THE PLANNING DILEMMA

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There Is a Way Out

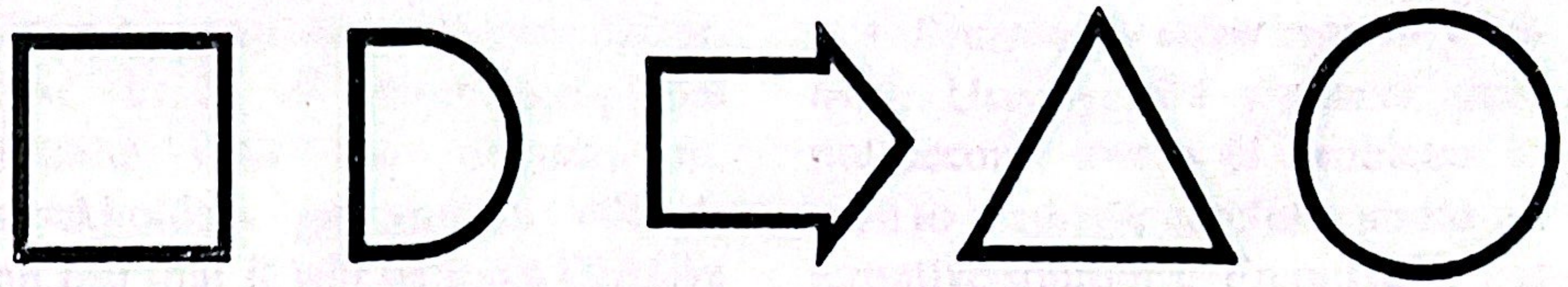
STRATEGIC PLANNING increasingly is becoming an important top management preoccupation. This kind of planning, which some companies call long-range planning, establishes the direction in which the organization will go. It is a formalized procedure that considers such decisions as whether to market a new product, float a stock issue, restructure organizational responsibility, embark on an expansion program.

Many large corporations now have departments responsible for drafting their strategic plans. These departments are staffed by specialists—economists, market researchers, statisticians, operations researchers and systems analysts — who are skilled in the use of such tools as computers, game theory and mathematics. Over varying periods of time, but most often yearly, strategic plans are produced, supported by vast amounts of data that have been carefully documented and analyzed in the best scientific tradition.

Despite this systematic approach, there is some evidence that management does not always use the plans its planners have developed. Consider these cases:

- A team of researchers recently spent a week interviewing the top executives of a large East Coast textile firm in an attempt to determine just how the company's strategic decisions are made. When their work

A MANAGEMENT REVIEW SPECIAL FEATURE



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was about completed, the researchers asked the president of the company whether he had ever considered establishing a planning department. "A planning department? We've had one for three years," he answered. "Would you like to see a copy of our strategic plans?" The researchers were somewhat taken aback. At no time during the discussions about top-level decision making had the president mentioned the existence of strategic plans drafted by the planning department.

- Two members of the planning department of a large Canadian corporation told a colleague how frustrated they were. "We exert tremendous efforts developing the annual strategic plans. Meanwhile, management goes along making important decisions without ever referring to our plans. Last week, for instance, the president went to lunch with a friend and on the spot bought his company. If he had checked our plans, he would have seen that the acquisition was all wrong. Why do we bother making plans?" These men subsequently quit the company.

Yet it's only fair to say that if some planners are disillusioned because their plans are often contradicted or ignored, many managers are unhappy because they feel the plans frequently are impractical and irrelevant. The dilemma is often phrased this way: Planners make plans and managers make decisions and "never the twain shall meet"—at least not very often.

To a large extent the dilemma is inevitable because of the way in which the job of each group is conceived. For this reason, it is necessary to examine the nature of managerial work and the nature of the planning effort before any attempt can be made toward finding a way out of the dilemma.

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The traditional view of managerial work is contained in the writings of Luther Gulick, who, in the 1930's, presented the acronym POSDCORB—planning, organizing, staffing, directing, coordinating, reporting, budgeting. The manager is depicted as an omnipotent individual, continually pushing ahead with an ever better corporate strategy.

Compare this view with the sort of managerial day common today: The telephone rings regularly; a large and diverse group of people come in to discuss a wide range of issues; a staggering load of mail crosses the desk, some containing vital information, some requiring response or other action, and some junk; a retiring employee says good-by; the mayor sends an assistant to advise that steps must be taken to reduce the fumes coming out of the factory chimney; an article in the *Harvard Business Review* strikes a responsive note.

It is obvious that the POSDCORB image is not a very helpful one; the manager's job is far more complex and far less glamorous than this acronym indicates. The following three concepts help to explain the nature of managerial work today:

1. Organizational nerve center: The focal point of organizational information, whether that organization be a multibillion dollar conglomerate or a 50-man job shop, is the manager of the organization. The problems, the ideas, the pressures and the simple detail all find their way to the manager.

Some of this information is in hard form; that is, it is tabulated on paper and is available to anyone who has access to the paper. Examples are production reports, market forecasts and written customer complaints.

Much of the data, however, particularly that important in the making of strategic decisions, is never converted to hard form: the preliminary reaction of the board of directors to a proposal, the conflict between two subordinates who approach the manager for a solution, the words of suppliers as to what a big competitor is planning to do, the morale of the factory workers. All this, too, is important information, yet none of it is ever recorded, and some of it is never even verbally communicated.

The manager, in the unique position of heading the organization to which these data pertain, finds that he is the nerve center of the organization. True, he never has all the information that he wants, but he has more of it and he gets it from more sources than anyone else in the organization. As the head of his organization, he must know what each department is doing, and he selectively carries or transmits this information from one department to another. Much of the information that flows in from outside the organization flows through the manager. Directors, heads of other companies dealing with the organization, stockholders, government officials all feel that it will be most effective to deal with the president. And as long as everybody *feels* this way, they are correct!

2. Adaptor to time constraints: Managerial work is distinguished by time pressures of three kinds: the manager's lack of time, his need to react quickly to unanticipated problems and the need to time his decisions properly.

• *Lack of time*: It is a simple fact that the manager wishes each day could be extended. The great number of people whom he wishes to see and who wish to see him, along with the ever-increasing load of reading material, create great time pressures. The textbooks say that he should plan, but the mail will not wait and the people who want to see him cannot be delayed. In effect, the manager's most valuable resource—his time—is, to a great extent, not allocated by himself. Thus the manager cannot be depicted as relaxed and reflective. Rather, he must integrate information as it comes, must juggle a large number of issues at the same time and must make many decisions hastily. The manager is not a planner because he does not have time to delve into issues at length or reflect leisurely and carefully about his problems.

• *Reacting to unanticipated problems:* Usually, the manager does not become aware of problems in time to meditate carefully about alternative solutions. Frequently, the pressures to come up with a quick answer to a problem become overriding. A company president, for example, may have to act quickly to reassure stockholders and customers when it comes to light that a subordinate officer has been engaging in unethical activities. Or consider the time pressures on a company president when a piece of equipment the company has introduced has resulted in the deaths of several people. He must come up with a fast explanation of why it happened and what is being done to prevent a reoccurrence.

• *Timing the decision*: Timing is the critical element in the seizing of opportunities. Decisions often cannot be carefully scheduled; effective change often depends on chance opportunities that cannot be forecast. The president of a very large manufacturing firm, for example, decided that he wanted to effect a reorganization. He knew that if he did it "right now," considerable resistance and bitterness would develop; but he also knew that it would be too long a wait until two or three "old line" vice-presidents retired. Therefore, he temporarily shelved his decision until the timing was right.

When one vice-president unexpectedly resigned, he moved another to a new position and integrated the third into his new plan of organization.

And take the case of the president of the Canadian corporation mentioned earlier who went to lunch and bought a company. Perhaps the asking price was so good that he could afford to enter a market that had never before been considered.

The manager is basically an adaptive worker. He does not and cannot sit back and make formal plans. Because he is continually working under severe time constraints and because he must react quickly to unanticipated problems and chance opportunities, the manager must handle each new situation according to the realities of its time pressures.

3. Ultimate authority: To the extent that any organization is formally structured, one ultimate authority must exist. Inherent in the manager's job is the notion of authority. He is considered responsible for the important decisions made in his organization. This is not a theoretical aspect of his job, and is not, as many behaviorists would have the manager believe, a disappearing function. Whether he is signing checks or reviewing a capital budgeting proposal, the manager is acting as a final authority.

This responsibility extends even to decisions made by subordinates. When the steel industry tried to raise prices in 1962, for example, the final onus fell on the respective company presidents.

Why, in the age of participative management, is there a need for such old-fashioned authority? The answer is twofold:

- To ensure that an organization does not take off in a variety of opposing directions, it is necessary to have the same person authorize every major decision.

- To take into consideration the often conflicting interests of many groups involved with the organization, such as stockholders, employees or government regulators, someone must make value judgments in the interests of some and contrary to the interests of others. Value judgments — choosing between growth and profit or deciding whether to lay off employees for one week to decrease costs—are basically different from questions of fact. Factual decisions can be made by anyone who can get the information; choices among values are by necessity judgmental. The manager is assigned to make these judgments.

In view of these aspects of his job, what can be concluded about the manager as strategy maker? First, the manager must be the heart of the strategy making system. The process begins with information gathering, and we have seen that the manager has the information. It ends with choices among values, and we have seen that the manager has the unique authority to make these choices. Furthermore, we can conclude that strategy making is not a process of once-and-for-all planning. Rather, strategy *evolves* as the manager reacts to problems and opportunities as they arise. In essence, he works in stepwise fashion, identifying a problem or opportunity, making a decision, interpreting the feedback, moving on to the next problem and so on. This is why managers often find that they have implemented strategy before they have explicitly stated it. Gradually, the precedent-making decisions evolve into organization strategies.

THE PLANNER'S JOB

The planner's day differs considerably from that of the manager. The information, the telephone calls, the requests and the problems that constantly interrupt the manager are not a central part of the planner's concerns.

Three aspects of the nature of planning stand out vis-à-vis the nature of managing:

1. The single task: The planner has one long-range and well-defined task: to make plans. All his time is devoted to this job. Thus he is not disrupted or led astray from his main task. However, because his task is unrelated to the day-to-day operating problems of the organization, the planner is removed from the natural flow of information. He is not in touch with ongoing operations and, therefore, is unable to appreciate the daily pressures that act on the manager. As a result, he cannot understand why the manager treats planning so lightly.

2. The integrative approach: Planning is basically an integrative process. In effect, one plans in order to make many decisions at the same time so that they can be interrelated. When the cry goes up that the organization needs to plan, the cause has inevitably been a conflict between decisions made at different points in time. For example, when management discovers that the new factory is not large enough to handle the new product line, someone points out that a facilities planning effort would have taken into account the decision to embark on a new product line.

Planners make their plans by collecting information that is relevant and available to them, analyzing it and generating possible courses of action. They attempt to collect long-run data, ignoring day-to-day fluctuations. They will investigate consumer and economic trends and look at technological change, and then define the basic problems, challenges and opportunities that will face the organization in the future. They project and evaluate the consequences of alternative courses of action. After combining various possibilities into alternative strategies, they develop explicit plans to solve the problems and exploit the opportunities. Then further plans (manpower requirements and budgets, for example) are drawn up to account for the effects of changes in basic strategy. By its very nature, planning leads to an integration of the various elements the plan comprises.

3. The programmed approach: In contrast to the manager who must act quickly and intuitively, the planner has the time and training to use a programmed or systematic approach to the making of strategy. "Programmed" in this context is the opposite of "intuitive," which implies an undefined procedure that takes place subconsciously in the mind of one man. The planner takes an explicit approach and he follows well-defined procedures for handling given inputs. However, the planner is still required to make many judgments at stages where steps and sequence are not clear.

Clearly, strategy does not *evolve* from planning as it often does from specific managerial actions. The methodology of planning demands that strategy be *created*. There is no recognition of the implicitness or adaptiveness associated with managerial strategy making; the planner sets forth one set of explicit plans for all to see.

THE PLANNING DILEMMA

The planning function evolved over the years in the large corporation because management recognized the need to integrate various decisions and to take a more reasoned look at the future. Furthermore, useful planning programs were becoming increasingly more available. Management realized that it would be unable to carry out this kind of planning itself because of the time pressures discussed earlier. Thus planning and managing became separate functions on the organization chart. Planners were to plan, and managers to manage. It is important to recognize that this decision was one of expediency rather than reasoned thought.

The result has been ambivalent behavior in organizations. (*See Table opposite.*) *Unaided managing* has led to a short-run view of organizational strategy making; treating each decision as an independent step has led to uncoordinated efforts. As organizations have become more complex, fire fighting has replaced innovating. Managers continued to manage as they always had. The only difference was that someone else was doing the "necessary" planning. However, it was not readily apparent that nothing had really changed. Planning was going on, but it was *detached planning*. Plans were made and managers filed them away because they seemed to be (and often were) unrelated to the problems at hand.

This, then, is the dilemma: The manager, who has the authority and information to formulate strategic plans, has been unable to make effective use of the planner, who has the time and the skills to do this job. The manager needs to adapt to what is going on, the planner wants to integrate what will go on, and the organization desperately needs both—but not separate from each other. Managing and planning are neither easily nor logically separable functions.

MANAGING vs. PLANNING

Factor	*Manager*	*Planner*
Work pressures	Many demands on time; no chance to delve	Much free time; one job—to plan
Decision making method	Intuitive; implicit	Analytical; explicit programs
Authority	Formal and real; must choose among values	Formal authority only with factual questions
Information	Nerve center	Lacks effective access to channels, but has time to collect information
Feedback	Short-run, adaptive	Long-run, reflective
Timing	Needs to react to unanticipated problems, chance opportunities	Neglects timing factors
Strategy making	Strategy evolves as precedent-setting decisions are made in stepwise fashion	Integrated strategic plans created at one point in time

COOPERATIVE PLANNING

Is there any way out of the dilemma? We believe there is, that it is possible to set up an effective strategy making system. Such a system will recognize:

• The manager's access to information and his time constraints.

• The planner's basic resources—time and analytical programs.

• The manager's responsibility for making the final choices.

• The need for organizational flexibility to adapt to unanticipated problems and chance opportunities.

• The need for integrated decisions.

The planning system that we propose resolves the problems discussed

Planning Method	*Manager's Role*	*Planner's Role*
Adaptive planning:		
Plans created in the form of decision trees, accounting for trigger events and branch decisions	Monitors environment to define trigger events; chooses branch	Works with manager to develop strategic plans in form of decision trees
Contingency planning:		
Contingencies forecast, and means of handling them when they occur developed	Works with planner to forecast contingencies; calls on plan or program when contingency is recognized	Works out solution or program to handle each contingency; applies programs when necessary
Real-time planning:		
Manager and planner work as man/machine system, handling unanticipated events in real-time	Defines events to planner; chooses next course of action, using planner recommendations	Clarifies the issue; searches for alternatives; evaluates alternatives; integrates events and solutions with existing strategic plans

earlier and meets the requirements for effective strategic planning by (1) reorienting the planning process so that timing factors are recognized, (2) including a contingency planning phase and (3) delegating one other job to the planner—that of applying his programs when unexpected circumstances create a situation requiring fast reaction. We call this *adaptive planning, contingency planning* and *real-time planning*.

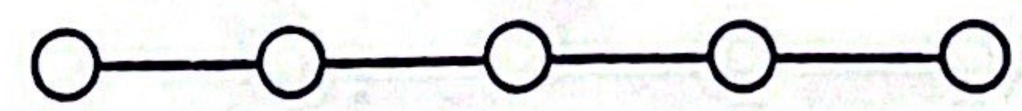
Adaptive planning recognizes the importance of timing and uncertainty in implementing plans and thus deals with *anticipated* action. There is no question that the plan will be undertaken; the question is when and how. Contingency planning is concerned with events that *may* occur. Plans are prepared in case they are needed. Real-time planning recognizes that there will always be some *unanticipated* problems, and the need for planning will arise along with the problem. (*See Table above.*)

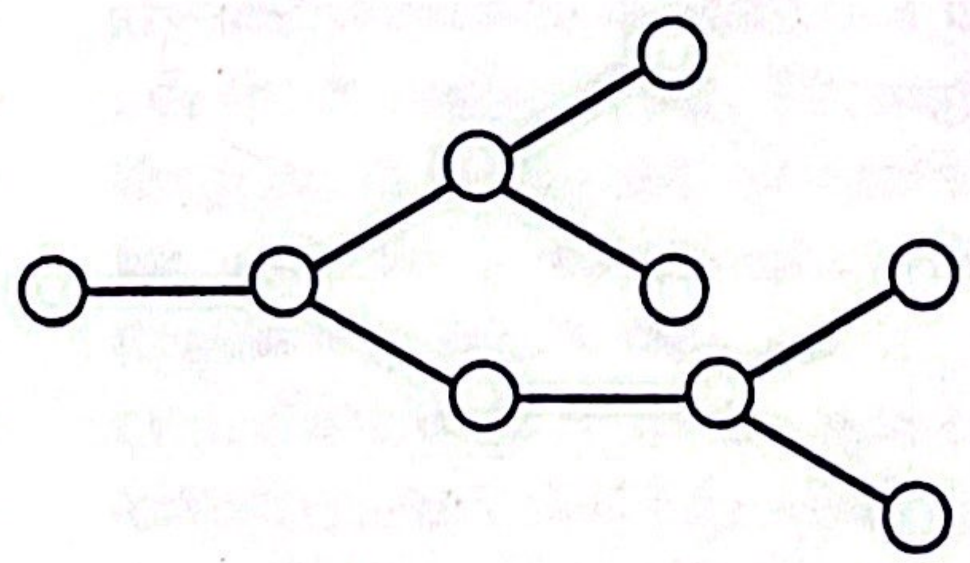
Adaptive Planning

Traditionally, strategic plans are laid out as if all planned decisions will be made with certainty at a predetermined time. In fact, such certainty seldom exists. If the plans are to be useful to the manager, they must be broad enough to give him room to adapt. Two kinds of uncertainty must be recognized:

- *Uncertain timing.* Events that are expected to occur at uncertain times must precede the making of decisions. For example, interest rates must fall before the go-ahead is given on a new plant; political conditions have to stabilize before the Nigerian sales branch is opened; diversification moves by a defense contractor will be signaled by moves toward peace in Vietnam.
- *Uncertain events.* The manager may want to be able to choose from more than one plan. The events leading up to the decision will determine which plan is, in fact, chosen, but that choice cannot be made when plans are first made. For example, the size of a marketing effort for a new product may depend on test market results; the location of a new plant may depend on impending state legislation; the mix of acquisitions may depend on the changing attitudes of antitrust division; an oceanographic firm's expansion may depend on whether the Department of Defense's post-Vietnam planning emphasizes offensive antisubmarine warfare or defensive antimissile warfare. Thus the planner must focus not only on the decisions to be made, but also on the "triggers" preceding them, which will determine when those decisions are to be made and how they will be made.

Current practice resembles Cook's tour planning—plans are represented by a determinate series of steps. In contrast, Lewis-and-Clark planning occurs when plans are represented by a decision tree showing the trigger events and the decision branches.* The two kinds of plans can be depicted this way:





In Lewis-and-Clark planning, the planner works closely with the manager and develops strategic plans that suggest *when* it would be opportune to take action and *what* action would be called for in given recent events.

Under this approach, the plans are not so constrained that management feels that it must ignore them. The plans recognize the adaptive nature of managing and give the manager the flexibility to decide the *what's* and *when's* of the current situation.

*These kinds of planning are described by James R. Schlesinger in a RAND Corporation article entitled "Organization Structures and Planning" (P-3316, February 25, 1966).

Contingency Planning

Planners have rightly spent great amounts of effort to predict environmental trends. They have stressed quantitative projections; using mathematical techniques they extrapolate economic, market share, cost and other trends. There has been little recognition, however, of the need to predict important events that *may* or *may not* occur and to develop means of reacting to the resulting problems and opportunities. For example, a drug manufacturer may predict the future development of a birth control pill to be taken once a year; a supermarket chain may consider the possibility that a soft goods discount store will decide to market food items; a bank would be alert to possible changes in the interest rate; a large manufacturer may have reason to anticipate a strike or tariff change.

In effect, the planner is looking for possible problems and opportunities *before* they occur. Note that contingencies may be external to the organization—political occurrences, competitors' actions, economic events or internal—technological breakthroughs, strikes, project failures. The decision to plan for a contingency, and the resources committed to such planning, will be a function of the projected impact of the contingency on the organization. The manager will play a vital role in identifying those contingencies that are likely enough to occur and that, if they do occur, will have enough impact to warrant the preparation of contingency plans. He'll also denote the amount of effort that is justified in view of the likelihood and the impact of the contingency.

Once the contingencies that may throw the existing plans and the organization into disarray have been identified and analyzed, the planner prepares contingency plans. The planner assumes that each given contingency will indeed occur and studies its impact on the organization. In doing this, he also attempts to assess the lead time that the organization will have between the occurrence of the contingency and the need to act on it. He is then able to work out an approach to the potential problem or opportunity in light of this lead time. Three kinds of approaches may be used:

- If the contingency will have a devastating effect on the organization, it may be necessary to hedge. For example, if a possible strike might cause great financial losses, early steps may be taken to decrease the possibility of a strike. If the probability of a sudden jump in sales is high enough, it may pay to go ahead on a new plant rather than just plan to do so. In effect, the plans are changed to avoid the contingency.

- Where the nature of the contingency can be easily predicted in advance, the planner would work out a complete solution and relate it to the existing plans. Thus a bank may be able to make specific plans to handle given changes in the interest rates. Or take the dramatic example of war plans. Wherever the President of the United States goes, he has at his side a briefcase of plans outlining the steps to be taken in the event of any serious, imaginable war contingency. If the contingent event actually occurs, the plans are available for immediate implementation.

- Finally, when the circumstances surrounding the contingency cannot be known exactly in advance, and when the lead time allows for it, the planner will develop a *program* to deal with the situation when it arises. For example, a company on a merger spree may not know in advance what opportunities will become available. But the planner may be able to develop a procedure in the form of checklists to aid in the quick analysis of opportunities when they arise. An organization that foresees possible labor strife may take steps to develop a real-time computer program to evaluate the cost of any wage package brought up during the negotiations.

Contingency plans, therefore, may take three forms—immediate action; solutions to handle the contingency; programs to aid in the handling of a contingency when it arises.

We have seen how the planner is able to do the groundwork necessary in helping the manager respond to contingencies. Two vital jobs remain. First, the manager must know what is available within the inventory of contingency plans, so that when the situation presents itself, he can call on the appropriate plan or program. This requires careful briefing by the planner. Second, the planner must keep in touch with events and with the manager, so that contingency plans can be updated and called into action as changes take place.

Contingency planning allows the planner to use his free time to study contingencies. He then uses his analytical programs to work out methods for handling them. Throughout the year, the manager, as nerve center, looks for the occurrence of contingencies. When they occur, however, there is no need for him to act autonomously and intuitively; he is now able to call on the planner for a carefully worked out method of handling the issue—either a specific plan or a program to develop answers.

Real-Time Planning

Obviously, not all problems and opportunities can be foreseen. Also, although some may be foreseen, management may decide the potential situation does not warrant a contingency plan. Nevertheless, the planner need not let his skills go to waste because a situation external to the planning process arises. The manager and planner can work like the much-heralded man/machine system, the manager coupling his current information and intuitive knowledge with the programs of the planner. When an issue suddenly arises, the manager begins by defining the situation to the planner. "I have a chance to get this contract if I act fast. Should I?" "Supplier X is not going to deliver a vital component on time; it may be three weeks late. What will happen?" "The government is on the verge of calling back our ambassador from that African state where our plants are located. What should we do?" The planner is thus able to get information to which only the manager has access. The planner then may conduct one of four kinds of analysis:

- *Conceptualization*: He may clarify and conceptualize the issue, getting more information on the structure of the problem, the important variables and the related events. For example, if it is one concerning economic events, he may use input/output analysis to develop a "feel" for the magnitude of the problem.
- *Search*: The planner may search for alternative solutions to a problem, perhaps using brainstorming techniques, perhaps scanning relevant literature.
- *Evaluation*: He may undertake a detailed, explicit evaluation of the consequences of the opportunity or of the possible solutions to a problem. A new product invention may call for a market research study; a problem relating to tariff changes may lend itself to an operations research approach; a facilities problem may be amenable to cost-benefit or return-on-investment calculations.
- *Integration*: Finally, the planner would study the effect of the issue and its solution on the existing strategic and operating plans. The plans would then be changed to avoid new problems and to take advantage of the necessary changes in an integrated fashion. For example, the planner might use a PERT model to study the effect of a strike in one area on the schedules of all the company's projects.

Finally, the planner comes back to the manager with the analysis, and the manager chooses the next course of action.

In part, the planner has done what the manager might do if he had the time. But he has done it more thoroughly and with far less time pressure. The manager has continued to manage as he must, giving attention to the mail and the callers, while the planner gives attention to the problem. The key to this system is leverage. The manager may spend one hour defining the issue to the planner and one hour listening to the planner's recommendations one week later. During that one week, the planner and his staff of eight may be able to put in two man-months working on the problem. The planner can put in two man-months in one week; the manager may not be able to afford even two man-hours.

Note that real-time planning is not simply a method for having intelligent people look at problems. Most managers already use intelligent assistants to advise them on the issues that arise. In this system, the manager is taking advantage of the planner's programs and skills. In one case market research is used; in another, systems analysis; in a third, input/output analysis. The manager is calling on proven management science to give him insight into problems while they are current and while he goes on managing.

This differs from traditional uses of management science programs, where only the issues devoid of extreme time pressures are given to the analyst. The planner who can succeed in this environment is the one who can do "quick and dirty" analysis; that is, one who can apply his programs with the speed necessary to give answers to the manager in "real time"—while the problem is current. This will involve cutting many corners, and will frustrate the planner who looks for elegance in his solutions. Market researchers may have to avoid tests of statistical significance, operations researchers will have to admit to themselves that many alternatives have been ignored because of lack of time, forecasters will have to use simple mathematics. But unlike the elegant solutions, these will be useful to the manager because they are timely and can be adapted to his problem.

Planner of the Future

In the years ahead we foresee the planner's playing a more active role in the actual affairs of the company. His plans are no longer elegant documents describing corporate utopia. They are concerned with *real* triggers and *real* contingencies and *real* time, and they handle these situations in the context in which the manager will have to handle them. When the anticipated problems and opportunities arise, the plans, in the form of decision trees, relate to them. When contingencies occur, the planner is close at hand, prepared to pull out the plan or program that has been especially developed for this particular eventuality. When there is an occurrence that was unanticipated, the planner does not bury his head in the sand, hoping that it will go away so that the plan remains intact. He leaves his long-range planning function temporarily and works with the manager to handle this issue, with the manager contributing his knowledge of the situation and the planner his time resources and analytical programs.

The recommendations for adaptive, contingency and real-time planning derive from one basic belief: Planning and managing must be closely integrated in all situations. When this is true, strategic planning will be a powerful tool; when not true, the inevitable planning dilemma will result. ■

For information on reprints of this article, see page 55.