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A Primer for Productivity Management

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Productivity
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Improper Computer Applications

When embarking on productivity improvement programs involving portions or all of the organization's employees, management has a responsibility to ascertain whether or not it has created an environment within the organization that generates a productivity consciousness among the constituent parts. All too often the basic ingredients for successful productivity management are overlooked or ignored. Consider, for example, the productivity loss resulting from improper computer applications. Studies of computer utilization indicate that close to ninety-five percent of all computer installations are utilized ineffectively.[1] Waste and inefficiencies in the tasks performed by the computer result frequently from the use of software application for purposes other than the one for which they were originally intended.

To cite an example, a company was observed using a computerized inventory control program which was designed for a thirty-day inventory cycle. The inventory cycle of the warehouse that was being controlled by the program was closer to six months.

Thus, the computer failed to report stockouts until long after they occurred resulting in a repeated rush-order crisis on out-of-stock replacement parts. Furthermore, the program was not able to cope with replacement parts for new equipment because no parts were needed during the initial break-in phase; the net result — an increase in labor costs caused by writing emergency orders, waiting for parts to arrive, and other high costs associated with special orders.

Lack of Communication between Management and Computer Operations

Other losses identified with ineffective computer operations are the result of lack of communication between management and computer programmers. Some recent studies indicate that there is considerable variation, as measured by interpersonal attitudes and perceptions, in the temperament of computer programmers as compared with that of managers.[2] The interests, capabilities of dealing with people, and

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[1]Unpublished studies conducted at the University of Southern California, Graduate School of Business Administration

[2]A. W. Gutenberg, "Managing Communications for Greater Effectiveness" Western Plant Engineering Conference, San Francisco, California, November 16, 1972.

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perception of the world in general as seen by programmers differ considerably from the attitudes, perceptions, relationships, and interests of the typical manager. The result of these differences makes communication between the two (programmer and manager) often difficult if not impossible. Computer programmers typically design programs on theoretical models that all too frequently are inadequately understood by managers. Obviously, models, simulations, and similar applications become ineffective exercises if the basic functions do not reflect the real world as it is. To be effective, individual managers must understand programming concepts and computer theory at leart to the point where they can communicate effectively with programmers if the computer is to provide productivity gains to the organziation.

Faulty or Poorly-Designed Computer Printouts

A third failure of computers to meet productivity needs results from faulty or poorly-designed computer printouts. Here the productivity loss can be attributed to poor design of the printout such as including too much detail or making possession of the printout into a status symbol, thus requiring excessive duplication. All too often printouts are designed for easy reproduction by machines, not for easy comprehension by humans.

Proper management of the computer operation can reduce these problems to a minimum. Proper management is essential whether the computer facility is a multi-million dollar operation or a terminal leased on a shared-time basis from an external computer service operation. Nor is it sufficient to delegate this management responsiblity to the accounting department or the controller's office. All too frequently, in this latter instance, the entire operation will be geared to producing the payroll and accounts receivable ledger at the expense of effective computer application elsewhere within the organization. The person managing the computer operation must be familiar with the scope of the business organization, the capabilities of the computer, and the priorities of the operation.

The format of computer printouts should be reviewed by management, particularly with reference to content and distribution. Managers achieve control largely by control of information[3]— often by information committed to memory. Thus, the printout information for consumption at the decision-making level must be concise and readily understandable. Distribution of information should be determined by a need to know.

Creating a Climate for Productivity Improvement

It is not the intent here to defame the computer as the chief productivity thief. Unfortunately, a lack of understanding of its function and true capability by managers often make it a principal contributing factor in productivity loss as well as a key ingredient in the development of an anti-productivity climate within the organization.

Unfortunately, once established, an anti-productivity climate will be proliferated and affect adversely other activities and functions within the organization.

[3]Henry Mintzberg, "The Manager's Job Folklore and Fact" *Harvard Business Review,* July/August, 1975, p. 49 ff

Parenthetically, it should be emphasized that one way productivity improvements can be achieved is to set a tone within the organization from top management to first-level supervision that encourages such a climate. Often enumerated, the challenge still bears repeating.

> That challenge lies, first of all, in accepting the difficult responsibility of understanding rather than dismissing the attitudes of people with whom one must deal, regardless of whether one agrees with their viewpoints. It lies in recognizing that managers are much more capable of changing their own habits and ideas than of changing those of the people who work for them and that accordingly they should concentrate more on improving their own effectiveness than on persuading employees to improve theirs. It lies in reexamining the necessity and usefulness of practices which have never been seriously questioned because they were presumably indispensable, especially with regard to organization, supervisory methods, and compensation. It lies in discovering practical ways of releasing the energy and creativity that now seem to be suppressed in many apparently apathetic employees. . .[4]

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The Role of Planning in Productivity Improvement

There are other factors that should also be considered such as faulty or ineffective planning. It is disconcerting to find the number of American managers who pay lip service to planning *concepts* but fail to use planning *activities* in their own sphere of influence. Optimal productivity cannot be achieved in an organization as long as managers fail to recognize the importance of planning in building and maintaining an effective organization. Planning provides a link between that which is expected and that which actually occurs. There is no substitute function to take its place.

The reason many managers refuse to take the concept of planning seriously is because they misunderstand its functions. All too often, planning *per se* is considered an end in itself. Viewed realistically, effective planning occurs only when managers are forced to consider "now" what they know about the future and what resources they expect to have under their control, or at their disposal, at some specific future time. Thus, effective planning is an exercise where one is forced to put numbers on future expectancies and identify action courses on how the organization's physical and human resources can be combined into a productive whole at some specified future time within the confines of a set of definitive assumptions.

These numbers and assumptions are not an end in themselves; they represent only part of the answer. The effective use of planning concepts is achieved, not in forcing the organization to hew to a predetermined (i.e., preplanned) course of action but rather to compare what actually is taking place with the expected and to identify errors in the assumptions or in the planning procedure. The benefits of planning are found in the ability to modify past decisions thus making it possible to achieve effective objectives at any given time under pre-

[4]Saul W. Gellerman: *Motivation and Productivity,* AMACOM, New York, 1963, p. 293.

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vailing circumstances. Planning does not mean the forcing of results to meet some predetermined goals regardless of prevailing circumstances.

Even where planning does take place, managers often fail to consider the organization's product and resource life-cycle in establishing the planning cycle. A five-year planning cycle, for example, is ineffective if the bulk of the company's activities move in ten-year periods. Planning to be effective should cover the life cycle for the variable being planned.

Many plans also lose their effectiveness because their developers fail to quantify the plan. Plans are developed as a result of thorough and detailed analysis of available information. As yet, no substitute has been discovered for effective planning that does not reduce the plan into a numerical rationale such as a budget. Expressing the plan in numbers is an essential tool, and it is a basic requirement for building a productivity-conscious organization.

Some organizations are structured so the planning function is divided into a number of categories. Frequently, long-range or strategic planning is delegated to a staff housed close to the President or the Board of Directors. Operational planning is the responsibility of functional divisional managers. Unless precautions are taken, such division is dysfunctional because little, if any, effort is exerted to coordinate strategic plans with operational plans.

The reasoning behind such division may appear to be sound: operational managers do not have either the time or the information to develop effective strategic plans, and conversely, professional planners do not have the expertise to implement their concept of the overall operation into specific short-run objectives. There is, however, enough research to substantiate the fact that frequently, where the planning responsibilities are divided, the various planning entities are unable to communicate with each other. The differences arise not so much because there are factional disagreements or competitive views but more because the two groups do not understand each other. Therefore, communication between them is not effective.[5]

Organizational productivity-consciousness is dependent upon previously stated and defined goals and objectives. Targets depend upon effective organizational output. Organizational output, in turn, is a direct function of effective integration and monitoring of all plans — operational and strategic — into a single entity.

Control Systems

Earlier, it was mentioned that the prime function of planning is to compare the anticipated with the actual to provide management with a realistic base upon which to build future decisions. Thus, it becomes important that the planning function be directly tied to the organization's control system. Many organizations fail to identify the need for this integration or totally ignore the development of an effective control system. Elaborate plans are often developed to deal with special projects, capital investments, or other planned large expenditures, while day-to-day activities are allowed to take place with little or no control. For example, organizations will endeavor to negotiate loans — working hard to shave a fraction of a percentage point — while the organization's accounts receivable department takes days to process

[5]A. W. Gutenberg, "Ethological Indicators in the Face-to-Face Interaction of Small Established Groups — a Progress Report," Academy of Management, Western Division, March 21, 1975

incoming payments which, with effective control devices, could be deposited and used or draw interest within twenty-four hours of receipt.

It becomes important that management identify all day-to-day operations to determine the most efficient way of performing them and then establish controls to monitor effectiveness of these operations on a day-by-day basis. Control consciousness on the basic activities focuses the attention of the entire organization on the importance of productivity and helps establish an internal reward system based on direct results.

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External Environment—How Others View Your Organization

A fourth significant productivity loss can result from the failure of the organization to identify its environment. It is important that the organization evaluates itself not from the inside but as it is perceived by those with whom it deals. The external environment includes those with whom the organization interfaces directly as customers or suppliers or indirectly as an element of the community. Typically, managers tend to evaluate the organization's role in terms of their own requirements. It follows that such concepts by their very nature dictate that optimal success is achieved only where the assigned tasks mesh with perceived goals at a minimum of effort and with as little change within the existing structure as possible.

Those outside the organization care little what takes place internally. Instead, they see the organization as a producer of goods and services, as a polluter, as a user of energy, as a source of income for the community, and so forth. Customers do not identify with the company in terms of its product but rather with services the customer derives from the products or services that the organization provides. For example, a railroad may be viewed by some as a considerable investment in rolling stock and trackage, as a consumer of energy, or as many other things. The railroad's customers, however, see that organization as a utilitarian function providing a service that places goods or people at some place where they are desired or from some place where they are not needed.

A good example of a productivity gain that a company achieved from increased attention to its customers' perception of the company's products is an organization that made a change in its marketing policy. As a customer-relations gesture, order-desk clerks were instructed to ask customers when the orders should be delivered. Up until the time of this innovation, company policy called for all orders to be filled within 24 hours of receipt.The company's management discovered that the bulk of its customers preferred less promptness in delivery. Obviously, the savings in inventory, in production scheduling, and in labor utilization were considerable.

Many managers find it difficult to view their organization in the same light as it is seen by outsiders. Such perceptions are extremely important, however, if the organization is to operate at efficient levels. A considerable savings in the organization's resources can be achieved if management understands what is expected from the organization by those who deal with it from the outside and then allocates the organization's resources in a creative manner according to these perceptions.

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Responsibilities of Management

It is also essential that the interpersonal interface within the organization be understood. Frequently, managers confuse management tools with management style. *Management by Objectives* (MBO) is a management tool. It is suited only to certain management styles. Yet, there have been a considerable number of corporation presidents who have tried (usually with limited success) to impress MBO on all of their subordinates regardless of whether or not they are able to function within the constraints required for the effective use of MBO.

Management of an entity is a difficult task at best. It requires decisions that must frequently be made without full knowledge of all factors likely to be influenced by the decision. It requires dealing with other human beings where true feelings often are not totally known or understood. No wonder that managers will eagerly grasp at offers of assistance that promise to make the task of managing less demanding and more effective. While managerial tools can be helpful, the value of such tools is restricted by the management style as well as environmental constraints. In the final analysis there is no substitute for managerial leadership and assumption of responsibility by the individual managers. After all, if it were possible to transfer all management tasks to a computer or other machines, there would be no need for managers. Still, many individuals fail to recognize the obvious truth and thereby adversely affect the organization's productivity.

It follows then that managers must have a complete understanding of themselves and of the human resources available to them in order to achieve optimal productivity. A substitute for individual managerial effectiveness has yet to be discovered and placed on the market. Management tools canot be substituted for effective management styles and for the individual manager's willingness to accept his responsibilities to the fullest extent.

Effects of Change

Productivity losses occur within an organization in its daily operation because the constituency of the organization is unable or unwilling to cope with change. It has already been mentioned that computers, unless properly used, adversely affect productivity while successful productivity management does not require immediate and continuous adoption of new technologies. It is important, however, that managers be aware of technological change and understand its implications on the entire organization and its products or services. The installation of technological change normally carries with it implications that reach far beyond the solution to the immediate problem. For example, when a manual accounts receivable system is transferred to the computer, the manner in which the responsibilities and tasks are accomplished will change considerably.

The effect of this change is likely to be felt by the accounts receivable clerk, and it will also affect the way in which collections are made, funds are deposited, and the cycle in which statements are presented to customers. As a matter of course it should be anticipated by each individual manager that, as technological change takes place, its impact on the remainder of the organization must be evaluated and

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the proposed change instituted accordingly. What may be identified as a minor change in process or procedure can have a profound effect on the entire organization. This impact must be studied.

Since World War II, change and the anticipation of change are basic facts of life in the task-oriented organization. Many of the changes are basic and have a profound effect on future activities. For example, revenue-cost relationships have changed considerably, particularly since the advent of the so-called energy crisis. Allocations and computation of standard costs also have changed. The installation of computer services, while often lowering total costs, certainly increases fixed costs. Cost structures have changed considerably with the change in population composition. Many organizations predicated their cost structure and capital investment on availability of low-cost energy. Obviously, energy costs have risen steeply and show every indication of increasing in the future thereby changing the competitiveness of certain plants and of companies in the marketplace.

Private enterprise organizations once were designed with the profit motive as their principal objective. While profitability is still essential for survival, its role is no longer as monolithic as it once was. Public responsibility, employee safety, and avoidance of various types of pollution are concerns that must be taken into account when establishing profit goals and objectives. Emphasis must be placed on resource utilization, both of people and of materials, particularly because many workers have aspirations relating to a share in the good life. These individuals, no matter where they reside — in the United States or overseas — demand some sort of fulfillment in the short run. These considerations point to the importance of change and its impact on the organization. They emphasize also that, except for the very smallest entities, decisions affecting a business entity or constituent parts cannot be made without considering the multinational impact as well as the effect on the immediate environs surrounding the organization's headquarters.

Conclusion

Productivity management is not a hit or miss process that can be left to chance. Instead, it is a responsibility that must be faced by management on a day-to-day basis. Productivity improvement occasionally is the result of one or more dramatic technological breakthroughs. More often, however, it is the result of attention to details that all members of the organization experience in their accomplishment of day-to-day activities. It is a mental conditioning process that results in identifying productivity successes which are attainable with the proper use of relatively recent innovations, such as computers, or from the use of effective planning for future activities. Short cuts to productivity goals frequently are the result of forgetting or ignoring the primary purposes of the firm. A failure to identify, or to identify properly, the organization's environment and its customers certainly will result in productivity losses and makes the evaluation and dealing with change a required part of the responsibility of every individual within the organization.

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