

Outlook

The journal of ideas that create the future

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Special Edition: The eSeries II

The information edge

How to get the full value of
information in the new economy

Outlook

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The Long View

IT + people = better business results



Joe W. Forehand
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The advent of eCommerce has placed a premium on the power of information. Consumers today enjoy near-perfect information when making purchase decisions. Thanks to the Internet, they know what they want, and they know where they're going to get the best value for their money. Suppliers, meanwhile, use information to better serve existing customers and identify new ones. They look to information technology to establish partnerships and to help them create new eEconomy businesses.

More than ever, organizations are placing big bets that information will supply the edge they need to improve operations and to outperform competitors. Just look at IT investment as a percentage of total business investment. In 1990 IT represented around 20 percent of total business investment. Today the figure is over 40 percent.

The ready availability of information is bolstered by the powerful dynamic of decreasing technology costs and increasing technology adoption. Falling prices make new technologies more affordable to a greater population, and lower costs help justify technology investments for low-value activities. This is what we call technology's "virtuous circle," and it will continue to make technology more pervasive in business and consumer applications.

Clearly, this seemingly endless supply of information—and the demand for it—will continue to grow. But just having information is no guarantee of

success. The winners in the eEconomy will be those who understand how to exploit its full value.

Certainly, business leaders must make IT a top priority and carefully manage their investments. However, it is *people* who bring information to life. Companies must empower their people with the skills to identify the right information, sort it and process it. They must also instill a culture that encourages people to share information and apply it to efforts that create business value.

It is easy to see why the effective use of information is a coveted asset in the new economy. Companies with superior information capabilities operate more efficiently, deepen customer relationships, identify opportunities for growth and respond more quickly to change. Companies lacking these capabilities struggle to compete in a very aggressive marketplace.

I hope you find this *Outlook* Special Edition useful as you reflect upon your own business situation. Think about how IT can create your business strategy. Think about how your organization can get full value from enabling new technologies. Finally, think about how you can engage your people to convert investments in the IT world into your desired results.

A handwritten signature in black ink, appearing to read "Joe Forehand". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

From the Editor's Desk

Information anxieties

In business, information has always been a little like the weather: Everyone talks about it, but no one seems to know exactly what to do about it—even though managers are often knee-deep in the stuff.

Indeed, one of the ironies of the information age may have been that the more managers became persuaded that information was critical to running a successful business, the less confident they were that they were using it effectively. And in their frustration, they frequently turned to the latest hardware and software to assuage their information anxieties.

The Internet and eCommerce have only aggravated this dilemma—the one by dramatically increasing the amount and availability of information, the other by heightening the inherent value of information itself.

In September 1997 Accenture, in partnership with the International Institute for Management Development in Lausanne, Switzerland, undertook an ambitious research project to address this dilemma, in particular to determine if effective information use leads to better business performance.

Two years, 22 countries and 98 companies later, they had their conclusion: Companies that excel at using information are, in fact, better positioned to succeed. But the research also demonstrated that to adapt and thrive in the new economy, companies

must focus less narrowly on processing information and much more on managing the way their people use it. This second in our Special Edition eSeries is based on their work (which is also the basis for an article that will appear in the Summer 2000 issue of the *Sloan Management Review*).

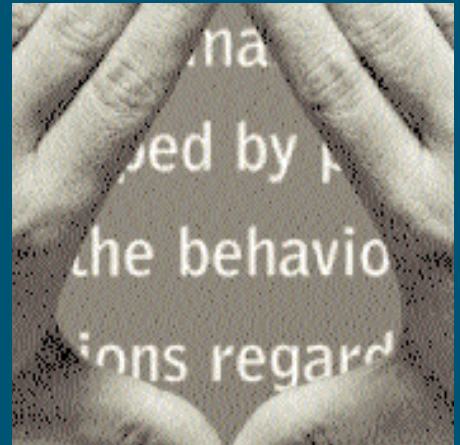
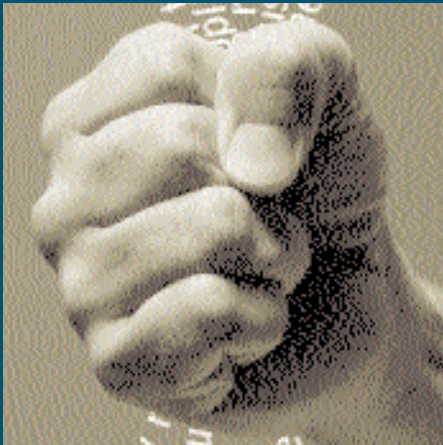
Technology, in other words, is only part of the answer to effective information use. In addition, companies need to foster a culture that is ever alert to valuable information, and that will gather, maintain, share and use that information as an integral part of their everyday operations.

Based on these findings, the researchers have developed a new and comprehensive measure of effective information use that also has a predictive link to business performance.

News you can use? Absolutely.

David Cudaback
Editor-in-Chief

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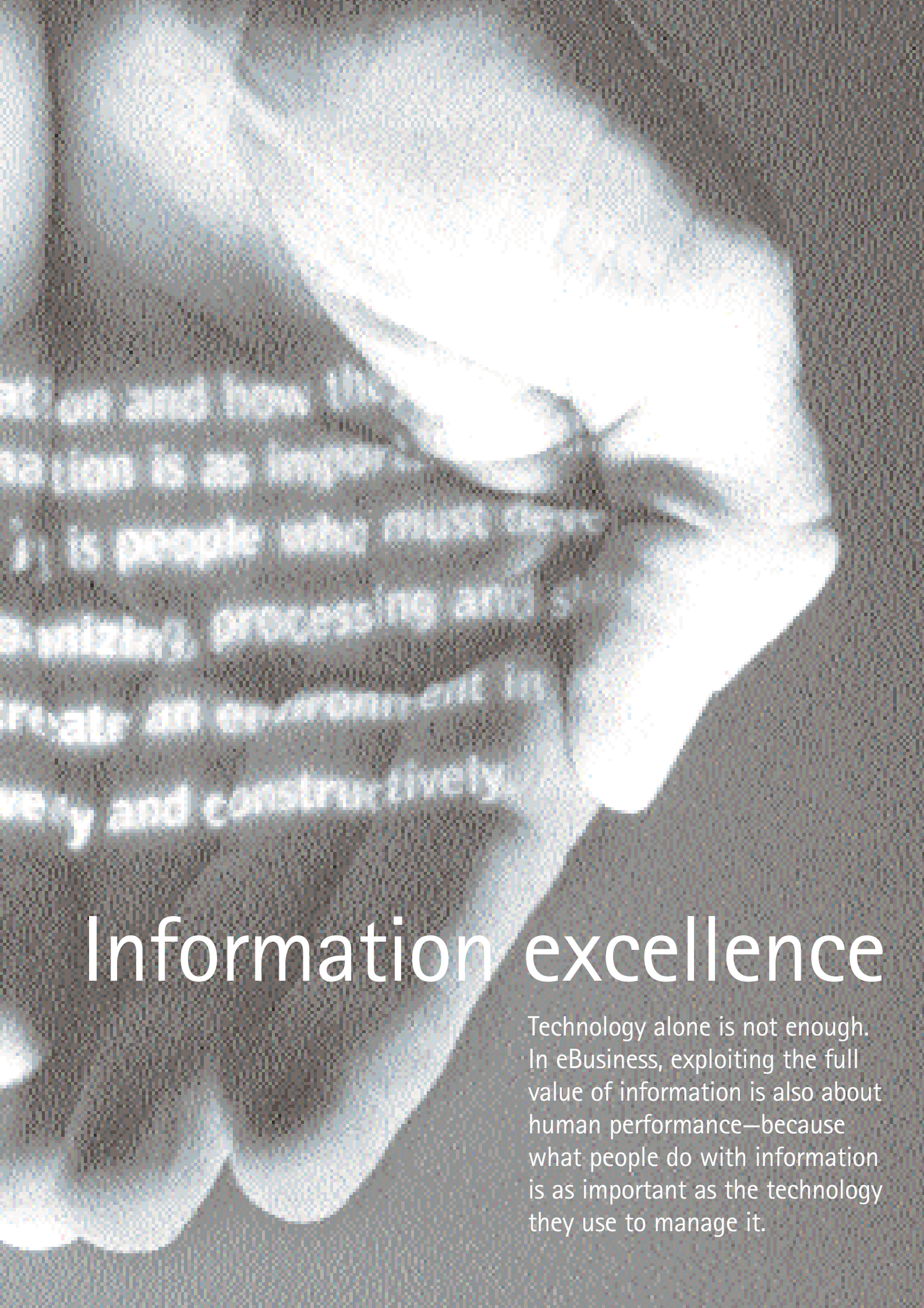
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Information excellence

Technology alone is not enough. In eBusiness, exploiting the full value of information is also about human performance—because what people do with information is as important as the technology they use to manage it.

Capturing the benefits of information takes more than massive investments in enabling technologies, something business leaders know all too well. Indeed, as far back as the 1980s they coined a term, the “IT productivity paradox,” to express their frustration with expensive systems and software that did not produce demonstrable business advantage or bottom-line impact.

Today, with the advent of eCommerce, their frustration is even greater. Business leaders face the prospect of ever-larger investments in technology—and there still is no assurance of any real business benefit.

In the new economy, what does it really take to get the full value of information? How can information use be accurately measured so that it can be managed successfully?

When addressing these questions, managers often overlook the human element. What people do with information and how they take part in its gathering and dissemination is as important as the technology they work with.

Strategic advantage

To be sure, technology is essential to the effective use of information. But it is people who must develop the systems for collecting, organizing, processing and sharing information, and who must create an environment in which it can be used creatively and constructively. Human performance must be part of the equation if a company is to have mature *information capabilities*—which is the prerequisite for success in advanced information applications, especially in eCommerce.

What are information capabilities? Research by Accenture and the International Institute for Management

Development in Lausanne, Switzerland, has explored three interconnected requirements for getting full value from a company’s use of information.

- *Information technology practices.* This is the technical component of a company’s information use, the capability to manage investments in the IT hardware, software and networks that support operations, business processes, innovation and decision making.
- *Information management practices.* The human component of information use is reflected in a company’s ability to recognize information that may be of value, then to collect, organize, process and maintain that information.
- *Information behaviors and values.* The human component is also reflected in the extent to which a company’s organizational culture encourages managers and employees to use and share information to carry out their work.

Effective information use comes from having high levels of achievement in all three information capabilities—technology, management practices, and behaviors and values. When all three work together and reinforce one another, a company achieves a high level of what we call *information orientation*.

A company with a high IO will not only be better positioned to succeed in eCommerce. It will also have the ability to adapt to the information-driven change that will continue to transform business. Ultimately, information capabilities will hold the key to strategic advantage, helping a company control costs and grow its business in the new economy.

Information capabilities

Effective information use is determined by three capabilities: technology, management practices, and organizational behaviors and values. These can, in turn, be broken down into 15 different dimensions.

Information technology practices

How a company uses IT applications and infrastructure to support operational decision making and business processes.

- *Management support.* IT and telecommunications capabilities that facilitate executive decision making, including the monitoring and analysis of internal and external business and market issues.
- *Innovation support.* IT and telecommunications capabilities that enable creativity and the exploration of new ideas as well as support the development of new products and services.
- *Business process support.* IT capabilities and technical expertise that facilitate the management of business processes and people within the company as well as externally with suppliers and customers.
- *Operational support.* IT and telecommunications capabilities and technical expertise that control business operations and ensure consistent, high-quality performance and operational efficiency.

Information management practices

How a company manages information over its life cycle (includes hiring, training, evaluating and rewarding people).

- *Sensing.* The detection and identification of all economic, social and political information that might affect the business.
- *Collecting.* The systematic gathering of relevant information.
- *Organizing.* Indexing, classifying and linking information and databases to provide ready access throughout the company.
- *Processing.* Accessing and analyzing appropriate information sources and databases before business decisions are made.
- *Maintaining.* Reusing existing information, updating information databases and refreshing data to ensure quality.

Information behaviors and values

How a company motivates people to use information effectively.

- *Proactiveness.* The extent to which an organization's members actively seek out information and think about how to use it to enhance existing products and services or create new ones.
- *Transparency.* The extent to which an organization's members trust one another enough to talk openly and constructively about failures and mistakes.
- *Sharing.* The appropriate exchange of non-sensitive and sensitive information, both internally and externally with customers, suppliers and partners.
- *Control.* The disclosure of information about business performance to all employees to influence and direct individual performance and, subsequently, company performance.
- *Integrity.* The refusal to manipulate information for personal gain (good information integrity results in the sharing of sensitive information).
- *Formality.* The degree to which members of an organization use and trust formal sources of information. (The balance between formal and informal information behavior will vary depending on the size and geographic dispersion of a company, as well as the extent to which it has become "virtual.")

There is no direct causal relationship between IT practices alone and a better bottom line.

Consider these three companies in widely different industries and geographic areas. Each has developed strong information capabilities and is a top competitor in its field.

At *Ritz-Carlton* hotels, IT systems and processes have been designed to capture, organize and present information so that employees can anticipate a guest's needs and preferences, and can react instantly to satisfy a need, resolve a complaint or respond to a service error.

The reason the system works is that Ritz-Carlton employees are screened and hired for their service orientation and can-do attitude, then given more than 100 hours of training to make them problem solvers and idea generators. When a service shortfall does occur, the problem is documented in a "guest instant action report" that captures data on what went wrong for whom and why. This way, employees can learn and future problems can be avoided.

SkandiaBanken, a subsidiary of Skandia, one of Sweden's largest insurance companies, has quickly become the first bank in Sweden to successfully challenge the dominance of larger, more established domestic banks. And it was one of the first to market financial products directly by telephone and the Internet. The company's goals were to secure loyal customers by offering convenient, attractively priced financial products and to build a banking model flexible enough to adapt to the rapid, disruptive changes anticipated in the financial services industry.

The bank fostered a culture in which information was readily shared and all employees were encouraged to provide solutions. Among the results: Skandia-Banken was named bank of the year (for overall banking services) by a

major Swedish business magazine in 1998 and 1999—the first time this award was given to the same bank two years in a row.

In the early 1990s, after a benchmark study revealed that a food and consumer packaged goods company was spending twice as much on IT as its competitors but with only half the effectiveness, the company began transforming the core IT systems that supported every aspect of its supply chain, from manufacturing, packaging and distribution to order fulfillment and sales. The mission was simple: Build an IT system that "helps us sell more."

The CFO and the new IT director, promoted from within, agreed that the new system would require the open, cross-functional sharing of sales and product information. Data definitions and units of measurement would have to be standardized companywide. As the project neared completion, the company began to develop new ways to manage the supply chain as well as to forecast customer demand. Its new goal became using information "to develop business possibilities."

A better bottom line

These examples suggest that companies that have honed both the human and the technical aspects of effective information use do, in fact, achieve strong business performance. Our research confirms this management principle.

The Accenture/International Institute for Management Development project looked for a causal relationship between good information practices and business performance, which was measured by profitability, reputation, market share and innovation in products and services.

Our research found that there was no direct causal relationship between IT

practices alone and a better bottom line. As the IT productivity paradox has shown, companies that invest in information technology only and treat IT as a cost center rather than as an integral part of the way business is done are going to be disappointed.

We also found no direct causal relationship between either of the two human dimensions of information capabilities—management practices and organizational culture—alone or in combination, and business success.

There was, however, a clear causal relationship between integrated information capabilities—IT practices, management practices, and behaviors and values all working together—and superior business performance.

The management prescription is clear: A strong information orientation, based on excellence in all three information capabilities, is critical to achieving business success in the new economy.

About the research

The Accenture/International Institute for Management Development research project, Navigating Business Success, which was launched in 1997, addressed a single primary issue: Does effective information use lead to better business performance? An ancillary goal was to find a comprehensive measure of the overall effectiveness of information use.

We began by reviewing academic literature going back more than 20 years. In it we found little hard evidence that directly linked IT investments to increases in business performance.

We did find, however, that leading thinkers had described three factors affecting information use: a people-related behavioral dimension, an information technology dimension, and a knowledge and information management dimension.

The importance of these three factors had been recognized, but no one had probed the complex interrelationship among them. These factors represent our three information capabilities and their 15 dimensions (see box, page 7).

We also found that academic researchers had generally agreed on four key indicators of business performance: market share, financial performance, product and service innovation, and superior company reputation. We used those indicators to measure a company's business success.

Our empirical model of how information capabilities, in all their richness, relate to business performance is based on what we call the *information orientation metric*. Using this model, we developed a survey that would provide a picture of this relationship in companies today. The survey contained

74 questions to measure all dimensions of information use and business performance.

After pretesting and pilot testing the survey, we submitted it to a range of senior managers. Our focus on senior managers reflected the widely held view that an organization becomes a reflection of its top executives, whose characteristics and functions can be used to reliably predict business performance and strategic choices.

Surveys were completed by one or more senior management teams at the corporate, division or business-unit level of 98 randomly selected companies from 22 countries worldwide. The survey included companies of greatly varying sizes, years of existence and levels of business performance.

Survey data was then analyzed with techniques used in leading social science, management and marketing research. The immediate result was a survey sample against which other companies can be measured using the information orientation tool.

To more fully understand the meaning and implications of our quantitative survey data, we carried out further case-study research with 24 companies that scored particularly high or low in areas of study interest. We also interviewed individual respondents by telephone to gain deeper insights into the research findings, an effort that has contributed to the richness of the data.

A more detailed description of our research methodology can be found in the appendix of our book, *Information Orientation: The Link to Business Performance*, scheduled to be published later this year by Oxford University Press.



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Powering the eBusiness model

The effective use of information will enhance a company's ability to achieve internal focus and flexibility, deepen external relationships and fully exploit possibilities in the virtual business environment outside corporate walls.

A company's ability to use information has always been one of five levers available to management for carrying out its business strategy. The other levers are organizational structures, process, external relationships and people. All five have always been important, and they still are.

But two factors—the constantly improving economics of information technology and, more recently, the Internet explosion—are producing profound change in the relative importance of each of the five levers and an equally important change in the business model. Most business leaders are aware of the changes, but few understand how and why these changes elevate the importance of information capabilities.

In the traditional business model of the old economy, a company's approach to managing its activities was defined by the first and most important of these levers: structure, which formed a framework for organizing people and their

activities. The structure was hierarchical, with power and prestige concentrated at the top; information was transmitted primarily from the top down.

Process was considered next in importance, especially after the reengineering movement resulted in processes that more closely reflected work flows. External relationships, which ranked next, were formal and durable in keeping with the former pace of business. People were fourth in importance.

Information capabilities, ranked last, were thought of only in terms of IT. Specifically, the computer was seen as a tool for storing and manipulating data to improve business operations.

Many companies that still use the traditional model recognize the value of moving into the eEconomy and are taking tentative steps in that direction—installing an intranet or using Web technology, for example, or rethinking the company's cost or revenue structure in light of what

new technology can offer. Other companies are taking larger steps, such as establishing separate eBusiness operations or transforming existing businesses to integrate Internet-based features.

In one way or another, these companies are edging toward an entirely different model, a virtual model, more appropriate for the eEconomy. The premium today is on information capabilities. People are second in importance, followed by external relationships, process and, finally, structure. In other words, the relative importance of the five business levers is completely inverted.

To understand why this is so, consider how a virtual business operates. To some degree, virtual models have always been with us. A movie production crew is one example. The producers (usually just a few individuals) assemble specialists, including a director, camera crew, production staff and actors, for the sole purpose of making a single film.

When that job is done, the assembly breaks up. It is unlikely that these particular specialists will ever be reunited in just that way again, although some combinations of the assembly may indeed work together on different projects if they have had a good working relationship.

Transformation

The new economy makes this model possible, not as the exception but as the rule, for all businesses all of the time. As use of the Internet expands, bringing a quantum leap to the earlier power of computers, the relationships between competing businesses and between suppliers and customers are being transformed. And the key driver of this transformation is information.

The Internet gives customers greater access to more precise information on vendors and their offerings, making it easier to compare value propositions and prices. Suppliers can also benefit from the Internet's ability to provide information not just about market segments but also about individual customers, making it possible to tailor specific product offerings and solutions to those customers' needs.

Technology-enabled communication makes business collaborations more feasible and effective, as well as far easier to establish, operate, revise and, ultimately, discard. The value of vertical integration diminishes or disappears as companies find it is better to work with other best-of-breed suppliers than to own and control all parts of the business system. (For a related article, see "Dangerous liaisons," *Outlook*, Vol. XII, No. 2, June 2000.)

Finally, speed in delivering a market solution becomes all-important. In the eEconomy, where the value of a business is based more on information than on physical assets, different rules of scale come into play. Once a com-

pany has its basic information infrastructure and related capabilities in place, expanding the business by adding more customers entails almost no additional costs.

As a result, growth potential is almost limitless. Online auction house eBay, for example, is now established and can serve more and more customers at marginal cost. Since one player could potentially lock up a market, the advantage often goes to the earliest viable entrant.

The most successful companies in the eEconomy are likely to be focused on what they do best, fast to respond and flexible in their working relationships with others. To keep up with the pace of change, they must anticipate competitive innovations and shifting market conditions, and then find a way to convert this information into business opportunities.

As a result, they are likely to have smaller, more flexible staffs that are comfortable dealing with ambiguity; to be skilled in managing strategic alliances and joint ventures; and to outsource all but critical activities.

A tall order? Not for companies that develop robust information capabilities.

Just as structure was key in the traditional business model, information capabilities are the crucial lever in this new eBusiness model. That is because mature information capabilities can replace or enhance the other four strategic levers and can extend the company's reach and range.

Focus and flexibility

Having mature information capabilities is a significant advantage in

achieving focus and flexibility because, in many instances, these capabilities can replace the need for a well-defined organizational structure, formal processes and often whole layers of staff.

Consider two very different companies that can operate with loose structural boundaries and almost no organizational hierarchy because of their strong information capabilities.

Oticon is a Danish company that has been making hearing aids for nearly a century. In 1988, faced with heavy losses, the company revolutionized the way it did business.

First Oticon took down the walls—literally. All 150 of its employees were brought together to work in an open environment, without assigned offices or desks. Then the company eliminated all titles, departments and divisions. People were assigned jobs on projects, and all work was done by temporary teams; team members all gathered in the same corner with their files.

At the same time that Oticon was getting rid of its formal structure, it invested in a leading-edge computer system, with communication links to ensure frequent informal contacts between the company's Copenhagen headquarters and its operations in Europe and the United States. The company was an early adopter of e-mail and made heavy use of video-conferencing.

This organizational revolution, based on new patterns of information exchange, was a clear success. Product development took place more quickly, and Oticon became the first company in its industry to introduce digital hearing aids. The resulting financial success allowed the company to launch a number of takeovers in the

industry, and by 1998 Oticon had become the world's third largest player in the hearing-care business.

The Motley Fool, launched in 1996, is a fast-growing startup headquartered in Old Town Alexandria, Virginia. It delivers simplified financial information—with a sense of humor—to about 2 million people via the Internet as well as through more traditional channels.

Within the company, The Motley Fool periodically uses its intranet for the exchange of honest feedback among employees. Using a program called Stop, Start, Continue, any employee can click on the name of another worker at any level and send comments (which can be anonymous) on what that person should stop, start or continue doing.

The Motley Fool takes its belief in the technology-enabled free flow of information outside the company as well. Company co-founder David Gardner manages the "Rule Breaker" portfolio that has grown at an average of more than 66 percent per year since its inception. Gardner looks for those companies that improve performance by most constructively breaking the rules of traditional business.

One source of investment ideas is the thousands of messages posted on The Motley Fool Web site's message boards. "By teaming up, [everyone contributing on the message boards has] been able to share information and challenge one another to be smarter investors," says Gardner.

As The Motley Fool becomes a bigger, more established company—it has gone from 15 employees at startup to more than 270 today—its challenge is to keep the lines of communication open between its technology, editorial, business, advertising and sales operations

and to maintain its loose, playful corporate culture.

Another way that mature information capabilities can make a company more focused and flexible is by reducing the need for formal and often cumbersome processes.

British Petroleum's worldwide exploration and production company, BPX, had approximately 7,500 employees in the mid-1990s. To do their jobs, managers needed to share knowledge—usually complex, tacit knowledge that couldn't be transmitted through the written word alone.

Traditional information-sharing processes, such as documents, databases and face-to-face meetings, were not adequate for this type of communication. So in 1994 BPX launched a \$12 million pilot project known as Virtual Teamworking. Each manager received a kit that included a personal computer with videoconferencing equipment, multimedia e-mail, shared applications, a scanner and an electronic white board. With this electronic linkup, people could work as problem-solving teams, even at a distance.

About 60 percent of the project budget went into behavioral coaching aimed at encouraging an open approach to information exchange. Estimated savings for the first year: \$30 million. By the end of 1997, British Petroleum had made Virtual Teamworking available in all BP companies in the 70 countries where it operates.

In 1997 customers of *PeopleSoft*, a California-based leader in corporate software, were demanding delivery of a new version of the company's major product, PeopleSoft 7—three months ahead of schedule. Could it be done?

This was a complex product (a fully featured version comes with 20,000

Where the value of a business is based more on information than on physical assets, different rules of scale come into play.

pages of technical documentation), and the company's more than 4,000 employees and more than 2,000 customers would all be affected by the upgrade. Delivering it early would make customers happy and more loyal, but delivering a flawed product would undo any benefit.

It took PeopleSoft only two weeks to decide. The company used Web-based tools and a Lotus Notes database to automate the deliberation process, sending out a checklist of criteria that 50 different departments could use to forecast the impact of an early release. It posed the question to its employees,

consolidated their ideas and concerns, and reached a timely decision: Go for it.

That decision-making process is consistent with the company's concept of people-centered technology. One of the terms CIO Steve Zarate uses to describe PeopleSoft's information

Information and the manager in the new economy

More than 25 years have passed since Peter Drucker took his comprehensive look at the role of a manager. Drucker's definition of a manager's primary responsibilities—to plan, execute and monitor—fit well with the traditional business model. No one as yet has defined how those management responsibilities change in the emerging business model for the eEconomy.

In November 1999 the Accenture Institute for Strategic Change launched a study, which is ongoing, to define new roles for successful management in eCommerce. Here we offer some of our early ideas on the capabilities needed to manage in the eEconomy and the qualities to look for in managers, whether incumbents or new hires.

One important lesson emerging from our research: There is a need for eBusiness managers to quickly assimilate and interpret the business implications of information gleaned from a much more diverse universe of knowledge.

The key will be finding people who can:

Make sense of the external environment. As the vice president for marketing at one Internet company puts it, "There is zero that is clear, and even that changes all the time."

In this turbulent environment, successful managers will be those with their antennae out: They will be constantly reading, listening and observing so that they take in all possible information about trends in the external world, changes in technology and developments with customers, suppliers, competitors, allies and partners.

Be forewarned, however: No matter how much information is garnered, ambiguity will remain. Managers have always struggled to find the answers to their questions. Today, though, they don't even know the questions.

For managers in the new economy, there are few clear rules and no fixed definition of what their business really is. Yet somehow

they must make sense of what is going on, and interpret and articulate what that means for individuals and for the company.

Learn—and unlearn. In a business adapting to the eEconomy, learning takes two forms. The first is an ability to learn from mistakes, which will inevitably be made when business is done at eSpeed and without traditional structures and rules.

Managers need to be quick learners—quick to see a mistake and to profit from it. They need to react constructively to mistakes, to be open to discussions of what happened and why, and to personally set the standard for the learning behavior that everyone should adopt.

This ability to learn from mistakes is most likely to flourish within an organizational culture that is open, risk taking and accepting, where people can trust one another enough to talk about failures and mistakes openly and constructively, without fear of recrimination.

A second form of learning concerns eBusiness technology itself, from advanced computer-based systems to the World Wide Web. Now that strategy is so closely linked with technological possibilities, managers who do not grasp the technology risk making bad decisions. They need to develop an intuitive feel for how the technology works, and they also need to understand its strategic implications for their business.

Just as managers must be able to learn, they must be able to unlearn. "What works" changes quickly in the eEconomy, and yesterday's technology or patterns of behavior may not be right for tomorrow. Successful managers will need the ability to discard what is no longer useful and plunge into learning anew.

Collaborate inside and outside the company. The nature and pace of eBusiness requires that people often work together, without the benefit of firm rules and contracts. For this to happen successfully, information has to be shared across boundaries—from person to person, team to team, division to

culture is “infomocracy.” Every new employee receives a blue-and-black backpack with a pager, cell phone, personal digital assistant and a laptop preloaded with access to some 400 corporate databases that contain all information—good and bad—about the company.

Finally, many companies are using information capabilities to leverage the productivity of their employees and, in some instances, reduce head count.

Executive-search firm *Egon Zehnder International* employs more than 250 professionals in 53 locations around

the world. The company uses a global communications system based on Lotus Notes to organize information about past engagements.

The system improves efficiency by giving any consultant access to all information on existing and poten-

division, among partners, and often across the value chain from supplier to customer.

For managers whose careers were built in a traditionally modeled business, making the transition to a collaborative eBusiness model requires a change in mind-set.

An eBusiness manager first must learn to be less protective about knowledge. In the past, holding proprietary information or having unique capabilities was a source of power and security; today managers need to accept that sharing information strengthens a person's position.

A manager must also learn how to build trust, especially between companies that might be allies in one effort but competitors in others.

Traits and attributes

How can a company find people to fill this new management role? Startups can begin by hiring the “right” kinds of managers for the eEconomy (or, given the hot job market, the closest to “right” they can find).

Established companies making the transition to eCommerce often have to evaluate incumbent managers to know which are most likely to be successful going forward.

What should a leader be looking for? Age is not the issue, our research suggests. Younger people who grew up with computers may have the advantage of comfort with the technology, but they may lack a knowledge of business principles that will help them understand how that technology can be applied to strategy.

Personal traits and attributes are more important than technology skills per se. Look for people who are:

Bright, driven to learn. The technology of the Internet era is intellectually demanding. Up and down the ranks, managers will need to immerse themselves in technological education

(or develop a trusted cadre of partners or team members who can be present and take part in decision making). The most successful managers will accept the need to master eCommerce and eagerly dive into the details.

Plugged in. eBusiness managers should be keenly interested in what is going on outside their business or industry and should always be thinking about how new trends, discoveries or ideas might apply to their particular companies. They should also maintain a strong professional network: The best done-on-a-handshake alliances are often those based on personal relationships, so managers who have affiliations with potential subcontractors, allies or partners can bring useful contacts to the table.

Team players. Successful managers will abandon traditional ideas of hierarchy and reporting relationships. An ability to work on ad hoc teams across organizational boundaries is key. The best managers will also display an appreciation for cognitive diversity, not only accepting but valuing the contributions that can be made by people who come from a range of backgrounds and disciplines and who therefore think differently.

Flexible and fast. Those who need structure and firm rules will have trouble; those who can take the initiative in an ad hoc environment will do well. Hard-chargers who can drive through obstacles are the most promising candidates. Experience working at eSpeed is also a plus. Seek out managers who are not only nimble but just plain fast.

Hands-on visionaries. Successful managers are likely to operate on two levels, combining seemingly contradictory characteristics. They will be able to deal with the inevitable information overload and make sense of the complex environment in which they work, see the larger picture, and inspire others to share their vision and follow their lead. At the same time, they will be willing to get down into the details, working with others long and late to “make it happen.”

—Jeanne G. Harris

Traditional information-sharing processes are not adequate for large companies operating on a global scale.

tial clients. In addition, it gathers and retains information within the company so that when consultants leave the firm, their knowledge is not lost as well.

Broader coalitions

Mature information capabilities can also enhance a company's ability to operate within a broader coalition of allies, venture partners and other affiliates. It therefore works in tandem with the fifth strategic lever, external relationships.

Wal-Mart, the giant US retailer, was a pioneer in the use of sales data. It was among the first companies to use electronic data interchange, and it ran extranets before the term had even been invented; it has also made groundbreaking advances in data warehousing and mining. Since 1990 the company has used its Retail Link to share sales information with more than 6,800 vendors worldwide.

This technology works within a culture that is open and trusting in its approach to information exchange at all levels. Beginning in 1988 and throughout the 1990s, for example, Wal-Mart turned a once-adversarial relationship with Procter & Gamble into a cooperative one. By sharing data on inventory levels and sales, Wal-Mart was able to carry lower inventories of P&G products; for its part, P&G tripled its product turns and achieved in-stock performance above 99 percent. This collaborative relationship with P&G is now Wal-Mart's vendor model.

Today the company is going even further, working with clients to develop a collaborative planning and replenishment system that uses the Internet to share complex, rich information needed to forecast sales and orders. Wal-Mart's strong manufacturer-wholesaler-retailer

partnerships have resulted in inventories approaching the 10 percent level of total sales that logistics experts consider ideal. In one year (1996 to 1997) Wal-Mart's inventory-to-sales ratio dropped three percentage points, saving the company \$1.63 billion.

Skandia Assurance and Financial Services, a division of the Skandia group, is a master at managing alliances, both upstream and downstream. While Skandia AFS concentrates on packaging and marketing its financial products, specialized alliance partners outside the company develop and manage the funds in which insurance premiums are invested. Local brokers and banks handle fund distribution.

Skandia's information capabilities are essential for managing the alliance network of 92,000 agents, banks, brokers and independent financial advisors around the world. Thanks to what the company calls an "international electronic knowledge networking and sharing system," any Skandia AFS partner can enter the information system of any other partner to exchange information. By using "work permits," Skandia also empowers employees to collaborate freely with one another and with alliance partners for the purpose of gaining and sharing knowledge.

The payoff is increased productivity: Using the capabilities of its alliance partners, Skandia leverages 29 people for each of its full-time employees. More subtly, the company benefits from ideas generated by alliance partners, who provide a vast network of antennae for recognizing information and its inherent opportunities.

Beyond corporate walls

In addition to giving a company greater internal flexibility, mature information

capabilities can change both the reach and the range of a company.

In the context of this study, *reach* refers to a company's ability to extend beyond the traditional corporate walls and include in its operations suppliers, alliance and joint venture partners, and customers. *Range* means what people in a company can do outside those corporate walls to fully exploit the possibilities of a virtual business environment—to move beyond "broadcasting" information and transacting business, to include collaborative problem solving and customer service characterized by recognition and response.

General Motors' OnStar system illustrates the potential of information to expand a company's reach and range—in this case, to make customers part of the process of delivering a safe, satisfactory driving experience.

Developed in 1996 and introduced on 1997-model Cadillacs, OnStar was originally a technology response to customer concerns, primarily about safety. OnStar used global positioning and cellular telephone technology to provide emergency roadside assistance, routing and location help, a range of conveniences such as remote door-unlock, plus voice-activated cell phone and concierge services.

GM later offered OnStar on other vehicle lines. New services were added, including Med-Net, which stores personal medical history, and Accident Assist, which provides step-by-step instructions following an accident. Soon GM will expand OnStar to offer full cellular calling capability and voice-activated Internet access.

OnStar has the potential, still largely untapped, to extend GM's reach by gathering additional information on

customers that can be used to bring them fully into the value chain. Before OnStar, GM could contact vehicle owners only through traditional channels (a letter, for example, or a phone call), and only if the company could get customer information from dealers. The contact was likely to be limited to such superficial inquiries as, "Are you satisfied with the car?"

With OnStar, however, the company could repeatedly communicate with every OnStar customer, thereby building a deeper relationship. Fleet-monitoring technology could be used to track in real time the location and performance of each individual car.

With this information and with two-way-calling capability, OnStar representatives could initiate helpful contacts and offer assistance. For example, information about an individual's driving patterns and about vehicle performance could be used to suggest maintenance, additional services or useful advice, creating an ongoing dialogue between company and customer.

New ideas, new opportunities

OnStar also has the potential to expand the range of products and services GM could provide. With information gathered on driving patterns, GM could offer metered auto insurance that reflected where, when and by whom the car was driven. Internet access could provide insights into customer lifestyles that could result not only in a better vehicle design but in a range of other businesses the company might offer—either on its own or in collaboration with other companies—from home mortgages (a logical extension of auto financing) to vacation services.

All of this potential assumes that GM has or will be able to develop the needed information capabilities.

Will GM be able to collect, organize and maintain all this vehicle and driver data in ways that will lead to valuable business ideas? Will it recognize changes or trends in the marketplace that will signal new opportunities for the OnStar system? Will it learn to work with outside suppliers, from auto repair services to information content providers, sharing information and developing productive collaborations? Will it develop an open flow of good information within the company so that the evolving technology fits with GM car owners' wants and needs?

For companies such as GM that can sufficiently enhance their information capabilities, the power of mastering this most important strategic lever will translate into stronger business performance.



Given the ease with which customers can now access information about various companies' offerings and prices, the key to healthy margins and to growing market share lies in a strong, exclusive proposition. How can this be done? The answer lies in the customer and by creating a unique information flow. In the Internet era, customers have more options, and more choices than ever before. And going further, a company can use technology to offer innovative services or products. Improved products, services or business models. In

The information edge

Companies that use information capabilities to delight customers and create new business opportunities have a critical strategic advantage in the eEconomy.

In the emerging eEconomy, the effective use of information can enable a company to manage costs better. Even greater long-term strategic advantages lie in using information to grow the business.

Controlling costs

When information capabilities allow a company to minimize its structure, processes and staffing levels, one frequent result is lower costs, as the examples cited earlier of Oticon, British Petroleum and Skandia show.

Today, with the power of the Internet, information capabilities can also be used to address costs directly. One example is business-to-business information exchange. In 1997 the *Automotive Network Exchange* (ANX), a private extranet, was launched to handle the electronic exchange of purchase information, e-mail, computer-aided designs, shipping schedules and even desktop videoconferencing.

More recently, similar ambitions have been set for an online procurement marketplace called *Covisint*, which was founded by GM, Ford Motor Corporation and DaimlerChrysler, with software contributed by Oracle and Commerce One. Functioning as an online marketplace for auto parts and components, the Internet-based trading network is projected to save the Big Three as much as \$36 billion per year. (For a related article, see "2B or not 2B," *Outlook*, Vol. XII, No. 2, June 2000.)

Both ANX and Covisint could eventually produce real cost savings. It is likely that they will evolve to become something more as well.

As large numbers of suppliers learn more about one another, new patterns of cooperation may emerge. The automakers themselves may find an advantage in working more collaboratively with certain suppliers, perhaps shifting more responsibilities to them. This system might lead not only to lower costs but also to a

different production process or even different products.

For all this to happen, the automakers will need the ability to recognize opportunity; to gather, organize and manage meaningful information; to use that information in support of management decision making; and to work collaboratively with partners in the value chain.

The downside

A caveat is in order here, however. Cost cutting as a business strategy almost always works at cross-purposes to the development of information capabilities.

Companies that follow a cost-cutting strategy are not likely to invest in upgrading IT, or to have the long-term perspective required to develop effective information management practices and information behaviors and values.

Moreover, cost cutting nearly always damages a company's existing infor-

mation capabilities. Downsizing, for example, often has a negative effect on desirable behaviors and values because it creates suspicion or mistrust among employees and managers. Political maneuvering among managers in this climate may also affect the flow of information within a company.

Once information capabilities are eroded, it may take a long time to rebuild or recover them, even after the company has moved beyond its cost

guests, and at building a reputation that will attract new guests.

Today it is possible to know not just “the customer,” or even customer segments, but individual customers, current and potential. Companies that can gather, organize and use data at that granular level are able to propose value-adding solutions to their customers’ needs and to initiate what might be collaborative solutions to meet those needs.

was mentioned most often, but customers also wanted help keeping their energy costs as low as possible.

KCPL soon realized that it had an advantage over its competitors. In 1994 it had invested heavily in the installation of a wireless meter-reading system that gave utility employees instant access to meter readings for more than 400,000 businesses and residences. KCPL used this existing system to offer Account Link, which

The eEconomy often rewards the company that is first to market.

cutting-phase. So managers must weigh cost-cutting’s short-term advantage against the long-term disadvantage of being unable to capitalize on the possibilities of the eEconomy.

Growing the business

Although cutting costs can have some benefit, greater long-term strategic advantage results from using information to enhance a growth-oriented strategy. Given how easily customers can now access information about various companies’ offerings and prices, the key to maintaining healthy margins and growing market share lies in offering a strong, even unique, value proposition. How can that be done? By delighting the customer and by creating new business opportunities.

Delighting the customer means meeting or exceeding customer needs—even needs that the customer didn’t know he or she had. Information flows freely in the Internet era, and customers have more options, and more temptations, than ever before. But delighted customers rarely defect.

Ritz-Carlton knows that. Its use of information is aimed at ensuring the high satisfaction and loyalty of its

Suppose, for example, that Ritz-Carlton aimed even higher than delivering a superior hotel stay; suppose it envisioned its role as offering guests a memorable experience while in that city. With its knowledge of individual guests, the hotel could propose and arrange tailored excursions for tourists; expedite travel to business sites for executives; and arrange other beyond-the-hotel-walls conveniences for Ritz-Carlton patrons. Using its already-strong information capabilities, Ritz-Carlton could extend itself even further to delight customers and gain competitive advantage.

Enlightened

Another company that uses information to delight its customers is *Kansas City Power & Light*. As a monopoly utility, KCPL had never given much thought to pleasing customers—until the industry faced deregulation. In 1996, anticipating competition, the company launched a Web site, but the site was hastily assembled and did little more than offer brochures and press releases online.

KCPL spent several months talking to customers, trying to learn what kind of value-added services they wanted and which of these services could be offered on the Web. Online bill paying

enabled customers with Internet access to monitor their power usage minute by minute, day or night.

The company’s next step will be to offer online monitoring to major corporate customers, such as municipalities and retailers, which could use detailed accounting of power usage to control costs. Using information it has gathered on customer usage patterns, KCPL may introduce new options, such as time-of-day usage rates.

KCPL continues to use its Web site to listen to customers and build relationships: Its site administrator personally answers every e-mail message. For all of these reasons, KCPL’s Web site is rated among the top 10 utility Web sites in the world.

Going further, a company can use information to offer innovative and improved products, services, or channels.

Last year, Heineken launched “BarTrek” using its interactive Web facility. Customers who log on can get reviews and photos of bars in major cities throughout North America, Europe, Asia and Australia. Computer users can print out maps for finding the bars; those with handheld personal

digital assistants can draw on global positioning technology to be guided right to the bar's front door.

Information about promotional events and lifestyle features are also available. In addition, Heineken has launched a network of "virtual bars" where, after registering basic information, visitors can chat with others and receive customized information about bars serving Heineken beer. Heineken will use this customer infor-

you making your customers stick?," *Outlook* Vol. XII, No. 2, June 2000.)

A step ahead

Today anticipating a new business opportunity and reacting quickly is especially important because the eEconomy often rewards the company that is first to lead in a new market. Companies whose employees are attuned to their environment—to economic, social, political and demographic trends, as well as to competitors' innovations or

Indeed, Cisco has acquired more than 50 companies since 1993 and is sometimes integrating up to six companies at once. Each integration effort begins on day one and has a single, clear goal: Retain the talent of the acquired company.

The minute Cisco completes an acquisition, it is ready with a customized packet that includes information on the company, a directory of key contacts and an explanation

Companies need to use information proactively in decision making.

mation to build a database that will be used to trigger targeted e-mail marketing campaigns and cross-selling initiatives. In essence, Heineken has broadened its business from simply producing and distributing beer to providing an entertainment and social experience.

Extending a business by offering a new product or service can be especially powerful in the new economy when existing infrastructure can be used to deliver new information services or when existing relationships enable new products to be introduced. Priceline.com, for example, originally let customers name their own price for airline tickets (which suppliers could accept if they had open seats); the concept has now been extended to hotel rooms, mortgages, cars and, most recently, groceries and gasoline.

Web portal Yahoo! is constantly expanding its offerings to gain greater *stickiness*—getting more people to register with the service, to spend more time at the Yahoo! site and return more often. Yahoo! began by offering a user-friendly search engine, then added a range of personalized services, from free e-mail to virtual "clubs" organized around areas of interest. (For a related article, see "Are

changes at suppliers and partners—will be one big step ahead in recognizing business opportunities.

Those companies also need the ability to gather and organize essential information, and to use it proactively in making business decisions. For example, a key reason why *Cisco Systems* is the leader in providing hardware and software that runs the Internet is that the company uses its information capabilities to track the direction of its market and then successfully acquires and integrates small companies working on crucial advances in technology.

One way Cisco learns about emerging technologies is by taking minority stakes in various businesses. Another is by listening to its leading customers. In 1993, when Boeing and Ford both told Cisco that it was not well positioned to meet their future network needs, Cisco took action by acquiring Crescendo Communication, a local area network switchmaker. The acquisition put Cisco into an industry sector that, five years later, produced \$2.8 billion in annual revenue for the company.

If Cisco decides the time is too short to build a product from scratch, it will make targeted purchases of startups that are rich in ideas and talent.

of the importance of the new acquisition. Cisco's human resources and business development teams show up on site to meet in small groups with employees of the acquired company, answering their questions and helping them understand where and how they belong in the new organization.

Cisco also immediately sets up a secure virtual private network with the new company so that managers on both sides can begin sharing information. Typically, within 60 days Cisco has fully integrated the acquired company into its Web site, as well as its phone, e-mail, enterprise resource planning, customer care and forecast systems.

Companies that can use information capabilities to delight customers and create new business opportunities have an all-important strategic advantage in the eEconomy. The challenge is to develop those capabilities.



See it, measure it, manage it

A new metric provides the basis for a comprehensive measure of effective information use that also predicts business performance.

Most business leaders are already aware that there is more to benefiting from information than investing in IT. And most understand that the emerging eEconomy makes profound demands on the way business gets done.

So what's keeping them from developing more mature information capabilities for more effective information use?

The problem is that, until now, patterns that contribute to information use have been largely invisible. Managers could isolate and calculate their IT expenditures, but they could not grasp or measure the qualitative human aspects of information use—the management systems and practices developed by people within the organization and the behaviors and values that shaped their actions regarding information. And until they could measure information use, they could not manage it.

Our research has filled that need. It provides the basis for a new and

comprehensive measure of effective information use that also predicts business performance.

Information orientation is a new metric that captures a company's strength in all three information capabilities. A company's IO score reflects how effectively it uses information. Our research shows there is a causal relationship between the IO score and business performance.

Making the invisible visible

When a company undertakes an assessment of its information orientation, senior management teams in the company's various business units complete a detailed survey designed to assess how managers and employees perform on each of the 15 dimensions of the three information capabilities.

The results of that assessment can then be graphically displayed using what we call the IO Dashboard (see page 24). By using the IO Dashboard, a company can compare its

information capabilities and business performance against a benchmark of companies, which was derived from the surveys completed by 169 senior management teams at 98 companies worldwide. This benchmark is represented by the legend on the IO Dashboard.

The power of the IO Dashboard is that it displays a detailed assessment of a specific company (or business unit) in a way that is understandable and compelling.

The Dashboard is usually read from top to bottom. At the top are the three information capabilities and their combined 15 dimensions. The performance of a company in each dimension is compared with that of our benchmark companies and displayed as colors representing numerical scores.

Using statistical modeling, these scores are translated into a single score for each information capability, then into an overall score for the company's information orientation.

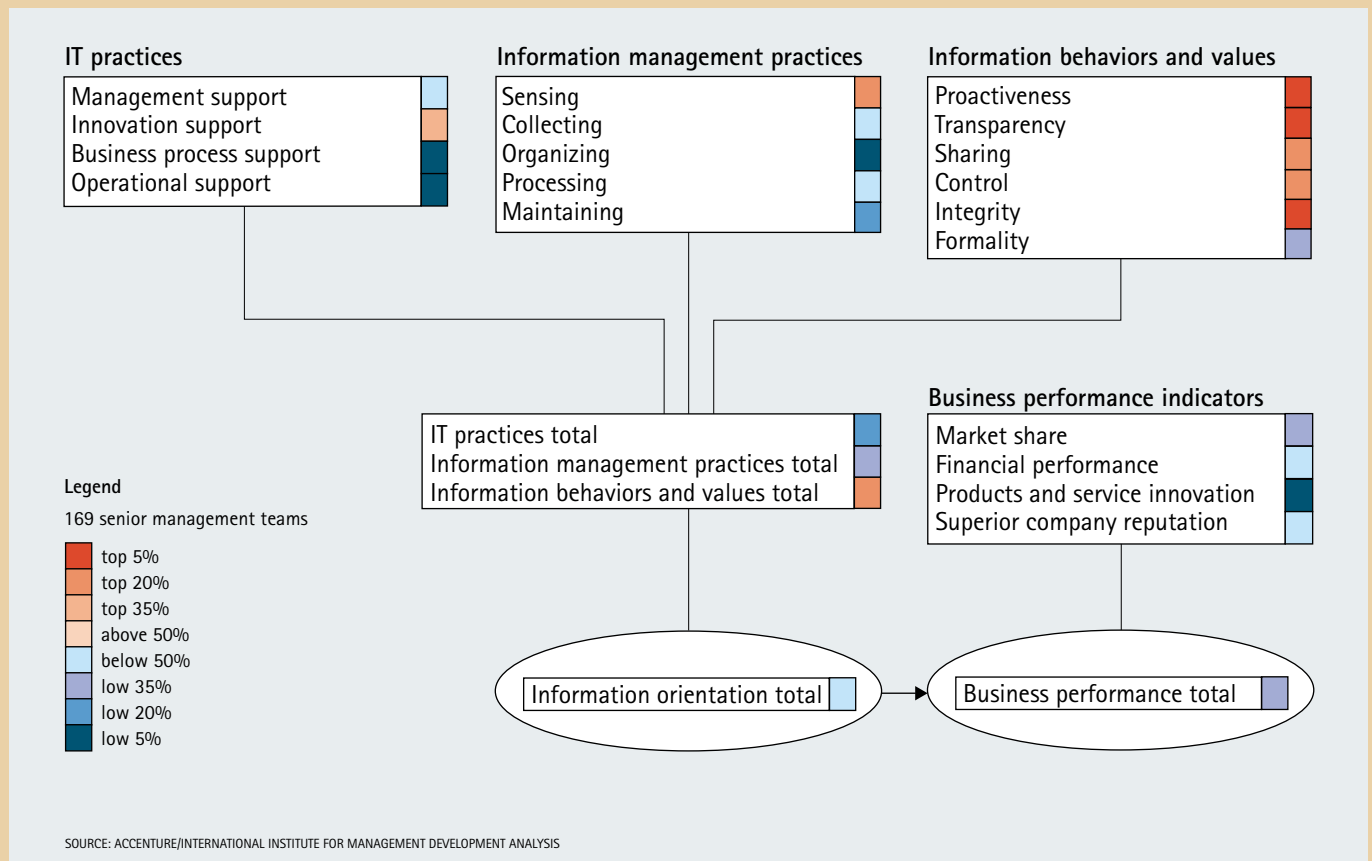
IO performance is then compared with the company's total business performance, which is a statistically derived overall score of four generally accepted key indicators.

Performance is expressed in color to graphically represent gradients along a spectrum from strong (hot shades of red and orange) to weak (cool shades of pale to dark blue). The result is an unmistakably explicit picture of a company's current capabilities at both the aggregate and detailed levels.

Constructive action

To understand the power of the IO Dashboard in guiding business leaders toward a constructive course of action, consider the hypothetical example illustrated here of a company with a low overall information orientation. Although the company's total IO score is pale blue, and therefore only in the 50th percentile relative to companies in the survey database, there is some good news here.

The company scores high on many of the dimensions of information behaviors and values (one of the three information capabilities). Since behaviors and values are rooted in people's perceptions and patterns of behavior, they can be difficult and time-consuming to change; companies with weaknesses in this area may have to bring in some new management talent to effect needed change.



The IO Dashboard is versatile. It can be used for an individual business unit or for multiple business units (thereby giving a composite picture of the entire company). It is equally valid across cultures, making it valuable for multinational or global businesses. If used repeatedly, it allows a company to measure change over time.

An agent for change

Because of its design and its broad applicability, the IO metric, displayed

on the Dashboard, can be a powerful agent for change.

The IO Dashboard reflects a clear image of a company's strengths and weaknesses relative to a large, valid benchmark sample of other companies. Based on the executive team's own assessments and input, it often presents hard truths. Whether improvement is being hindered by honest ignorance of the source of a problem or by unspoken resistance to taking difficult actions, the IO scores

displayed on the Dashboard can galvanize management to take action.

The IO Dashboard can also indicate where to focus attention and in what sequence. On the Dashboard, areas of strength are represented by shades of red and orange; areas of weakness are represented by shades of blue. The underlying principle for action is simple: Work on the blue areas first.

A high IO score indicates that all three information capabilities are

Therefore, the company's relative strength in this area is encouraging because it means that the people in place already have a willingness to use and share information constructively.

But note as well that the company scores low on formality, which is the extent to which people use and trust formal sources of information. Is this because the company is relatively small and geographically concentrated so that information can be effectively passed on through informal channels? Has a corporate history of inaccurate, unreliable, misused or distorted information created a mistrust of formal sources of information?

Or—more likely—does this formality score suggest that the company's IT systems are outdated, hard to access or difficult to use?

This company has other areas of significant weakness. The profile of information management practices (another of the three information capabilities) shows that people in this company do reasonably well at sensing information, but do not have the systematic ability to collect, organize, process and maintain that information.

Here, too, the people themselves are doing the right thing. They would seem to be plugged in and highly conscious of information available in the external environment and how it relates to their business needs.

What, then, is at the root of the company's weakness in all other areas of information management? Are the company's information systems technically inadequate to handle the data load? Are they poorly defined? Are people not properly trained

in their use, or not motivated to use them? Do they not understand the importance of information management?

Finally, the company has glaring weaknesses in information technology practices (the third of the information capabilities), particularly for process and operational support. These are the systems that support the basic work of the company—the performance of lower-skilled workers, and the management of processes and people across functions within the company and externally with suppliers, partners and customers. They are crucial not only to day-to-day operations but also to providing management with the information needed for decision making.

Is lack of access contributing to the company's poor use of formal information channels? Has the company not been investing in system development or upgrades, or has the money been used ineffectively? Is there an option to out-source some functions?

When the measures for each of these dimensions are statistically transformed, the company ends up with an IO total in the 50th percentile and—not surprisingly, given its relatively low IO performance—a measure of business performance in only the 35th percentile.

Employees and managers are working, in effect, with one hand tied behind their backs. By investing immediately in IT for process and operational support and more fully exploring what needs to be done to improve its ability to manage information, the company should be able to strengthen its overall business performance.

IT shortfalls are easier to fix than information management and behaviors and values.

strong and working together. The score for each information capability will be lower to the extent that any dimension is weak. A company will make the greatest and quickest progress not by reinforcing areas of strength but by addressing areas of weakness—the blue areas.

Note that the IO Dashboard cannot tell a company precisely *what* to do. *How* a company should address weaknesses in the various dimensions of information capabilities is highly specific to the situation. The Dashboard can, however, tell a company *where* to direct its attention first, second and third.

Counterintuitive

Often the IO Dashboard suggests a course of action that is not intuitive and not what management planned to do.

Consider the example of one global financial services company. A series of events—the acquisition of a rival bank in 1993, several restructuring programs during the next five years, Y2K planning and preparation for the transition to the euro—all but overwhelmed the company's IT systems.

Management's initial belief was that the IT systems were to blame for the company's poor performance and that fixing them was the place to start. The IO Dashboard revealed, however, that the company faced even greater challenges with information behaviors and values. The company was hobbled by a corporate culture characterized by strict reporting lines, little information sharing within and between departments, and a compensation system that rewarded individual performance. As a result of the IO score, addressing cultural issues became the top priority.

The Dashboard can also monitor progress. Using the tool at regular

intervals, for example, can show to what extent efforts to address areas of weakness are having an effect. Comparing the results between business units with comparable weaknesses can help a company see what actions work best for that specific organization.

A guide for decisions at the corporate level

The IO metric, and the supporting detail displayed on the IO Dashboard, can provide crucial information for corporate leaders facing difficult decisions, often about the management of a portfolio of business units.

How quickly can a company improve its information orientation and therefore more effectively move into the eEconomy? Decisions about a realistic timetable for improvement depend on several factors, some of which are revealed by the Dashboard and some of which must come from a leader's knowledge of his or her own company.

Certain capability shortfalls are easier to fix than others. If the Dashboard reveals, for example, that the problem lies in IT practices, the company might push for an immediate IT investment. Building strong information management practices and information behaviors and values generally takes longer, since human patterns of behavior and corporate culture are more resistant to change.

Using the IO Dashboard to pinpoint where the problem lies can help managers apply their own judgment to determine what needs to be done and how difficult that will be within their organization. An organization's size, history and recent patterns of activity, such as a restructuring or management changes, are among the company-specific factors likely to affect how quickly information capabilities can be strengthened.

Decisions involving business-unit management are crucial because, of the three information capabilities, information behaviors and values are the most difficult and time-consuming to achieve—and the most dependent on what managers are capable of doing and willing to do. The building blocks of effective information use—trust, transparency, openness, the willingness to learn from mistakes rather than bury them—depend greatly on the environment created by managers and the signals they send.

If the IO Dashboard reveals that the company is especially weak in these elements and if, in the leader's judgment, this is due in large part to incumbent management, changes may be necessary. Here, again, the judgment of senior managers and their personal knowledge of managers at the business-unit level will be key.

Does a problem lie in the managers' understanding of the situation they have fostered, or in their sense of urgency about making a change? If so, the Dashboard assessment may catalyze change.

Is the problem more fundamentally one of a manager's capabilities or personal style? Can needed capabilities be built? Or would adding one or more new managers from elsewhere in the organization, or from outside, be the best way to improve behaviors and values?

Global impact

Most corporations are made up of several business units. IO performances of the individual units, plus the leader's assessment of each unit's realistic timetable for improvement and need for management changes, are critical in making decisions about the overall strength of the portfolio. Which business units are most ready

for the new economy? Which require the greatest immediate attention? How can a leader build strengths across the portfolio?

One global financial services company launched an initiative aimed at integrating its services around the world. As part of this effort, it did an IO assessment. All 360 senior managers in the company's 50 senior management teams were surveyed.

With the resulting picture of all business units, senior managers could identify and target those units that ranked low in information capabilities. By transferring best practices and key people from the higher-ranked business units to the weaker units, the company could begin to build capabilities where they were needed most. Using the Dashboard, managers were also able to develop action plans for improving information capabilities across the global group.

With the IO Dashboard, managers have for the first time the ability to measure and therefore manage information usage within their company. Now they can develop, systematically and with a sure hand, the information capabilities that they have long known are key to success in the new business economy. And because of the power and versatility of the IO metric and methodology, they now have insights of great value into making the difficult decisions that top leaders often face.

Companies that want to survive in the eEconomy must remain competitive—by having a viable cost position and, more important, the strategic edge of a compelling value proposition. To do this, these companies need to excel in the use of information. The extent to which a company can take advantage of an environment rich with information

will determine not only what innovations it can use to grow its business but also whether it can operate in a virtual market at eSpeed.

For too long, managers have been frustrated in their attempts to more effectively tap into the power of information. Those days are over. For the first time, business leaders can see how all the essential components of information capabilities—the human as well as the technological—work together and reinforce one another.

More important, for the first time they can measure and manage performance in these capabilities within their companies, which means that they can act on opportunities that the new economy offers to achieve greater levels of business success. ■

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