Building Strategic Advantage Through IT

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EXECUTIVE SUMMARY: *Unlike what some commentators have said, information technology is not a commodity; nor is it an afterthought. IT is a strategic asset, when implemented and used appropriately. IT enables an organization and its people to be reliable, unified, agile, and responsive. This white paper describes for CIOs, CFOs, and other senior officials how IT can provide a return on knowledge that leads to a competitive edge.*

OVERVIEW

Across industries, IT budgets as a percentage of sales hover just below 4 percent. Information technology expenditures are a significant cost for most organizations. But many still struggle to effectively account for their return on IT investments, either in reduced costs or in differentiated value to their customers. One of the biggest problems in justifying IT budgets is the growth of the knowledge economy: Our economics remain rooted in Industrial Age terms. When the only framework is industrial economics, everything looks like a production line.

The most common strategies for understanding and accepting IT investments include the competitive "cost of doing business" argument, followed quickly—and not surprisingly, given the previously stated position—by the attachment of technology to a process. There is nothing wrong with either approach, but neither helps IT managers connect spending to a business outcome in a tangible way.

Information technology becomes a strategic asset when it makes the entire business adaptive and ready for change by connecting people, process, and information to drive results. How an organization measures the results of its technology investments is important, because the continuous improvement of any function requires a clear way to measure performance against goals. The strategic value of IT, therefore, becomes clearer when executives move away from Industrial Age metrics and toward a more holistic assessment of "return on knowledge."

In fact, better measurement of the return on IT investments can yield strong overall financial returns. Companies that excel at managing the value of their IT investments outpace their peers in overall financial performance, according to research by The Hackett Group. Essentially, Hackett says, companies that better manage the business value of IT—including governance, portfolio management, and other IT management tactics—have 49 percent higher net profitability than their peer group. In addition, their return on equity and return on assets are higher (see Chart 1, "The Financial Proof: The Right IT Delivers Strategic Advantage").

> "Information technology becomes a strategic asset when it makes the entire business adaptive and ready for change."

CHART 1: The Financial Proof: The Right IT Delivers Strategic Advantage

Percent of "top IT value performers" exceeding their peer group in specific financial merits

	49%	43%	39%
	Net profitability	Return on equity	Return on assets
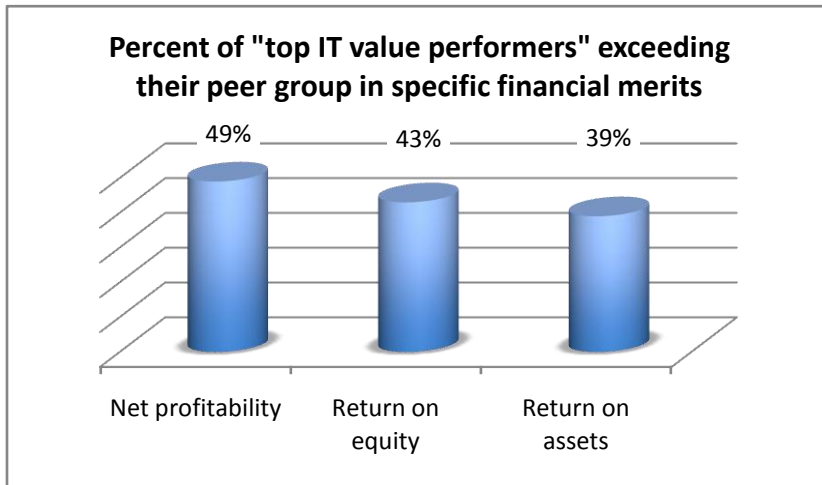
Source: The Hackett Group, 2008
(http://www.thehackettgroup.com/studies/itbvminsight/)

THE CHALLENGE OF MEASURING RETURN ON KNOWLEDGE

Microsoft® Corporation recognizes the disconnect between traditional accounting methods for returns and those for returns that are now known as *intangibles*. To address this issue, Microsoft has invested in the Institute for Innovation and Information Productivity (IIIP), a trade association (www.iii-p.org) charged with exploring alternative economic models that better reflect the nature of the knowledge economy.

Although this whitepaper presents a reasoning process that managers may find useful, it does not reflect a definitive methodology for anticipating value. In fact, one of the Institute's primary positions is that some horizontal technology cannot be justified using traditional accounting methods. That said, the challenges of accounting do not imply that information technology has no value. Rather, it is that the economics of the Knowledge Age have not caught up with innovation. It is Microsoft's hope that the research derived from our investment in the IIIP will accelerate other research that will in turn create working methods to help CIOs and other managers gain a better understanding of the return on knowledge.

Microsoft wants to partner with our customers to explore how value is derived from our software. Neither one person, nor one company can imagine all of the ways software will be applied across industries, across cultures, and over time. We want to help document the experiences of our customers. We also want to work with our partners to better understand

"The economics of the Knowledge Age have not caught up with innovation."

both the value that they help their customers realize and the patterns that arise when those customers adopt technology. Our hope is that these results will illustrate to other organizations the returns associated with IT investments.

WHY IT MATTERS

The strategic value of information technology has been a controversial subject in business literature over the past several years. Consultant and author Nicholas Carr famously asked, "Does IT Matter?" because he observed that infrastructure and software are commodities, equally - available to every competitor in the market.[1] In his view, the data center is—at best—a cost of doing business, and a company would be better served if it could reduce its IT footprint.

Carr's question is a bit misleading. The central issue is not the value of IT generally speaking, but the application of IT within the business. Two companies with the same basic IT cost structure can end up in very different competitive positions, depending on whether they are leveraging their information assets to facilitate agility or seeking efficiency through business process optimization.

Carr's observations may ring true for some organizations that invested heavily in custom-built, rigid enterprise systems and then expected these systems to confer value simply by automating structured processes. *Of course* the value of those systems is limited: No process can be reduced to zero cost. Companies cannot save their way into prosperity as a long-term strategy. At a certain point, innovation and growth are necessary, and rigid IT systems are more often an inhibitor, rather than an enabler, of change. In fact, when change is necessary, enterprises that adopt a static approach may be hostages of the IT providers, system integrators, and services organizations that hold a monopoly on the skills required to update their business rules. Those costs can rapidly escalate, eroding the hoped-for benefits from process optimization. How an organization defines value is a key component of how it realizes value. For IT that means aligning investments with strategy. This process ensures the results line up with goals that are larger than any single technology, application, or system.

In cases where static IT systems impede agility, it is more accurate to say that the *implementation strategy* was the problem, not the concept of IT or its ownership. IT does not have to be rigid and purpose-built around

"How an organization defines value is a key component of how it realizes value. For IT that means aligning investments with strategy."

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[1] Carr, N. *Does IT Matter? Information Technology and the Corrosion of Competitive Advantage*. Boston, MA: Harvard Business School Publishing, 2004.

static workflows. IT that is focused on flexibility, end-user productivity, and extensibility can offer the same short-term efficiencies as more structured workflow solutions, but at lower cost and greater long-term business value. Flexible IT adapts to change without requiring constant changes to the deep rules and schemas that reflect current realities.

Erik Brynjolfsson, the director of MIT's Center for eBusiness, agrees. "Whether IT improves productivity depends primarily on the complementary organizational investments that companies make in addition to their IT investments."[2] While Carr says the downfall of IT is due to the fact that companies can rapidly copy "commodity" solutions in the marketplace, Brynjolfsson argues that IT alone is not a competitive differentiator. An effective information technology investment reflects the organization's complex values, social structure, process, and practice. For another organization to copy just the technology would create discord, not an advantage.

WHY APPLICATIONS MATTER

For most managers, business applications are the windows into information technology. For CFOs, the primary entry point is probably the financial management system and its related compliance features. For the vice president of Sales, the customer relationship management (CRM) system and its accompanying reporting system for sales performance reign supreme.

William Blundon of Boston-based Extraprise Group Inc. recommends that all implementation projects be driven by a business case.[3] This advice is important, because the business case is much more than a return on investment. It is a contextual plan for how value is determined within an organization. The finances may be part of a business case, but as Washington Mutual CIO Jerry Gross states in the book *In Search of Business Value*[4]:

Return on investment of technology is a very good financial metric to shoot for, and we've done that. But we also have some non-financial or intangible metrics...The people part is all about the behavioral. Whether the end user is an employee or a customer, do you see a behavioral change?

> "Flexible IT adapts to change without requiring constant changes to the deep rules and schemas that reflect current realities."

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[2] Brynjolfsson, Erik. "VII Pillars of Productivity." *Optimize*. May 2005.
http://ebusiness.mit.edu/erik/Seven%20Pillars%20of%20Productivity.pdf
[3] Blundon, William. "How to Make CRM Work." *Computerworld*. April 11, 2003.
http://www.computerworld.com/softwaretopics/crm/story/0,10801,80251,00.html
[4] McDowell, Robert and Simon, W. *In Search of Business Value: Ensuring a Return on Your Technology Investment*. New York, NY: SelectBooks Inc., 2004.

The business case reflects the anticipated results of investments. If an investment does not match or exceed one of its primary metrics, then advocates will have a difficult time defending it.

Project managers need to distinguish between false metrics and real business metrics. False metrics count things and profess progress but have little meaning if they are not applied to the overall goal. In CRM systems, for example, "contactable customers" is a false metric, as is the number of documents in a knowledge management system. Both count progress, and perhaps use, but neither metric ties to tangible results such as higher revenue or market share. They are intermediary metrics, their results (the existence of data) meaningless until applied, for instance, to convert a contactable lead into a sale. The following are examples of results-oriented business metrics:

BUSINESS GOALS	DESIRED OUTCOME	METRIC
Customer retention	Customer satisfaction	Market share
Profitability	Cash flow	Sales backlog
Cycle-time reductions	Quality index	Rework
Productivity	Percent of revenue from new products	Organizational competency/skill levels
R&D conversion	New products and services, first-mover advantage	Pricing power, market growth

Whatever metrics an organization holds most closely are the ones that drive the value conversation. These metrics are usually defined by the company's strategy, and they exist as inputs from conversations with the board of directors about shareholder value. Many business results are not pure metrics but indexes, such as quality being a combination of manufacturing quality, returns, call-center calls, delivery issues, and other factors that reflect overall quality, rather than quality at any one operation. In the previous CRM example, sales backlog and market share may be key. But if the issue is pipeline efficiency, then cycle-time reduction around contacts and contracts may prove a more relevant metric.

WHY PLATFORMS MATTER

Information technology adds strategic value when it can change with the business. Because change happens most quickly at the operational edge of the enterprise and not at the bureaucratic center, the ideal IT model pushes out most capabilities to business users by giving them easy ways to customize their information environment and modify processes as their needs and roles evolve. The best solutions also deliver a common platform, so system operation and the data each user has access to are consistent and familiar across the experience. The way features work should be well-known, so knowledge workers can concentrate on work, rather than on an application's arcane syntax or iconography.

This approach leaves IT management the essential task of governing platform policies, security, access control, and overall strategy, without taxing their resources and turning IT into a bottleneck of business change. It means IT drives standardization and leverages economies of scale, rather than simply automating structured processes. A rigid IT infrastructure, on the other hand, locks the business into a fixed set of practices, one that may have been optimized according to a snapshot of business needs taken years before the solution is fully implemented. When business groups or individual users try to change the outdated process, the cost in IT resources is often prohibitive. The result is that the business is slower to respond and, therefore, less able to compete with more nimble players in the market.

A platform is also important in the management of complexity. Well-designed platforms minimize the need for users or developers to think about how things work within an environment. They offer a common way to introduce features that may be complex, but because of their relationship to the platform, provide a natural bridge from existing knowledge.

According to a survey and analysis by Dynamic Markets, IT managers can assume a stronger role in making information technology strategic within their organizations by adopting five tactics (see Chart 2, "Five Steps to Strategic IT Management").

> "The ideal IT model pushes out most capabilities to business users by giving them easy ways to customize their information environment and modify processes as their needs and roles evolve."

CHART 2: Five Steps to Strategic IT Management

| Make proactivity a rule of thumb |
| Better manage change |
| Implement and enforce policies |
| Improve relationships and information exchange with senior management |
| Establish IT managers as strategic advisors outside of the traditional realm of IT |
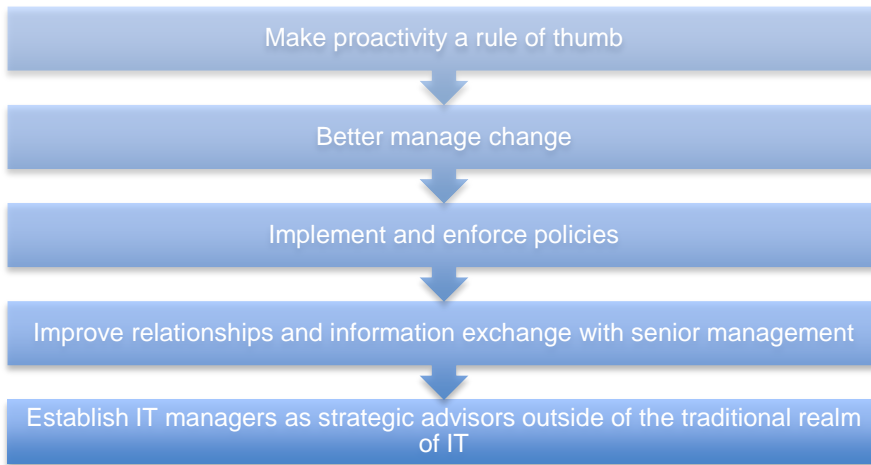
Source: ESJ.com column by Dave R. Taylor, based on interviews of 500 enterprise IT managers by Dynamic Markets (http://esj.com/enterprise/article.aspx?EditorialsID=2090)

Empowering People at the Point of Change

Flexibility is critical to any process, and it is most valuable in handling exceptions. For example, service escalations that occur when a customer's problem falls outside of the parameters the process is designed to handle. In those cases, the ability to execute rests with the person, not the process. Too often, however, the abilities of people in a "structured" service role are constrained by the limitations of their tools. Practices that discourage individual initiative also diminish the ability of employees to add value to a transaction, which can result in reduced customer satisfaction or missed opportunities.

In a fast-changing world where exceptions occur more frequently, are harder to foresee, and have far-ranging repercussions for the business, there is no such thing as a "low-value" or "structured information work" role. Organizations can empower employees to succeed in those cases by giving them IT capabilities beyond those of structured systems, such as communications tools (e-mail, instant messaging, Voice over IP), document authoring tools (word processors, spreadsheets, design), and access to user-created content (shared workspaces, communities of practice, blogs, wikis, search results). Beyond that, empowered employees should also have the tools to rapidly disseminate across the organization their learning from an exception, so that it can be more easily dealt with until the more structured systems catch up. Today, every worker needs a flexible, powerful, and connected information work platform and the skills to use it in a variety of contexts and business scenarios.

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Coordinating Unstructured Tasks

Much of an organization's day-to-day work is done in informal groups. These teams face daily challenges of coordinating members' activities, reviewing documents, managing projects, and performing basic information tasks. Everyone recognizes the aggregate benefits of better coordination among these routine, low-value tasks. Because this work is not specialized and because each task is different enough to require a high degree of customization for each user and occurrence, the ROI of custom development to automate such tasks is prohibitive. Also, this work is properly the responsibility of the business unit, not IT, which should instead provide governance over the entire infrastructure.

Extensible application platforms provide an elegant solution. They offer the core functionality that business users need to perform high-level information work individually and in groups. These platforms also provide a way for people to design and deploy customized solutions to automate common tasks that fall between the cracks of enterprise IT solutions.

Facilitating Strategic Change

Sometimes, strategic changes to the business model or unexpected market conditions require IT systems to be modified beyond the scope of expert end users or in-house IT departments. When professional developers or system integrators need to implement new capabilities, several factors impact the speed and cost of deployment. One factor is the support for software development, which depends on the sophistication of the tools developers use to write code and the knowledge resources available through the platform vendor, professional organizations, online communities, and informal channels. Another factor is the extent to which diverse applications within the data center adhere to broadly accepted industry standards. When a platform is widely adopted, it tends to be well-supported by a large ecosystem of developers. As a result, business customers have a wide range of options and a competitive market from which to choose.

WHY INFRASTRUCTURE MATTERS

Information technology is no longer monolithic, with programs sitting on a single machine that churns out reports, writes data to tables, and sends information to the screens of information workers. Today's IT systems are distributed, optimized for different functions, highly networked, massively redundant, and strategically interconnected. Because IT matters, we do not want the systems we rely on to fail.

Infrastructure matters because it supports the delivery of value. The infrastructure's servers, networks, user authentication protocols, file

"Infrastructure matters because it supports the delivery of value."

encryption, databases, e-mail, shared file systems, instant messaging, and plethora of other IT tools are the pipes and valves, the storage tanks, and the disposal units of information. Often, the infrastructure is abstracted from the business. When the server farm needs to be upgraded to support new processes because the servers are old and need to be replaced, for example, the value justification can sound like IT simply wanting new toys.

To avoid that perception, IT needs to say: *X number of millions of dollars of business runs through our server farms. The meantime between failure is increasing to the point that by X date, we will have X number of business disruptions. Beyond that, our competition—given our current analysis of their online performance metrics—has demonstrated its ability to close a sale 32 percent faster than we can. It may be software, but we suspect that they have upgraded their servers. **That means their customers will have a better experience than ours, and our competitors will gain market share***.

The previous paragraph says a lot about how business relates to IT and the associated choices and options. It is also about timing. Replacing older servers to avoid failure, for example, means first understanding failure. So replacing disks may be more important than replacing servers. Everything needs to be discussed, and IT must think before creating budgets or requesting additional funds.

Operational infrastructure matters in a particular way at each company. It depends on the goods or services a company provides to its markets according to service agreements and on the expectations of its customers. The business must make sure that IT knows how to communicate in business terms, and IT must communicate in those terms. What makes IT matter is often as much about how the business speaks of technology internally as it is what technology does for the business.

CREATING A DIALOGUE BETWEEN BUSINESS AND IT

The value of information technology is often lost because IT stays in IT. The pressures businesses face from outside forces and from internal forces, such as employee, customer, and innovation changes, mean that it is critical for IT to align its plans with the organization's strategy. That strategy is the company's competitive differentiation. The only way to successfully execute it is to align the external and internal forces with the tools necessary to react, adapt, and navigate them. IT also helps companies understand the complexities of data, because that data may reveal customer and market insights in the firm's area of expertise. As a result, the business may discover new value for its customers.

> "What makes IT matter is often as much about how the business speaks of technology internally as it is what technology does for the business."

All of these links create a need for an ongoing dialog between business and IT, for a common language of business goals and objectives that are tied to information technology investments. This is not a one-way dialog. New technologies may lead to new operational opportunities or new relationship models. If the business wants to innovate on multiple levels, it must carefully listen to what IT has to offer. And in this part of the dialog, IT needs to clearly express—in business terms—the connection between the technology options and the potential business value. For example, a database is not just a database. It is a tool to achieve a business goal. Once the database schema is defined and the hidden logic of its execution is coded, it is as specialized as any person working on a specific business function. Just knowing how a database works will not tell a database administrator why it is important for that database to be coded in a particular way. The administrator needs to understand the business value of the database to understand the "why" behind its coding.

Business is a complex interplay of people and process, of expectation and aspiration. Far too many IT projects have failed over the last 30 years because an organization has not been able to appreciate technological innovation. The value of such innovation is in a technology's capability to align to business goals and to provide new or improved value to the business. If the business or the corporate culture is not ready to accept technological innovation, no amount of persuasion will change that fact.

Indeed, many IT managers acknowledge that they have much to learn about the business, according to a 2006 survey of more than 400 respondents from midsize companies (see Chart 3, "Closing the IT-Business Gap).

> "If the business wants to innovate on multiple levels, it must carefully listen to what IT has to offer."

Percent of respondents who agreed with the following statements:

- Top management makes business goals clear to IT — 26%
- IT works more closely with business management than it did a year ago — 48%
- IT gets involved in business initiatives after those decisions are already made — 35%
- IT plays a key part in most critical business decisions — 33%

Source: Network Computing/InformationWeek
(http://www.networkcomputing.com/article/printFullArticle.jhtml?articleID=189400445)

TENETS FOR SUCCESS

Writing in the *Harvard Business Review*, John Seely Brown and John Hegel observe that "IT's economic impact comes from incremental innovations rather than 'big bang' initiatives… If done right, these innovations can also reduce the financial risks by generating near-term returns that can help fund subsequent waves of operating initiatives."[5] In other words, organizations can get more from their IT investment by adopting a layered approach, where each new development effort extends the underlying platform of capabilities, rather than sinking substantial upfront costs into a long-cycle project that does not pay off until it is complete.

IT Is Useful; Practice Is Decisive

If every competitor in the market used the same IT products in the same way, then it would be absolutely legitimate to question the relevance of IT to business strategy. But every organization is different; each applies its

> "Organizations can get more from their IT investment by adopting a layered approach, where each new development effort extends the underlying platform of capabilities."

[5] Hegel, John and Seely Brown, J. "Letter." *Harvard Business Review*, June, 2003.

own methods, priorities, and cultural factors to any new business initiative. Nicholas Carr and his critics agree on one point: All businesses need to focus on practice innovation—that is, learning and adapting. Technology can support such innovation when it is flexible, broad-based, and easy to use. It can also inhibit practice innovation when the technology is glued to static processes, costly to modify, and difficult for people to learn.

Complex Practices Drive Value in a Complex World
The globally connected business environment never stands still. Complex and dynamic conditions demand complex and dynamic responses. Process and system standardization creates efficiency but leaves businesses vulnerable in the face of complexity. When organizations are invested in highly standardized, process-based IT systems—whether they are either inside the enterprise or outsourced to a host or provider—people are less able to adapt and respond to new conditions. They are constrained by the limitations of their software tools. When IT enables users to design, deploy, and modify processes that relate to their roles and workload, however, the business is better able to adapt, learn, and grow in a dynamic market.

Agility Requires Fluidity of People, Systems
Rapid change in the wider world creates new roles for people and diminishes the value of established positions. People must be able to adapt quickly and apply their skills and expertise in new contexts. When software is built around a familiar set of basic skills and applications, people can move from role to role more easily. They can reuse their knowledge in a new business context.

The same is true in the data center. When IT systems are designed to integrate around a common framework, IT staff can learn and reuse a basic body of administration and programming knowledge and apply it to many different scenarios. This ability not only increases the productivity and value of IT resources, but motivates IT professionals to deepen their skills, because those skills will be transferable as the technology evolves along a predictable roadmap.

Global Businesses Require Global Support
How solutions are delivered should be factored into the strategic value of IT. Globalization is pushing more businesses into unfamiliar markets and creating new competitive conditions. When IT systems need professional development services or support, customers need to know where to turn. A worldwide provider with a tangible commitment to an ecosystem of independent certified partners and experts provides accountability, predictability, choice, and value.

"When IT systems need professional development services or support, customers need to know where to turn."

In contrast, national software companies in emerging markets often provide interesting products at attractive prices, especially for domestic customers. But these companies may not be able to offer the long-term support and viability of product development as their customers expand into new markets and demand more complex capabilities. Loose-knit communities of developers, while global in scope and frequently responsive, provide little of the accountability that enterprise customers demand. Nor can they speak to the development roadmaps of their products, because these developers do not have that information themselves.

Finally, large vendors that derive revenues primarily from professional services and integration do not have the market incentives to deliver out-of-the-box value from the software products they provide. Services organizations make money from service engagements, long-term support agreements, and change orders. They also benefit from a relative scarcity of the skills necessary to service their products in the open market. Such a business model clearly works well for these firms. But it may provide less predictability and value for customers than simply buying licenses for products that meet baseline business needs and can be extended at low marginal cost.

WHY IT STILL MATTERS

You may or may not buy into all of the value arguments presented in this white paper, but you probably used a PC to download it. And you probably have a device for e-mail in your pocket or on your desk. So let us look at e-mail as a valuable technology investment.

Just because everyone has a device for sending and receiving e-mail does not discount it as an effective tool or competitive differentiator. What matters is how your company uses e-mail. If the point is only to answer routine questions, then e-mail probably will not create differentiation in your business's market. On the other hand, if your employees use it to, for example, send photos that capture fashion trends to a shared workspace that promotes collaborative decisions on how to incorporate those trends into your product line, then the value of e-mail moves from a cost-saving application for sending internal memos to one that drives strategic innovation.

EIGHT WAYS TO ACHIEVE MORE STRATEGIC IT

1. **Connect information to the business functions it supports.** From applications to infrastructure, you must understand the value of data and tie it to the IT investment. It is much harder to justify infrastructure or other IT investments in the abstract.

"From applications to infrastructure, you must understand the value of data and tie it to the IT investment."

2. **Understand the business and speak the language of business.** IT is too often enamored with acronyms and abbreviations. Businesses have those, too. You must make business models and business language as innate in IT as the department's own models and slang. And always communicate to the business in business language.

3. **Build business expertise.** Although the IT department is expected to be a group of generalists supporting multiple business functions, it is just as important to segment customers and understand where IT needs to invest in expertise, customer support, and so on. Hiring business people within IT who can drive the strategic conversation may be a better investment than switching transaction monitors in terms of adding value.

4. **Tie the IT investment to competitive differentiation.** IT is an extension—and a tool—of the business's strategy. Investments in information technology can only realize value when they deliver on a strategic metric.

5. **Create a dialogue with business.** The dialogue between business and IT is crucial as a way to facilitate shared learning. It is also about offering a point of view or marketing an idea. Businesses can invest in many areas. If IT truly believes that technology is a viable and more effective use of capital than another area, the group needs to not only talk about it, but sell it to business leaders.

6. **Capture value.** A major problem with ROI calculations is that they are done before a project and often abandoned soon after the project is funded. IT departments that want their value recognized need to monitor the project's return on investment, continue to align and adjust the project, and be honest with the business about the outcomes of technology investments.

7. **Create a learning environment.** As with capturing value, capturing knowledge is important. Initial designs for new systems, practices, and policies may look good on paper, but they may not perform or deliver as expected. By creating a learning environment where IT and business partner to provide feedback and action plans based on that feedback, businesses have a better opportunity to cut losses and fail-fast and to improve their chances of identifying true innovations that may lead to strategic breakthroughs.

8. **Think about the business implications of systems.** Realizing value does not stop when an application icon shows up on a computer's desktop. Value is created by using technology in the execution of a process or other type of work. People must understand how a new tool fits into their work model. And if it does not fit the model, they need help understanding how the tool can fit. That will empower users to push back and become a part of the feedback system that adjusts tools to better meet real-world business needs.

"IT departments that want their value recognized need to monitor the project's return on investment."

KEY INFRASTRUCTURE INVESTMENTS
FOR COMPETITIVE ADVANTAGE

TECHNOLOGY	BUSINESS RATIONALE
Process Automation	Eliminate costs and create data that provides insight into cost structure and process flows.
Collaboration and Unified Communications Technology	Connect the increasingly virtual organization, so that people can drive innovation, maintain relationships, and execute on operational improvements that result in improved productivity. Unified communications create a single communication infrastructure, reducing costs for PBX enhancements while providing information workers with improved productivity through unified inboxes and rules that help them manage interruptions.
Security for the Extended Enterprise	As the edges of business and consumer applications blur, security technology will emerge to keep intellectual property and trade secrets secure and to keep personal information about employees and customers confidential.
Virtualization	Virtualization reduces costs for hardware, improves software testing and deployment, reduces energy and physical space use, and increases the flexibility of hardware investments.
Managed Mobility	From e-mail to data on micro-SD cards, enterprise information now resides on company-owned and personal cellular phones. Managed mobility pushes data governance policies out to the edge of the network without significantly affecting the performance of the devices for telephony or collaboration.
Document Management Styles	Centralized repositories of content

	eliminate multiple versions of truth and misunderstandings about the "source of the truth."
Business Intelligence and Analytics	Having the infrastructure in place to understand business performance, processes, customers, markets, and employees is essential to gaining insights from data.
Business Performance Infrastructure	Adopting a platform through which collaboration, communication, analytics, and enterprise systems all communicate creates a more integrated, responsive, and agile business.