Key to IS Success: Alignment with Corporate Goals

STANLEY B. ZAWROTNY
Coca-Cola Enterprises - North

The successful information systems managers will be those who align their information systems objectives with the overall objectives of the companies they serve. Top management has little interest in state-of-the-art information technology unless the information provided can be directly linked to an impact on business performance. Without that link information technology is irrelevant. With it information technology becomes a powerful tool with which management can improve the performance of the current organization or improve the outlook for new business opportunities.

Strategic vs. Tactical Plans

The information systems (IS) department has moved up from the basement and into the executive offices, or at least its management has. This elevation of visibility which began in the 1970s has become well established in the late 1980s. Everywhere IS managers, who until recently wrote nothing less technical than systems design documents, are drafting mission statements and strategic plans. IS managers who once struggled with finding bugs in COBOL programs are now struggling with organizational goals, objectives, and mission statements.

Edward A. van Schaik (1985) defines the three primary missions of IS as:

1.Provision of service to the end user, including the collecting, storing, processing, and distributing of data;

2.Development of new services and applications for other departments in the enterprise;

3.Consultation with other departments on the need for and use of information.

Similarly, Milt Bryce (1987) writes that the

Manuscript originally submitted January 10, 1989; Accepted July 7, 1989 for publication.

primary mission of an information systems department should be to create systems that provide meaningful and timely information to users who can then utilize this intelligence to carry out their company's purposes, objectives, and responsibilities in a cost-effective manner.

A key word in Bryce's mission statement is "company's". To meet their objectives, most of today's typical IS strategic plans are focused on providing information to the decision makers in the organization according to their special responsibilities — finance, accounting, engineering, marketing, or sales. Several independent systems are then designed, each to be used exclusively by one part of the total organization.

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Gary McWilliams (1988) reports that currently most of the nation's Blue Cross/Blue Shield (BC/BS) insurance carriers are experiencing the consequences of such fragmented IS support. In recent years, as health care costs skyrocketed, employers began demanding more detailed and more frequent information on their employees' claims. Systems designed to quickly capture and process claims for health care providers were found to be ill-suited to respond to the employers' requests for information. Commercial insurers, whose information systems typically support broad product lines across the entire company, have been successfully luring away corporate accounts with their ability to rapidly deliver information on claims.

For example, Massachusetts Blue Cross/Blue Shield currently operates between 12 and 15 separate claims systems for hospitals, dentists, physicians, and others. In July 1988, they lost a nearly $1 billion health insurance management contract with the state of Massachusetts to John Hancock Mutual Life Insurance Company. Loss of that contract, which ended the BC/BS's 12-year relationship with the state, was tied to the commercial insurer's ability to deliver information on employee claims more quickly.

In contrast, where other Blue Cross/Blue Shields have lost business by failing to act, the National Capital Area BC/BS revamped their computer operations to better compete with commercial insurers. In 1983 they decided that they could no longer operate their myriad claims systems and provide adequate service to their customers. Now, after completing a $25 to $30 million systems replacement program, they are beginning to demonstrate that they can deliver the same consistency of service as a national insurer. The payoff is coming in as they are now capturing several large contracts from their commercial competition.

The "Blues" are just one example of how existing information systems may be unable to accommodate new management requirements for information grouped many ways — by market, product, customer, or distribution channel — all at once, immediately. Today's computerized information systems may serve a useful purpose at the operating level of the organization, but their contribution toward serving the global needs of middle and top management is usually minimal (Walter, 1988). Being cumbersome, unresponsive, limited, and difficult to adapt, these systems are often a patchwork of poorly related processes that are completely out of sync (Howard and Duvall, 1988).

In reality, many information systems "strategic plans" are actually tactical plans and are written from the perspective of a service organization, not that of a full-fledged member of the business team. Often the IS professionals have little or no understanding of the business that they are supporting. They typically measure success in units such as transactions per second or lines of code, not dollars and cents on the company's bottom line.

Peter Drucker wrote in 1967: "An organization is not, like an animal, an end in itself, and

successful by the mere act of perpetuating the species. An organization is an organ of society and fulfills itself by the contribution it makes to the outside environment." This is as true for an information systems department as it is for any other organization in the company. Information systems professionals need to concern themselves more with the strategic uses of information and less with justifying specific personal computer purchases (Stone, 1988).

In many companies, management now looks not only to shape information systems to fit corporate business strategy but to make information systems an integral part of that strategy (Howard and Duvall, 1988). Companies such as Citicorp, Sears, and General Motors have become known for their leadership in information technology as well as for their success in their primary lines of business. Companies are finding they cannot always wait for a certain way of doing business to become standard before they start making changes themselves (Kotar, 1988).

Everyone's Goal: Beat the Competition

Strategic planning is not done just by one component of the company. Strategic planning means involving all the resources of the business, whether personnel, materials, or information, as candidates for making the business more competitive. According to Tim Mead (1988) in an editorial in Datamation magazine, what's needed is "a strong dose of consensus management." IS managers and their functional counterparts need to collaborate on competitiveness. What they should do is focus on the personnel strategies, organizational structures, and the technological tools they will need in the 1990's to compete against European and Far Eastern companies.

The firm that wants to use information systems for competitive advantage can choose from among four strategies (Packer and Brodman, 1988):

- Proprietary advantage
- One Step Ahead
- Discontinuity
- Implementation.

Proprietary Advantage

In a proprietary advantage strategy, the firm develops a distinctive technology, one that sets it apart from the rest of the industry. Then it protects that technology with barriers such as patents, extraordinary investments, long lead time, or a rare skill base. This way the company can keep the technology away from its competitors long enough to profit and gain market share (Packer and Brodman, 1988).

In many businesses, opportunities may exist to use information technology to create structural competitive advantages. Structural changes can be achieved through switching costs, sharing information with an existing business, introducing and controlling a new distribution channel, or gaining power over suppliers (Miron, Cecil, Bradicich, and Hall, 1988).

American Airlines' SABRE reservation system is perhaps one of the best known examples of this kind of structural advantage. American Airlines gained a proprietary advantage when in the early 1960s the company invested the capital equivalent of 20 percent of its Boeing 707 fleet, or $40 million, in the SABRE system to better manage their fleet. American continued to invest more than $300 million in the late 1970s and early 1980s to modify SABRE to maintain that competitive edge (Stone, 1988).

One Step Ahead

In a one-step-ahead strategy, the firm must continually release new and improved technology. Information technology can be used to provide new, tailored features to strengthen product differentiation (Miron, et al, 1988). This ongoing innovation keeps the company just

ahead of the competition, despite rivals' abilities to duplicate any particular feature of the technology.

Pittsburgh National Bank is a good example: This bank was the first in its market to approve automobile loans within 24 hours. Enhancements to their information management system enabled them to raise the stakes to a two-hour turnaround time, and they are now are pushing for 10-minute approval. Ongoing innovations such as these have brought a significant market share for Pittsburgh National and kept it ahead of its competition (Packer and Brodman, 1988)

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Discontinuity

With a discontinuity strategy, a firm applies technology to produce a quick, decisive shift in the fundamental competitive structure of the market it serves. Often the information systems department can be the source of that new technology, especially in today's environment where the IS resources include telecommunications as well as computing.

One outstanding case is Citibank. The bank's widespread installation of automated teller machines (ATMs) in New York City reportedly almost tripled its market share. When the other area banks installed their own ATMs, they found it difficult to recapture the customers they had lost — Citibank had created a discontinuity in the market (Packer and Brodman, 1988).

In another example, IS at Federal Express is employing a new form of inventory management to produce an advantage in the highly competitive over-night delivery industry. Using their Cosmos package tracking system, Federal Express's hubs have become warehouses, storing parts until a corporation's end user calls for them. The request is routed through the FedEx distribution management system. FedEx pulls the parts and delivers them overnight. This pulls FedEx's customer out of the warehouse and distribution game. It also puts FedEx much deeper into the customer, taking over the customer's operations, not just speeding its deliveries. FedEx management believes that the use of the concepts of just-in-time (JIT) inventory and time-based competition coincides directly with the direction of the company (Von Simson, 1988). The IS department has not only aligned themselves with the corporate goals, they have enabled the company to spread its wings and move into distribution management.

Implementation

These first three strategies for aligning the IS department with corporate goals are powerful, but how many companies can imitate that kind of success? The problem seldom lies in a lack of opportunity for using information systems. As one manager comments, "It's not that we can't get good ideas for using systems strategically. Where we hit a brick wall is in actually making it happen faster or better than our competition" (Packer and Brodman, 1988).

The implementation strategy is one that is rarely discussed because many companies do not even recognize it as an option. The core of this fourth strategy is to apply commonly available technology uncommonly well. This strategy offers a double payoff: It can deliver a competitive advantage in itself, and it improves the performance of other information systems strategies (Packer and Brodman, 1988).

The success of an implementation strategy depends on a clear vision of how it will contribute to the firm. To do so, the manager must ask three questions (Packer and Brodman, 1988):

• How will information systems contribute to the firm's ability to compete?

• How will those systems contribute to the firm's ability to manage itself?

• How will the firm manage the technology?

The goal is to determine the impact of implementing the business plan and to evaluate whether enhancements, changes, or complete revisions are required to support it. The business plan should be reviewed for new initiatives that might impact information management.

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The objectives of the business plan should be studied to determine whether any existing or emerging technology could be used to help attain the objectives better, sooner, or more economically.

While information technology is often essential to maintain competitiveness, it may not be capable of achieving competitive advantage where none existed before, and its most common application — as a tool for automating a process — is least likely to yield that advantage. Developing a competitive edge is more likely when information technology is combined with existing non-technology-based strengths. Scale, unique institutional skills, and customer loyalty are strengths that most often can be exploited (Miron, et al, 1988).

The ability of management to make informed decisions is important to all companies. Assessing a project's contribution to the core activities of the business requires management to identify the company's critical success factors. A truck leasing company whose critical success factor is on-time delivery will use a system that reports daily performance on this factor in order to control its business. Furthermore, the company may obtain a new competitive advantage from a system that improves the route and service station information provided to its customers. Management must ask, "What is the project's impact on profit?" According to many managers, the answer should determine whether or not the technology is pursued (Govert, 1988). Using standard cost-benefit analysis, this truck routing system neither reduces costs nor creates revenues. Yet it does have a significant impact on the trucking firm's customers and therefore adds value to the company's competitive position (Parker and Benson, 1987).

Alignment Risks

Most IS investments today involve standalone applications that reduce costs or improve service. Applications of information technology that improve the performance of the current organization usually focus on off-the-shelf software. While these applications are often critical to remaining competitive, they generally do not provide an edge because most of these technologies are available from vendors to all comers. Such applications rely on the ability of the management and technical team to apply proven information technology practices; that is, they rely on the implementation strategy to gain competitive advantage and have limited technical risk (Miron, et al, 1988). Moreover, being able to do nothing more than cope with change and the information explosion means being forever in a reactive mode and carries with it the risk of not being competitive.

Impact-oriented applications of information technology — aimed at gaining a competitive advantage by improving the outlook for new business opportunities and strategies — focus on prototypes and custom software. They involve a greater risk, both technically and organizationally, because success requires inno-

vation and invention (Parker and Benson, 1987). Many companies fail to exploit opportunities to leverage strengths with information technology because most of the ways to enhance the strength of information as a corporate resource require them to integrate various aspects of their business. The IS manager is typically concerned with managing the information provided to individual departments. In most organizations no one is performing information resources management (IRM) at the corporate level. Integration opportunities are often unrecognized or under exploited because of organizational barriers and systems limitations (Miron, et al, 1988).

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IS strategic planning must also evaluate the degree of business risk associated with not undertaking a project. Although similar to the concepts of opportunity cost and competitive advantage, this dimension also includes the risk of losing market share that, once lost, may be difficult or even impossible to recover. For example, the installation of ATMs by Citibank forced competing banks to offer the same service. Competitive response looks at the timely implementation of an information systems project as a possible preemptive move to prevent the competition from gaining a foothold (Parker and Benson, 1987).

The IS manager's success rests on making others prosper and look good. Ron Ponder, Senior Vice President for Information Systems at Federal Express, keeps several models of Federal jets in his office, as a constant reminder that his real business is not data processing (Von Simson, 1988). Ponder understands that his failure to support corporate goals could eventually result in the company's loss of market share or profitability — a risk that he won't accept.

Summary

Information has become the foundation of competition. Corporate executives show little interest in state-of-the-art information technologies unless the information provided can be directly linked to an impact on business performance. Without that link, information technology is irrelevant. With it, information technology becomes a powerful tool with which management can improve the performance of the current organization or improve the outlook for new business opportunities.

Ultimately, the strategic use of information technology and information resources is a business decision, not merely a technological choice. The successful IS managers will be those who understand that and, while constantly seeking new business opportunities, align their information systems objectives with the overall objectives of the company they serve.

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Stanley Zawrotny is the manager of support services at Coca-Cola Enterprises - North. He has over 20 years experience in information systems management in both the federal government and private sectors. His areas of expertise include user requirements, training, management, and software engineering.