











Module 7. BRINGING ENVIRONMENTAL INFORMATION INTO THE ORGANIZATION

Module 7: Outline

A. Environmental Monitoring

-  Environmental information collection process: "environmental scanning" or "environmental monitoring."
-  Reading "environmental signals" and bringing environmental information into the organization in a systematic way.
-  Choosing an environmental monitoring system, balancing
 -  informational needs
 -  analytical capabilities, and
 -  cost.

B. Environmental Assessment: Characterizing Environmental "Signals" along Three Dimensions

-  "strength" of the signal--the probability that the event it portends will in fact occur.
-  "timing" of a signaled event--if it does occur, will it occur next month, next year, or five-ten years from now.
-  potential "impact" of the signaled event on the organization--its significance in terms of the economic "threat" or "opportunity" it presents.
-  The "threat--opportunity continuum"

Module 7: Text

A. Environmental Monitoring

The global business environment today is far more complex in its structure and dynamic in its processes than was the environment faced by the owner-entrepreneurs and managers of firms dealing only in domestic markets. The relevant environment that had to be examined for business strategy formulation and decision making in could be defined on a relatively short time horizon and in almost exclusively economic terms. This condition has been dramatically altered with the opening of domestic markets and globalization by the uncertainties of modern technology, the activism of social movement organizations and other groups, the increased role of government in business decision-making, and the overall level of affluence and accompanying value change in all contemporary societies.

The economic success of the firm in the global marketplace is increasingly dependent on its abilities to first understand how individual national macroeconomic, social and political systems function, and then detect significant environmental changes of a political, social and cultural character in those countries where it has chosen to do business. Many of the signals that precede these changes are very weak at the time of their

occurrence, and developing appropriate organizational strategies and responses before their full potential impact presents itself to the firm is difficult.

One significant dimension of the external environment of the global marketplace is the presence of numerous "environmental actors"--social movement organizations, government agencies, and other interested parties that form a constellation of power relations around the various issues with which a firm must deal as it goes about its business. These power relations must be analyzed extensively before a firm can develop an appropriate organizational response to a particular environmental challenge.

Assessing external information, including power relations, for its potential impact on the firm leads to consideration of, and comparison with, internal information as to the organizational purpose, goals, strategy, structure, resources, capabilities, flexibility, and readiness for action. Appropriate adjustments must then be made in these internal organizational factors to reflect the timing and potential threat or opportunity represented by changes in the organizational environment

Having made the necessary strategic adjustments within the firm, the organizational response must then be carried through to the operating level of the firm, where clear goals must be established and organizational impediments overcome. Finally, the firm must develop a means of ensuring feedback on the impact of its policy and actions on the environment. This brings us full circle, for we are now back at our initial environmental monitoring step. In sum, strategic management in today's business environment is an ongoing, iterative process.

This module explores the first of three stages of this process--(1) the collection of environmental information. The next two stages-- (2) the analysis of that environmental information with special emphasis on the power relations among actors involved in a particular issue, and (3) scenario-building and environmental forecasting, are explored in Modules 8 and 9.

Bringing Environmental Information into the Organization

The typical business manager brings to the job a mental map of the environment of the firm, although in most instances it is unlikely that he or she does so with a very organized map of this kind in mind, with the possible exception of his immediate market, i.e., current customers and current competitors. Rather, it will be a relatively unorganized awareness that there are various elements in the environment with a rough interaction and interdependence among them.

That same manager also systematically brings information from the non-market environment into the organization, albeit also in relatively unsystematic ways. The process of information gathering is likely to be highly informal and unstructured, and generally on a short-term, need-to-know basis.

Formalization of this environmental information collection process is called "environmental scanning" or "environmental monitoring." As a human being, the manager is equipped with a number of sensory mechanisms, the most useful of which for this purpose are an ability to see--one can read reports and periodicals, observe the features of competing products, etc.--and an ability to hear--one can talk to others about what is happening within the organization environment.

Operating in parallel with its managers, the organization itself has sensory or environmental monitoring capabilities, although these tend to collect predominantly economic information about the environment. This information enters the organization by means of aggregated sales and cost data, new employees who carry information with them, inquiries and complaints from customers, etc.

In most organizations, the pressing demands of day-to-day management usually limit a manager's ability to actively and thoroughly monitor the organizational environment even for economic information. However, a natural but still informal environmental monitoring process does take place, producing a useful picture of the environment. But an informal environmental monitoring process typically has numerous shortcomings. First, the picture is formed from the most immediate "signals" in the environment, signals which are already infringing on the organization--knocking on the corporate door, so to speak. Second, these signals tend to come predominantly from the economic sector, and often already are having an economic impact on the firm. Finally, what information is brought in can be quite superficial, providing a silhouette of what is happening in the environment, but insufficient detail for strategic planning purposes.

In sum, the manager often does not see the full picture of the environment as it could affect the firm over the long run. It is for this reason that a more systematic monitoring of the environment is undertaken, especially with regard to non-economic factors, for it is these which might most easily slip by a manager who is surveying the environment on an informal basis.

Systematic Information Gathering

The process of environmental monitoring as practiced by the typical business executive can be greatly improved upon by employing a systematic process of "reading" environmental signals and bringing environmental information into the organization in a systematic way.

All information gathering systems for bringing environmental information into the organization involve time and costs. Some are very economical—subscriptions to a few business publications with global scope such as the Wall Street Journal, Financial Times and Fortune Magazine and a typical trade journal together cost less than \$1,000/year. Others are quite expensive—an on-line computer system scanning the web for relevant information and the staff to process it can cost in the millions of dollars a year to keep current. It is noteworthy that each of these systems brings the information into the organization and in a short period of time organizes it in a systematic way.

In choosing an environmental monitoring system, two factors need to be balanced: (1) informational needs and analytical capabilities and (2) cost. It is important to know how much information one needs for strategy formulation and decision-making. In this regard, too much information is as hazardous as too little. Too much information will either (a) be so ponderous and difficult to sort out and analyze that it is never used, or (b) overload your information-processing system--which could well be your own mind--that no useful outcome results.

Cost considerations must also enter into any decision about an information-gathering system. Basic information for strategy formulation and decision making is ordinarily available from internally generated reports and relatively economical external sources, such

as business publications, trade periodicals, and relevant websites. As one broadens one's information collection, the costs go up incrementally. At some point, incremental amounts of information are not going to be worth the cost of their acquisition. Moreover, one may encounter the aforementioned constraints of your information processing capability well before you encounter this marginal point.

Before leaving the subject of information-gathering systems, it is worth noting that many services exist that collect and organize information which can be of considerable use to you. There are many freely-accessible websites with useful, aggregated information. And there are proprietary websites and professional services to which a company can subscribe that actively monitor certain features of the environment, such as public policy developments and other activities in government agencies. In sum, there are a variety of information-gathering systems available to business manager, and he or she must take care to gather information which is most useful, can be analyzed in a timely manner, and does not overtax the analysis or processing system.

B. Characterizing Environmental Signals along Three Dimensions

Signals from the environment can be characterized along three dimensions:

-the "**strength**" or "**magnitude**" of the signal--the probability that the event it portends will in fact occur. Along this dimension, signals can be characterized as weak or strong, depending on their clarity and immediacy.

-the "**timing**" of a signaled event--if it does occur, will it occur next month, next year, or five-ten years from now.

-the **potential "impact"** of the signaled event on the organization--its significance for the firm in terms of the economic "threat" or "opportunity" it presents.

The process of reading environmental signals for their strength, potential impact on the firm, and timing is implicit in an environmental monitoring system of a business organization or manager. Signals which are adjudged to be strongest, i.e., have the highest probability of leading to a significant event for the firm; have the highest potential impact on the firm; and are most likely to occur in the immediate future, are those to which the firm is compelled to devote its greatest attention and resources. Those signals which are weakest, have the lowest potential impact on the firm, and suggest occurrence in the distant future, are least likely to earn the firm's attention and resources.

Between these two extremes is a mix of signals with various characteristics along these three dimensions. For example, signals which are judged weak, but potentially significant for the firm, even if that impact might occur at a distant time in the future, are taken into the organization, where they can be stored in a far corner of an information storage system, or subjected to further analysis of the kind described subsequently in this chapter. As the firm's environmental monitoring system determines that the signals are growing stronger, the signal draws more attention from the firm, and further analysis become necessary. Eventually it becomes necessary to make necessary adjustments within the organization to prepare for the possibility that the signals could manifest themselves in significant consequences for the firm.

In characterizing environmental signals as to their potential impact on the firm, we can use a "threat--opportunity continuum," with those signals determined to have no

potential impact falling in the middle.¹ "Threats" are just that--signals which suggest possible actions and events in the organizational environment which could have a negative impact on the firm--potential new competitors or products, a social movement targeted on an aspect of firm operations, or legislation which could significantly increase the costs of doing business. "Opportunities" would be opportunities for new product introduction which could profit the firm, such as a demand for pollution control equipment in Malaysia with the passage of water quality legislation. Some signals can represent either threats or opportunities, e.g., legislation which could render obsolete an existing product line but point the way to a new substitute product for which your firm has a unique technology.

Entry-level Employee Perspective

As an entry-level employee familiar with social media, you could be asked by your supervisor or a senior manager in your company to explain how one would set up an environmental monitoring system to track developments in a key area of your business operations, e.g., technological developments, governmental actions in a key country, customer buying trends, or competitors in a key product market. Could you do this? Would you be comfortable if your superior asked you to actually assess the strength of environmental signals your system detected in terms of their strength, timing, and potential impact on the firm?

¹H. Igor Ansoff, "Managing Strategic Surprise by Response to Weak Signals," California Management Review, 18, Winter 1975, 25.