis of their causes, and early action of a remedial character.

7. Detect at an early stage new innovative improvements in organizational structure or in managerial or supervisory behavior. This early detection of better principles and methods of administration will enable the more rapid dissemination of these principles and methods to other parts of the organization. In this manner; all managers and supervisors in the organization can be aided in rapidly adopting better practices.

### Management and Achievement

These and similar uses of lead time measurements are based on the capacity of these measurements to describe correctly the condition of the human organization of a firm and to predict the trends in the performance capability of that firm. A large number of studies of business firms and governmental agencies by the Institute for Social Research, involving thousands of managers and tens of thousands of employees, reveal a relatively

consistent relationship between the leadership style and management system of a business firm and the extent to which the organization is able to achieve its objectives fully and efficiently. In widely different kinds of organizations, the managers who are achieving the greatest productivity, lowest cost, best quality of operation, and best labor relations are using the same basic principles of management. These principles differ significantly from those used by managers who achieve average or below average performance.

The kind of organization created by the most successful managers can be described briefly: This human system is made up of interlocking work groups with a high degree of group loyalty among members and favorable attitudes and trust between supervisors and subordinates. Sensitivity to others and relatively high levels of skill in personal interaction and the functioning of groups also are present. These skills permit effective participation in decisions on common problems. Participation is used, for example, to establish organizational objectives which are a satisfactory integration of the needs and desires of all members of the organization and of persons functionally related to it. High levels of reciprocal influence occur, and high levels of total coordinated influence are achieved in the organization. Responsibility for the organization's success is felt individually by the members and each initiates action, when necessary, to assure that the organization accomplishes its objectives. Communication is efficient and effective. There is a flow from one part of the organization to another of all relevant information important for each decision and action. The leadership in the organization has developed what might well be called a highly effective social system for interaction and mutual influence.

The system of management based on this theory has been labelled "System 4" for convenient reference. Prevailing systems of management and administration which are more authoritarian in character will be referred to

as "System 2." System 4 is an appreciably more effective management system than is System 2.

### Significance of Trends

These relationships between the management systems of an organization and the excellence of its performance are, however, *much more marked if trends and relationships over time* are examined instead of using measurements made only at one point in time.

In a recent study of a continuous process plant, for example, the relationship was examined between managerial behavior and cost performance of 40 departments. When both measurements were obtained at the same point in time, the relationships were so slight as to be not statistically significant. But when these measurements of managerial behavior obtained in 1966 were related to cost performance by departments in 1967, i.e., one year later, one-fourth of the variation in costs among departments was accounted for by the behavior of the managers one year earlier. When the time interval was two years, one-half of the variation in costs among departments could be attributed to managerial behavior two years earlier.

These findings and other recent studies reveal that measurements of such causal variables as the behavior of administrators and supervisors can be used to predict subsequent trends in organizational performance. As a consequence, these measurements are highly valuable for the uses suggested for lead time purposes.

Any business firm, governmental agency, or educational institution that wishes to do so can use both lead time human organizational measurements and System 4 to achieve excellent performance at low cost. A number of studies show that when an organization does this, productivity is higher and costs lower by 15% to 30% or more. The use of System 4 and human organizational measurements can pay off handsomely.

### Planning-Programming-Budgeting

There are, moreover, other valuable uses of these human organizational measurements which reveal the productive capability of an agency and the probable trends in this capability. For example, these data can be used in conjunction with P.P.B. (Planning-Programming-Budgeting).

P.P.B. is a powerful administrative management tool but it can be effective only in situations where objectives and progress toward their achievement can be expressed in quantitative dimensions. For many governmental operations, it is very difficult, if not impossible, to state organizational objectives so that the extent to which they are being achieved can be measured quantitatively and at a reasonable cost. When this condition exists, it is still possible to make effective use of the powerful resources of P.P.B. This involves shifting the P.P.B. activity from focusing on end-result variables to dealing with human organizational variables. For this purpose, all of the major human organizational variables should be used, including both *causal*—such as managerial behavior—and *intervening*—such as communication, motivation, and control.

This application of the human organizational variables as the fundamental dimension for P.P.B. is based on the substantial body of research findings which show that when an organization is functioning well, as revealed by measurements of its human organizational variables, it is, or soon will be, achieving its performance, service, and other end-result objectives well. This application of P.P.B. requires that objectives be stated and progress toward their achievement measured in terms of human organizational variables. To date, this combined use of P.P.B. and human organizational variables has not been tried. It is, however, perfectly feasible and is likely to yield highly profitable results.

P.P.B. is used commonly in situations where some, but not all, of the objectives of

an organization can be dealt with quantitatively. In some of these situations, P.P.B. may work well. In many, however, it may give the appearance of working well when its use is actually producing costly adverse consequences. This occurs when P.P.B. causes an agency to focus its efforts on activities which, when carried out, may achieve the quantitatively stated sub-objective, but with considerable adverse consequences so far as the total objectives of the organization is concerned.

### **Impacts of Cost Reduction Program**

The typical cost reduction program can be used to illustrate this point. These cost reduction programs, like P.P.B., focused on a quantitatively defined sub-objective, usually accomplish their immediate cost reduction goals, but with serious financial losses to the agency or firm. A study was made recently of a typical cost reduction program in a plant of about 700 persons. This cost reduction program employed the usual methods of "tightening up." The work was analyzed with the aid of outside consultants to see whether the work could be reorganized so as to require less labor. This analysis revealed that in some departments savings in labor could be achieved. For each of these departments, teams consisting of persons from other departments, staff and outside consultants were established to study the department and recommend how the estimated labor savings could be achieved. The manager of each affected department was ordered to introduce the specific changes and achieve the designated labor savings. The total annual savings amounted to approximately \$250,000.

This saving, viewed by itself, was a nice reduction in costs. But measurements of the human organizational variables for this plant and especially for the departments most affected by the cost reduction effort, showed an appreciable drop. Leadership behavior, motivation, communication, control, coordination, and similar variables all showed an adverse shift. When scores on these variables worsen,

research findings show that productivity and earnings drop subsequently. The unfavorable shift in these variables for this plant indicate that an annual drop in earnings of approximately one million dollars is likely to occur in each of the next several years.

Recent data from this plant concerning production, costs, quality, and labor relations indicate that the poorer results forecast by the adverse shift in the human organizational variables are occurring. Moreover, the estimated loss mentioned above understates the total drop since it ignores all losses due to downtime and any losses caused by customer dissatisfaction due to poor quality.

Long range survival and financial success are more important in this company's total objectives than are short range cash flows erroneously labelled "savings." This cash flow was accompanied in this plant by a liquidation of the firm's human assets far greater in amount than the increased cash flow reported as savings. This cost reduction program illustrates the unfavorable consequences to an organization of concentrating on those sub-objectives which can be measured with traditional methods, ignoring the extent to which the total objectives are, or are not, being realized.

### **Promise and Problems in P.P.B.**

Education is a good example of a situation where it is possible to deal with sub-objectives quantitatively, but where it is virtually impossible at any reasonable cost to measure the extent to which each teacher, class, school, and school system is performing efficiently as an educational institution. It is extremely difficult to eliminate or partial out from measurements of educational achievement such influences as each student's native ability and the environment of his home. It is extremely difficult, consequently, and would be prohibitively costly to attempt to measure the overall effectiveness of a school system in achieving its total educational objectives efficiently. For these reasons, P.P.B. cannot be applied to the overall operation of a school system.

P.P.B. is used at present, however, for such specific educational sub-objectives as teaching students to read or having a designated proportion of students achieve a specified score on a standardized achievement test. The danger of this use of P.P.B., when only a fractional part of an agency's total objectives is dealt with in quantitative dimensions, is that the sub-objective may be accomplished but often serious adverse consequences for the organization's total objectives may ensue. The cost of teaching youngsters to read might be reduced, for example, by focusing intensive effort on it and by putting pressure on each teacher to achieve specified results and on each pupil to learn. Such a program could achieve the P.P.B. objective in reducing the costs of teaching students to read, but it could simultaneously create resentful attitudes in teachers and develop hostile attitudes among students toward reading, school, and education. Hostile attitudes toward schools and education lead to drop-outs. If the least costly way of teaching reading led to drop-outs years later, it would be a high cost to pay for a 5 per cent reduction in the cost of learning to read. This would be as inefficient and undesirable as the typical cost reduction programs which yield immediate

cash flows accompanied by financial losses over many subsequent years.

It is perfectly feasible for an organization to use P.P.B. to gain the benefit of achieving some of its sub-objectives efficiently, without suffering overall adverse consequences. This requires measurements of both the causal and intervening human organizational variables and their use in conjunction with the P.P.B. effort focused on achieving the sub-objective. If these human organizational variables are measured and examined regularly, trends in these variables can be used to prevent costly overall consequences while achieving the sub-objective. Thus, when P.P.B. is used to reduce the costs of teaching students to read, measurements of the human organizational variables of the school system should be obtained. If the latter measurements reveal an adverse shift in the motivation, values, attitudes, and behavior of teachers and students, the effort to achieve the specified sub-objective should be modified appropriately.

These are a few examples of the use of human organizational variables to improve the capacity of any agency or organization to achieve its objectives efficiently.

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#### **BUSINESS BOOKS, 1970**

The October-December 1970 issue of *Business and Technology Sources*, Bulletin of the Business Information and the Science and Technology Departments, Cleveland Public Library, is the annual review of some of the outstanding business books published during the year. The 1970 selections reflect the fundamental transformations occurring in the worlds of business and contribute to the new sights, methods and tools required.

Annotated titles are listed under these headings: American Business; The Computerized Society; Corporate Planning and Finance; Employment Management; Inflation; Investments; The Job; The Manager; Marketing; The Monetary System; Multinational Enterprise and Commerce; Public Relations; Quality Control; Transportation.

Copies are available at 25¢ each from: Mail & Distribution Dept., Cleveland Public Library, Cleveland, Ohio 44114.

# The Washington Representative

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*J. D. Johnson*

OVER the past several decades a new corporate executive position has evolved which evidences the significant role played by government in corporate planning. Although this function may be listed by various titles in corporate organizational manuals it is commonly called the "Washington Representative."

The term, Washington Representative, is at the same time, accurate and misleading. It is accurate because it aptly describes the main function; he is indeed the representative of his firm in Washington.

On the other hand, the term is misleading because it is applicable to other types of representatives. The sales representative for a drug concern which sells exclusively to drug stores located in Washington is a "Washington representative." The lawyer, retained by a company and used to represent its interests, may also be described as a "Washington representative."

Many trade and professional associations have Washington representatives—each representing many members.

The Representative discussed in this article, however, is none of these. He is employed exclusively by one corporation and represents only that company's interests. If he sells, it is probably not his major function. When he does, he sells exclusively to the government. In the majority of cases, he performs no direct selling at all; and in other instances, sales to the government consume only a small percentage of his time.

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## *About the Author—*

Dr. Johnson is Assistant Professor of Business Administration and Director of the Center for the Study of Private Enterprise, The American University, Washington, D.C.

## **His Mission: Its Changing Character**

The mission of the Washington Representative is one with a constantly changing emphasis. This characteristic is indicative of his position bridging the two great agents for change in our society: Business and Government.

Although his role has been forming for several decades it is only in the past decade that the mission of the Washington Representative has undergone drastic change in terms of emphasis and scope. This change has been caused by two significant and well-known phenomena. The first of these is the growth, complexity, and involvement of government in the decision-making process of the corporation. The second is the growth of business itself. As business has grown, so has its need for information upon which to base its decisions relative to government. The sheer size and breadth of the American corporation has eliminated any semblance of isolation from government influence. Today, as never before, there is no successful American corporation that does not consider the factor of government in any major decision it makes.

## **His Mission: Its Present Scope**

Today, the mission of the Washington Representative may be divided into three broad categories. The first is an information gathering or intelligence role.

*Information-Intelligence:* The Representative's most basic function is to provide company policy-makers with the information they require to make competent decisions relative to government action. This information cuts across the broad spectrum of potential government influence in business action. A sam-