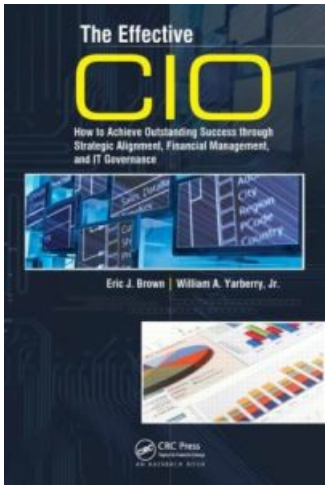

Book The Effective CIO

How to Achieve Outstanding Success through Strategic Alignment, Financial Management, and IT Governance

Eric J. Brown and William A. Yarberry, Jr.
Auerbach Publications, 2008

Recommendation

Too often, technical virtuosi believe their skill entitles them to a seat in the executive suite. But both companies and chief information officers (CIOs) benefit when CIOs have finance and project-management chops in addition to technical knowledge. Information technology experts Eric J. Brown and William A. Yarberry Jr. explain why IT "governance" is necessary and why IT systems must match corporate strategy. Their discussion of the contribution of IT due diligence to the success of mergers and acquisitions is particularly valuable, since the failure to do such research dooms many M&As. They offer good advice on how to choose which functions to outsource, how to select vendors and what to look for in consultants. Whether you are a current or aspiring CIO, *BooksInShort* suggests that you use this terrific handbook to learn how you can make a strong business contribution through technology. One note: Although Brown and Yarberry's work is certainly accessible to a general business audience, their focus on IT with its accompanying jargon may make their guide somewhat tough going for those outside its target audience.

Take-Aways

- Become a better chief information officer (CIO) by adding business savvy to your technical know-how.
- Even if you think you know enough about finance, learn more; numbers matter.
- Institute solid "governance" procedures for the information technology (IT) function.
- Use modern project-management methods appropriate for each project's scope and time frame.
- Ensure that your programmers write standardized, well-documented and reusable code.
- Match your IT and communications architecture to your firm's strategic goals.
- Align IT support and delivery operations with your business objectives.
- Many mergers and acquisitions (M&As) fail because of insufficient due diligence regarding IT systems.
- Rather than offering classroom instruction, save time and money by investing in training that uses the Web creatively.
- Employ a range of management and policy approaches to accommodate changing values among generations.

Summary

The Skills of a Chief Information Officer

Every chief information officer (CIO) uses the position differently. Obviously, CIOs need to understand technology, but they also additional skills to do a top-notch job.

CIOs come from a wide range of educational backgrounds. No well-worn path leads to success as a CIO, so you can pave your own way. Start with a good foundation in technology, business, organizational behavior, finance and analytics. Then, actively acquire experience. Don't be shy about promoting your talents and successes, since people become CIOs by getting noticed for doing things creatively and well. When you plan, remember: Keep it simple. Things change too fast in your field for complex strategies to be realistic.

"Governance" Is Fundamental

Information technology (IT) exists to support the company's mission and goals, and governance is the structure you create to make that happen. Letting IT run without governance is sowing the seeds for painful crises that will require time and money to fix.

> "There has never been a recorded instance of an overgrown backyard spontaneously rearranging itself into a neat English garden. Careers work the same way."

The IT department should support the firm's delivery of value both in-house and to customers. IT should help the company manage its resources, including human resources, and its departments. Address problems of system availability, access, data accuracy and system adaptability as technology changes.

Why You Need to Understand Finance

Money is the lifeblood of your organization, so the more you understand your firm's finances, the more influence you will have as an executive. You need to know how to create and manage a budget; simply tracking budget variance is not enough. When you manage costs carefully, you can improve current performance and lower future costs. If you know where your money is going and where you need it, you'll be able to adapt when reality throws you a curveball.

> "What is so great about the 'and' word? It is your ticket to a more interesting and challenging job. If you can be CIO and 'X,' then your job just got expanded."

Document system performance so you can demonstrate that your recommendations are worth following. You'll also have the data you'll need to learn from mistakes when things don't go as you planned. Work with the executive team to determine how departments will pay for the systems they need. Become an expert in contract design and management, so you can negotiate effectively with vendors.

How to Manage IT Projects

Choose the appropriate project-management methodology based on the size, cost and length of each project:

- **"Code first, fix later"** – This is the quick-and-dirty approach of getting something in place right away and dealing with problems as they occur.
- **"Waterfall"** – Most companies still use the waterfall method of managing projects: They divide tasks into discrete steps, and the work flows like water down each step in turn. However, this method is not flexible enough for many technology projects.
- **"Rapid prototyping"** – Small teams of experts quickly build a prototype. This is also called "rapid application development" (RAD).
- **"Agile methodologies"** – In this communication-intense method, developers and testers work in close physical proximity to create software in "iterative steps."
- **"Rational unified process" (RUP)** – A division of IBM designed this six-step process that involves balancing the requirements of various stakeholders and finding areas of agreement to develop software that meets a range of needs.
- **"Out of scope/embedded project"** – Basically, this system is no system – the "null value" on this list.

"Good-Enough Code"

Most organizations do not have the time or budget to create perfect code; instead, aim to create good-enough code. Start with a solid architecture. Don't work from scratch, and don't let anyone else do so, either. You can't afford that kind of hubris. Managers who supervise coders should have strong technical backgrounds themselves, so they can enforce coding standards. This is important because others must be able to read and maintain your code. Supply all programmers with the same tools to help them coordinate their work. Provide mentors to coach developers and review their projects. Before releasing the new software, check the code. Especially when migrating to new platforms, avoid slapdash conversions – buggy software can harm your reputation.

> "One of the quickest ways to evaluate an organization is to look for grease boards, small conference rooms and sketch pads...Blank, dull walls are anathema to creativity."

When you're building a programming team, talent is usually more important than personality – unless the personality issues are so extreme that they disrupt the team. Work hard to keep the team happy and cooperative.

Aligning IT and Strategy

The more your company's IT systems match its business strategy, the more value your firm provides. To create functional systems, study its business model and organization. Understand how the various departments fit together. Don't develop a system based on charts and statements about how the enterprise is supposed to work; instead, get out there and see for yourself. Talk to a range of employees. Build your system on what you learn about organizational reality.

Mergers and Acquisitions

Your leadership is the main thing you can contribute to help your company during mergers and acquisitions (M&As). Most businesses focus their due diligence on accounting and finances. Push your firm to take a good look at the target company's IT systems. Many M&As have failed because no one realized that the two organizations' IT systems were incompatible and could not be integrated quickly or cost-effectively.

> "In some cases, financial acumen is the critical competence separating the chief technology officer (CTO) from the chief information officer (CIO)."

In addition to IT systems, evaluate the people. Determine whether you will be able to integrate the two teams. Decide who is necessary and whom you can cut. Make those decisions immediately; though painful, it's usually better in the long run. Customer retention is critical. Plan to retain customers and to make the transition glitch-free.

Sourcing and Outsourcing

Many companies wrestle with deciding whether to outsource IT. On the one hand, if you have a limited growth path for IT talent, such as programmers, then recruiting and retaining them is difficult. Outsourcing may enable you to leverage better people and systems than you could afford in-house. Specialized providers are experts at complying with data security and privacy regulations – although you must feel you can trust them with sensitive information.

> "A culture of knowledge management takes time to develop. Cardboard boxes retain their allure as quick repositories but...fail miserably as long-term storage for training materials."

On the other hand, outsourcing favors large volumes. It may not be practical if you don't generate enough work. Ask yourself if you would feel limited by the provider's platforms and systems, and if you would choose different ones if you could. Negotiating with a provider can be complex and costly. When you outsource, you must do a legal review of the contract, your liabilities, transitioning mechanisms and ongoing management.

"Predictive Analytics"

The IT department should provide employees and managers with the information they need to make timely customer-service decisions. Develop software that helps workers offer discounts, find what they need in inventory and understand clients' concerns. Some advanced systems use predictive analytics to find new customer opportunities and spot trends before they become obvious. These tools are often based on data-mining techniques, so they require consistent, high-quality data collection. Decide to use analytics only if you plan to accept it as the way you do business; implementing this system and then forgetting about it is pointless.

The Security Balance Beam

CIOs are responsible for security, because computers and communication systems fall under their jurisdiction. As a CIO, you must be adept at creating, implementing and enforcing personnel policies that balance security with the realities of how people work. Clamping down too tightly can have a negative effect, since data must be available as necessary to customers, employees, managers and other stakeholders. But, if data flows too freely, it will end up in places where it shouldn't.

How Much Training?

Too many executives believe that spending on training is simply investing in their competitors, because employees with new capabilities will immediately take them elsewhere to make more money. However, when you fail to train your employees, you incur direct costs. Workers may process orders incorrectly and your customers may leave. People who can't develop their competence may quit. Training creates opportunities to increase your revenues and explore new areas of business, because it provides you with a more talented workforce. Of course, you can overspend on training. Not everyone needs every skill. Still, your goal should be to break down "knowledge silos."

> "The Internet is a good example of how a nonlinear technology changed the world in the blink of an eye."

Web-based programs deliver training cheaply and enable people to find the information they need when they need it, so they don't have to try to retain everything they learn in a course. Putting manuals online saves on printing costs and ensures that everyone in the company is working from the same information sources.

Using Consultants

Consultants must be team players with great communication skills. They should never bully or condescend. Consulting companies have to make a profit like any other business; the best have a strong pool of knowledge and skills to draw upon, since no one consultant can know everything. Before you hire a consulting firm, check to see if it is involved in legal action or has had any project disasters.

> "Most IT failures are relationship failures...Business conducted during a lunch hour can be more effective than a month of consultants and PowerPoint presentations."

Provide consultants with projects that have clearly defined schedules and scopes. Be clear about costs up front. Include a means of transferring knowledge to your team in the contract. When the project is over, don't let consultants walk away with information that your firm paid for and, thus, rightfully owns.

Operating Your IT Function

CIOs must define the IT department's strategy, systems, goals, operations and future evolution. The department must provide two important processes:

1. **"Support"** – Employees need help with IT problems, configuration, system incidents and new releases.
2. **"Delivery"** – Begin with clearly defined levels of service; then create an organization that can provide them. Manage finances to ensure budgetary and technical compliance.

Looking Ahead

Employee demographics are changing. The huge baby boom generation is reaching retirement age, and Generation X, which is relatively small and has different interests, is taking over. You must not only attract Gen Xers, you must also entice some boomers to postpone their retirement.

> "Usability trumps features every time. A simple system gets used by the people who count."

Keep up with IT trends: People are increasingly dependent on software for work, play and communication. They want "green" goods and services, and workers want

their companies to create environmentally sustainable operations and products. Many firms are considering running applications from the Web rather than from individual desktops. Some have begun combining Internet and traditional applications to create new "mashups." Develop a clear sense of your organization's needs and how you can meet them.

About the Authors

Eric J. Brown is CIO of NCI Building Systems, where he developed the strategy to connect the company's IT architecture with its business objectives. **William A. Yarberry Jr.** is an IT consultant with more than 30 years of experience. He is also the author of two books and more than 20 articles on IT and management.