Thanks to Peter and Jeanne for keeping the wonderful institution of MIT CISR alive and thriving. MIT CISR has been, and continues to be, an island of sanity in the strange and wonderful world of MIT. Thank you both for letting me be part of such a great organization once again.

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To Phoebe, Alan, and Alice, thank you for all your love and support. To Gordon and Caroline, thank you for the constant joy you create. And to Anne, my foundation, thank you for your friendship, encouragement, and love.

1

To Execute Your Strategy, First Build Your Foundation

DOES IT FEEL AS IF the employees in your company are working harder and harder, but you're still losing ground? You've got great people, you invest carefully, and you believe you have the right strategy. You watch the market, listen to your customers, and react as quickly as you can to competitors' moves. In short, you do everything the management literature says you should, but you still can't get ahead.

And the signs aren't encouraging for the future. You see Chinese companies taking over manufacturing in industry after industry.[1] Indian companies providing more and more services.[2] Small, agile competitors from around the world picking off niche after niche in your markets. Competition is only getting tougher.

Yet some companies—some of your competitors—seem to be able not just to survive but to thrive. In the face of tough global competition, companies like Dell, ING DIRECT, CEMEX, Wal-Mart, and others are growing and making money. These companies have more-productive employees, get more from their investments, and have more success with their strategic initiatives. What are they doing differently?

We believe these companies execute better because they have a better foundation for execution. They have embedded technology in their processes so that they can efficiently and reliably execute the core operations of the company. These companies have made tough decisions about what operations they must execute well, and they've implemented the IT systems they need to digitize those operations. These actions have made IT an asset rather than a liability and have created a foundation for business agility.

We surveyed 103 U.S. and European companies about their IT and IT-enabled business processes. Thirty-four percent of those companies have digitized their core processes. Relative to their competitors, these companies have higher profitability, experience a faster time to market, and get more value from their IT investments.[3] They have better access to shared customer data, lower risk of mission-critical systems failures, and 80 percent higher senior management satisfaction with technology. Yet, companies who have digitized their core processes have 25 percent *lower* IT costs. These are the benefits of an effective foundation for execution.

In contrast, 12 percent of the companies we studied are frittering away management attention and technology investments on a myriad of (perhaps) locally sensible projects that don't support enterprisewide objectives. Another 48 percent of the companies are cutting waste from their IT budgets but haven't figured out how to increase value from IT. Meanwhile, a few leading-edge companies are leveraging a foundation for execution to pull further and further ahead.

As such statistics show, companies with a good foundation for execution have an increasing advantage over those that don't. In this book, we describe how to design, build, and leverage a foundation for execution. Based on survey and case study research at more than 400 companies in the United States and Europe, we provide insights, tools, and a language to help managers recognize their core operations, digitize their core to more efficiently support their strategy, and exploit their foundation for execution to achieve business agility and profitable growth.[4]

What Is a Foundation for Execution?

Every human being performs a variety of critical, fairly complex tasks without actually thinking about them. These tasks include breathing, hearing, swallowing, and seeing. With experience, humans can take on more-deliberate tasks like walking, riding a bike, driving a car, and making coffee. At first, these more-deliberate tasks require some concentration and adaptation, but they quickly become second nature. Over time, different humans develop distinguishing capabilities. A talented musician learns how to play piano; a great athlete plays basketball; a famous chef prepares extraordinary meals. Each of these distinctive capabilities has repeatable, routine activities that would be hard for a novice but that the expert can perform without thinking. Because experts need not focus on the routine activities in their field, they can concentrate on achieving greatness.

Companies are not blessed with the equivalent of the human brain, which coordinates all of a person's activities. Activities as simple as sending an invoice, taking an order, or mailing a package can easily go wrong—even after considerable practice. To focus management attention on higher-order processes, such as serving customers, responding to new business opportunities, and developing new products, managers need to limit the time they spend on what should be routine activities. They need to automate routine tasks so those tasks are performed reliably and predictably without requiring any thought.

A manufacturing company, for example, needs transparent information on customer orders, products shipped, finished goods inventory, raw materials inventory, work in process, invoices sent, payments received, and a host of related transaction data—just to perform at a minimally acceptable level. A mistake in any of that data can have ripple effects on a company's financial performance, its employee satisfaction, or its relationships with customers or suppliers. This is where a foundation for execution enters the picture. The foundation for execution digitizes these routine processes

to provide reliability and predictability in processes that must go right. The best companies go beyond routine processes and digitize capabilities that distinguish them from their competitors.

For example, 7-Eleven Japan (SEJ) has built a foundation for execution that has helped make the convenience store chain the eighth-largest retailer in the world.[5] SEJ's foundation for execution allows each of the company's 10,000 stores to individually manage inventory while ensuring that they all generate rapid turnover on their large stocks of fresh foods. The underpinning for SEJ's foundation for execution is a network of 70,000 computers that collect data at the point of sale on every customer and every item sold. Each day the point-of-sale data is analyzed for use the next morning. Other digitized processes allow each store to place orders and receive deliveries three times each day. SEJ trains all of its 200,000 employees to use available point-of-sale, product, weather, and regional information not only to order from existing product lists but also to create hypotheses about possible new products. SEJ's foundation then connects employees with manufacturers to develop and test new items. The effect? In the average 7-Eleven store in Japan, 70 percent of the products sold each year are new.

In short, a *foundation for execution* is the IT infrastructure and digitized business processes automating a company's core capabilities. As with human development, a company's foundation for execution evolves—usually beginning with a few basic infrastructure services (e.g., employee hiring and recruiting, purchasing, desktop support, and telecommunications), then encompassing basic transaction processes (sales, accounts payable), and eventually including unique and distinguishing business capabilities. Building a foundation doesn't focus only on competitively distinctive capabilities—it also requires rationalizing and digitizing the mundane, everyday processes that a company has to get right to stay in business.[6]

Paradoxically, digitizing core business processes makes the individual processes less flexible while making a company more

agile. To return to the human analogy, a great athlete will have muscles, reflexes, and skills that are not easily changed. But these capabilities give athletes a tremendous ability to react, improvise, and innovate in their chosen sport.[7] Similarly, digitizing business processes requires making clear decisions about what capabilities are needed to succeed. And once these new processes are installed, they free up management attention from fighting fires on lower-value activities, giving them more time to focus on how to increase profits and growth. Digitized processes also provide better information on customers and product sales, providing ideas for new products and services. The foundation for execution provides a platform for innovation.

Do You Have a Good Foundation for Execution?

In our visits to dozens of companies, we have learned to recognize the warning signs of a company that doesn't have a foundation that supports its strategy. Comments from senior executives like the following are indicators:

- Different parts of our company give different answers to the same customer questions.
- Meeting a new regulatory or reporting requirement is a major effort for us, requiring a concerted push from the top and significant infrastructure investment.
- Our business lacks agility—every new strategic initiative is like starting from scratch.
- IT is consistently a bottleneck.
- There are different business processes completing the same activity across the company, each with a different system.
- Information needed to make key product and customer decisions is not available.

- A significant part of people's jobs is to take data from one set of systems, manipulate it, and enter it into other systems.
- Senior management dreads discussing IT agenda items.
- We don't know whether our company gets good value from IT.

As those comments suggest, companies without an effective foundation for execution face serious competitive and regulatory threats.

An effective foundation for execution depends on tight alignment between business objectives and IT capabilities. Toward that end, most companies put in business processes and IT systems using a fairly straightforward logic. First, management defines a strategic direction; then the IT unit, ideally in conjunction with business management, designs a set of IT-enabled solutions to support the initiative; and, finally, the IT unit delivers the applications, data, and technology infrastructure to implement the solutions. The process starts over each time management defines another strategic initiative.

This process goes wrong in at least three ways. First, the strategy isn't always clear enough to act upon. General statements about the importance of "leveraging synergies" or "getting close to the customer" are difficult to implement. So the company builds IT solutions rather than IT capabilities. Second, even if the strategy is clear enough to act upon, the company implements it in a piecemeal, sequential process. Each strategic initiative results in a separate IT solution, each implemented on a different technology. Third, because IT is always reacting to the latest strategic initiative, IT is always a bottleneck. IT never becomes an asset shaping future strategic opportunities.

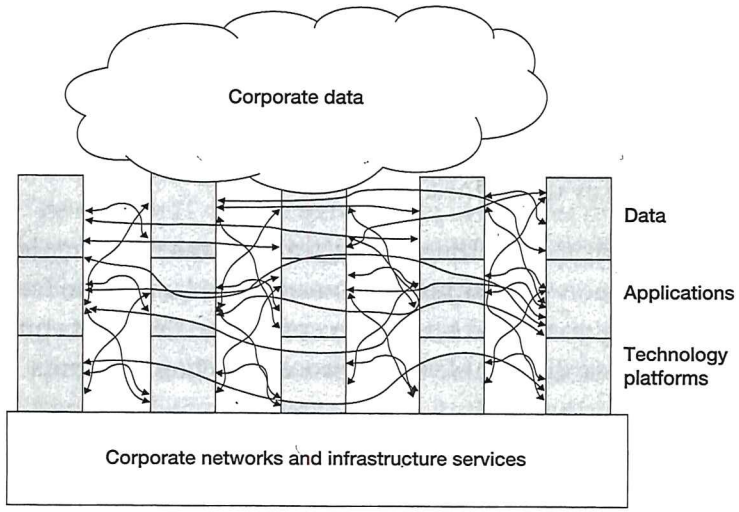
Figure 1-1 shows the combined effect of traditional approaches to IT development—a set of silos. Individually, the applications work fine. Together, they hinder companies' efforts to coordinate customer, supplier, and employee processes—they do not form a

foundation for execution. And the company's data, one of its most important assets, is patchy, error-prone, and not up to date. Companies often extract from silos to aggregate data from multiple systems in a data warehouse (the cloud in figure 1-1). But the warehouse is useful only as a reference—it does not offer real-time data across applications.

The many squiggly lines in figure 1-1 reflect efforts to integrate isolated systems supporting an end-to-end process. One IT executive in an investment banking company claimed that 80 percent of his company's programming code was dedicated to linking disparate systems, as opposed to creating new capabilities. This executive bragged that his developers were able to link together systems so effectively that no human being ever touched a transaction—every process was supported end-to-end by meticulously

FIGURE 1-1

Capability from traditional approach to IT solutions



integrated silo applications. But then he noted, "It's a miracle they work." Eventually this company's lack of a foundation for execution made it a juicy takeover target. Today these systems are being replaced with those of the acquiring company.

Few companies are comfortable with a dependency on miracles. They want technology to reliably support existing processes. What's more, they'd like their existing technology to enable future capabilities. These companies need to take a different approach to implementing IT-enabled business processes.

How Do You Build a Foundation for Execution?

The foundation for execution results from carefully selecting which processes and IT systems to standardize and integrate. Just as humans must learn how to ride a bicycle (and think hard about what they are doing while they are learning), the processes built into a foundation for execution require a great deal of concentration—for a while. Eventually routine business activities—just like bicycle riding—become automatic. Outcomes become predictable. The foundation for execution takes on another layer. A company's identity becomes clearer, and executives can focus their attention on the future.

To build an effective foundation for execution, companies must master three key disciplines:

1. *Operating model.* The *operating model* is the necessary level of business process integration and standardization for delivering goods and services to customers. Different companies have different levels of process integration across their business units (i.e., the extent to which business units share data). Integration enables end-to-end processing and a single face to the customer, but it forces a common understanding of data across diverse business units. Thus, companies need to make overt decisions about the importance of process integration. Management also must decide on the appropriate level of business process standardization (i.e., the extent to which business units will perform the same processes the same way). Process standardization creates efficiencies across business units but limits opportunities to customize services. The operating model involves a commitment to how the company will operate.

2. *Enterprise architecture.* The *enterprise architecture* is the organizing logic for business processes and IT infrastructure, reflecting the integration and standardization requirements of the company's operating model. The enterprise architecture provides a long-term view of a company's processes, systems, and technologies so that individual projects can build capabilities—not just fulfill immediate needs. Companies go through four stages in learning how to take an enterprise architecture approach to designing business processes: Business Silos, Standardized Technology, Optimized Core, and Business Modularity. As a company advances through the stages, its foundation for execution takes on increased strategic importance.

3. *IT engagement model.* The *IT engagement model* is the system of governance mechanisms that ensure business and IT projects achieve both local and companywide objectives. The IT engagement model influences project decisions so that individual solutions are guided by the enterprise architecture. The engagement model provides for alignment between the IT and business objectives of projects, and coordinates the IT and business process decisions made at multiple organizational levels (e.g., companywide, business unit, project). To do so, the model establishes linkages between senior-level IT decisions, such as project prioritization and companywide process design, and project-level implementation decisions.

FIGURE 1-2

Creating and exploiting the foundation for execution

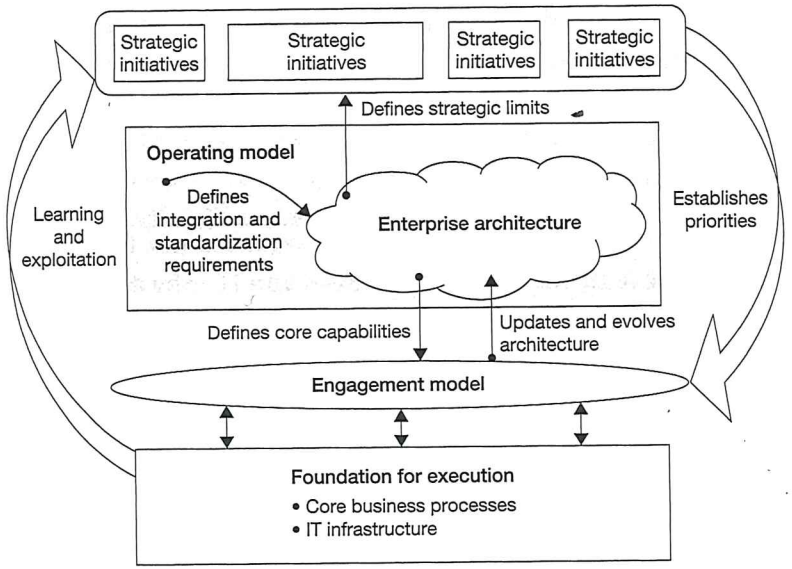


Figure 1-2 illustrates how companies apply these three disciplines to create and exploit their foundation for execution. Based on the vision of how the company will operate (the operating model), business and IT leaders define key architectural requirements of the foundation for execution (the enterprise architecture). Then, as business leaders identify business initiatives, the IT engagement model specifies how each project benefits from, and contributes to, the foundation for execution.

Why Is a Foundation for Execution Important?

Our research found that companies with a solid foundation had higher profitability, faster time to market, and lower IT costs. These outcomes are universally beneficial and timeless—they were valuable twenty years ago and will be just as valuable twenty years from now. But there are a number of more-recent developments that highlight the increasing importance of a foundation for execution. Companies without a solid foundation face a number of serious risks that weren't present just ten years ago.

Growing Complexity in Companies' Systems Can Fossilize Operations

As with the investment bank whose systems were so complex that it was a miracle they worked, legacy systems cobbled together to respond to each new business initiative create rigidity and excessive costs. The Internet boom exposed the inflexibility of many companies' technology and process environments, which led to an inability to adapt to new channels. This inflexibility was not the result of a digitized foundation for execution. It was the result of systems so complex that any change required individually rewiring systems to all the other systems they connect to. Developing and testing new capabilities in such a complex environment is time consuming, and every change becomes a risky, expensive adventure.

The complexity has not added value. Most managers can list processes they perform in many different ways in multiple parts of the company and support with many different systems. As more competitors aggressively pursue reuse of standard processes and systems across their product lines, services, or business units, the inefficiencies of non-value-added variations create strategic disadvantages. The CIO at a $5 billion manufacturing company reported that a global implementation of three modules of a large, packaged enterprise resource planning system (make to ship, account to report, and order to cash) eliminated 450 applications and 3,150 interfaces, mostly by eliminating redundancy. Implementing standardized, digitized processes carries costs, particularly those associated with organizational change, but the benefits are simpler technology environments, lower-cost operations, and greater agility.[8]

Business Agility Increasingly Depends on a Foundation for Execution

Business agility is becoming a strategic necessity. Greater globalization, increasing regulation, and faster cycle times all demand an ability to quickly change organizational processes. Managers cannot predict what will change, but they can predict some things that won't change. And if they digitize what is not changing, they can focus on what is changing. In this way the foundation for execution becomes a foundation for agility.

There are many types of agility, but one indicator of agility is a company's percentage of revenue generated from new products. Our research on 147 companies found that, from 1998 to 2002, on average, 24 percent of a company's sales were from new products introduced in the prior three years. But this percentage varied greatly from company to company—even between those in the same industry. For example, in manufacturing the average was 24 percent. However, a third of companies achieved 50 percent of sales from new products introduced in the prior three years.[9] These more-agile companies also had a high percentage of their core business processes digitized. While there are many possible explanations for differences in a single type of agility, having a digitized foundation for execution probably enabled managers in these companies to spend more time focusing on what products would succeed and then bringing those products to market.

Current National and Political Environments Demand Business Discipline

Companies are buffeted by constant changes in regulations, such as Sarbanes-Oxley, Basel II, and HIPAA.[10] As companies become more global, they become accountable for increasingly complex reporting requirements. And some industries, particularly health care and financial services, face different laws and regulations in different regions of the same country.

For many companies, new regulations mean massive expenditures with no added value. But companies with a solid foundation for execution have more transparent information and the ability to access data more quickly. For example, a financial services company executive commented that Sarbanes-Oxley had not involved any system changes in his company; the required data was already available due to processes the company had implemented. Companies may not be able to anticipate new regulations, but they can increase the likelihood that needed data is readily available or can easily be accumulated.

Building a Foundation Is Less Risky and Expensive Than the Alternative

Many managers, scarred by their experiences in the late 1990s with enterprise resource planning system implementations, think that implementing improvements is going to be an expensive, risky proposition.[11] However, as we will describe in chapter 6, most companies don't have to make massive investments in their foundation. The foundation for execution can be implemented one project at a time. By spending smarter rather than more, companies can use ongoing projects to steadily build their foundation for execution. And as the foundation gets built, IT costs decrease and business efficiencies increase, paying dividends on the original investment.

How Does a Foundation for Execution Create Business Value?

To illustrate the concept of a foundation for execution and its potential impact on a company, we provide two brief case studies. The first is on UPS, a company well known for its use of IT in business processes. UPS has been building and leveraging its foundation for execution since the late 1980s.

UPS: Building New Services on a Solid Foundation

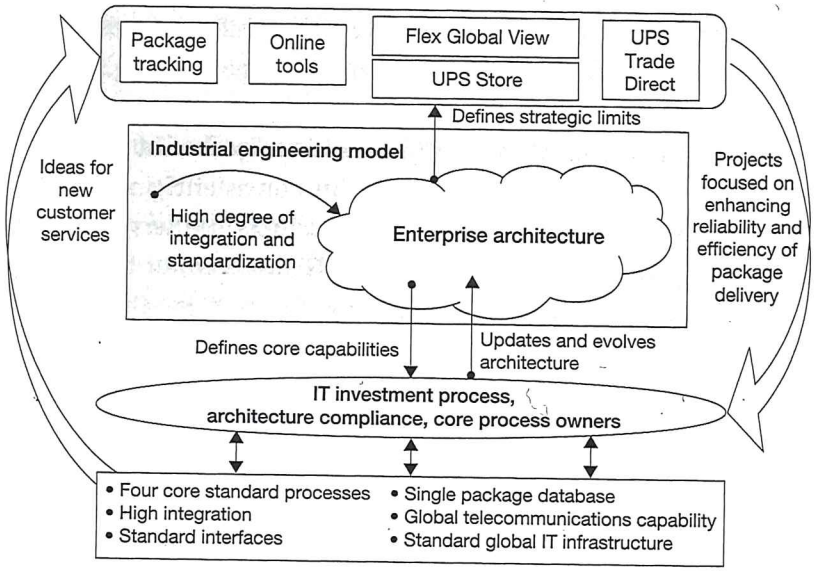
Around 1986 senior management at UPS became concerned about the company's inability to respond to competitors' technology-based market initiatives. UPS had dominated the U.S. package delivery market for much of its eighty years, but management recognized that the company would need a strong IT capability to compete in the future. Over the next ten years, UPS built a foundation for execution that has permitted it to seize global market opportunities not only in package delivery but also in a variety of related areas.

Although its immediate concern was package tracking (i.e., reporting on the whereabouts of a package in transit), UPS set out to build a foundation for execution embodying its industrial-engineering tradition (figure 1-3). The company has long employed a large staff of industrial engineers who study efficiency and design optimal business processes. Industrial engineers have specified efficient processes for a wide range of tasks at UPS, including which foot a driver should put into the truck first. The company implements these processes as global standards. Thus, when the company was debating the requirements of an IT capability, it was clear to all key decision makers that systems would have to support UPS's global process standards. In addition, management agreed that the nature of package delivery demanded highly integrated systems, so that a package could not be lost en route.

UPS's new CIO and his staff developed an enterprise architecture to reflect the company's goals. A key characteristic of the enterprise architecture was the specification for a single package database. The CIO did not want multiple package databases, which would risk the integrity of the data. The CIO's team also emphasized the need for a global telecommunications capability so that the package data could be captured and accessed from anywhere a package might be picked up or delivered. The company developed strict rules about architectural standards, and IT was authorized to enforce the rules whenever a breach could compromise reliability or efficiency.

FIGURE 1-3

UPS's foundation for execution



Source: Researcher interpretation.

On the business process side, senior management defined four core processes: package delivery, product development, customer relationship management, and customer information management. UPS standardized tasks within these processes as appropriate so that new initiatives could leverage existing capabilities. Starting from package tracking and related core processes, UPS leveraged its systems and process capabilities first by adding channels, such as the Internet. Then UPS expanded into new services. For example, Flex Global View allowed customers to receive advance notification of incoming packages and to track packages traveling with freight forwarders or other UPS partners. Flex Global View also notified customers if any packages would arrive late. Building on

these capabilities, UPS grew from a package delivery company into a global commerce company. UPS Trade Direct, one of the company's newer offerings, provides integrated door-to-door service for international packages, including consolidated billing, customs brokerage and clearance, and international package tracking.

UPS's innovations build on or leverage its existing foundation for execution and create new opportunities. Because of the strategic importance of IT at UPS, IT leaders are consistently involved in strategy discussions and propose new products and services based on existing capabilities. Regarding the IT unit's input to strategy discussions, Mike Eskew, UPS's CEO comments, "I get that kind of happy surprise from IT all the time."[12] Happy surprises from IT—that's what a foundation for execution has done for UPS.

Washington, D.C.: Customer-Focused Service Delivery

Throughout the book we mostly refer to the needs of companies. But the principles of the foundation for execution are equally relevant for public and private companies, government agencies, and not-for-profit organizations. Performance objectives and some metrics may differ by type of organization, but the need to enable efficient, reliable, agile operations is the same. The government of the District of Columbia has been building a foundation for execution since 1999. Organizations of all kinds might find its experience instructive.

Excluding its public school system, Washington, D.C., has 21,000 employees and a $5.4 billion budget, managed by an appointed city administrator who is accountable to the mayor and the D.C. council. Services are provided through seventy-four operating agencies, ten of which provide centralized administrative services (e.g., purchasing, human resources, information technology, legal services), and sixty-four of which provide customer-facing services (e.g., law enforcement, children's services, transportation). When Anthony Williams was inaugurated as mayor in January

1999, the District of Columbia was half a billion dollars in debt. Its public services were ranked at the bottom of big-city service ratings, and control of the district's administration was in the hands of a federally appointed board. Citizens complained of poor service: the process of registering a car could take a full day, and small-business owners often hired experts to represent them in the maze of offices at the Department of Consumer and Regulatory Affairs.

Mayor Williams committed to turning the district around and improving services to the city's residents and visitors. The CTO, Suzanne Peck, recognized that as a public service—as opposed to a business—the district's customers had no choice about interacting with its agencies. If residents wanted a license, or dog tags, or to pay their taxes, they had to deal with the government agencies. The Williams administration's goal was to make these interactions as pleasant and efficient as possible. Consequently, the CTO adopted the following set of operating tenets for interactions with constituents:

- *A single point of entry.* All citizen requests must be routed to a central point of entry so that citizens are not left to wander helplessly among seventy-four agencies to find what they need.

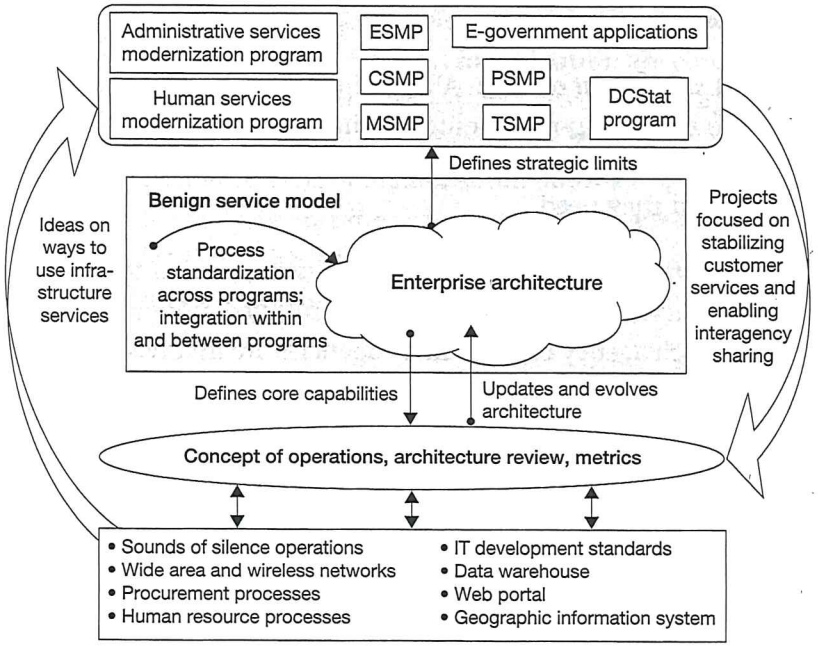
- *Guaranteed closure.* All citizens must be assured that their requests, once submitted, will be fulfilled, no matter which agency or how many agencies are involved in the transaction.

- *Benign service delivery.* Residents have no choice but to deal with government, so the CTO's office will make dealing with the government as positive as possible. Peck emphasized the goal of benign service delivery: "As a District, the finest thing I can do for you, the residents, is to give you benign service delivery. I can make it easy for you to deal with me. I can make it not horrible."[13]

The district's operating model—including its concept of benign service delivery—called for standardization of common processes. The operating model also provided for end-to-end integration of processes, as well as data sharing, between related agencies (figure 1-4). At the heart of the district's enterprise architecture are nine service modernization programs, which represent functional clusters of the district's multiagency systems. Each of the district's 370 systems fits functionally into one of those nine programs: administrative, customer, educational, enforcement, financial, human, motorist, property, and transportation services. The service programs create standard, multiagency, end-to-end processes for the district.

FIGURE 1-4

D.C. government's foundation for execution



Source: Researcher interpretation.

Before beginning any major application process improvements, Peck focused on first stabilizing operations and developing some core infrastructure services, including WAN and wireless services; the consolidation of servers, storage, and software; and the introduction of disciplined management practices such as development standards. The new infrastructure services introduced cost savings and new capabilities. For example, the cost of telephony services decreased by 33 percent while capacity increased by a factor of 1,600.

The first major application improvement project was the administrative services program. Although administrative services was not customer facing, the agencies that were customer facing reported that poor administrative services—such as snafus in hiring, lost grant applications, and purchasing difficulties—were severely hindering their ability to service customers. As with all improvements, the first step was to define a concept of operations that described the desired customer experience with the service.

The administrative services modernization program kicked off in 2001 as a five-year $71 million program with measurable cost savings of $150 million. An architecture review board reviewed each concept of operations for architectural compliance and continued to monitor the architecture throughout the implementation of each new process. In the third year of the program, management had already documented $50 million in annual cost savings due to improved procurement, recruiting and hiring, and related services.

The district has been initiating new projects incrementally, building on its experiences with prior projects, and reusing infrastructure introduced for one project in subsequent projects. For example, the office of the CTO is building a portal that has become a key interface as new services are introduced. The D.C. government's Web site grew from twenty pages in 1999 to almost 200,000 in 2005. The Web site transformed from a public embarrassment to one that *Government Technology* magazine named the number one Web portal in government. More important, in just a few years, the D.C. government has gone, in the words of Suzanne Peck, "from worst to first."

Goals and Overview of the Book

UPS's experience with happy surprises from IT and its ability to design new products and services that leverage its foundation for execution is exceptional relative to most companies we've studied. But, like the District of Columbia government, companies are increasingly experiencing incremental, but significant, operating improvements as they build and leverage a foundation for execution. Building a foundation is not a quick or easy process. This book is a call to action for those companies that have not yet started on this journey and a handbook for those who are in the midst of building their foundation. In this book we describe how to (1) define an operating model, (2) design and implement an enterprise architecture, and (3) adopt an IT engagement model. In doing so, we describe how your company can achieve greatness with a foundation for execution.

Companies that build a solid foundation for execution do achieve greatness. Throughout this book we will describe the IT and business process capabilities of companies generating strategic benefits from their foundations. These companies include the following:

- *ING DIRECT:* the number one direct bank (in terms of retail funds entrusted) in every one of the nine countries in which it operates. ING DIRECT's operational costs are only 0.43 percent of assets, as compared to 2.5 percent for a typical full-service bank, allowing the company to offer higher savings rates and lower-cost loans than other banks. The result has been phenomenal growth. In the first quarter of 2005, ING DIRECT grew an average of 250,000 new customers and more than $5 billion in new assets each month.

- *7-Eleven Japan:* the most profitable retailer in Japan and the eighth-largest retailer in the world. Since its inception as a single store in 1973, 7-Eleven Japan has grown to 10,800 stores in Japan. Worldwide 7-Eleven Japan has 28,000 stores and annual revenues of ¥25,000 billion (approx US$22 billion). Gross margins per store have increased from 5 percent to more than 30 percent from 1977 to 2004. Management has reduced stock turnover from 25.5 days in 1977 to fewer than 8.7 days in 2004.[14]

- *TD Banknorth: Forbes's* "best managed" bank for 2004, due to the company's steady earnings growth of 10 percent or more. TD Banknorth has acquired twenty-six banks in the past eleven years, and since 1989, it has grown from $2 billion to $32 billion. TD Banknorth is second among banks in the *Fortune* 1000 in total return to shareholders (a 37% annual rate from 1991 to 2001).[15]

This book is intended for senior managers who have—or believe they should take—responsibility for developing and overseeing their company's foundation for execution. Business executives should finish this book with a clear understanding of what they need to do to lead the change and engage their business and IT colleagues in discussions on how to create a foundation for execution. IT executives should finish this book with a clear frame of reference for their work and the tools to successfully work with their business colleagues. Building a foundation for execution requires extraordinary IT-business alignment, so both IT and business leaders need to exert influence on the process. The result is worth the trouble.

The structure of the book is as follows:

- *Chapter 2: Define Your Operating Model.* In chapter 2 we introduce the first discipline for creating the foundation for execution: the operating model and its two key dimensions—business process standardization and integration. Four different types of operating models are described: Unification, Coordination, Replication, and Diversification. We explore how the operating model concept is applied to both

companies and business units. Case studies of JM Family Enterprises, Merrill Lynch, Dow Chemical, TD Banknorth, and Schneider National provide examples of different operating models.

- *Chapter 3: Implement the Operating Model Via Enterprise Architecture.* In chapter 3 we introduce the second discipline for creating the foundation for execution: the enterprise architecture. The key elements—digitized business processes, IT infrastructure, shared data, and customer interfaces—are identified and linked in the enterprise architecture. The one-page core diagram is introduced, and comparative diagrams are developed for each of the four operating models. Four case studies of firms and their enterprise architecture designs illustrate effective practices: MetLife, ING DIRECT, Carlson Companies, and Delta Air Lines.

- *Chapter 4: Navigate the Stages of Enterprise Architecture Maturity.* In chapter 4 we introduce the four stages of enterprise architecture maturity: Business Silos, Standardized Technology, Optimized Core, and Business Modularity. Companies traverse these stages as they learn new organizational processes and change their IT investment practices. We describe how the strategic value of IT evolves as companies mature their enterprise architectures. A number of short examples illustrate the concepts, and we conclude with a discussion of how to apply the architecture stages in your company.

- *Chapter 5: Cash In on the Learning.* In chapter 5 we explain how companies get unique business benefits at each of the four stages of maturity by using various management practices and roles. We explain how achieving these benefits requires implementing different management mechanisms at each stage to formalize organizational learning. A case study of Schindler illustrates how the role of the CIO evolves as companies move through the maturity stages.

- *Chapter 6: Build the Foundation One Project at a Time.* In chapter 6 we introduce the third discipline for creating the foundation for execution: the IT engagement model. The IT engagement model has three ingredients: IT governance, project management, and linkages connecting the two. A good engagement model enables a company to build its foundation one project at a time. Case studies of Raytheon and Toyota Motor Marketing Europe illustrate the different ingredients of the model.

- *Chapter 7: Use Enterprise Architecture to Guide Outsourcing.* In chapter 7 we describe how outsourcing can contribute to enterprise architecture maturity but warn that outsourcing success is far from guaranteed. To improve the likelihood of success, we show how to use the operating model and enterprise architecture to determine what and when to outsource. We distinguish between three different types of outsourcing—strategic partnerships, cosourcing alliances, and transaction relationships. Analyzing the experiences of Campbell Soup Co. and the City of Liverpool, we discuss how outsourcing can affect enterprise architecture, and vice versa. A case study illustrates how Dow Chemical aggressively uses outsourcing—driven by its enterprise architecture—to move to what it calls the "Federated Broker Model."

- *Chapter 8: Now—Exploit Your Foundation for Profitable Growth.* In chapter 8 we make the urgent case for increased agility in companies that must compete in a global economy. Case studies of UPS, 7-Eleven Japan, and MetLife illustrate the growth potential of different operating models. A case study of CEMEX highlights the architectural challenges created

by acquisitions. We close the chapter with a look at what's coming next—the fifth stage of architecture maturity.

- *Chapter 9: Take Charge! The Leadership Agenda.* Chapter 9 summarizes the key ideas in the book with a review of the symptoms of an ineffective foundation for execution. We follow with a set of six steps for rethinking your foundation for execution. Then we provide ten leadership principles for building and leveraging a foundation for execution.

2

Define Your Operating Model

GENERAL H. NORMAN SCHWARZKOPF once observed, "Leadership is a potent combination of strategy and character. But if you must be without one, be without the strategy."[1] Few business executives would be comfortable leading without a strategy. Business strategy provides direction, an impetus for action. Most companies also rely on strategy to guide IT investments. Accordingly, IT executives work to align IT and IT-enabled business processes with stated business strategy. But business-IT strategic alignment can be an elusive goal.

Business strategies are multifaceted, encompassing decisions as to which markets to compete in, how to position the company in each market, and which capabilities to develop and leverage. In addition, strategic priorities can shift as companies attempt to respond to competitor initiatives or to seize new opportunities. As a result, strategy rarely offers clear direction for development of stable IT infrastructure and business process capabilities.

To best support a company's strategy, we recommend that the company define an operating model. An *operating model* is the necessary level of business process integration and standardization for delivering goods and services to customers. An operating

model describes how a company wants to thrive and grow. By providing a more stable and actionable view of the company than strategy, the operating model drives the design of the foundation for execution.

The choice of an operating model is a critical decision for a company. It's the first step in building a foundation for execution. An operating model enables rapid implementation of a range of strategic initiatives. But that same operating model will fail to support initiatives that are inconsistent with the assumptions it's built on. Thus, the operating model is a choice about what strategies are going to be supported. Take, for example, the ease with which Charles Schwab introduced online brokerage relative to Morgan Stanley. Schwab had already implemented low-touch systems and processes. In contrast, Morgan Stanley had built its capabilities for more customer-intimate (and higher-cost) operations. Similarly, Amazon could add consumer products to its product list because its operating model highlighted its capabilities in distribution and online customer interactions. Barnes & Noble's operating model was ill-suited to online sales but adapted easily to a partnership with Starbucks, which enhanced its customers' in-store shopping experience.

The operating model decision (or lack thereof) has a profound impact on how a company implements business processes and IT infrastructure. A company without a clear operating model brings no automated, preexisting, low-cost capabilities to a new strategic pursuit. Instead, with each new strategic initiative the company must effectively begin anew to identify its key capabilities. But selecting an operating model is a commitment to a way of doing business. That can be a daunting choice.

Our research suggests the payoff for making that choice can be huge. Companies with a foundation for execution supporting an operating model reported 17 percent greater strategic effectiveness than other companies—a metric positively correlated with profitability.[2] These companies also reported higher operational efficiency (31%), customer intimacy (33%), product leadership (34%), and strategic agility (29%) than companies that had not developed a foundation for execution.[3]

In this chapter we will first define the dimensions of the operating model—standardization and integration—and then describe the four types of operating models: Diversification, Coordination, Unification, and Replication. We will describe the critical components of each model and show how an operating model shapes future strategic choices. We will then discuss important considerations in choosing an operating model.

Integration and Standardization: Key Dimensions of an Operating Model

An operating model has two dimensions: business process standardization and integration. Although we often think of standardization and integration as two sides of the same coin, they impose different demands. Executives need to recognize standardization and integration as two separate decisions.

Standardization of business processes and related systems means defining exactly how a process will be executed regardless of who is performing the process or where it is completed. Process standardization delivers efficiency and predictability across the company. For example, using a standard process for selling products or buying supplies allows the activities of different business units to be measured, compared, and improved. The result of standardization—a reduction in variability—can be dramatic increases in throughput and efficiency.

Yet greater standardization has a cost. In exchange for increased predictability, standardized processes necessarily limit local innovation. And the transition to standardization usually requires that perfectly good (and occasionally superior) systems and processes be ripped out and replaced by the new standard. This can be politically difficult and expensive.

Integration links the efforts of organizational units through shared data. This sharing of data can be between processes to

enable end-to-end transaction processing, or across processes to allow the company to present a single face to customers. For example, an automobile manufacturer may decide to integrate processes so that when a sale is recorded, the car is reserved from among the cars currently in production. By seamlessly sharing data between the order management and manufacturing scheduling processes, the company improves its internal integration and, consequently, its customer service. In financial services, sharing data across processes enables a loan officer to review a customer's checking, savings, and brokerage accounts with the bank, providing better information about the customer's financial situation and enabling better risk assessments for loans.

The benefits of integration include increased efficiency, coordination, transparency, and agility. An integrated set of business processes can improve customer service, provide management with better information to make decisions, and allow changes in one part of the business to alert other parts of actions they need to take. Integration can also speed up the overall flow of information and transactions through a company.

The biggest challenge of integration is usually around data. End-to-end integration requires companies to develop standard definitions and formats for data that will be shared across business units or functions. For business units to share customer information, they must agree on its format. Similarly, they must share a common definition for terms like *sale,* which can be said to occur when a contract is signed, when money is paid, or when product is delivered. These can be difficult, time-consuming decisions.

Four Types of Operating Models

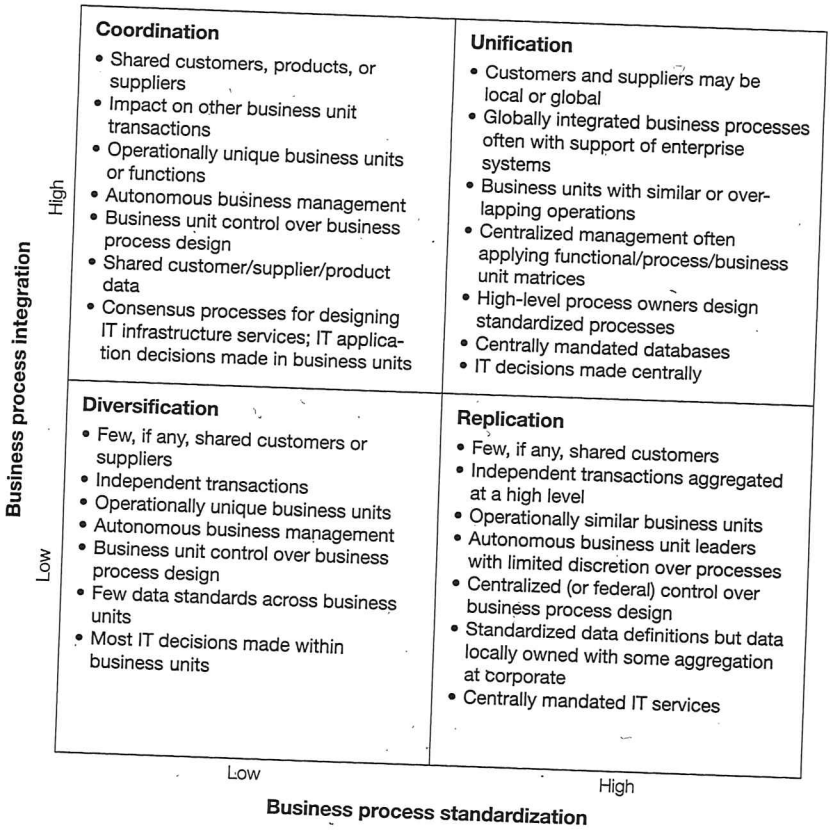
We have developed a straightforward two-dimensional model with four quadrants, representing different combinations of the levels of business process integration and standardization (figure 2-1). Every company should position itself in one of these quadrants to clarify how it intends to deliver goods and services to customers.

The four general types of operating models are:

1. Diversification (low standardization, low integration)
2. Coordination (low standardization, high integration)
3. Replication (high standardization, low integration)
4. Unification (high standardization, high integration)

FIGURE 2-1

Characteristics of four operating models



Companies adopt an operating model at the enterprise level and may adopt different operating models at the division, business unit, region, or other level. To decide which quadrant your company (or business unit) belongs in, ask yourself two questions:

1. To what extent is the successful completion of one business unit's transactions dependent on the availability, accuracy, and timeliness of other business units' data?
2. To what extent does the company benefit by having business units run their operations in the same way?

The first question determines your integration requirements; the second, your standardization requirements. What operating model you choose will drive important design decisions around the autonomy of business unit managers and the role of IT. Compare your answers to the characteristics of each operating model in figure 2-1 to see where your company fits.

Diversification: Independence with Shared Services

Diversification applies to companies whose business units have few common customers, suppliers, or ways of doing business. Business units in diversified companies offer different products and services to different customers, so central management exercises limited control over those business units (see the Diversification quadrant in figure 2-1).

JM Family Enterprises (JMFE) has a Diversification operating model. Headquartered in Deerfield Beach, Florida, JMFE had revenues of $8.2 billion in 2004, making it the United States' fifteenth-largest privately held company.[4] JMFE comprises four closely related businesses:

1. Southeast Toyota Distributors (SET) serves more than 160 dealers in Florida, Georgia, Alabama, and North and South Carolina with vehicles, parts, and accessories. SET dealers sell approximately 20 percent of all Toyotas sold in the United States.

2. World Omni Financial Corp. (WOFC) is a diversified financial services company that provides a broad range of financial products and services to consumers, dealers, and lenders. Its offerings include automotive financial products and services, third-party servicing solutions, wholesale floor-plan accounting and risk management systems, full-service inspection, automated risk decision software, and automotive remarketing services.
3. JM&A Group offers a variety of automotive finance and insurance (F&I) products and services, such as new- and used-vehicle protection plans, used-vehicle certification programs, prepaid maintenance plans, credit life and disability insurance, and F&I training and consulting services.
4. JM Lexus is the largest-volume retail dealership of Lexus cars and sport-utility vehicles in the world.

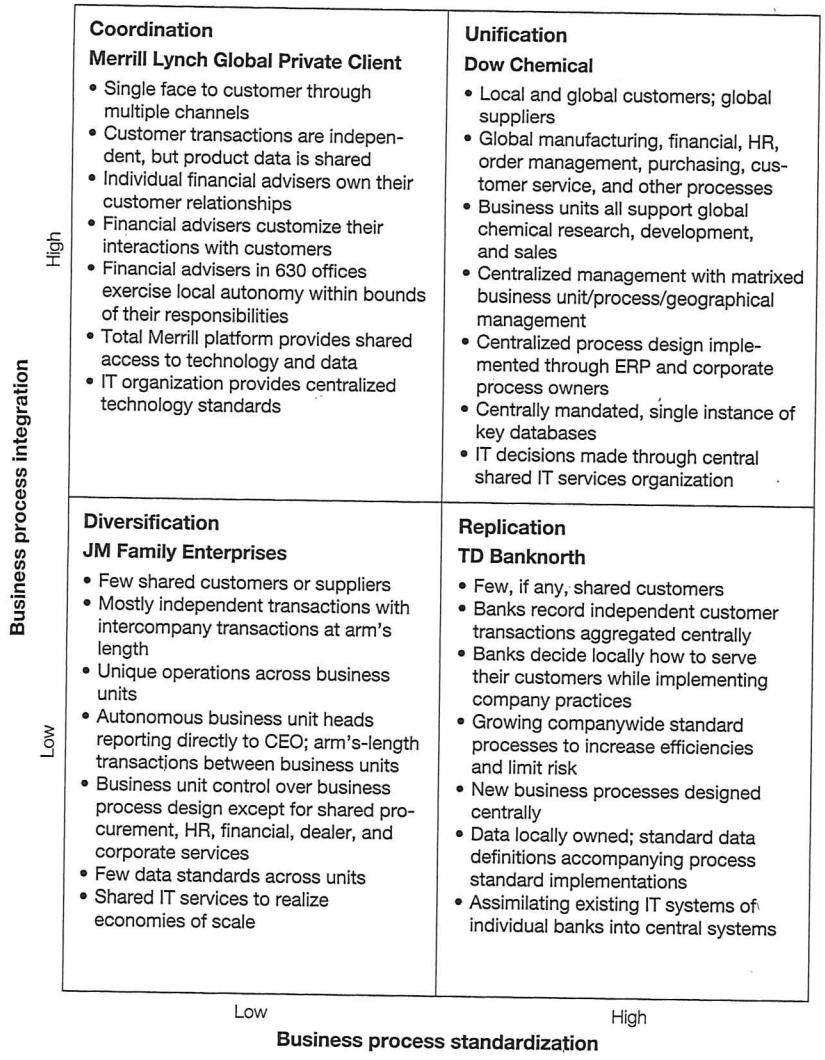
The lower left quadrant of figure 2-2 describes JMFE's Diversification operating model. Because the business units are synergistic, they can generate business for one another. For example, JM Lexus is a customer of JM&A; SET sells automobiles to dealers whose customers often finance those vehicles through WOFC; and WOFC offers loans to dealers to finance the vehicles in stock, helping increase orders to SET.

JMFE provides some centralized services to its business units through the JM Service Center. The largest of the shared services is IT; the others are procurement services, financial services, salon, fitness center, benefits administration, food services, corporate staffing, distributive and document services, facilities, relocation, and dealer services. Motivation for forming shared services in 2001 included cutting costs on these services and realizing quick economies following expected acquisitions.

Historically, JMFE has grown primarily through the growth of individual business units. SET has become the world's largest franchised Toyota distributor, and WOFC is one of the world's largest

FIGURE 2-2

Four operating model examples



saturated, the company is preparing to grow through acquisitions—a common characteristic of Diversification companies. Because JMFE's business units are run autonomously, each of them has an operating model capturing its individual integration and standardization requirements. By building a foundation for execution to support their individual operating models, these business units contribute profitable growth to JMFE.

The organizing logic for Diversification companies is based on synergies from related, but not integrated, business units. Business units might create demand for one another or increase the company's brand recognition, which generates enterprisewide value despite autonomous management. Companies with a Diversification model may pursue economies of scale through shared services, but they typically grow through the success of the individual business units and acquisitions of other related businesses.

Coordination: Seamless Access to Shared Data

Coordination calls for high levels of integration but little standardization of processes. Business units in a Coordination company share one or more of the following: customers, products, suppliers, and partners. The benefits of integration can include integrated customer service, cross-selling, and transparency across supply chain processes. While key business processes are integrated, however, business units have unique operations, often demanding unique capabilities.

For companies with a Coordination model, low cost is usually not the primary driver in companywide decisions. Autonomous business heads execute their processes in the most efficient manner possible, but corporate directives and negotiations focus on providing the best service to the customer. Strong central management defines the need for cooperation. Successful companies rely on incentive systems and management training to encourage companywide thinking at the business unit level. (See the Coordination quadrant of figure 2-1.)

Merrill Lynch, one of the world's largest financial services companies, is composed of three major business units: the Global Markets & Investment Banking Group, Merrill Lynch Investment Managers, and Global Private Client. Its Global Private Client (GPC) business provides an example of a Coordination operating model (figure 2-2). GPC delivers wealth management products and services to individuals and small businesses through more than 14,000 financial advisers in approximately 630 offices around the world. While financial advisers each serve their individual customers, their services are integrated through what's called the Total Merrill platform, which gives all advisers access to the full range of Merrill products: commission- and fee-based investment accounts, credit products, banking services, cash management and credit cards, trust and generational planning, consumer and small-business lending, retirement services, and insurance products.[5]

GPC focuses on delivering comprehensive, innovative solutions to meet the financial needs of its target customers. These customers want to do business with Merrill Lynch through a variety of channels, such as the telephone call center, the Internet, and advice-based interactions with financial advisers. In addition, customers want access to non-Merrill products. GPC's operating model, therefore, coordinates services to its customers by providing integrated access to products across customers and integrated access to customer data across products and channels. Such service requires highly standardized product and customer data, but it allows financial advisers to customize their individual interactions to the needs of their customers. Merrill Lynch calls its model providing "all things to some people," and customized service is important to retaining high-value customers.[6]

Merrill Lynch's GPC grows by increasing the number of financial advisers who, with their access to product data, can identify and then serve more customers. GPC also regularly innovates to expand its product line, recently adding products such as new credit cards and loan management services. These new services help GPC provide a strong portfolio of products as it seeks to retain its ability to provide a full range of services to clients.

GPC's standard technology platform and access to shared business data enable the company to productively employ the largest number of financial advisers in the industry. These financial advisers have the industry's best revenue per adviser, earnings per adviser, and assets per adviser.[7]

Like GPC, most companies in the Coordination quadrant can grow by extending their reach to defined customer segments in new markets. They can also increase services to meet new, but related, customer demands. By integrating, but not standardizing, product lines or functions, the Coordination model fosters process expertise while enhancing customer service. This expertise attracts new customers and sells more products to existing customers, thus enabling profitable growth.

Replication: Standardized Independence

Replication models grant autonomy to business units but run operations in a highly standardized fashion. In a Replication model the company's success is dependent on efficient, repeatable business processes rather than on shared customer relationships. The business units are not dependent on one another's transactions or data; the success of the company as a whole is dependent on global innovation and the efficiency of all business units implementing a set of standardized business processes. Accordingly, business unit managers have limited discretion over business process design, even though they operate independently of other business units. McDonald's, like other franchise operations, provides a clear reference point for a Replication model. (See the Replication quadrant of figure 2-1.)

TD Banknorth, one of the thirty-five largest commercial banking companies in the United States, also provides an example of a Replication model (figure 2-2). Over the past decade, the company has grown by a factor of ten from a small community bank to the largest bank headquartered in New England. TD Banknorth's core strategy is to grow through acquisitions of community banks with customer-focused corporate cultures. The company adds value by

introducing economies of scale and providing its banks' customers with new and improved products.[8]

Founded in Vermont in 1824, TD Banknorth grew with the objective of understanding its customers better than anyone else. As a result, each local bank developed its own processes and infrastructures to meet the perceived needs of its specific customers. But when John Petrey became the company's CIO in September 2001, he set out to integrate and standardize its information technology. Petrey created standardized processes for bringing new banks onto TD Banknorth's foundation.

These new standardized processes are converting TD Banknorth from a Diversification model, with independent operations in each of the company's banks, to a Replication model, in which banks are run independently but with the same IT infrastructure and a set of standardized core processes. To facilitate this transition, a new Enterprise Projects Committee, headed by COO Peter Verrill, reviews projects for their strategic impact in light of the company's focus on developing synergies across its banks. While Banknorth looks for the efficiencies and predictability of standardized processes, however, it also aims to preserve the image of a community bank by retaining local decision making wherever feasible.

Many Replication companies grow through acquisition like TD Banknorth, but most Replication companies can also build new businesses from scratch. Whether companies are growing organically or through acquisition, the Replication model helps them increase profits when management quickly installs its standardized practices and technology foundation into a new unit and then allows a local manager to build the business.

Unification: Standardized, Integrated Processes

When organizational units are tightly integrated around a standardized set of processes, companies benefit from a Unification model. Companies applying this model find little benefit in business unit autonomy. They maximize efficiencies and customer

services by presenting integrated data and driving variability out of business processes.

Unification companies typically have integrated supply chains, creating interdependence between distributed business units. These business units share transaction data, often including global customer and supplier data. Standardized processes support global integration and increase efficiency. The Unification operating model often benefits from implementation of large packaged systems to support company standardization and integration requirements. (See the Unification quadrant in figure 2-1.)

The Dow Chemical Company has adopted a Unification model for its core chemicals-manufacturing business.[9] Founded in 1897, Dow Chemical develops and sells innovative chemical, plastic, and agricultural products and services to customers in more than 175 countries around the world. From 1994 to 2004, despite a downturn in the market, Dow nearly doubled its revenues while growing its employee base less than 10 percent—a productivity improvement of 8 percent per year. Management attributes much of the company's success to its well-tuned globally integrated processes (figure 2-2).

Managers at Dow estimate that approximately 60 percent of the company's work processes are standardized. For example, financial work processes are common around the globe. Manufacturing has common processes for building plants, driven in part by the need for those facilities to be highly cost effective and environmentally secure. Standardized human resource processes allow Dow to do performance management and to plan salaries and incentives around the globe in three weeks, equitably and transparently, even taking into account multiple currencies and differing rates of inflation. Finally, some supply chain work processes (e.g., order to cash) are globally standardized; others (e.g., planning and scheduling) are specific to particular products or regions.

Dow constantly reengineers processes to introduce greater standardization and automation, as appropriate. These efforts are intended, first and foremost, to cut costs, but they also increase

quality, safety, and security—other important organizational objectives. Dow invests substantial resources in understanding the costs of its processes and the impacts of its improvement efforts.

Dow sustains its integration and standardization through global systems, such as SAP's enterprise resource planning system, and through a management structure that assigns owners to the various global processes. Five of Dow's eight global processes are housed in a shared services organization that includes IT, purchasing, supply chain services, and customer service (including e-business), along with expertise on six-sigma and work processes. Dow's matrixed management structure, in which managers often report to product and process heads or to product and geographic heads, further encourages global integration.

Unification companies invariably have highly centralized management environments. Management drives out inefficiencies and then grows the company by leveraging economies of scale. Since minimizing variation is key to driving efficiencies, Unification is best suited to companies whose products and services are largely commodities. Companies more focused on innovation may find that the costs of standardization outweigh its benefits.

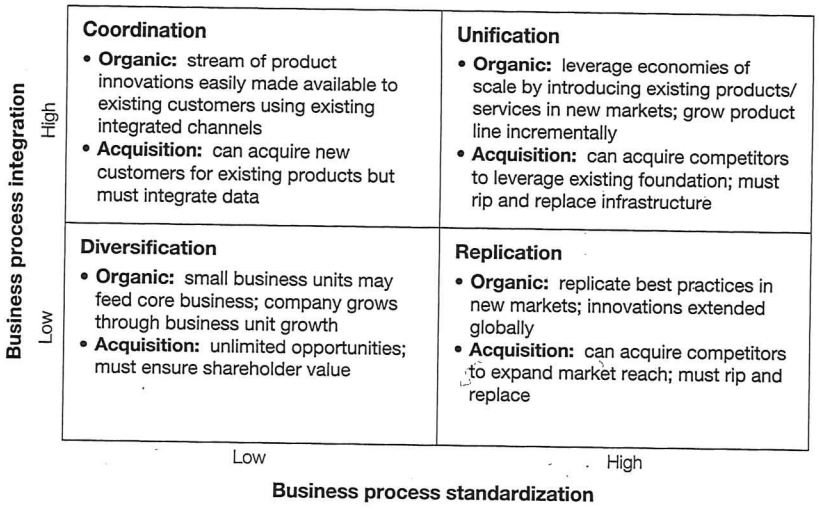
Applying the Operating Model

An operating model represents a general vision of how a company will enable and execute strategies. Each operating model presents different opportunities and challenges for growth. For example, the need to integrate business processes, as in Coordination and Unification operating models, makes acquisition more challenging because the new company must reconcile disparate data definitions. On the other hand, the process integration of the Coordination and Unification models facilitates organic growth through expansion into new markets or extensions of current product lines.

Process standardization, as in Unification and Replication models, enables growth through a rip-and-replace approach to acquisitions. When the acquisition is intended to create a mirror image, a company can replace the systems and processes of the acquired

FIGURE 2-3

Different operating models position companies for different types of growth



business with its own. But both the Unification and Replication models depend on leveraging processes already in place. Neither model offers much leverage when a company chooses to expand into synergistic, but operationally distinct, lines of business.

The Diversification model imposes fewer constraints on the organic growth of individual business units and fewer challenges in an acquisition. But it also leverages fewer capabilities than the other models, thus offering fewer opportunities to create shareholder value. Figure 2-3 summarizes the growth opportunities presented by each of the operating models.

Deploying Operating Models at Different Organizational Levels

Although most companies can identify processes fitting every operating model, they need to select a single operating model to guide

management thinking and system implementations. Management can then organize responsibilities for business units and IT based on principles about how the company will operate most of the time. One way companies respond to conflicting demands is to adopt different operating models at different organizational levels. For example, a company with a Diversification model, like JM Family Enterprises, often adopts different models in its business units.

Johnson & Johnson (J&J) has long operated in the Diversification quadrant. General managers in the company's more than 200 operating companies have always had significant autonomy, and for most of J&J's 100-plus years of existence, analysts believed that this decentralized management style was key to the company's success. But as major global customers increasingly demand integration across multiple business units, J&J responds by introducing new organizational levels that can provide shared customer data across subsets of related business units.[10]

J&J's U.S. pharmaceutical group applies a Coordination model, presenting a single face to health-care professionals. In Europe, its Janssen Pharmaceutical Products applies a Replication model, providing low-cost, standardized processes for drug marketing, delivery, and monitoring. Having different operating models at different organizational levels allows J&J to meet the multiple objectives of large, complex companies while keeping organizational design reasonably simple at the individual operating company level.

Many companies in the Diversification quadrant, including DuPont, Citicorp, and General Electric, have multiple organizational levels, each adopting a different operating model so that it can simultaneously meet the company's and its own business objectives.

Transforming to a New Operating Model

An operating model helps define the range of strategic initiatives a company can readily pursue. As long as the operating model presents attractive options, it provides a stable approach for delivering goods and services. If a company determines that its existing

operating model is not well suited to its market realities, the company must shift to a new operating model. Shifting from one operating model to another is transformational. A transformation disrupts a company, imposing new ways of thinking and behaving.[11] But while companies would not want to regularly introduce new operating models, such changes are sometimes necessary.

From Diversification to Unification: a European packaging company

A European packaging company recognized a need to change operating models in the late 1990s.[12] At the time, the company was organized into separate country-based business units, each of which was responsible for its own operations. Different countries had different enterprise resource planning (ERP) systems, order management processes, invoice formats, and even pricing. Each country made its own decisions about IT systems and data standards, which was a slow, inefficient, and expensive way to do business. Alarmingly, management discovered some corporate customers were taking the same order to multiple organizations to drive down the price by bidding one country-based unit against others!

The management team decided its key operations were sales, order processing, new product introductions, and after-sales service. Management decided it could accomplish those operations better with a Unification model than with a Diversification model. The company didn't need to adopt a new strategy—it was still delivering the same products to the same customers. The change in operating model was designed to help it deliver products and services faster, better, and more efficiently.

To transform its operating model, management replaced the different order management systems in each country with a central ERP system and process. The countries now enter orders through a browser interface with one product list, price list, and order management system for the entire business.

The company's new operating model dramatically reduced order management cycle time, lowered operational costs, and increased business flexibility and agility. In the old operating model, adding

a product with a new pricing structure required updating 15 different systems, which could take weeks. In the new system, one central change is made, usually in a matter of hours. But the new operating model had dramatic effects on the power structure of the company, making the transition difficult. In the old model, a country manager could, within limits, make independent decisions about products, pricing, and promotions. That authority was greatly reduced, and local managers naturally resisted the change.

Shifting from Diversification to Unification introduces traumatic organizational change. As companies attempt to increase standardization and integration, they obsolete existing systems, processes, and organizational structures and roles. Successful transformations of this kind are costly, time consuming, risky—and sometimes necessary. As we saw with the packaging company, the rewards of the change can be substantial.

From Unification to Diversification: Schneider National

Schneider National, a large, privately held trucking company, built a strong Unification model in the early 1990s.[13] Schneider had highly standardized and integrated operations processes and systems built around a centralized management model in which most employees were based in Green Bay, Wisconsin. The company had long been recognized as an industry leader in the effective use of IT. Schneider was the first trucking company to implement satellite tracking systems and then the first to integrate its tracking systems with both operations and customer service applications. But management decided in the early nineties that many of the United States' 50,000 trucking companies were dropping prices and pushing down margins throughout the industry. Any person with a truck could go into the trucking business, making it increasingly difficult for Schneider to grow profitably.

Responding to the requests of some of the company's key customers, Schneider decided to offer logistics services. Management recognized that a new logistics business could not leverage the company's existing foundation for execution. Trucking demands centralization, standardization, and integration to serve customers who need reliable service delivery and accompanying information. Schneider intended to provide localized, customized logistics services, managed by logistics representatives who would sit at customer sites and access local databases. Thus, the operating platform that had regularly enabled innovation in the trucking business was not a good fit for logistics. So when Schneider launched the logistics business, it did so with a new and separate management structure and segregated IT processes and operations.

Over time, Schneider has found synergies between its two businesses. In particular, the trucking business has benefited from some of the newer technologies introduced to support logistics. But Schneider has two foundations for execution: one for the Unification operating model of the trucking business and one for the Replication operating model of the logistics business. As a whole, Schneider has a Diversification model with some shared infrastructure and services to benefit both businesses. Companies with a core business adopting a Unification model, like Schneider, may run out of opportunities to leverage that core. A Diversification model provides opportunities to feed the core business.

The Operating Model as Company Vision

Focusing on the operating model rather than on individual business strategies gives a company better guidance for developing IT and business process capabilities. This stable foundation enables IT to become a proactive—rather than reactive—force in identifying future strategic initiatives. In selecting an operating model, management defines the role of business process standardization and integration in the company's daily decisions and tasks.

The operating model concept requires that management put a stake in the ground and declare which business processes will distinguish a company from its competitors. A poor choice of operating model—one that is not viable in a given market—will

have dire consequences. But not choosing an operating model is just as risky. Without a clear operating model, management careens from one market opportunity to the next, unable to leverage reusable capabilities. With a declared operating model, management builds capabilities that can drive profitable growth.

Because the choice of an operating model guides development of business and IT capabilities, it determines which strategic opportunities the company should—and should not—seize. In other words, the operating model, once in place, becomes a driver of business strategy. In addition, the required architecture—as well as the management thinking, practices, policies, and processes characteristic of each operating model—is different from one operating model to another. As a result, the operating model could be a key driver of the design of separate organizational units.

We encourage senior managers to debate their company's operating model. This debate can force managers to articulate a vision for how the company will operate and how those operations will distinguish the company in the marketplace. In clarifying this vision, management provides critical direction for building a foundation for execution.

3

Implement the Operating Model via Enterprise Architecture

IN 1884 Sarah Winchester, heiress to the Winchester Repeating Arms Co. fortune, bought a six-room house in Santa Clara while it was still under construction. She quickly discarded the building plans and instead met with her foreman every morning to describe the work she wanted done that day. With no master plan, she kept twenty-two carpenters at work, year round—for thirty-six years! The house had three elevators, forty-seven fireplaces, rooms built around rooms, staircases leading to nowhere, doors opening to blank walls, doors opening to steep drops to the lawn below, and a variety of other curiosities. The house had every type of heating technology available. The design is so complex that no one knows for sure the number of rooms in the house—though most counters agree it's around 160.[1]

Crazy as it seems, the architecture of the Winchester House is perfectly designed to meet the needs of its owner. Sarah Winchester wanted to confound the spirits of the men who had been killed by the Winchester rifle and might want to harm her. As companies