PART ONE

A FRAMEWORK FOR IMPROVING PERFORMANCE

CHAPTER ONE

VIEWING ORGANIZATIONS AS SYSTEMS

Adapt or die.

—UNKNOWN

The Traditional (Vertical) View of an Organization

Many managers don't understand their businesses. Given the recent "back to basics" and "stick to the knitting" trend, they may understand their products and services. They may even understand their customers and their competition. However, they often don't understand at a sufficient level of detail how their businesses get products developed, made, sold, and distributed. We believe that the primary reason for this lack of understanding is that most managers (and nonmanagers) have a fundamentally flawed view of their organizations.

When we ask a manager to draw a picture of his or her business (be it an entire company, a business unit, or a department), we typically get something that looks like the traditional organization chart shown in Figure 1.1. While it may have more tiers of boxes and different labels, the picture inevitably shows the vertical reporting relationships of a series of functions.

As a picture of a business, what's missing from Figure 1.1? First of all, it doesn't show the customers. Second, we can't see the products and services we provide to the customers. Third, we get no sense of the work flow through which we develop, produce, and deliver the product or service. Thus, Figure 1.1 doesn't show what we do, whom we do it for, or how we do it. Other than that, it's a great picture of a business. But, you may say, an organization chart isn't supposed to show those things. Fine. Where's the picture of the business that does show those things?

FIGURE 1.1. TRADITIONAL (VERTICAL) VIEW OF AN ORGANIZATION

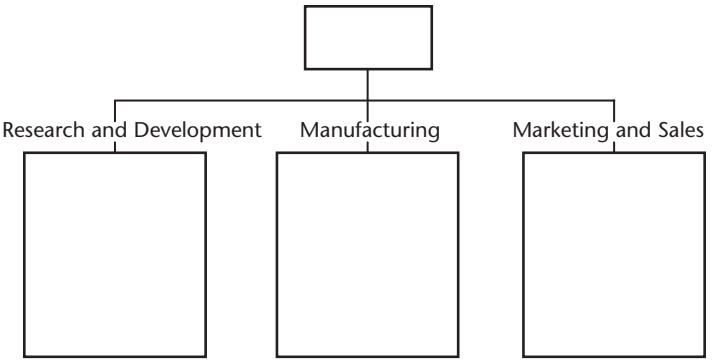
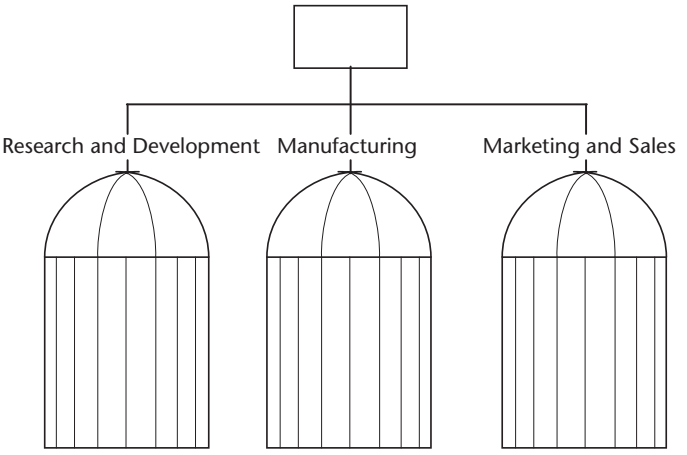


FIGURE 1.2. THE "SILO" PHENOMENON



In small or new organizations, this vertical view is not a major problem because everybody in the organization knows each other and needs to understand other functions. However, as time passes and the organization becomes more complex as the environment changes and technology becomes more complicated, this view of the organization becomes a liability.

The danger lies in the fact that when managers see their organizations vertically and functionally (as in Figure 1.1), they tend to manage them vertically and functionally. More often than not, a manager of several units manages those units on a one-to-one basis. Goals are established for each function independently. Meetings between functions are limited to activity reports.

In this environment, subordinate managers tend to perceive other functions as enemies, rather than as partners in the battle against the competition. "Silos"—tall, thick, windowless structures, like those in Figure 1.2—are built around departments. These silos usually prevent

interdepartmental issues from being resolved between peers at low and middle levels. A cross-functional issue around scheduling or accuracy, for example, is escalated to the top of a silo. The manager at that level addresses it with the manager at the top of the other silo. Both managers then communicate the resolution down to the level at which the work gets done.

The silo culture forces managers to resolve lower-level issues, taking their time away from higher-priority customer and competitor concerns. Individual contributors, who could be resolving these issues, take less responsibility for results and perceive themselves as mere implementers and information providers. This scenario is not even the worst case. Often, function heads are so at odds that cross-functional issues don't get addressed at all. In this environment, one often hears of things falling between the cracks or disappearing "into a black hole."

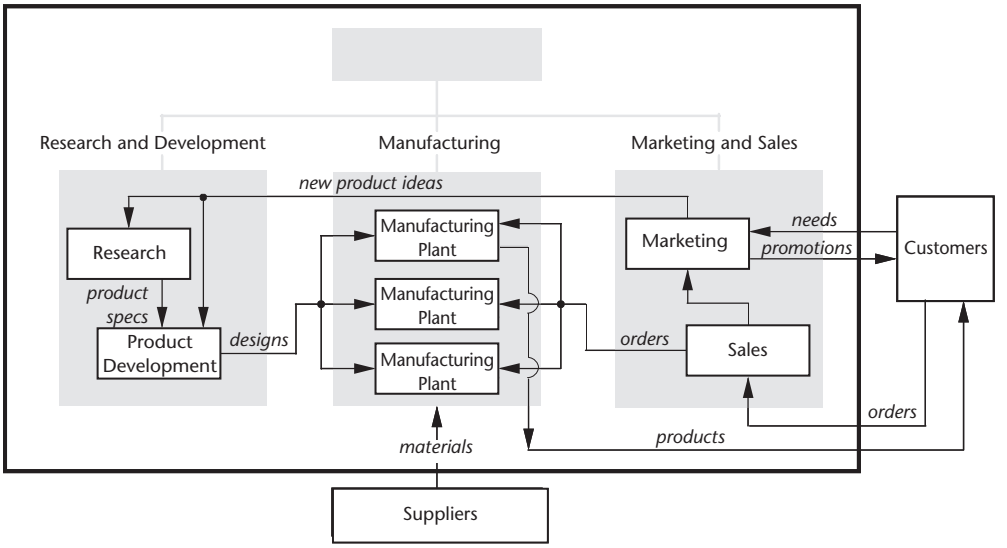
As each function strives to meet its goals, it optimizes (gets better and better at "making its numbers"). However, this functional optimization often contributes to the suboptimization of the organization as a whole. For example, marketing and sales can achieve its goals and become a corporate hero by selling lots of products. If those products can't be designed or delivered on schedule or at a profit, that's research and development's, manufacturing's, or distribution's problem; sales did its job. Research and development can look good by designing technically sophisticated products. If they can't be sold, that's sales' problem. If they can't be made at a profit, that's manufacturing's problem. Finally, manufacturing can be a star if it meets its yield and scrap goals. If the proliferation of finished goods sends inventory costs through the roof, that's the concern of distribution, or marketing, or perhaps finance. In each of these situations, a department excels against traditional measures and, in so doing, hurts the organization as a whole.

In the good old days of a seller's market, it didn't matter. A company could introduce products at its own pace, meet only its own internal quality goals, and set prices that guaranteed adequate margins. There were no serious consequences to the evolution of functional silos like those illustrated in the examples. Those days are over. Today's reality requires most organizations to compete in a buyer's market. We need a different way to look at, think about, and manage organizations.

The Systems (Horizontal) View of an Organization

A different perspective is represented by the horizontal, or systems, view of an organization, illustrated in Figure 1.3. This high-level picture of a business:

FIGURE 1.3. SYSTEMS (HORIZONTAL) VIEW OF AN ORGANIZATION



- Includes the three ingredients missing from the organization chart depicted in Figure 1.1: the customer, the product, and the flow of work
- Enables us to see how work actually gets done, which is through processes that cut across functional boundaries
- Shows the internal customer-supplier relationships through which products and services are produced

In our experience, the greatest opportunities for performance improvement often lie in the functional interfaces—those points at which the baton (for example, "production specs") is being passed from one department to another. Examples of key interfaces include the passing of new product ideas from marketing to research and development, the handoff of a new product from research and development to manufacturing, and the transfer of customer billing information from sales to finance. Critical interfaces (which occur in the "white space" on an organization chart) are visible in the horizontal view of an organization.

An organization chart has two purposes:

- It shows which people have been grouped together for operating efficiency and for human resource development.
- It shows reporting relationships.

For these purposes, the organization chart is a valuable administrative convenience. However, it should not be confused with the "what," "why," and "how" of the business; all too often, it's the organization chart, not the business, that's being managed. Managers' failure to recognize the

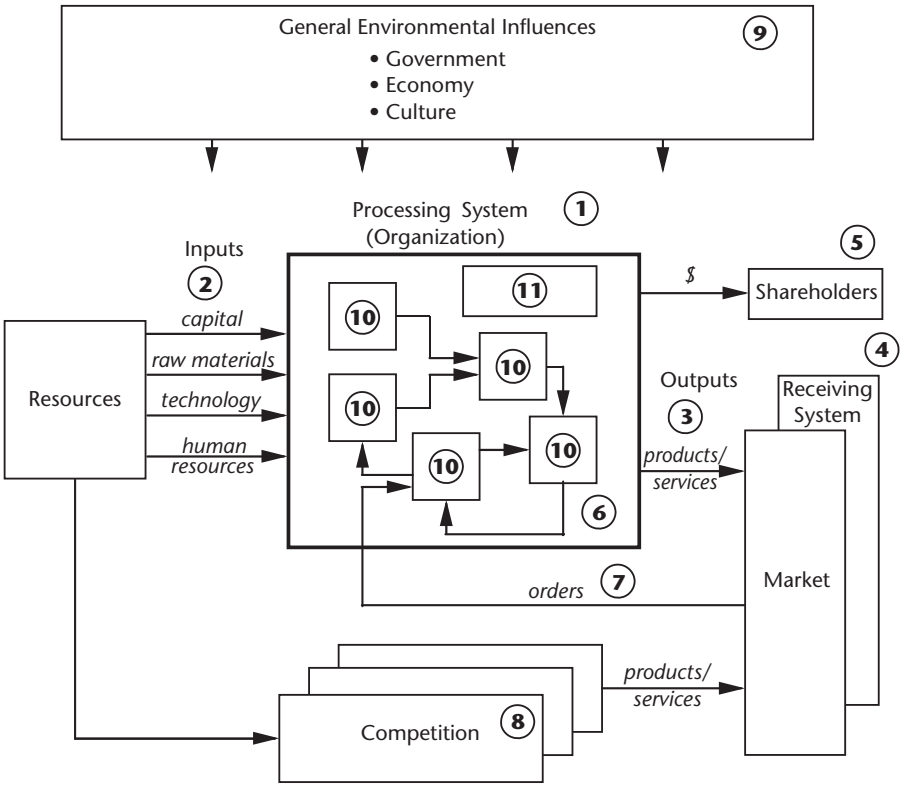
horizontal organization explains their most common answer to the question "What do you do?" They say (to refer to Figure 1.1), "I manage A, B, and C." Assuming that A, B, and C already have competent managers, we have to ask if the senior manager sees his or her job as remanaging those functions. If so, is that a role that justifies his or her salary? We don't believe so. A primary contribution of a manager (at the second level or above) is to manage interfaces. The boxes already have managers; the senior manager adds value by managing the white space between the boxes.

In our experience, the systems view of an organization is the starting point—the foundation—for designing and managing organizations that respond effectively to the new reality of cutthroat competition and changing customer expectations.

The Organization as an Adaptive System

Our framework is based on the premise that organizations behave as adaptive systems. As Figure 1.4—often called a "super-system map"—shows,

FIGURE 1.4. AN ORGANIZATION AS AN ADAPTIVE SYSTEM

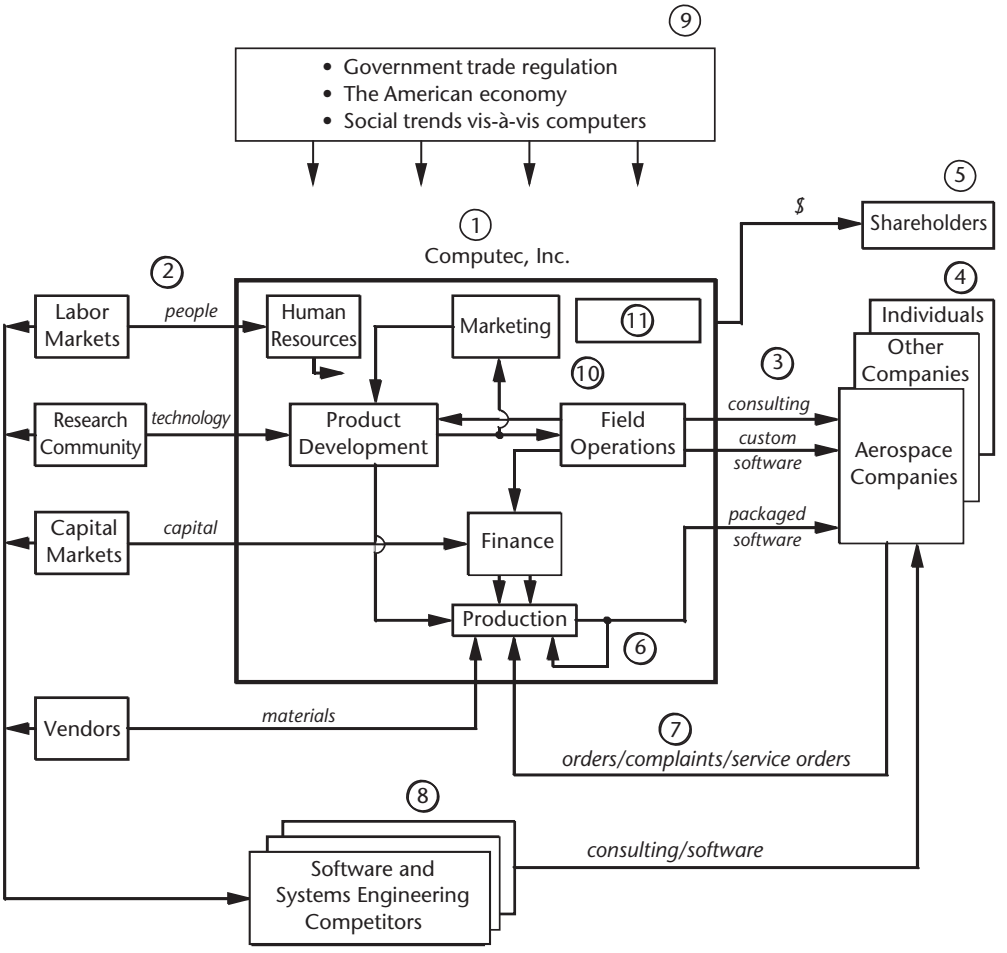


an organization is a processing system (1) that converts various resource inputs (2) into product and service outputs (3), which it provides to receiving systems, or markets (4). It also provides financial value, in the form of equity and dividends, to its shareholders (5). The organization is guided by its own internal criteria and feedback (6) but is ultimately driven by the feedback from its market (7). The competition (8) is also drawing on those resources and providing its products and services to the market. This entire business scenario is played out in the social, economic, and political environment (9). Looking inside the organization, we see functions, or subsystems, that exist to convert the various inputs into products or services (10). These internal functions, or departments, have the same systems characteristics as the total organization. Finally, the organization has a control mechanism—management (11)—that interprets and reacts to the internal and external feedback, so that the organization keeps in balance with the external environment.

To illustrate the systems framework, let us examine a fictitious firm: Computec, Inc. As shown in Figure 1.5, Computec (1) is a software development and systems engineering firm. It takes in capital, staff, technology, and materials (2) and produces products and services (3), which include systems consulting services, custom software, and software packages. It sells its products and services to a primary market—aerospace companies—as well as to other industrial and individual markets (4). It also provides financial value to its shareholders (5). Computec has various internal mechanisms for checking the accuracy and efficiency of its coding, reports, and packages (6). Its customers give it feedback (7) through additional business, complaints, references, and requests for service. Its competitors (8) are other software and systems engineering companies that serve Computec's markets. It conducts its business in the context of the American economic, social, and political environment (9). Inside Computec, such functions (10) as marketing, product development, and field operations serve as internal suppliers and customers, which convert the company inputs into the company outputs. The management team (11) establishes the strategy, monitors the internal and external feedback, establishes goals, tracks performance, and allocates resources.

We contend that this systems perspective describes every organization. Even the systems of monopolies and government entities contain everything, including a modified form of the "competition" (8) component. The markets may change, products and services come and go, but the components of the system remain the same. In fact, the only thing we can say with certainty about the future of an organization (assuming it is still in business) is that the organization will operate in a system that includes the components of the model shown in Figure 1.4. The potential evolution of a business is dramatically illustrated by Primerica, a diversified financial

FIGURE 1.5. THE SUPER-SYSTEM OF COMPUTEC, INC.



services company, which evolved from American Can, a typical "smokestack America" manufacturer.

The Reality of Adaptation

Primerica's transformation illustrates a fundamental element of systems theory applied to organizations—adaptation. A processing system (organization) will either adapt to its environment, especially its receiving system (market), or cease to exist. An organization seeks equilibrium with its external environment.

Not long ago, adaptation was not a burning issue. Organizations adapted to significant changes in key inputs, such as the price of fuel and the cost of capital. With each major disruption, organizations needed to

make significant adjustments. However, equilibrium was reestablished in months, or perhaps in a year. Historically, the timing of disruptive events has allowed organizations to adapt before the next change.

Today, the change is more fundamental, more frequent, and less patient. In addition to sporadic fluctuations in critical inputs, such as capital and natural resources, we have an ineradicable change in the receiving system—the marketplace—that seriously threatens both revenue and profit. The primary dimension of that change is the emergence of new forms of competition from foreign and deregulated domestic sources. The market has become destabilized, upsetting the oligopolies and perennial sellers' market. Customers are demanding—and getting—different products and services, better quality, and lower prices, and the changes just keep on coming.

Systems laws and the free market enable and require organizations to adapt to these changing demands. If an organization survives, it has adapted. However, its health is a function of how well it has adapted. In our opinion, the key variable in an organization's ability to effectively and speedily adapt is its management.

What does a manager get out of the systems perspective? To the manager who doesn't take the systems view, the onslaught of change appears chaotic, unpredictable, and out of control. He or she sees a current crisis as a situation-specific event, rather than as part of a never-ending need to adapt. Adaptation is a process, not an event. The systems framework in Figure 1.4 identifies the major generic forces of change and points up the need for continuous adaptation to these constantly changing forces. An effective manager can use the systems framework in Figure 1.4 to predict and proactively cope with change.

Through what-if scenarios around each of the components of the system, the rate and direction of change can be anticipated and built into the organization strategy. Say that we are the top management team in Computec. What will we do if a change in government (component 9) results in lower entry barriers to potential foreign competitors? What if our two major competitors (component 8) merge? What personal computer products might the market (component 4) perceive to be substitutes for our minicomputer software? What computer hardware breakthroughs (component 2) could have a significant effect on our systems integration consulting services?

The rest of this book is dedicated to providing you with tools for analyzing the environments outside and inside your organization. Each of the tools is based on the systems view described here, and on the following fundamental laws of organizational systems:

1. Understanding performance requires documenting the inputs, processes, outputs, and customers that constitute a business. It is interest-

ing to describe an organization as a culture, a set of power dynamics, or a personality. However, it is essential at some point to describe what it does and how it does it. (Chapters Three and Four provide tools for such a description.)

2. Organization systems adapt or die. The success of the survivors depends on the effectiveness and speed with which they adapt to changes in the external environment (customers' needs, competitors' actions, economic fluctuations) and in their internal operations (rising costs, inefficiencies, product development opportunities).

3. When one component of an organization system optimizes, the organization often suboptimizes. (Examples of this law have already been cited.)

4. Pulling any lever in the system will have an effect on other parts of the system. You can't just reorganize, or just train, or just automate, as if you were merely adding some spice to the stew. Each of these actions changes the recipe. (See the discussion of the Three Levels of Performance, Chapter Two.)

5. An organization behaves as a system, regardless of whether it is being managed as a system. If an organization is not being managed as a system, it is not being effectively managed. (Managing organizations as systems is the subject of Chapter Thirteen.)

6. If you pit a good performer against a bad system, the system will win almost every time. We spend too much of our time "fixing" people who are not broken, and not enough time fixing organization systems that are broken. (Chapter Five is devoted to managing the Human Performance Systems in which people work.)

We are performance improvement practitioners. We find the "organizations as systems" model useful because it enables us and our clients to understand the variables that influence performance and to adjust the variables so that performance is improved on a sustained basis. Chapter Two explores the variables—the management levers—that influence each of the Three Levels of Performance.