

From Services to Solutions

Building the Capabilities for Customer-Oriented Strategies

STUDY OBJECTIVE

Some companies are finding that customer solutions strategies protect margins and animate growth even in a capital-constrained environment. As attractive as these strategies sometimes appear, unwary practitioners face two principal dangers: an inadequate structure for sustaining profitability and an insufficient understanding of the real and often latent customer needs that the solutions offering is meant to address. This study provides best practice cases for managing these dangers.

Closing the Business Design Gap

- ◆ Rapid Scalability Process
- ◆ Asset Replenishment Mechanism
- ◆ Value-Capture Menu

Closing the Customer Knowledge Gap

- ◆ Customer Ecosystem Mapping
- ◆ Total Costing Templates
- ◆ Total Value Sales Team

KEY AUDIENCES

Corporate Strategists
Senior Executive Team
Business Unit Leaders

SELECTED PROFILES

IBM Corporation
GE Aircraft Engines
ABB Ltd.
Baxter International Inc.
State Street Corporation
Johnson Controls Inc.



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Note to Members

This project was researched and written to fulfill the research requests of several members of the Corporate Executive Board and as a result may not satisfy the information needs of all member companies. The Corporate Executive Board encourages members who have additional questions about this topic to contact the Council staff for further discussion. Descriptions or viewpoints contained herein regarding organizations profiled in this report do not necessarily reflect the policies or viewpoints of those organizations.

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Executive Summary

Implementing Solutions Strategies: Avoiding the Pitfalls

As products and services become increasingly commoditized, firms are looking for new ways to protect margins and animate growth, even in a capital-constrained environment. Customer solutions can help companies achieve these goals by improving customer retention and exploiting adjacent opportunities. Some early pioneers, such as IBM and GE Aircraft Engines, offer customer solutions that have allowed them to grow even in very difficult markets. However, customer solutions present substantial challenges both in developing viable strategies and implementing them.

This study profiles practices by companies that have overcome the two principal barriers to successful development and implementation of customer solutions: the need for effective business design and the requirement for a deep understanding of the customer's economics.

Closing the Business Design Gap

Customer solutions may be greatly valued by the customer but still fail to become a profitable business for the provider. If a solution is too customer-specific, the provider may not be able to make the solution useful to a broader market, thus rendering it difficult to recoup development costs. If the provider fails to evolve its offering, margins on the solution will be bid away by fast followers. And if the provider fails to identify an appropriate pricing mechanism, it will be unable to capture an adequate share of the value created for its customers.

Practices that address the business design gap include: IBM's systematic process for rapidly scaling its solutions offerings; GE Aircraft Engines' reliance on customer proximity and information feedback loops to constantly evolve its offerings; and ABB's menu of value-capture mechanisms to match pricing with the different levels of risk in its various customer solutions.

Closing the Customer Knowledge Gap

All companies have some insight into their customers' current needs, but developing sustainable solutions requires a particularly extensive understanding of not only current demand but also unmet needs. Companies also must be able to rapidly gather detailed information about their customers in order to avoid time-consuming and expensive consulting engagements prior to providing the solution. Finally, providers must be able to communicate to their customers the value of solutions that are often far more complex than standard transactional sales.

Practices that address the customer knowledge gap include: Baxter's method for mapping its entire customer ecosystem in order to understand latent, unmet needs; State Street's costing templates that allow it to assess and clearly communicate the potential benefits that its solution might bring to a customer; and Johnson Controls' creation of a separate sales team with the additional skills needed to develop and communicate complicated solutions offerings.

Overview of Benchmark Practice Case Studies

Closing the Business Design Gap

Closing the Customer Knowledge Gap

I. Rapid Scalability Process	II. Asset Replenishment Mechanism	III. Value-Capture Menu	IV. Customer Ecosystem Mapping	V. Total Costing Templates	VI. Total Value Sales Team
 <p>A 90-day solutions business development process that standardizes the method for rolling out custom solutions to a broader market</p>	 <p>Embedded product sensors that capture performance data and constantly refresh and replenish a proprietary information database which enables next-generation offerings</p>	 <p>Three different mechanisms for pricing new product and service offerings in a way that aligns risk and reward</p>	 <p>A complex map of all activities performed by customers and by constituents who influence customers; exhaustive list of process deficiencies enables new business strategy driven by insights about customers</p>	 <p>Process templates enable the provider to quickly quantify customer process costs, avoiding lengthy (and complimentary) consulting engagements; accurate costing enables effective value propositions</p>	 <p>Sales representatives skilled in targeting the sale to the customers' value drivers rather than cost negotiations</p>

Ten-Minute Customer Solutions Self-Test

Instructions

The Corporate Strategy Board has developed a brief self-test that may be useful to senior executives. We have compiled a list of questions to consider in building customer-focused strategy capabilities. The list is surely neither exhaustive nor universally relevant, but it may be useful in generating conversation about customer-driven strategy at your organization.

Evaluating Customer Economics and Strategy

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. Can the customer-facing representatives of your company identify and articulate major industry changes influencing profit patterns of key customers? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Can your company's sales and marketing groups help customers understand how effectively they are using their balance sheet to achieve key business objectives? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Can your company efficiently assess how different customers and customer groups use your products? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are your R&D and service/product development activities directly guided by the experience of your customers' influencers and customers? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Can your organization identify—with confidence—its most attractive customer segments, taking into account financing decisions, margin, growth opportunities and embedded risk? | <input type="checkbox"/> | <input type="checkbox"/> |

Integrating and Pricing Sales and Service Mixes

- | | Yes | No |
|---|--------------------------|--------------------------|
| 6. Are bundled products and services sold at a premium rather than at a discount in your industry? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Are your product and service strategies explicitly structured to take advantage of network effects within your customer base? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Do your organization's risk management, pricing and financial processes allow for highly leveraged gain-sharing contracts with customers? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Does your organization effectively evaluate return on services (provided as part of the sales process) either to intermediaries or directly to the customer? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Does your organization effectively identify, protect and price the most valuable pieces of intellectual property that it shares with customers? | <input type="checkbox"/> | <input type="checkbox"/> |

Self-Evaluation

Number of "Yes" Responses	Organizational Readiness
7 to 10	Well prepared to adopt a customer-driven strategy
4 to 6	Moderately prepared to adopt a customer-driven strategy
0 to 3	Underprepared to adopt a customer-driven strategy

With Sincere Appreciation

The Corporate Executive Board thanks all those individuals who contributed to this report. We have listed below (in alphabetical order by organization) those who were especially giving of their time and expertise.

— Advisors to Our Work —

Baxter International Inc.

Mr. Kevin Holland

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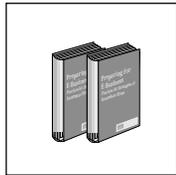
United Parcel Services Inc.

Mr. David Canning

Mr. Wally Mrozik

Maximizing the Value of This Study

The Corporate Strategy Board is committed to helping members “unlock the value” of this study. Members are welcome to incorporate portions of this study into their own internal presentations. For members interested in delving deeper into this intellectual terrain, we maintain a dedicated research staff, a growing knowledge base and a modest rank of on-site research presenters. For further information on these services, please contact your CSB relationship manager at 202-777-5000, send an e-mail to csbms@executiveboard.com or visit our Web site at www.corporatestrategyboard.com.



Unlimited Copies

This study is intended for broad dissemination among the strategy communities at member organizations. Members are welcome to an unlimited number of complimentary copies of this study; please see the ordering instructions on the facing page.



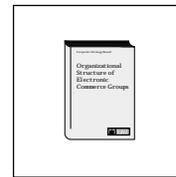
Research Staff Consultation

Following the completion of each major study, the Board assigns one senior researcher/author to provide unlimited telephone consultation on the intellectual terrain covered. Consultations can include a walk-through of the entire study or focus on specific member questions.



Online Access—Searches, Orders and Downloads

The CSB Web site provides immediate, unlimited access to all CSB research. Members can conduct keyword searches of the practices and cases profiled in this study and download complete copies.



Project Support Desk

The Board stands ready to address specific member needs with customized, short-turnaround research initiatives, typically based on focused secondary research or member networking. Members with questions not directly informed by this study are encouraged to send their research requests via e-mail to csbeps@executiveboard.com. One of our research managers will then contact you to discuss your request.



On-Site Briefings

CSB members are entitled to an annual on-site briefing without additional charge. On-site briefings are intended to create an “event” around which members can galvanize their own strategy development efforts and educate senior executives and line managers. Members should contact the Board at csbms@executiveboard.com if interested in such a briefing.



Corporate Strategy Board

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The study entitled *From Services to Solutions* is intended for broad dissemination among senior executives and management. Members are welcome to unlimited copies without charge. Online ordering is available at www.corporatestrategyboard.com. Alternatively, you can call the Publications Department at 202-777-5921, e-mail your order to orders@executiveboard.com or fax in the order form on this page. Members interested in reviewing any of the Board's past strategic research are encouraged to request a listing of completed work.

Study Requested	Quantity
From Services to Solutions <i>Building the Capabilities for Customer-Oriented Strategies</i> CATALOG NO.: CSB1DL7KV	_____
Optimizing Customer Performance <i>Bringing Business Discipline to Customer Solutions Strategies</i> CATALOG NO.: CSB12V67H	_____

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For First-Time Readers

For those who may be unfamiliar with CSB studies, a few guidelines concerning structure and content might be useful.

In this study, the essay provides an explanation of the dangers of imprecision in conceiving a solutions business and offers a definition to help guide strategists in their task of reviewing proposed solutions strategies.

The body of the study is divided into two chapters. The first chapter outlines the challenges of structuring profitable transactions in the solutions space and presents three practices for overcoming some of the attendant hurdles. The second chapter describes three ways of closing the gap between the understanding of the customer that most companies have and the deeper knowledge required of a solutions provider.

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For Further Assistance

If you have any questions related to this study, upcoming publications or any other issues, consider the staff of the Corporate Strategy Board to be on call. Please direct all inquiries to the Board at 202-777-5000 or visit us on the Web at www.corporatestrategyboard.com.

Corporate Strategy Board



Essay

Defining Customer Solutions

Can Product-Centric Companies Change?

The Economics of Customer Solutions Business Models

In May 2001, the Corporate Strategy Board published *Optimizing Customer Performance: Bringing Business Discipline to Customer Solutions Strategies*. In that study, the Board explores the attractive—but potentially unstable—economics of so-called customer solutions business models. Research into actual solutions activities reveals four distinct models:

- Information-Based Product Enhancements
- Diagnostic and Advisory Services
- Customer Process Management
- Integrated Business Systems

The study defines and evaluates the economics of each model. Findings conclude that dramatic margin enhancements and improvements to relationship retention and repurchase behavior are possible, but problematic variable cost structures and challenging fee negotiations come with the territory.

The Business Model Alignment Challenge

For optimal performance in each of these solutions businesses, critical elements of the business system have to be aligned. The study provides an overview of five alignment challenges, the most pressing of which are related to inappropriate value capture mechanisms and insufficient understanding of the customer's economics.

Open Questions

After reading the study, CSB members expressed interest in better understanding three issues:

- How do I evaluate solutions business opportunities?
- How do I build sustainable new businesses?
- How do I improve my knowledge of the customer?

This study seeks to answer those questions.

Building New Capabilities

Board research reveals that more and more firms—whether or not they are specifically pursuing a solutions strategy—are developing the capability to design new businesses with precision, ensuring that pricing, sales and organizations structures support the new strategy. Truly customer-centric companies are usually exemplars in terms of developing an in-depth understanding of customers' costs, benefits and potential future requirements. This study, *From Services to Solutions: Building the Capabilities for Customer-Oriented Strategies*, provides a benchmark against which to measure new solutions businesses along with case studies of companies that have closed the customer knowledge gap or structured profitable businesses.

Report from the Front

A Capital-Constrained Growth Agenda

Conversations with CSB members reveal that while most companies are still pursuing growth initiatives, the current economic environment is forcing many of them to develop more conservative strategies that are less cost- and capital-intensive.

A Focus on Knowledge- and Service-Based Growth Platforms

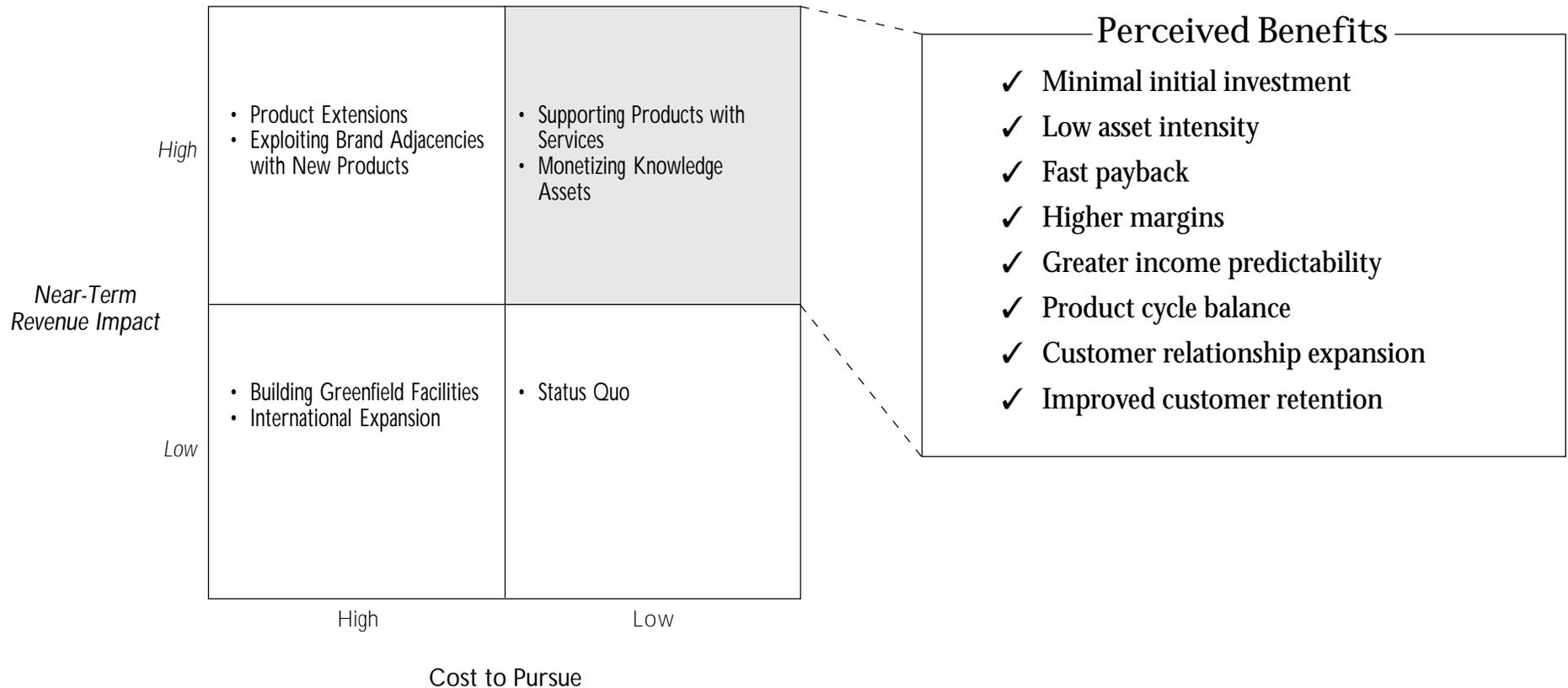
At present, much activity focuses on strategies that maximize the near-term revenue impact and minimize near-term costs. Many companies are moving into services in order to support traditional product-based businesses; in many cases, they are doing so by exploiting the intellectual capital and process knowledge they have built up over the years.

Proponents of knowledge- and service-based initiatives cite potentially high margins and low asset intensity, along with the potential for more predictable income and more balanced product cycles. Most importantly, these strategies are seen as growth opportunities that require little initial investment and offer a quick payback.

Making More with Less

Representative Member Growth Strategies

Corporate Strategy Board, 2001



Source: Corporate Strategy Board research.

Expert Opinion

A Solutions Rorschach Test

Many consider knowledge- and service-based platforms to be forms of “customer solutions” strategies. Several leading theorists have made notable contributions to this larger solutions terrain. Their works each provide a description of solutions and a theory of how the strategy should be pursued. According to most of these definitions, however, almost anything qualifies as a solution. This vagueness will hinder firms’ search for sustainable growth strategies. Indeed, almost every company interviewed during the course of CSB research considered itself to be pursuing “solutions.”

The Beginning of Wisdom

Booz•Allen & Hamilton

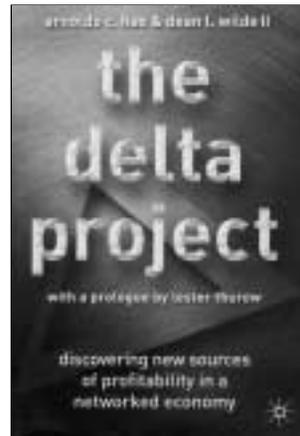


Publications: "The Truth About Solutions" (2001) and "Customer Solutions: From Profits to Pilots" (2001)
Selected case examples: Dow Chemical, Lockheed Martin, Royal Dutch/Shell

Solutions Defined

"Typically developed as a combination of products and services and knowledge (e.g., risk management, performance guarantees, customer consulting), a solution is a supplier's customized response to a customer's pressing business need."

Arnoldo Hax and Dean Wilde III



Publications: *The Delta Project: Discovering Sources of Profitability in a Networked Economy* (2001)
Selected case examples: National Starch, General Electric, Saturn, MCI WorldCom

Solutions Defined

"Instead of developing and marketing standardized and isolated products, [in a solutions strategy] we seek to provide a coherent composition of products and services aimed at enhancing customers' ability to create their own economic value."

McKinsey & Company



Publications: "Making Solutions the Answer" (2001) and "Putting a Price on Solutions" (2001)
Selected case examples: IBM, Cummins India Ltd., Corning Cable Systems

Solutions Defined

"A true solution is defined by and designed around a customer's need, not around an attempt to find a new use for the supplier's current products."

Source: Sharma, Deven, and Richard Molloy, "The Truth About Customer Solutions," Booz•Allen & Hamilton, 2001; Sharma, Deven et al., "Customer Solutions: From Pilots to Profits," Booz•Allen & Hamilton, 2001; Hax, Arnoldo, and Dean Wilde III, *The Delta Project*, New York: Palgrave, 2001; Foote, Nathaniel et al., "Making Solutions the Answer," *McKinsey Quarterly*, no. 3, 2001; Roegner, Eric et al., "Putting a Price on Solutions," *McKinsey Quarterly*, no. 3, 2001.

In Search of Solutions

A Broadly Based Phenomenon

There is no shortage of approaches for solving customer problems. Companies across industries seek to improve various aspects of the customer's financial performance or enhance the value that end users receive. A few examples of interesting initiatives are shown below.

Without accurate, precise objectives, however, any provider company that seeks to solve customer problems runs the risk of pursuing misguided strategies or, worse, failing to execute efficiently or profitably on a solutions strategy that is well conceived.

The challenge for solutions providers is building a profitable and sustainable business. Critical elements of the business system have to be aligned; the magnitude of organizational change can be daunting. Common problems relate to revenue capture mechanisms and incorrectly structured sales organizations.

Solving Customer Problems

Approaches to Solving Customer Problems

Improve Financial Performance

Enhance End-User Value

	Transaction Cost	Total Cost	Asset Productivity	Risk Mitigation	Enhanced Value
				Disney 	
Customer's Problem	Customers spend time and money transferring funds across accounts to optimize interest collection and payment. They don't always have the knowledge or time to find the best mix of accounts.	As automakers move from manufacturing to assembly, they continue to retain control of the paint and coatings process. With mounting pressure to decrease costs, they search for ways to reduce the total coatings cost.	U.S. hospitals face increasingly sophisticated infrastructure requirements with advances in medical technology. Most hospitals cannot afford to improve their infrastructure assets.	Due to the high cost of new videos (\$65 each), Blockbuster stocks limited copies of new releases, risking unfulfilled customer demand.	Renal patients spend significant amount of time in clinics meeting with doctors to monitor treatment.
Provider's Solution	The Woolwich leverages its access to multiple financial instruments and to customer information and reallocates funds to ensure maximum earnings and reduced (or no) charges.	PPG develops services in addition to its coatings products to advise automakers on process and environmental cost reduction. In some cases, PPG takes over the entire coatings operation for customers.	Johnson Controls develops an integrated facilities offering, assuming responsibility for implementing and managing hospital support services.	Disney institutes a revenue-sharing video distribution model whereby Blockbuster is able to buy unlimited copies of new titles for \$8 each in exchange for 40 percent of the rental revenue.	Baxter International develops home dialysis machine that monitors the patient's condition and sends information to the clinic. Physician can analyze patient data to assess the need for therapy adjustments without seeing the patient in the clinic.

Source: Corporate Executive Board, *Platinum Initiatives 2000: The Customer-Facing E-Business Agenda*, 2000; PPG; Johnson Controls; Working Council for Chief Information Officers, *Embracing Volatility*, 2001; Baxter International; Corporate Strategy Board research.

Corporate Strategy Board View

A Role for the Strategist

The strategist has a key role in developing disciplined review processes to evaluate proposed solutions strategies and avoid funding unprofitable ventures. The discussion that follows is designed to provide members with a framework for assessing solutions business cases within their organizations.

Sustainable Solutions

Our goal is to distinguish the characteristics of solutions offerings that have a reasonable prospect of providing sustainable advantage from those that do not. The “active ingredient” in a solutions offer is proprietary knowledge—about the customer, a process, industry performance, etc.—that makes it hard for competitors to provide a service as efficiently or as cheaply. Another critical aspect of sustaining advantage is the ability to continuously update the proprietary asset in order to develop next-generation offerings.

Emerging Capability Gaps

For optimal performance in these solutions businesses, critical elements of the business system have to be aligned. The most pressing challenges are related to value-capture mechanisms and to a sufficient understanding of the customer’s economics. The most sophisticated companies are building capabilities to close the customer knowledge gap and to structure profitable transactions.

What's in a Name?

Getting clarity around the definition of solutions...

...reveals two strategic capability gaps

Sustainable Definition
Corporate Strategy Board

Strategic Capabilities Gaps
Corporate Strategy Board

1
Scalability Requirement
The offer should be composed of "recombinant" modules (developed by the provider or accessible through a partnership) that can be configured based on the individual customer's needs.

3
Leveragable Transaction Requirement
The most successful transactions are structured in a way that yields new information that providers can use to develop next-generation solutions and thus preserve competitive advantage.

The Business Design Gap
Companies fail to buttress new activities with efficient business systems, resulting in the creation of new value for customers but inefficient pricing, sales, servicing and other structures for the provider.

Sustainable Solutions Definition
A tailored mix of products and services that relies on a set of core offerings and proprietary knowledge, delivered through profitable transactions, to further the provider's proprietary knowledge and improve a customer's economic performance.

2
Proprietary Knowledge Requirement
Competitive advantage arises from proprietary knowledge that enhances the bundle such that no competitor can provide it as effectively or cheaply.

4
Customer Economics Requirement
In-depth knowledge of the customer is necessary to develop an offer that may or may not reduce the customer's purchase price but improves the overall economics.

The Customer Knowledge Gap
Customer-centric strategies require providers to move beyond superficial relationships with customers to a true understanding of how customers derive value.

Source: Corporate Strategy Board research.

Bridging the Gaps

CSB research reveals that a growing number of companies—whether pursuing solutions strategies or not—are bringing new discipline to pricing offers and understanding customers. The following six practices represent efforts to expedite returns and achieve sustainable success in new businesses.

Closing the Business Design Gap

Each of the first three companies profiled has designed one or more processes critical to building a profitable solutions business.

Closing the Customer Knowledge Gap

The remaining three profiled companies have taken progressive and innovative steps to ensure that they not only know what their customers truly need, but also know how to communicate the value of the solution to their customers.

Refocusing Strategic Capabilities

Closing the Business Design Gap			Closing the Customer Knowledge Gap		
I. Rapid Scalability Process	II. Asset Replenishment Mechanism	III. Value-Capture Menu	IV. Customer Ecosystem Mapping	V. Total Costing Templates	VI. Total Value Sales Team
					
<p>A 90-day solutions business development process that standardizes the method for rolling out custom solutions to a broader market</p>	<p>Embedded product sensors that capture performance data and constantly refresh and replenish a proprietary information database which enables next-generation offerings</p>	<p>Three different mechanisms for pricing new product and service offerings in a way that aligns risk and reward</p>	<p>A complex map of all activities performed by customers and by constituents who influence customers; exhaustive list of process deficiencies enables new business strategy driven by insights about customers</p>	<p>Process templates enable the provider to quickly quantify customer process costs, avoiding lengthy (and complimentary) consulting engagements; accurate costing enables effective value propositions</p>	<p>Sales representatives skilled in targeting the sale to the customers' value drivers rather than cost negotiations</p>

Source: Corporate Strategy Board research.

Corporate Strategy Board



I. Closing the Business Design Gap

- ✦ Rapid Scalability Process 21
- ✦ Asset Replenishment Mechanism 33
- ✦ Value-Capture Menu 39

Top Challenges

New solutions strategies require building discipline around both product and service offerings to ensure profitable growth. Three top challenges persist.

Business Scalability

The challenge here is moving from “one-off” deliverables to repeatable, leveragable offerings; excessive customization can kill the economics of any new venture. Companies seek to create reusable code, so to speak, such that elements of the offering can be easily reconfigured to create tailored offerings for additional customers.

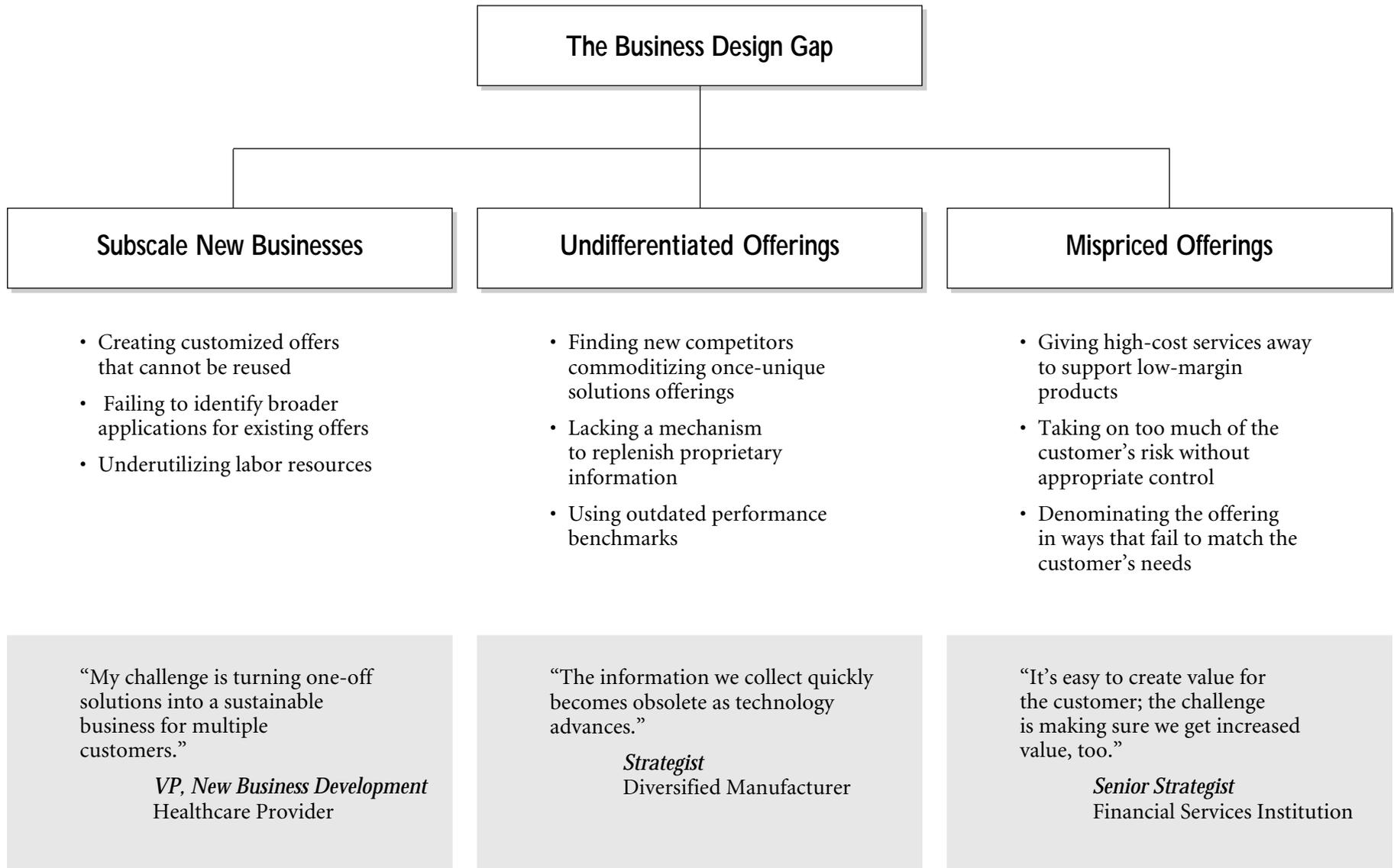
Differentiated Offers

Over time, solutions offers can become commoditized. The challenge for providers is developing a continuous feedback loop to replenish and refresh the proprietary information asset, enabling development of next-generation offerings.

Value-Creation Alignment

The most prevalent alignment problem for firms entering solutions businesses is that their value-creating activities precede their ability to capture a higher share of that value for themselves. Companies should attempt to develop a suite of mechanisms for properly pricing their offerings.

Structuring Profitable Transactions





I. Closing the Business Design Gap

Practice #1: Rapid Scalability Process

Excessive customization erodes the economic viability of a solutions strategy; developing modules that can be reused and reconfigured quickly for individual customers' needs increases scalability and therefore viability.

Profiled Practice: IBM Corporation



IBM Global Services develops profitable solutions by deploying a methodology to quickly scale solutions offerings. In 90 days, IBM can transform a newly developed discrete service offering for a single customer into a service platform by breaking the offering as created for a specific customer into modules that can be rolled out across industries and reconfigured to a different customer's needs.

Success in Services

Building New Revenue Streams

IBM made a substantial investment in order to provide services in addition to its traditional suite of products. IBM Global Services (IGS) grew to about \$30 billion in 2000 and is expected reach almost \$40 billion in 2002, while the rest of IBM continues to grow at a much more modest pace. For IBM, service revenues have helped balance product cycles to smooth earnings, winning the applause of Wall Street analysts.

IBM Corporation

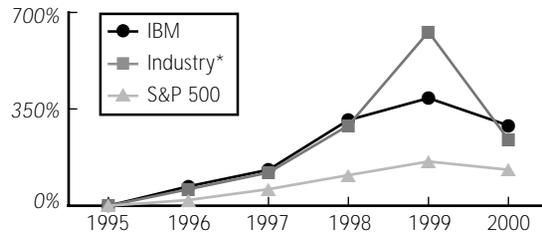
Company Profile

IBM. International Business Machines (IBM) is the world's largest computer company. It makes software, PCs, mainframe and server systems, notebooks, microprocessors and peripherals, among its thousands of products. IBM's growing services business, the largest in the world, accounts for about 35 percent of sales.

Selected Statistics

Five-Year Total Return to Shareholders

Percentage Return Since 1995

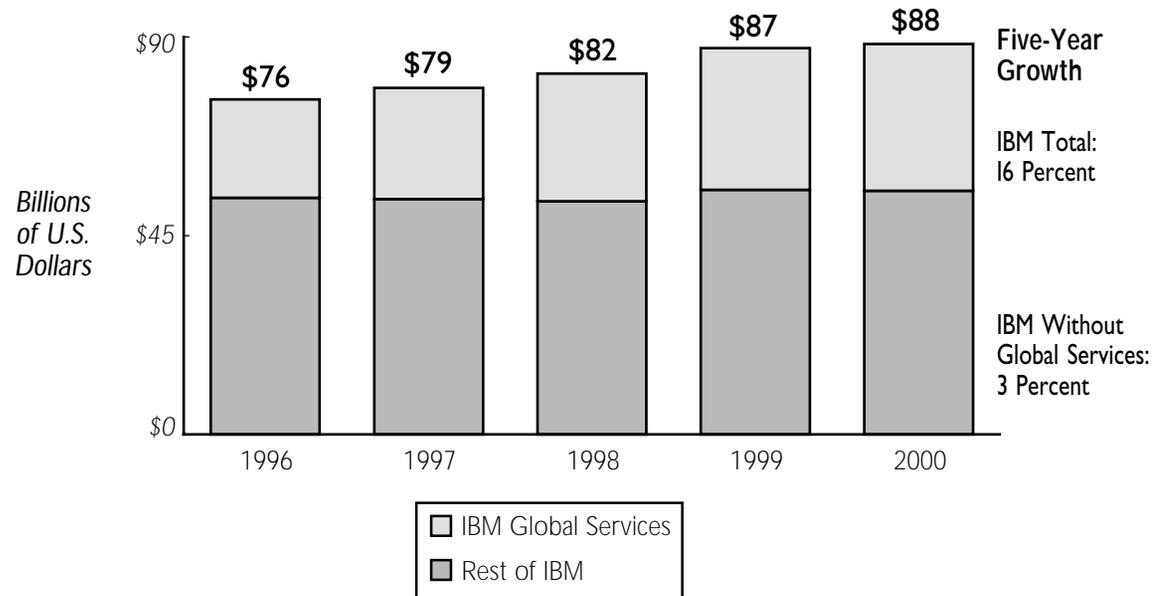


FY2000 Revenue	US\$88.4 B
FY2000 Earnings	US\$8.1 B
Market Capitalization (1 Sept 2001)	US\$173.6 B
Five-Year Average Annual Return to Shareholders	31.0%
FY2000 Employees	316,303
Approximate Number of IBM Global Services Employees	150,000

* Computer services and software providers.

Global Services as a Portion of Total Revenue

IBM, 1996-2000



Respect for Recurring Revenue

“IBM’s remake as a services-oriented and technology-driven company increasingly positions it to see high-single-digit constant currency revenue growth in the future.”

Goldman Sachs analyst
July 2001

Source: IBM Global Services Presentation, 25 May 2001; Koudsi, Suzanne, “Sam’s Big Blue Challenge,” *Fortune* (13 August 2001); Goldman Sachs analyst report, July 2001; Hoover’s Online; Corporate Strategy Board research.

IBM's Trump Card

If IBM Global Services (IGS) were a separate entity, it would rank 42 on the Fortune 500, with revenues in excess of \$33 billion. IGS is the world's largest business and IT consultancy, with thousands of consultants based in offices around the world.

Building an Information Asset

Within IBM Global Services, Business Innovation Services is a full-service consulting practice with a knowledge inventory built from internal and external engagements. IBM uses that intellectual property database to improve customers' business performance in a wide range of practice areas, covering a large geographic span.

Serving IT Solutions

IBM has emerged as a servicing giant...

...offering customers everything from business design to strategic outsourcing

Top Six Global IT Service Providers*

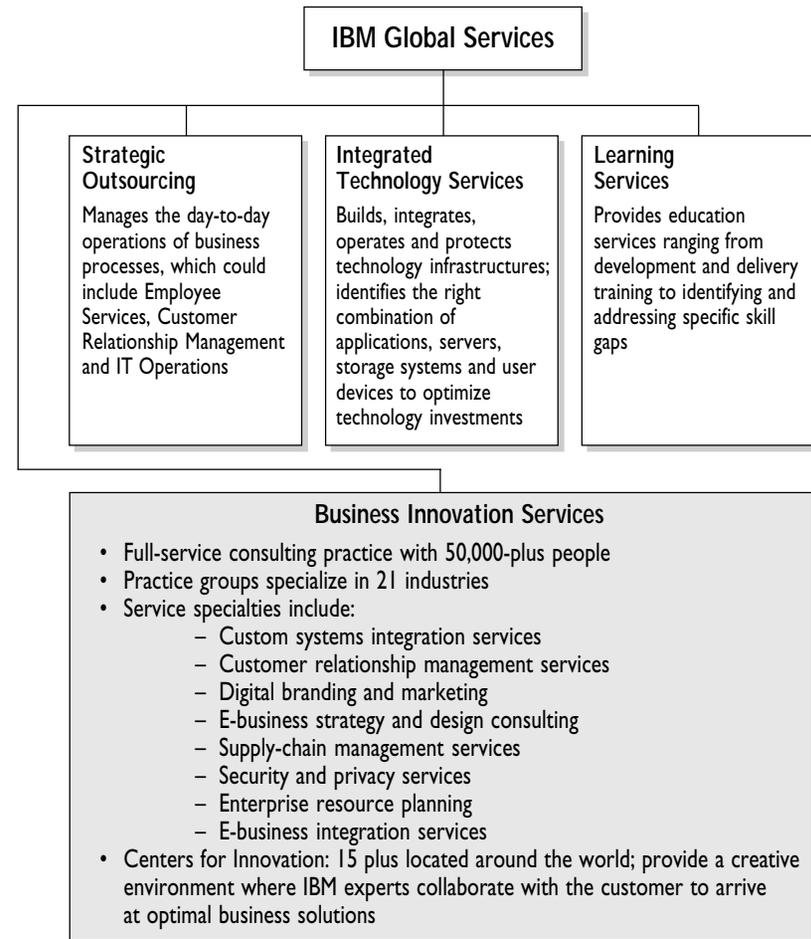
2000

	Revenue (Billions of U.S. Dollars)
	\$33.2
	\$19.2
	\$12.0
	\$10.3
	\$10.2
	\$7.8

As a stand-alone company, Global Services ranks 42 on the Fortune 500

Global Services Structure

IBM



* Based on estimated 2000 revenues.

Source: IBM; IBM 2000 annual report; Koudsi, Suzanne, "Sam's Big Blue Challenge," *Fortune* (13 August 2001); Corporate Strategy Board research.

Aiding Diagnosis

Case in Point —IBM's Engagement with Mazda

Deficiencies in the Process: Mazda's 850 dealerships in North America rely on printed manuals to diagnose and repair vehicle problems. This system is not only expensive to operate but repair diagnosis is sometimes slow and inaccurate. Given the percentage of the automobile industry's profits currently dependent upon after-sales service, the cost of losing the customer through inadequate service is significant.

Solving the Problem Efficiently: IBM helps Mazda launch the first "Electronic Service Information Intranet," which contains up-to-the-minute repair information on Mazda's models. Dealership technicians log on to the IBM server and have immediate access to all the information that Mazda's product engineers and other technicians can provide. If the technicians cannot find the information they seek in the online service manuals, bulletins or case-based repair scenarios, they can query the intranet and receive answers from the dedicated online help desk.

Mutual Benefits

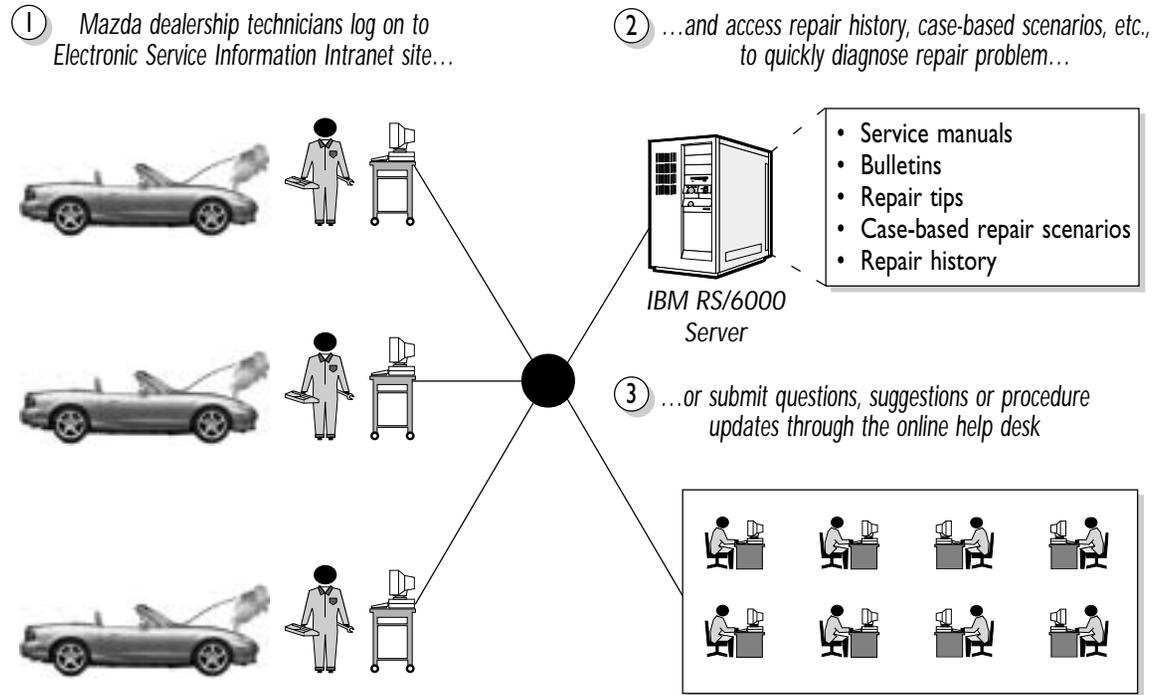
While both parties benefit from the arrangement, IBM not only complements product revenue with services but also develops deeper knowledge of critical business processes within the auto industry that can be used to build next-generation services. The challenge for IGS is moving from one-off engagements like the one for Mazda to repeatable, leveragable offerings with higher margins.

Paving New Roads for Mazda

Customer Service Engagement with Mazda IBM Global Services

Case Background

- Mazda launches effort to improve service through accurate identification, diagnosis and repair of vehicle problems
- Works with IBM Global Services to develop and launch the Electronic Service Information intranet, the first of its kind in the automotive industry
- Online help desk aids and expedites diagnosis
- Electronic Service Information intranet helps Mazda increase customer service, brand loyalty and EPA compliance as well as to lower costs



Driving Results

Mazda

- Repair information identified 25 to 30 percent faster
- Success rate for first-time repairs up 14 percent in first 12 months
- Print and postage savings of \$75,000 to \$230,000

IBM

- Increases and diversifies revenue stream with both product and service income
- Furthers knowledge of critical auto industry processes
- Ultimately, IBM signs 10-year contract to take on all of Mazda's systems development (except in R&D)

Source: IBM; Mazda; Corporate Strategy Board research.

Building a Platform for Growth

Scaling the Service Offering

IBM has created a proprietary methodology, Integrated Solutions Development, for translating the learning from a single engagement into reusable code that can be combined into customized service offerings for other customers.

Integrated Solutions Development

Across a one- to three-month period, IGS moves from a discrete service provided to a single customer to a services platform that can be rolled out to many customers and then customized to meet specific needs.

Individual Service Provision: During the initial engagement, IGS provides a service to a single customer. Together, they co-develop the offering that meets the customer's needs.

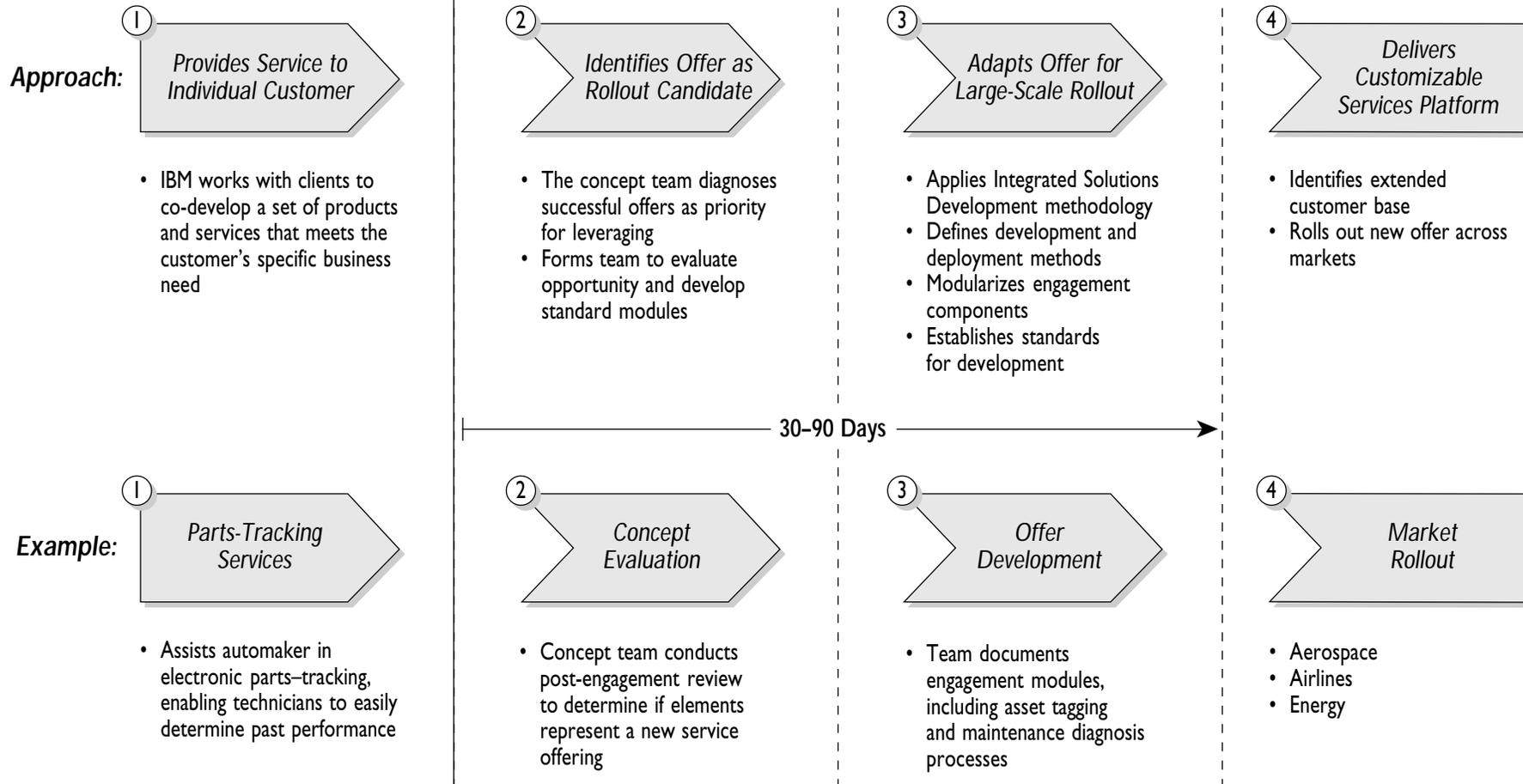
Rollout Potential Assessment: After the engagement, the IGS services team reviews the engagement and evaluates the concept. The team assesses whether it has created something new to the world and, if so, whether this type of service might apply to other clients. The team sizes the opportunity and develops the reusable blocks of code, the standard modules.

Rollout Offer Adaptation: The team builds the modules, creates and documents a process to deploy them, and identifies the total market for a large-scale rollout.

Customizable Services Delivery: The team defines the extended customer base that could benefit from the customized services platform. For example, IGS found that what it had done in the auto industry—electronic parts—tracking—fit well in the aerospace, airline and energy industries.

“Productizing” Services

Approach to Systematizing Service Offerings
IBM Global Services



Source: IBM; “Making Solutions the Answer,” *McKinsey Quarterly*, no. 3, 2001; Corporate Strategy Board research.

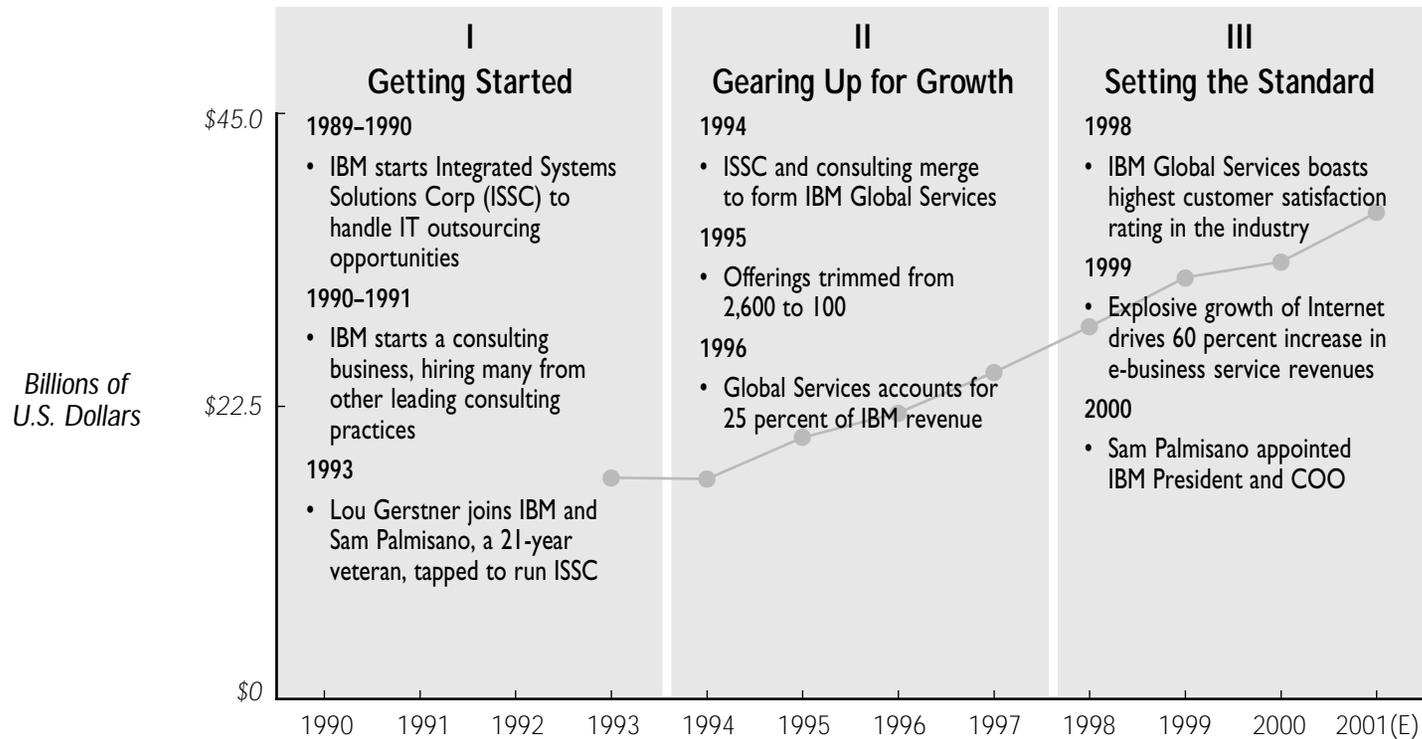
A Decade in Development

Corporate Transformation Takes Time

Solutions strategies often begin as a means of quickly animating core product sales in a capital-constrained environment. Establishing a separate solutions business, however, may require a significant corporate transformation and a substantial amount of time. The process of developing the Global Services business, for example, took IBM more than a decade of time and effort, allowing for substantial experimentation along the way.

The Road to Success

Global Services Revenues and Highlights
1989-2000*



* IBM Global Services revenue available only as of 1993.

Source: IBM annual reports; Burrows, Peter, and Andrew Park, "Can Compaq Escape from Hardware Hell?" *BusinessWeek* (9 July 2000); Bulkeley, William, "IBM's Next CEO May Be the One to Bring Change," *Wall Street Journal*, 7 August 2001; Corporate Strategy Board research.

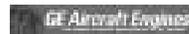


I. Closing the Business Design Gap

Practice #2: Asset Replenishment Mechanism

To sustain advantage, solutions providers establish mechanisms to replenish the proprietary asset, enabling the development of next-generation offerings.

Profiled Practice: GE Aircraft Engines



Embedded product sensors capture performance data and constantly refresh and replenish GE Aircraft Engines' understanding of airplane operations.

Wing-to-Wing Solutions

Assuming Customer Process Management

GE Aircraft Engines (GEAE) has moved from offering only products—its own engines and spare parts—to providing its customers “wing to wing” maintenance of an aircraft.

Although GEAE was very efficient in its repair work, it found that many of the factors that kept airplanes grounded were beyond the scope of its service offering. In order to shorten the downtime of customers’ key assets, GEAE took over responsibility for the aircraft’s engine maintenance from landing to lift-off, allowing for a substantial increase in aircraft uptime.

Customer-Denominated Pricing Discipline

GEAE structures its contracts around the metric that truly matters to customers’ economics, in-flight hours; aircraft uptime directly correlates with full use of capital equipment. Airlines are primarily concerned with capacity utilization but also benefit from reduced inventory, more accurate forecasting and greater cost predictability. Fewer delays further benefit the carriers by increasing the satisfaction of their customers, the airplane passengers.

II. Asset Replenishment Mechanism

GE Aircraft Engines

Company Profile

GE Aircraft Engines (GEAE) is a manufacturer of military and commercial aircraft jet engines. The company produces and services large and small jet engines for airlines, charter and leasing companies, and military aircraft. GE also provides extensive aviation services.

Selected Statistics

FY2000 Revenue	US\$10.8 B
FY2000 Operating Profit	US\$2.5 B

Civil Aircraft and Engine Market*

1999, U.S. Dollars (Billions)



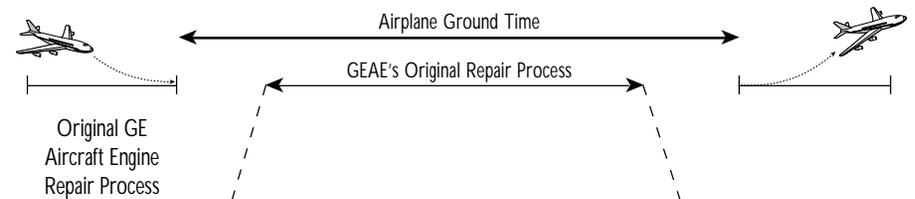
1. GE Aircraft Engines, \$5.0 B
2. United Airlines, \$2.1 B
- .
- .
- .
- .
8. Rolls-Royce, \$1.1 B
9. Pratt & Whitney, \$1.0 B

* The calculation for maintenance excludes manufacturing, inventory services and OEM spare parts.

Wing-to-Wing Service Process

GE Aircraft Engines

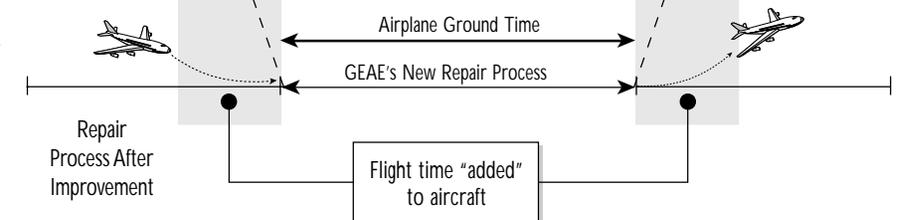
- ① Although GEAE substantially improves repair turnaround time, most of the delay keeping aircraft grounded is not in GEAE's control



- ② GEAE takes control of the whole process wing-to-wing...



- ③ ...and, by eliminating delay and variability outside its traditional service proposition, substantially improves engine uptime



Source: GE Aircraft Engines; Merrill Lynch analyst report, 1 May 2001; Thornton, Chris, "The Top 50 Civil Maintenance Operations," *Airline Business* (October 2000); Corporate Executive Board, *Operationalizing Customer-Facing Metrics*, 2001; Corporate Strategy Board research.

Leveraging and Replenishing Performance Knowledge

Wired for Information

GEAE's offering hinges on early detection and expert diagnosis of potential maintenance needs. It embeds sensors and wires into the aircraft that transmit data concerning errors, faults and performance to a database. This database also tracks maintenance records, collecting an increasingly broad set of best practices in aircraft maintenance.

This information allows GE to solve problems in real time, and each additional resolution of a maintenance problem expands that body of knowledge. The real-time communication between the aircraft parts and the maintenance team on the ground permits the team to consider the problem, develop a solution and have the necessary tools and replacement parts on-hand when the aircraft lands. The team can repair the defective parts immediately, and the plane is ready to fly again with a minimum of downtime.

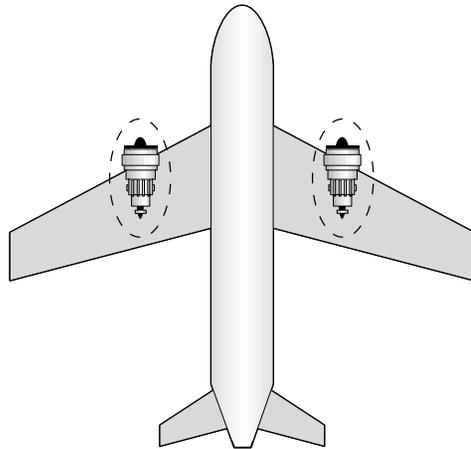
Aligned for Win-Win

By denominating the cost to the customer in cost per expected flying hour, both GEAE and the customer are aligned in their focus on asset productivity. The customer benefits because delays and cancellations of flights are minimized and maintenance costs become a predictable expense. GEAE absorbs the variability of maintenance costs, but it can offset the risks by increasingly shifting from high-cost reactive maintenance to lower-cost preventive maintenance as its ability to predict problems grows. Consequently, GEAE's cost-to-serve shrinks, while its revenues from ongoing maintenance contracts stay steady as long as it continues to constantly update its understanding of engines and their maintenance.

Sense and Respond

GEAE begins servicing only aircraft engines...

Customer Solutions Offering
GE Aircraft Engines, 1991



Spare Parts

- GEAE brand
- Engine parts

...and moves to a suite of customizable aircraft solutions

Customer Solutions Components
GE Aircraft Engines, 2001

Nose-to-Tail Services

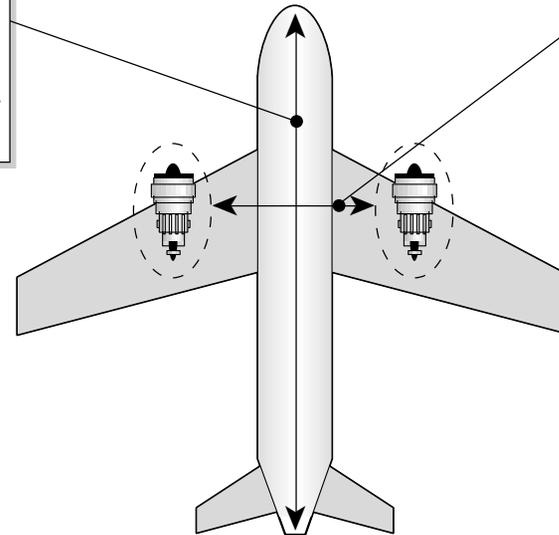
One-stop aviation maintenance, inspection, paint, refurbishment and modification services for both engines and frames

Business Process Software

Connects key maintenance processes to provide real-time data across the organization, expediting decision making at all levels

Six Sigma Quality Teams

Improve customer productivity



Wing-to-Wing Services

Most services are available for many competitor engines

- Engine Overhaul
- Component Repair
- Accessory Testing
- Engine Upgrades
- On-Wing Support

Includes mobile rapid response teams available to service aircraft anytime

- Remote Diagnostics

Provides real-time data, enabling issue resolution before operational problems arise; leverages and builds GEAE knowledge and global service network

Financing

Lease and purchase arrangements

Spare Parts

- Multiple brands
- Engine and non-engine aviation materials

Source: GE Aircraft Engines; Feldman, Joan, "At Your Service," *Air Transport World* (January 2000): 50-53; Sutton Oliver, and Duncan Macre, "Competition Hots Up the MRO Business," *Aerospace Media Publishing*, December 1997; Pearse, Jo, "A Question of Scale," *Airline Business* (October 1999): 56; Corporate Strategy Board research.



I. Closing the Business Design Gap

Practice #3: Value-Capture Menu

As businesses add new solutions offerings, the threat of suboptimal profit models increases dramatically. Many companies have begun to serve higher-level customer needs, but most fail to buttress these new activities with efficient pricing systems. The result is the creation of new value for customers but insufficient revenue for the provider to cover the new risk absorbed.

Profiled Practice: ABB Ltd.



ABB has developed a suite of solutions offerings that are associated with specific value-capture mechanisms intended to preserve its interests and its profit opportunities over time.

Reorganizing Around the Customer

In the late 1990s, ABB, a company known for its matrixed organizational structure, found itself managing a highly performance-driven set of businesses that were hard to coordinate for the complex needs of larger customers.

Refocused on the Customer

In early 2001, newly appointed CEO Jorgen Centerman makes it one of his first objectives to dramatically reorganize the company into a structure that both truly serves the customer and frees the company of its product centrism. ABB places the customer in the focal point by establishing four customer segments, each of which deals strictly with end users aggregated by usage type. All process industries are thereby grouped together, as are manufacturing and consumer industries, all the fossil fuels producers and all the utilities.

The new bias is clear: ABB has literally and philosophically put the customer at the top of the organization. In the new structure, each customer interacts with a single ABB account representative who can offer all ABB products and services.

III. Value-Capture Menu

ABB Ltd.

Company Profile

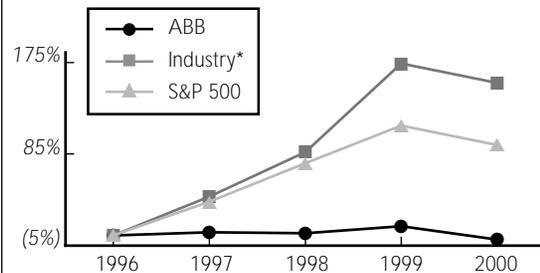


ABB is a global technology group that provides automation and power technology products and services from 160 facilities in more than 100 countries. ABB serves customers in four major industry segments: utilities, process industries, manufacturing and consumer industries, and the oil, gas and petrochemical markets.

Selected Statistics

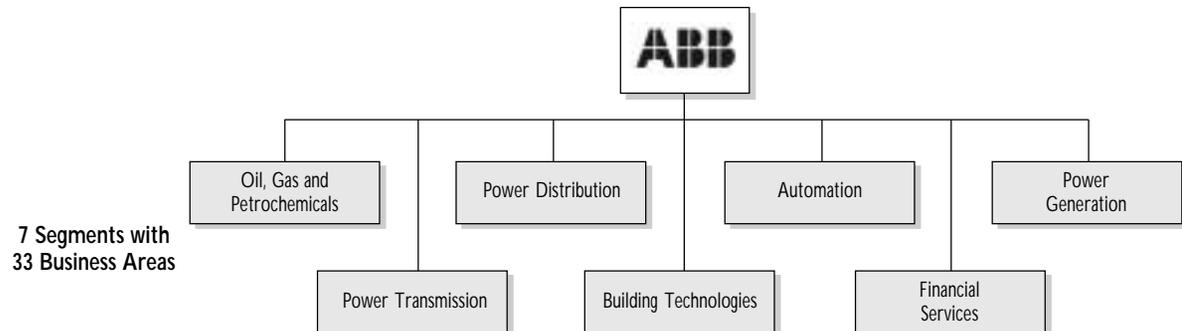
Four-Year Total Return to Shareholders

Percentage Return Since 1996



FY2000 Revenue	US\$23.0 B
FY2000 Earnings	US\$1.4 B
Market Capitalization (1 Sept 2001)	US\$12.5 B
Four-Year Average Annual Return to Shareholders	(1.0%)
FY2000 Employees	160,818

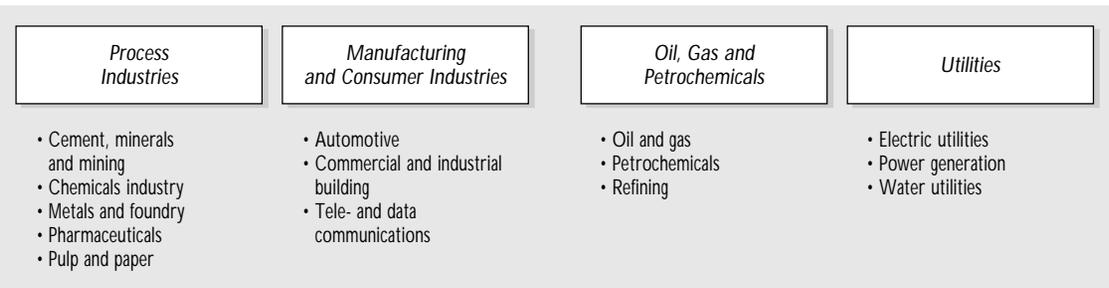
From a product focus...



7 Segments with 33 Business Areas

...to a customer focus

4 Customer Segments



14 Customer Portals

* Electrical and power equipment producers.

Source: ABB; Corporate Strategy Board research.

Value Creation Matches Value Capture

A Suite of Service Offerings

Like its structure, ABB's offerings have also evolved over time. The company has taken a decade to reach its current state, beginning in a cost-plus, product-oriented environment and gradually moving to a model in which ABB is able to provide customers with a range of solutions, including advisory services and process management.

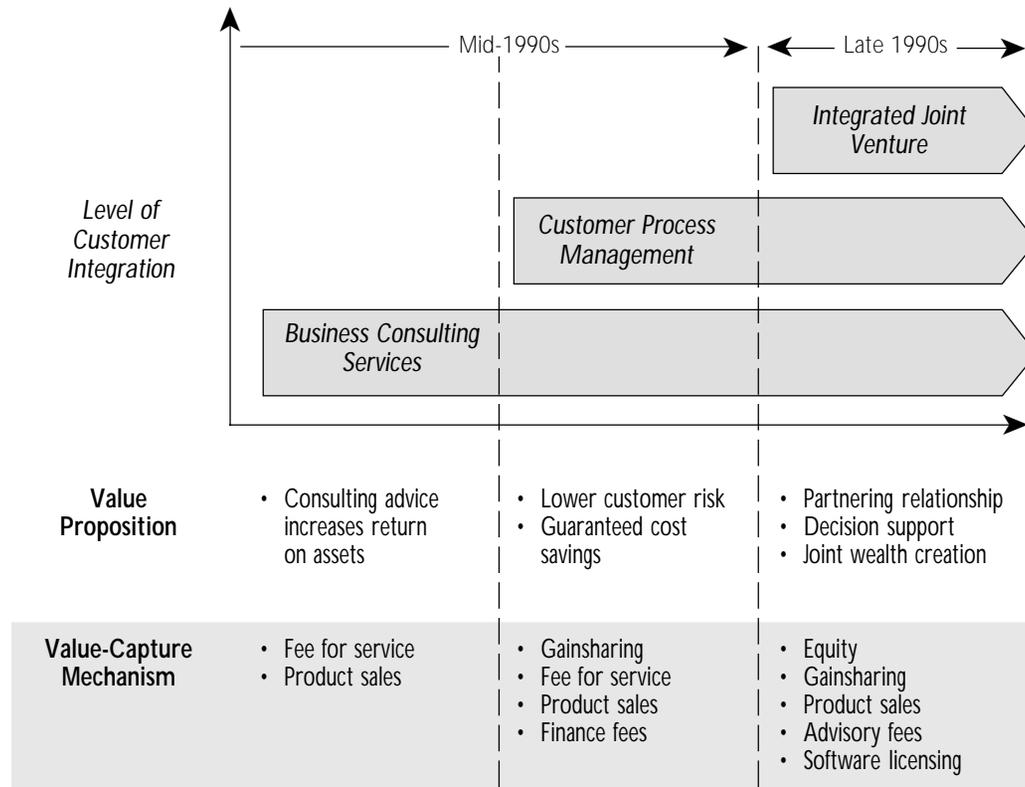
Balancing Risk and Reward

ABB also has a full complement of methods for capturing a proportionate level of the value it creates for customers. In the case of ABB and other solutions providers, customers tend to draw the provider into offering more solutions and taking on a larger number of the customer's problems as they develop a greater level of trust in a provider's expertise. The provider should have the ability to match the value it captures to the value it provides and the risk it undertakes.

Across the Solutions Spectrum

Evolution of Solutions Offerings

ABB Ltd., 1990s



Source: ABB; Corporate Strategy Board research.

Exporting Business Process Expertise

Developing the Capability

In the early 1990s, then-CEO Percy Barnevik established activity-based costing teams to help the company understand and manage its cost structure. ABB became adept at identifying underperforming segments of its operations and at improving asset utilization. The cost-management exercise had a collateral benefit: the capabilities developed internally could be used to create an entirely new revenue stream. As ABB's longstanding customers became aware of this new capability, they began to request assistance for their own organizations.

Leveraging Internal Assets

Realizing that it could leverage its new expertise in benchmarking and global process management, ABB moved to “export” this capability by turning the activity-based costing teams into a consulting group. The offer focused primarily on improving cost management, and the revenue model was, like that of consultants, fee-for-service.

The know-how that ABB amassed in cost management and its database of proprietary information and benchmarks formed a solid base from which to provide diagnostics and advice to key customers.

Building an Information Asset

Activity-based costing teams evaluate production activities and identify underperforming segments...

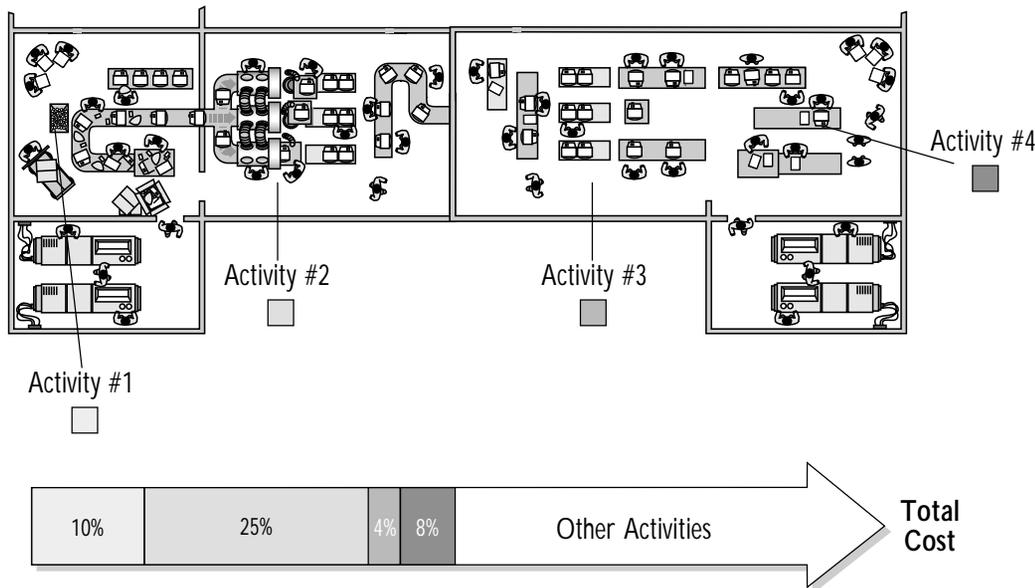
...creating internal benchmarks for optimal performance

Creating Activity-Based Costing Capabilities

ABB Ltd., Early 1990s

Hypothetical Activity-Based Costing Benchmarks

ABB Ltd.



Activities	Performance Benchmarks
#1	9-11%
#2	16-18%
#3	4-5%
#4	5-8%



ABACUS financial reporting system

Source: ABB; Corporate Strategy Board research.

Seizing an Apparent Opportunity

A New Revenue Model

When ABB rolled out its consulting services to a larger set of customers in the mid-1990s, it realized that many customers were not optimizing their asset productivity. The company redesigned its sales proposition around two goals for customers: increasing plant performance to design limits and preventing interruptions or shutdowns in operations.

ABB's systemic understanding of operations allowed it to provide diagnostic and advisory services for improving throughput. Its consultants identified opportunities for clients to run factories more efficiently by decreasing shutdowns and lowering labor and utilization costs.

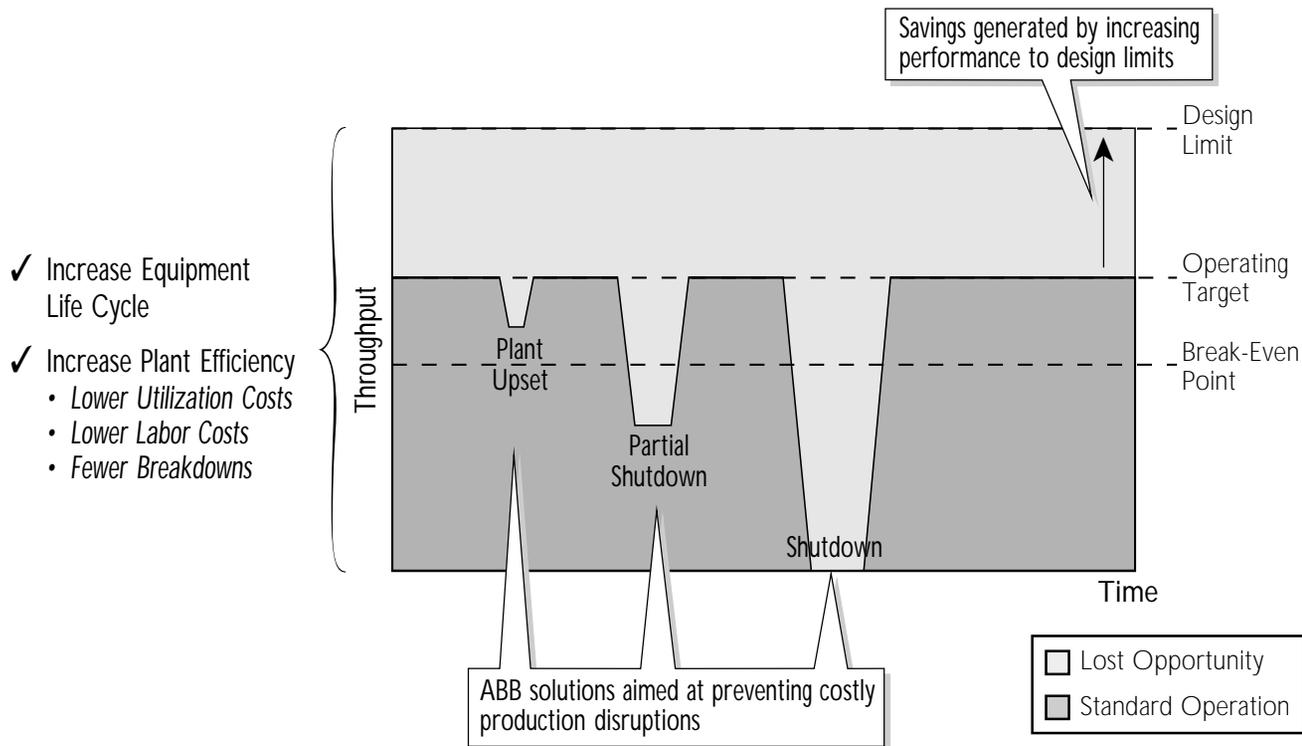
A New Competitive World

ABB entered into a variable-cost consulting business facing serious challenges in hiring critical staff, managing client expectations and implementing change in organizations that might resist advice from an outsider. Not only did this business model hinge on a very different set of factors from those underlying the product business model, ABB also faced a whole new set of competitors—management consultants.

Optimizing Performance

Sales Proposition for Asset Optimization Solution

ABB Ltd., Mid-1990s



Source: Bitto, Mark, Vince Itilaire, and Flavio Tolfo, "Asset Optimization Solution—ABB's First Step in Complete Asset Optimization," presented at *Automation World* (October 2000); Corporate Strategy Board research.

Beyond Cost-Plus

Bringing Expertise to Bear

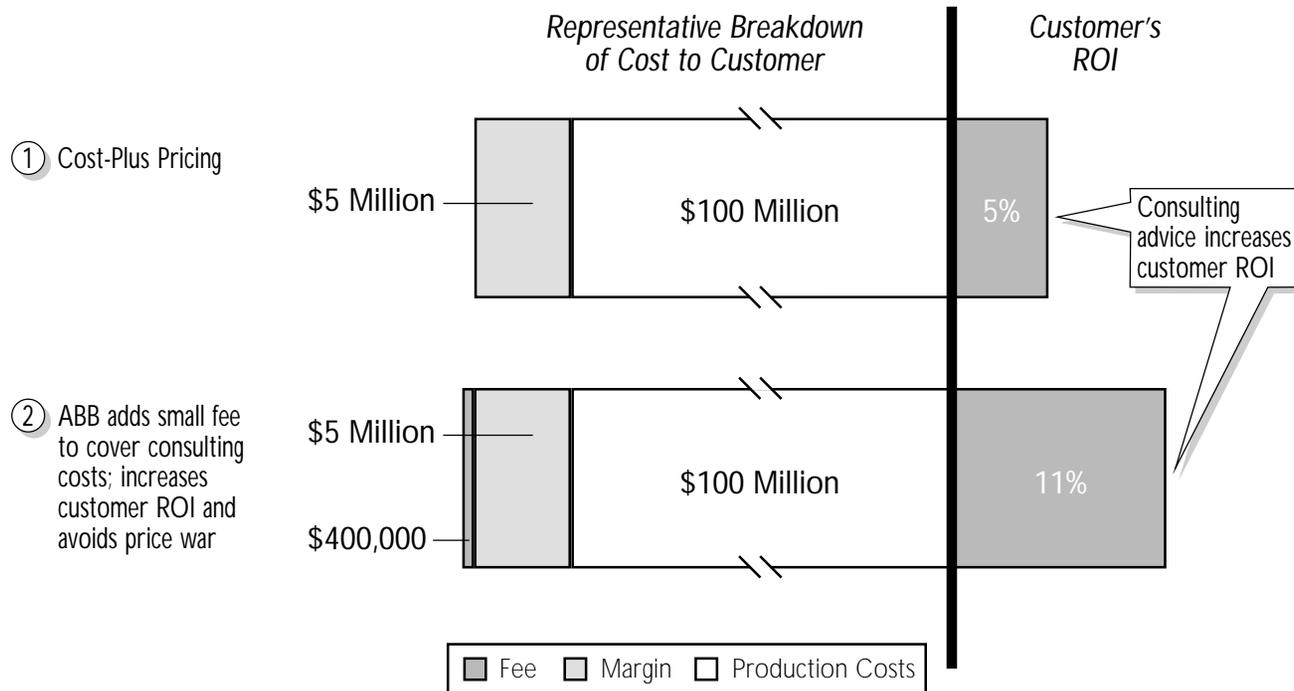
ABB began selling its know-how, along with its traditional products, to help customers see an increasing return on their investments in ABB products. Its intention was not only to obtain fee income from the advisory business but also, more importantly, to maintain the margins on the premium-priced products sold into these relationships.

From the customer's perspective, the benefits were obvious, as the cost of ABB's consulting service paled in comparison to the massive savings from efficiency gains. The higher ROI enjoyed by customers helped ABB defend its high margins in equipment sales.

The Benefit of Advice

Fee-for-Service Consulting Model (Hypothetical)

ABB Ltd., Early 1990s–2000



Note: This model assumes product cost remains constant across time.

Source: ABB; Corporate Strategy Board research.

Sharing the Value Created

Structuring Gainsharing Agreements

Customers' positive experiences with the consulting service encouraged them to turn to ABB with increasingly large process concerns. In some cases, ABB found itself pushed to manage entire customer processes.

In taking on management of these processes, ABB also found itself taking on a greater share of the customer's risk. In the late 1990s, ABB developed a new pricing approach that involved guaranteeing improved customer performance in exchange for a proportionate share of the savings. In this case, the alignment is perfect: ABB only gets paid if customer performance improves. However, structuring a solid performance contract is critical to the success of such a venture.

The Importance of Effective Contracting

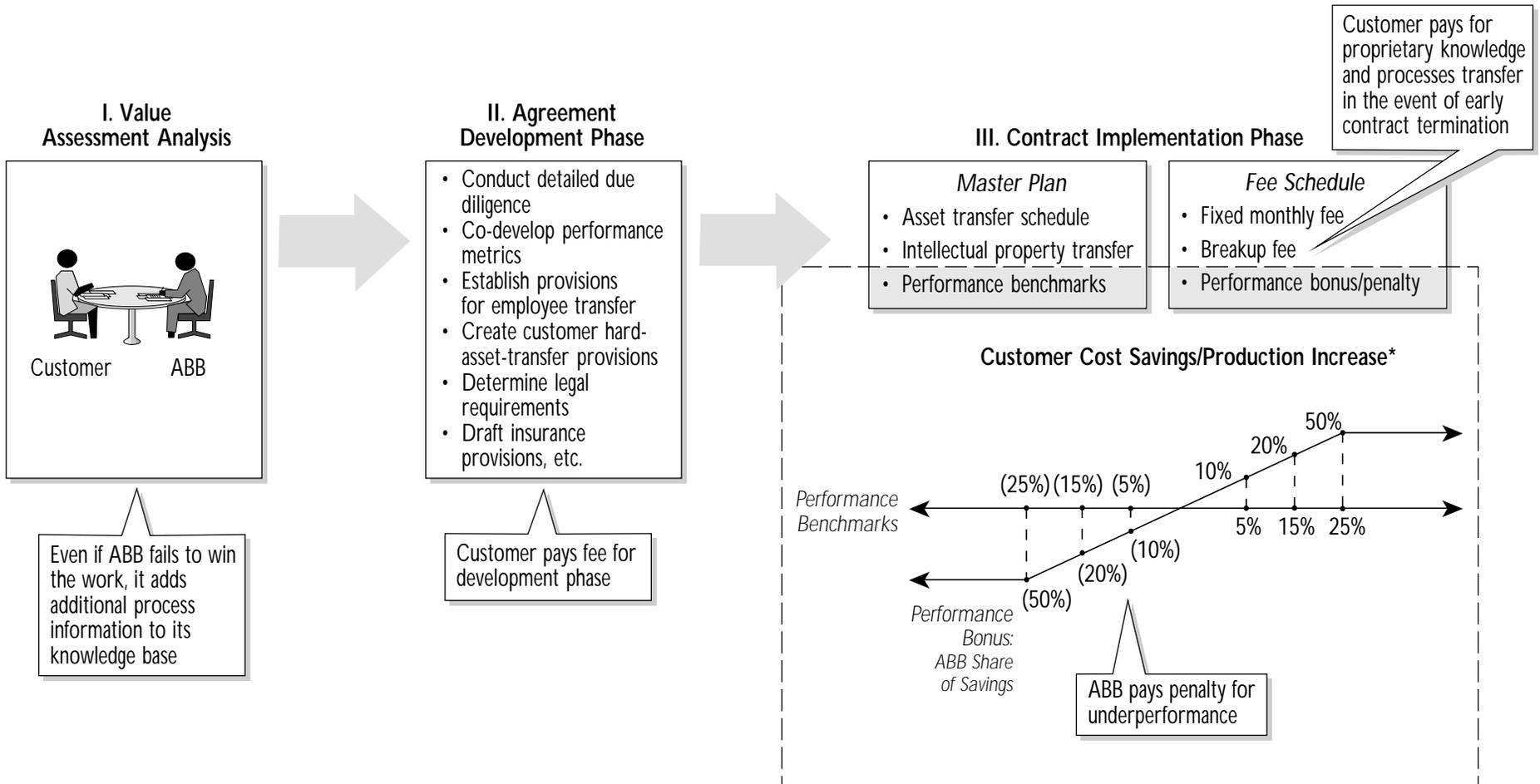
While gainsharing arrangements have substantially increased returns for ABB in a number of relationships, they have also heightened a number of known and new risks. In particular, ABB found itself exposed to uncontrollable factors that stemmed from the stability and intentions of its partners.

In some situations, leadership turnover in customers/partners imperiled relationships. In others, the sheer magnitude of the performance improvements entitled ABB to performance bonuses that dramatically exceeded the relatively small cost of the breakup fee. Furthermore, by guaranteeing a certain performance level, ABB becomes vulnerable to the "exogenous" risks previously held by the customer.

High Risk, High Reward

Phases of Gainsharing Contract Development

ABB Ltd., Late 1990s



* Hypothetical.

Source: ABB; Corporate Strategy Board research.

From Operations Value to Shareholder Value

A Final Value-Capture Mechanism

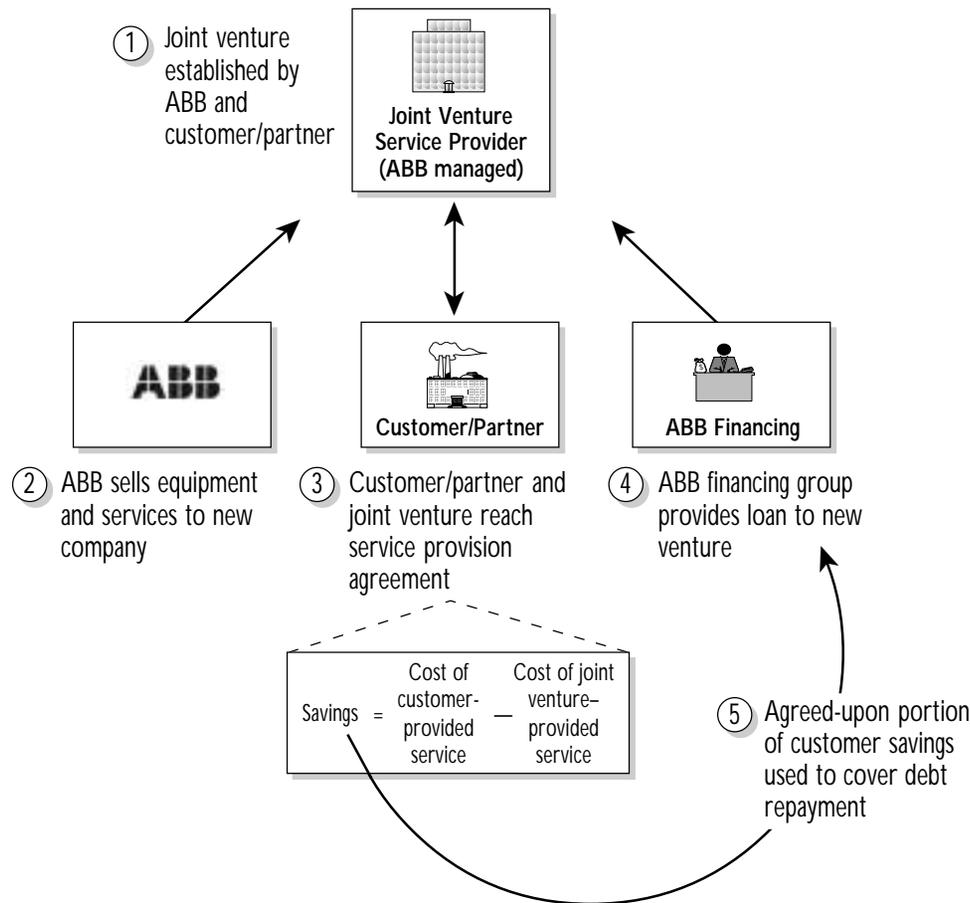
In some cases, ABB's gainsharing agreements have evolved into a further type of offering: joint ventures with customers. Here, ABB and the customer create jointly owned, third-party entities that provide opportunities to truly share the value created.

A number of advantages accrue to both the customer and ABB. The customer does not need to invest its own capital because ABB provides financing; the customer benefits from cost savings and receives equity in the new venture. Through its equity in the joint venture, ABB benefits from the production expertise of its strategic partner. Moreover, ABB profits by selling equipment and services to the new company.

Strategic Joint Venturing

Supplier and customer come together...

Enterprise Asset Management (Representative Example)
ABB Ltd., 2001



...raising returns and lowering risks for both parties

Dividing Gains from Strategic Value Venturing
ABB Ltd., 2001

Gains to Customer	Gains to ABB
<ul style="list-style-type: none"> ✓ Limited up-front costs ✓ Elimination of underperforming assets from balance sheet ✓ Efficiency improvements ✓ Off-book financing (when permitted) ✓ Shareholder value added ✓ Earnings/dividends from new venture ✓ Value-driver solutions ✓ Market intelligence through global best practice-sharing 	<ul style="list-style-type: none"> ✓ Lower risk of arm's-length contracting ✓ Increased customer insight and sales intelligence ✓ Financing revenue streams ✓ Higher-margin product sales over long term ✓ Shareholder value added ✓ Earnings/dividends from new venture ✓ Early involvement in customer thought process ✓ Firsthand access to customers' needs for future product development

Source: ABB; Corporate Strategy Board research.



II. Closing the Customer Knowledge Gap

- Customer Ecosystem Mapping 59
- Total Costing Templates 77
- Total Value Sales Team..... 89

Top Challenges

Truly customer-centric companies alter their focus from internal to external, seeking ways to meet a particular customer need and improve the customer's economics. Three challenges persist in developing and executing a truly customer-centric strategy.

Customer Knowledge

Many companies know something about their customer's processes (because their products are inputs), but they rarely have insight into the ultimate use of those products. The unfortunate truth is that few know very much about their customers, let alone their customers' customers.

Sales Cycle

Solutions providers risk an extended selling cycle as they attempt to better understand the customer's business and quantify the value they can create.

Sales Force Skills

As sales representatives migrate the sale away from simple cost issues toward process- and shareholder value-level concerns, many find their current employees unable to make the transition. In addition, they risk impacting core product sales as they transition to solutions.

Optimizing Customer Economics





II. Closing the Customer Knowledge Gap

Practice #4: Customer Ecosystem Mapping

To develop a more complete understanding of the customer, companies are relying on a capability to analyze all aspects of a customers' business and use that knowledge to inform and guide their own business decisions.

Profiled Practice: Baxter International Inc.

Baxter Baxter collaborates with customers and other constituents to develop a complex map of all the renal care activities from diagnosis to late-stage treatment.

A Focus on Life and Science

The Renal Care Ecosystem

Baxter International has been a pioneer in collecting information on kidney disease and researching treatment alternatives. It works closely with doctors, health-care payers and patients to develop home-care therapies that improve patients' quality of life. Baxter considers all these groups to be its customers to a certain degree. While individual patients use Baxter's products, they rarely make the purchase decision. Nonetheless, Baxter places a great deal of weight on their satisfaction.

IV. Customer Ecosystem Mapping

Baxter International Inc.

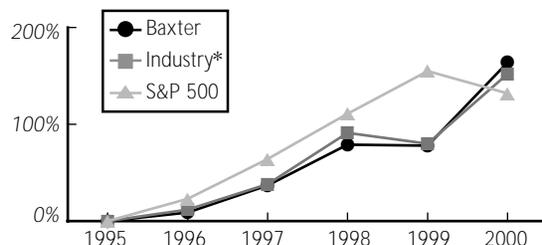
Company Profile

Baxter Baxter International, Inc. is a global medical products and services company with a mission of delivering critical therapies for people with life-threatening conditions through its three major businesses—BioScience, Medication Delivery and Renal.

Selected Statistics

Five-Year Total Return to Shareholders

Percentage Return Since 1995



FY2000 Revenue	US\$6.9 B
FY2000 Earnings	US\$740 M
Market Capitalization (1 Sept 2001)	US\$30.9 B
Five-Year Average Annual Return to Shareholders	21.4%
FY2000 Employees	43,000
Approximate Number of Customers	200,000

* Medical products suppliers.

Baxter

BioScience

Medication Delivery

Renal

- 2000 Revenue: US\$2.7 B
- Develops treatments for hemophilia, immune deficiencies and other life-threatening disorders
- 2000 Revenue: US\$2.4 B
- Provides a range of products for intravenous therapy and other forms of medication delivery
- 2000 Revenue: US\$1.8 B
- Develops products and services encompassing all aspects of renal disease

The Renal Care Ecosystem



Patients—Patients with symptoms that indicate kidney disease, as well as patients with chronic renal insufficiency and end-stage renal disease



Clinicians—Nephrologists, general practitioners and nurses dealing with renal patients for both in-hospital care and at-home therapies



Health-Care Payers—Insurance companies, governments and hospitals, as well as charitable organizations



Hospital Procurement Managers—Particularly those responsible for equipping the hospital's kidney disease wards

Source: Baxter International; Hoover's Online; Corporate Strategy Board research.

Early Detection

Case Background: The Two Forms of Dialysis

There are two principle interventions for kidney-disease patients: peritoneal dialysis, or PD, which is less disruptive and hemodialysis, or HD, which is more intensive and expensive.

For patients whose kidney disease is caught early enough, PD is the best treatment alternative. Patients can administer it themselves at home and can even continue their therapy while traveling; in contrast, most patients on HD spend four hours a session in a clinic at least three times a week. Both patients and health-care providers benefit from having more renal patients using PD.

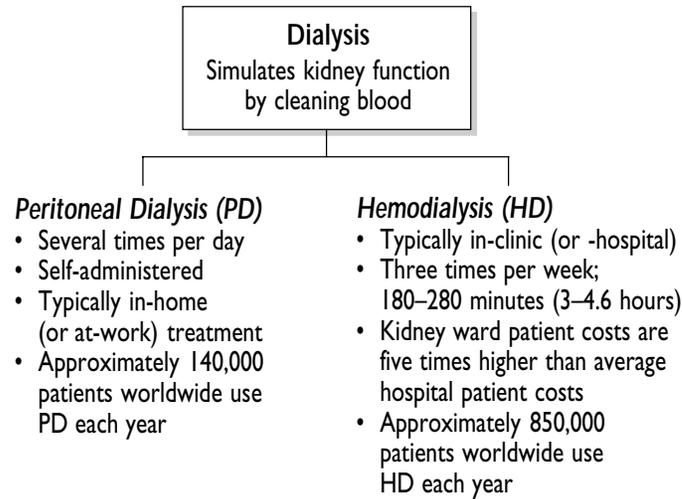
A Strategy to Grow the Market

In 1997, Peter Leyland became director of Baxter's U.K. renal care division. Baxter was the second-largest player in the dialysis products market at the time, with a 30 percent share. Its principal focus was on peritoneal dialysis. New entrants were coming into the PD product market and competing fiercely on price. Moreover, the size of the market itself was shrinking, and PD was increasingly losing out to HD as a viable therapy because many renal patients were not diagnosed early enough to be eligible for PD. Baxter initiated a strategy to grow the PD market through early detection of kidney disease and to expand into the broader renal care market.

A Primer on Dialysis

The two types of dialysis treatment...

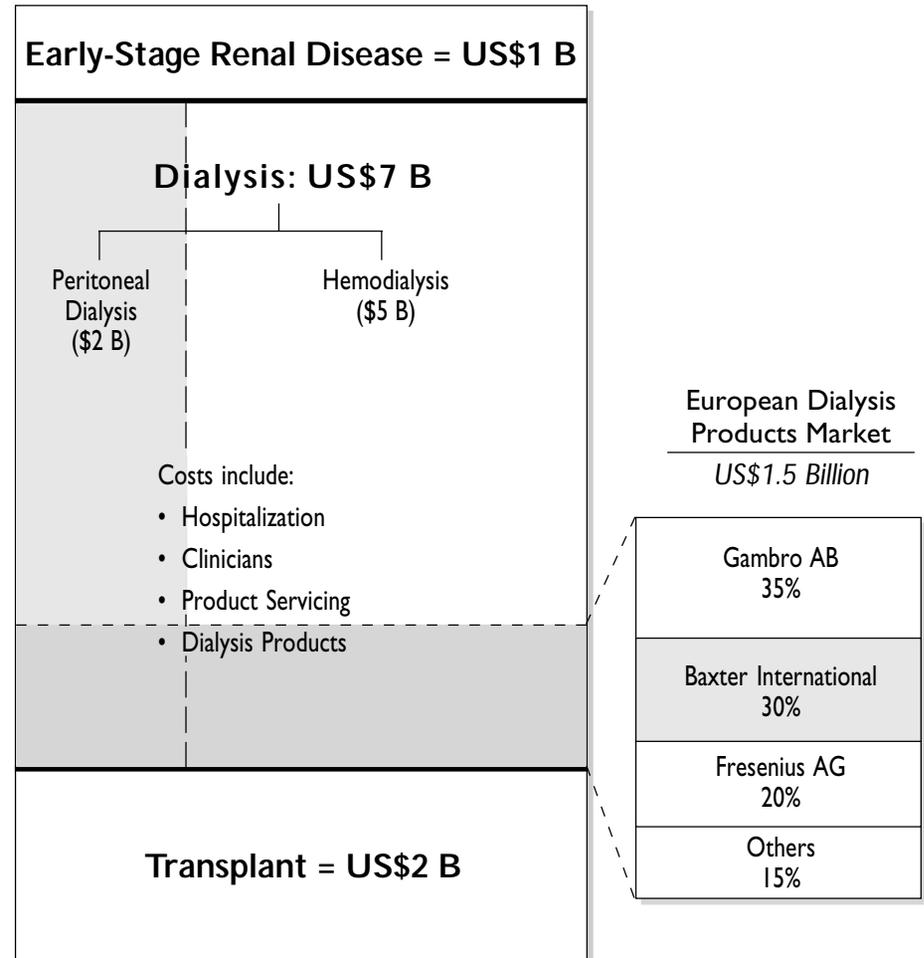
Types of Kidney Disease Treatment



...account for 70 percent of the European renal market

European Renal Care Market

US\$10 Billion



Source: Baxter International; "Medical and Healthcare Marketplace Guide," *Responsive Database Services, Inc.* (1999); pp. 1–905; www.rmshealthsystems.com; Merrill Lynch analyst report, 30 March 2001; UNOS/Nextram; Corporate Strategy Board research.

A 360-Degree View

Analyzing Activities

As Baxter begins to move beyond its traditional suite of PD products into the fuller continuum of renal care, it needs to understand the full cycle of renal disease and the requirements of every constituency at each stage of the disease, from diagnosis to transplant. It represents a paradigm shift for the company, moving from a focus on boosting product sales associated with a single stage of care to capturing the needs of the patient throughout the disease cycle.

Using this new approach, Baxter conducts workshops in which members of a single constituency (e.g., patients) map their renal care-related activities and identify their unmet needs.

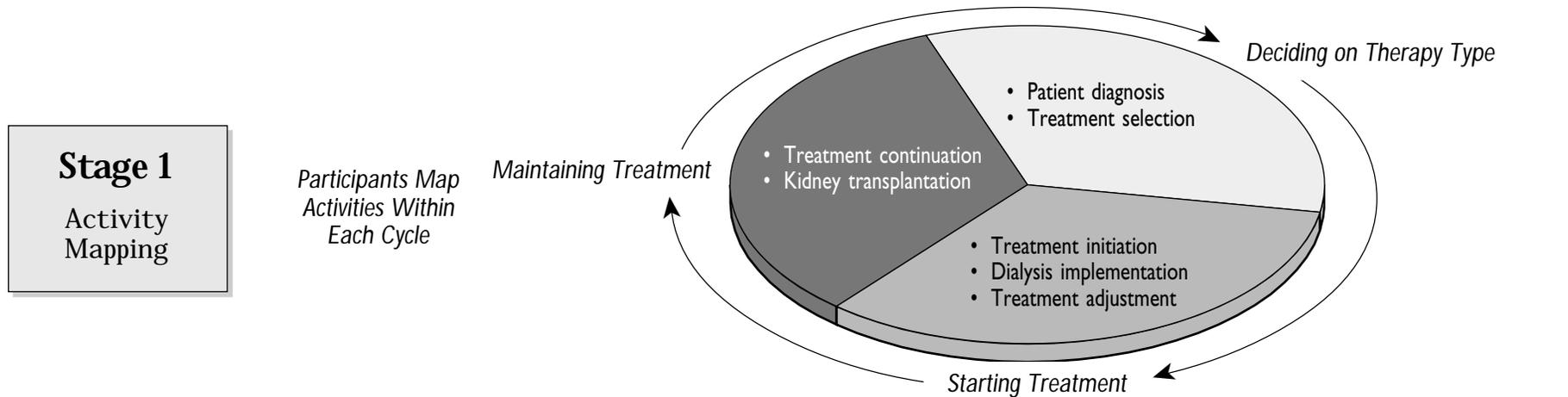
Baxter comprehends the range of unmet needs involved in the treatment of kidney disease by mapping the activities of all the constituent groups, covering each stage of the treatment process.

Surfacing New Opportunities

Baxter translates those process gaps into opportunities for the company to intervene with products or services to improve the entire spectrum of care. Baxter moves beyond its traditional suite of existing products and types of goods and services to locate ways that its deep knowledge of renal disease can be leveraged to improve the whole process.

Identifying Value Gaps

Customer Ecosystem Mapping
Baxter Renal, Europe



		<u>Deciding</u>	<u>Starting</u>	<u>Maintaining</u>
Stage 2 Process Gap Identification	<i>Baxter Identifies Gaps in Current Offerings</i>	<ul style="list-style-type: none"> • Lack of information about kidney disease • Little knowledge of treatment choices • Insufficient specific training for health-care providers 	<ul style="list-style-type: none"> • Disruption of patients' lives • High costs of hospital-based treatment • Health-care resources insufficient 	<ul style="list-style-type: none"> • Lack of dialysis availability in some countries • Long delays for transplantation • Declining general health of patients—increasing co-morbid conditions
		Stage 3 Opportunity Identification	<i>Baxter Identifies Specific New Business Opportunities</i>	<ul style="list-style-type: none"> • Aid early diagnosis • Educate about treatment choices • Provide patient information

Source: Baxter International; Vandermerwe, Sandra, "How Increasing Value to Customers Improves Business Results," *Sloan Management Review* (fall 2000): 27–37; Corporate Strategy Board research.

In-Depth Treatment Analysis

A One-Day Workshop

Central to customer ecosystem mapping is Baxter's one-day workshop where groups of constituents describe their renal care activities.

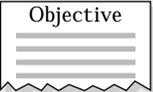
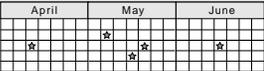
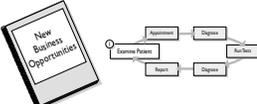
Participants: Each workshop is done with a single constituent group. Baxter finds that patients, nurses, doctors and hospital administrators are more likely to be frank about their activities and the underperforming parts of the process if they are in a group of their peers.

Facilitators: Baxter's facilitators are specially trained for these sessions and are adept at eliciting frank responses from the participants, as well as at helping the participants uncover process deficiencies. They encourage the participants to talk openly about their concerns as a whole, not just those pertaining to Baxter products.

Outputs: The result is a highly detailed activity map that the business development team can later use to prioritize opportunities.

Workshop Overview

Overview of Customer Ecosystem Mapping Baxter Renal, Europe

<p>Objective</p> 	<p>Understand customers and identify opportunities</p>	<p>Baxter seeks to improve knowledge of customers and end users and to identify new business opportunities</p>
<p>Duration</p> 	<p>One day</p>	<p>Each session lasts one day; most of the day is spent in separate groups with the participants coming together to present their results at the end</p>
<p>Frequency</p> 	<p>As needed; ongoing</p>	<p>Multiple sessions are conducted initially (often in parallel) to develop a base of knowledge; after that, the sessions are conducted as needed; to date, Baxter has conducted more than 30</p>
<p>Participants</p> 	<p>Doctors, nurses, patients, hospital procurement managers</p>	<p>Each session includes approximately 15 participants (all from the same constituency)</p>
<p>Baxter Staff</p> 	<p>Approximately six</p>	<p>Staff includes three specially trained facilitators and three individuals to support them</p>
<p>Outputs</p> 	<p>Activity maps and prioritized opportunity list</p>	<p>Detailed activity maps are developed for different constituencies and the lists of opportunities are triaged</p>

Source: Baxter International; Corporate Strategy Board research.

Beyond Traditional Boundaries

Unfiltered Feedback

These workshops allow the participants to express themselves freely about the aspects of the treatment process that concern them most. The sessions are marked for their candor and honesty. They provide Baxter with an unfiltered experience direct from the market.

Beyond Focus Groups

The insights surfaced in these workshops have surpassed any generated by ordinary focus groups or surveys of customers, perhaps because the participants are free to drive the conversation rather than respond to questions designed by the company.

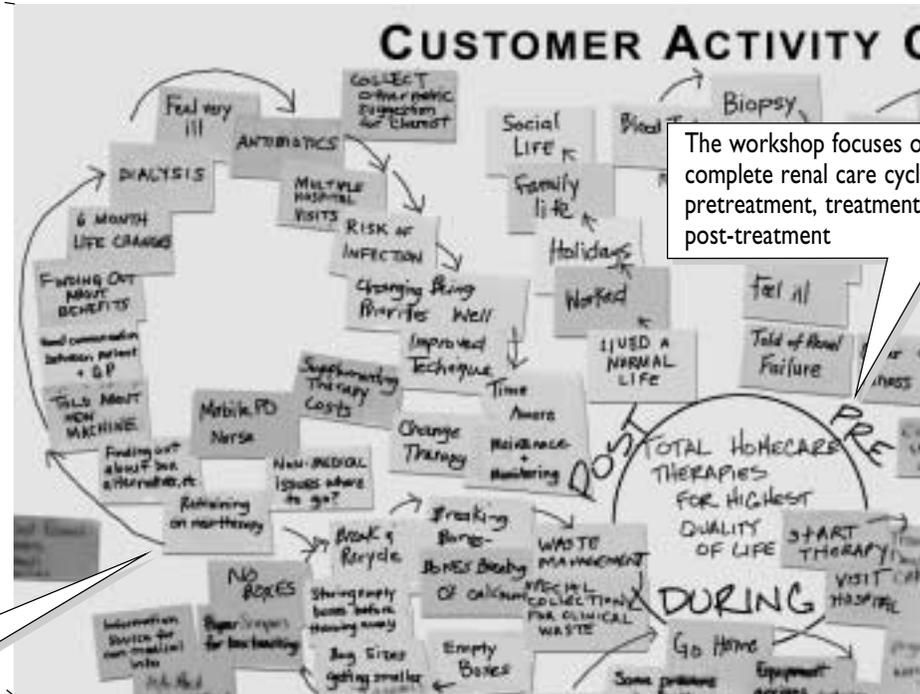
Baxter has completed more than 30 of these workshops in Europe and now has a much-improved understanding about the activities of all its constituents—patients, nurses, doctors, and hospital procurement officers.

Mapping the Disease Cycle

Customer Activity Map



Participants use different-colored flags to differentiate between Non-Value-Added Activities and Value-Added Opportunities



The workshop focuses on the complete renal care cycle: pretreatment, treatment and post-treatment

Constituents identify all of the activities in the renal care process

The Power of Unfiltered Feedback

“I do not want to tell the whole story [of my disease] every three months to new doctors...we want to be better informed.”

Patient Participant

“It is amazing how many times the need for more, better, anonymous information was expressed....They [patients] want to know about the disease, they want people (doctors, nurses, nephrologists) to have more knowledge and to provide more information....It was a tremendous experience for me.”

Baxter Facilitator

Source: Baxter International; Corporate Strategy Board research.

Bringing It All Together

Truly Beyond Core Products

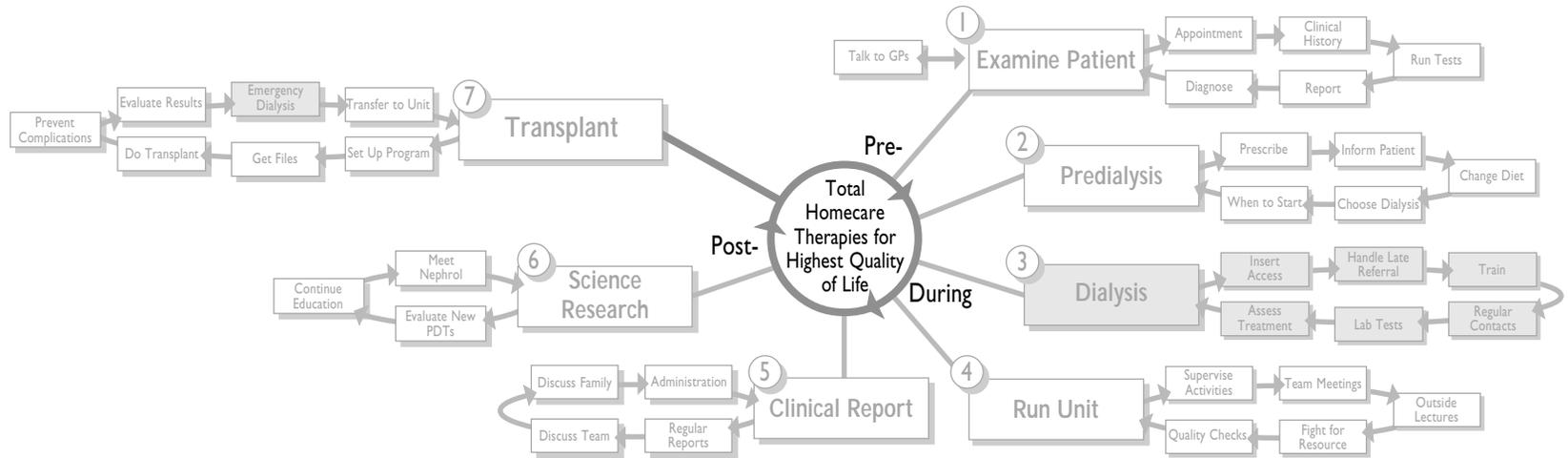
Once the maps are created, Baxter distills the creativity of the session into actionable learning. The first step is drawing some conclusions from all the information on the maps and adding rigor to the process of identifying deficiencies. Activities are grouped to help Baxter locate where deficiencies identified by one constituency might overlap with those identified by another constituency.

Even though Baxter was originally only involved in one small part of the continuum—providing products for one type of dialysis—it has now mapped out the entire cycle of the disease for every constituency and is beginning to understand all of the different products, services and variables that can affect the goal at the center of those charts: providing therapies for highest quality of life.

A Broader View

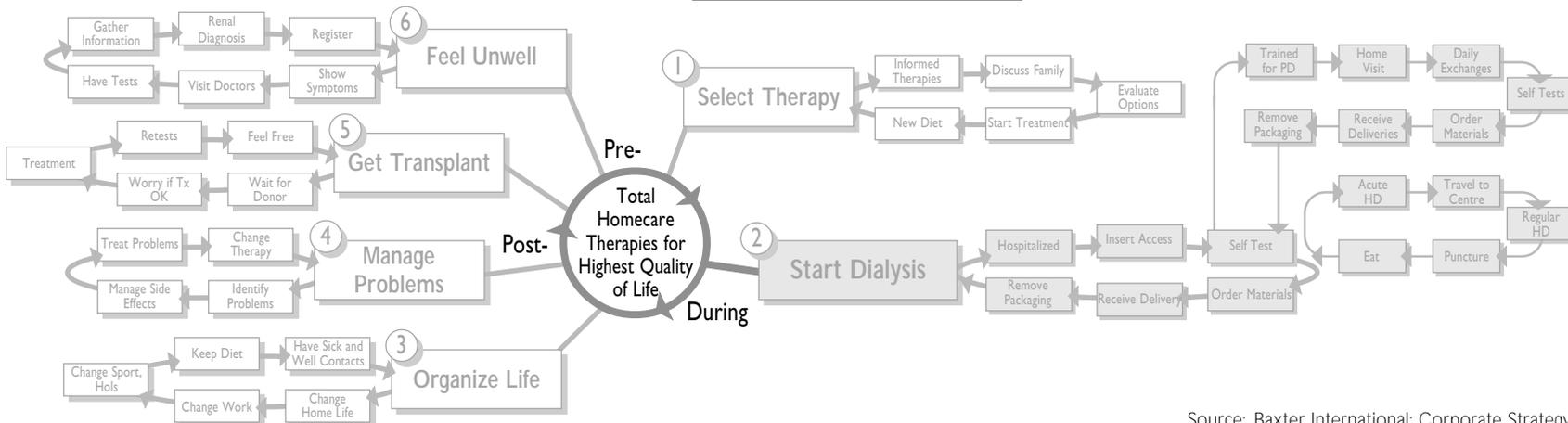
Baxter understands its customers' activities...

Selected Doctor Activities



...as well as those of its customers' customers

Selected Patient Activities



Source: Baxter International; Corporate Strategy Board research.

Opportunity Evaluation

Baxter's European business development team sifts through the workshop results to identify opportunities for creating value well beyond the scope of the company's current products. Baxter views the opportunities through three different filters, sizing them according to whether they can be undertaken with existing resources or will need additional funding and a longer lead time.

A New Set of Projects

New Opportunity Categorization

Baxter Renal, Europe

I

Country Quick Hits

Definition:

Simple opportunities that can be addressed locally with existing resources



Example:

Increased early access to renal information for patients using *Kidneydirections.com* Web site; to date, the site has had over 40,000 hits and roughly 5,100 registered patients

II

Short-Term Opportunities

Opportunities that can be realized in approximately six months, requiring some resources and European management input



Set up specialized home hemodialysis pilots in the U.K.

III

Strategic Opportunities

Significant opportunities having a major impact on the direction and profile of the renal business



Global working team established to evaluate revenue opportunities from treating patients nearing kidney failure

Delighting Wall Street

“Baxter is aggressively looking into increasing its presence in PD, HD (including home dialysis), services (i.e., providers) as well as pharmaceuticals. We cheer these moves since they will help expand Baxter’s presence with physicians and provide greater credibility in touting the benefits of PD treatment.”

Merrill Lynch Analyst Report
March 2001

Source: Baxter International; Merrill Lynch analyst report, 30 March 2001; Corporate Strategy Board research.

Core Products and Beyond

Expanding Its Offerings

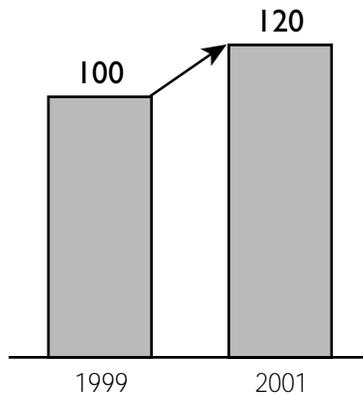
Customer ecosystem mapping has helped Baxter build a strong foundation for future growth. It is pursuing business opportunities well beyond the incremental adjacencies it could have spotted without going through this exercise. Baxter's 360-degree picture of renal disease not only highlights a myriad of business opportunities, but also allows Baxter to understand more deeply the needs of the patient at every point in the disease cycle. It also provides a much more thorough comprehension of the needs of the professionals who serve patients. Moreover, by continuing to hold these workshops, Baxter can build on that base of knowledge and identify further opportunities to serve the customer.

A Strong Foundation for Growth

Growing the core business...

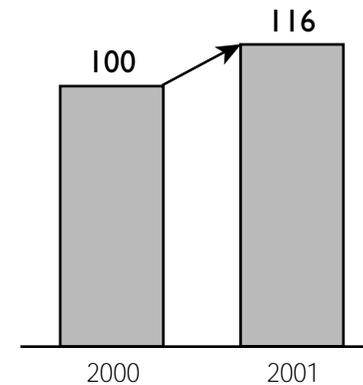
Representative Growth in PD patients

Baxter Renal, U.K.



Renal Product Sales Growth

Baxter Renal, Europe



...and building new businesses



New Business Evaluation Teams In Place

Three teams evaluate new business opportunities, including home hemodialysis and renal pharmaceuticals



Strong Acquisition Pipeline

Customer ecosystem mapping workshops lead to ideas for acquisitions



New Offer Pilots

New software information system identified in customer ecosystem mapping workshop captures 90 percent of the information-system market in key therapy segments

Source: Baxter International; Corporate Strategy Board research.



II. Closing the Customer Knowledge Gap

Practice #5: Total Costing Templates

Few companies truly understand their own costs. As a consequence, they find it difficult to appropriately value a new set of services that helps them improve a given process. In order to demonstrate the benefits of a solution, the solutions provider must give the company an idea of its own costs. Here the challenge is gathering enough information about a potential customer to estimate and communicate a compelling value proposition.

Profiled Practice: State Street Corporation



State Street develops process templates that enable it to quickly quantify customers' process costs accurately and communicate the value proposition to prospective customers.

Trading on Process Knowledge

State Street's Transformation

State Street began as a commercial bank in 1792 but became increasingly involved in fund accounting beginning in the early 1900s. State Street exited commercial banking altogether in 1999. Now the company has more than \$6 trillion dollars in assets under custody and more than \$700 billion in assets under management. State Street serves primarily global institutional investors and provides trust, investment management and securities processing capabilities.

Over the past several years, State Street has developed a broad set of offerings for investment managers. Essentially, State Street is able to leverage its technological expertise in and its proprietary knowledge of the middle- and back-office activities of investment managers to take on responsibility for the management and performance of these activities.

State Street Corporation

Company Profile

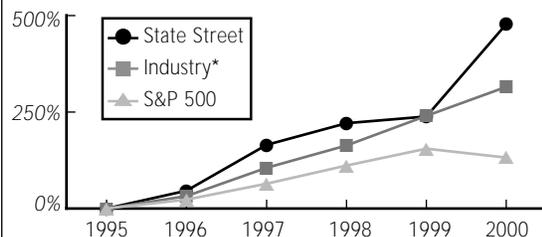


State Street Corporation provides information services, custody, securities lending, investment management, performance and analytic measurement, cash management and record keeping. Its range of clients includes investment managers, corporations, mutual fund companies, insurance companies, public pension funds, unions, not-for-profit organizations and individuals.

Selected Statistics

Five-Year Total Return to Shareholders

Percentage Return Since 1995



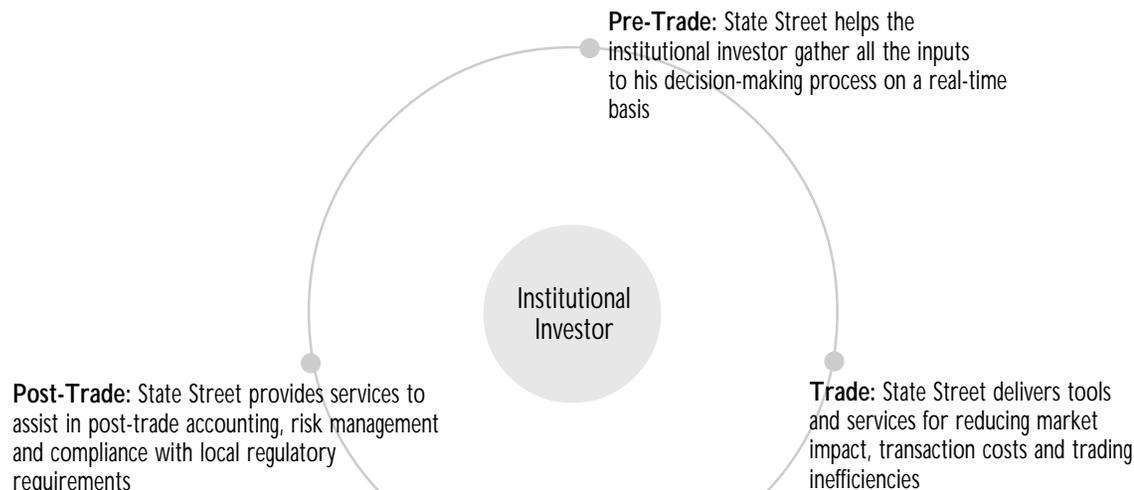
FY2000 Assets Under Custody	US\$6 T
FY2000 Assets Under Management	US\$727 B
Market Capitalization (1 Sept 2001)	US\$16.0 B
Five-Year Average Annual Return to Shareholders	42.0%
FY2000 Employees	17,022

* Major regional banks.

From services to support investment managers...

Overview of Traditional Services to the Institutional Investor

State Street



...to solutions that include managing the post-trade process

A State Street Solution

State Street leverages the products it has developed around improving investment managers' post-trade activities and its process engineering knowledge of middle and back offices to offer a service that targets the improvement of investment managers' business operations by taking on the management and performance of those processes.

Source: State Street; Hoover's Online; Corporate Strategy Board research.

A Running Start

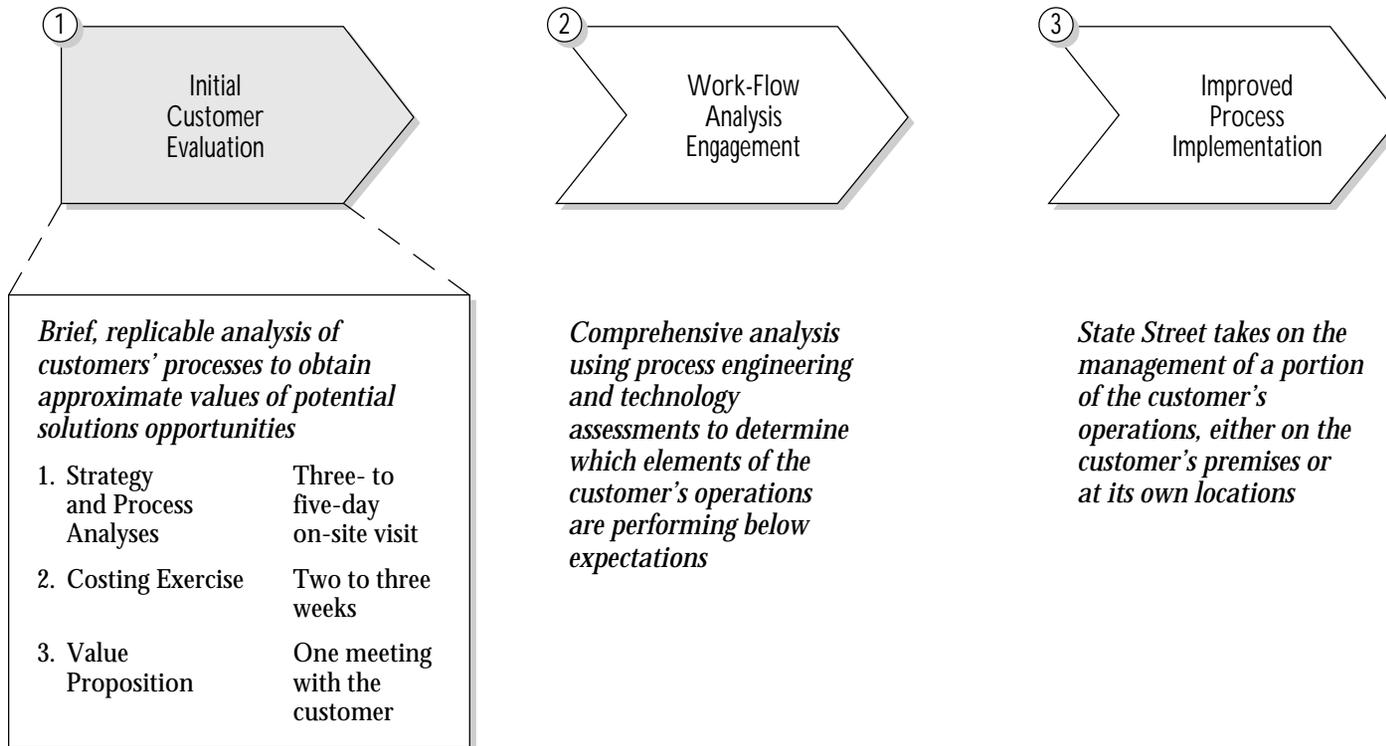
A Tripartite Approach

State Street has developed a three-part approach to providing its customer solutions. The costing templates it uses in the first stage enable quick analysis that demonstrate whether there is an opportunity to create value both for the customer and State Street. The company has broken down middle- and back-office activities into such detail that it can structure templates for gathering the information it needs.

The key advantage is gaining speed without compromising accuracy. State Street avoids doing too much “free consulting,” and it provides an accurate depiction of the value opportunity for the customer. This approach allows State Street to preserve its resources for actual engagements.

A Three-Phase Approach

Phases of a Typical Engagement State Street



Source: State Street; Corporate Strategy Board research.

Doing Your Homework

Building an Information Asset

State Street has done substantial research to understand the top priorities of investment managers across the industry. Internal and external studies as well as specially commissioned market research helped it identify a number of key areas that are of concern to investment managers. State Street has focused on providing superior services in these key areas.

Additionally, State Street has developed a process map of end-to-end trade flows, which breaks the process into recognizable and commonly executed tasks. This is vital to the team's ability to understand the customer's processes because customers may characterize back and middle offices differently. Thus, the State Street team can pose its questions in such a way that the customer employee can provide an answer that furthers the team's understanding of the customer's needs and costs.

Poised for Rapid Rollout

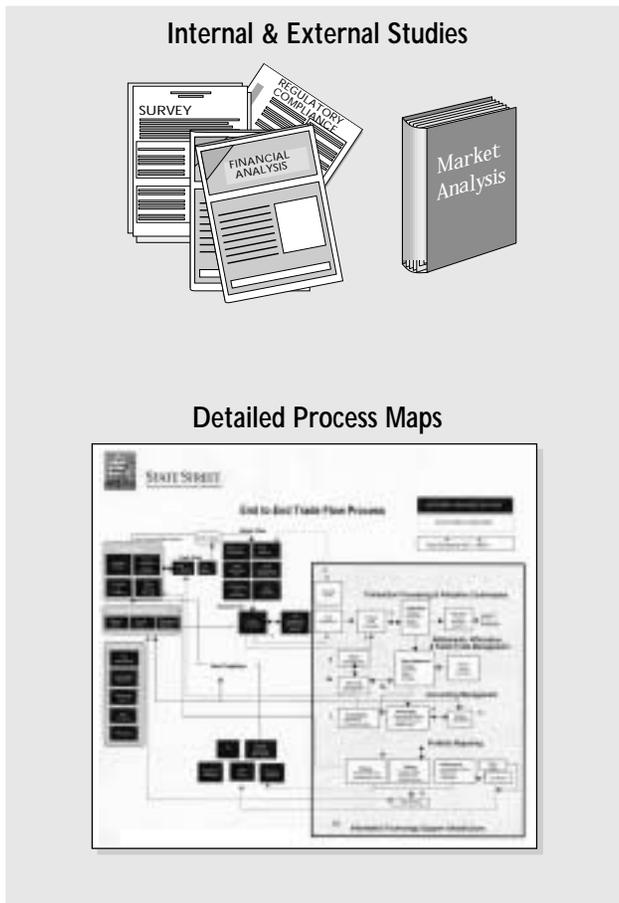
Twenty State Street employees are currently trained to conduct customer interviews but State Street is in the process of increasing the ranks quickly. Creating strategy and process templates that dissect the process into such small components enables staff who are not necessarily trade processing experts to conduct the initial client interviews.

A Fast and Accurate Assessment

State Street leverages its extensive strategic and operational knowledge of the investment manager industry...

...to understand the customer's strategic priorities...

Overview of the Pre-Work Engagement State Street



Strategy Analysis Template

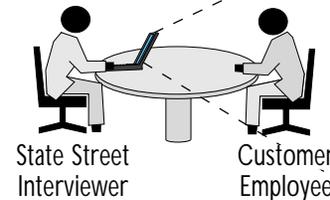
Key Industry Value Drivers	
Investment Manager Value Drivers	Customer Priorities
1. Improved service and quality	1
2. Lower operating expenses	_____
3. Operating expense predictability	3
4. Speed to market for new products	_____
5. Lower capital expenses	_____
6. Accurate information	2
7. Conversion ease	_____
8. Reduced fails	4



...and quickly capture back-office operations processes

Process Analysis Template

State Street breaks processes into small pieces to ensure that interviewees can accurately assess the time and complexity of each activity



Transaction Processing & Allocation Confirmation	
1. Asset Maintenance	
2. Allocated Trade Confirmation	
3. Trade Entry	
1. Domestic	
2. Global	
3. Derivatives	
1. What types of derivatives do you process?	
2. Which kinds take the most time?	
3. How long does the first stage take?	

Source: State Street; Corporate Strategy Board research.

Understanding the Opportunity

Calculating the Cost

Taking the information gathered at the on-site visit with the client, State Street builds its understanding of how that individual customer operates and where its priorities lie. The State Street team reconstitutes the customer's trade and issues process and compares that to its own benchmarks. This allows the team to identify where the customer's processes deviate from the standard and to measure the potential cost of that deviation.

State Street pays particular attention to parts of the customer's operation that relate to the customer's strategic priorities and operating issues as identified in the on-site interview with the customer's senior executives. State Street can tailor an offering for the customer which includes those activities that show the greatest potential for it to add value to the customer's processes.

Putting the Pieces Together

Information from the operational analysis...

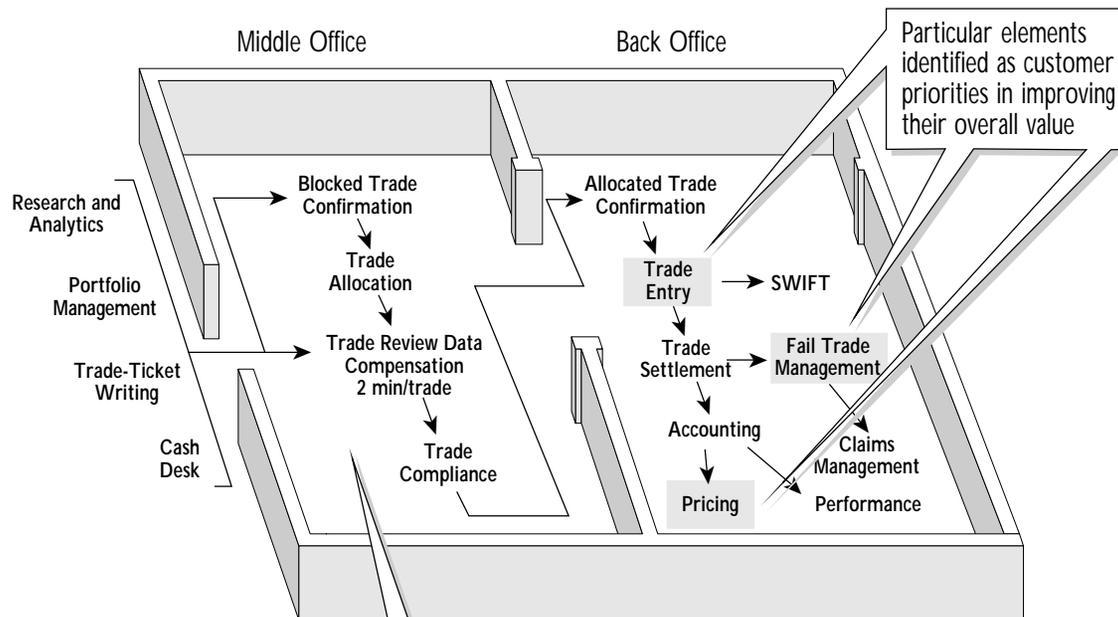
Process Calculations
Illustrative

Customer Process Evaluation				
Activities	Location	Customer Performance	Benchmark Performance	Deviation
Middle Office				
Blocked Trade Confirmation	Main Office	XXX	XXX	At standard
Trade Allocation	Main Office	XXX	XXX	Above standard
Trade Review Data Compensation	Main Office	XXX	XXX	Below standard
Trade Compliance	Main/Local Offices	XXX	XXX	At standard
	Main/Local Offices			
Back Office				
Allocated Trade Confirmation	Main/Local Offices	XXX	XXX	Above standard
Trade Entry	Main Office	XXX	XXX	Below standard
Trade Settlement	Main Office	XXX	XXX	At standard
Fail Trade Management	Main Office	XXX	XXX	Below standard
Claims Management	Main/Local Offices	XXX	XXX	Below standard
Accounting	Main Office	XXX	XXX	At standard
Pricing	Main/Local Offices	XXX	XXX	Below standard
Performance		XXX	XXX	Below standard

State Street takes the information provided in the on-site visit and uses it to reconstruct the customer's processes as well as understand the customer's costs

...allows State Street to draw an approximate map of the customer's processes and costs

Selected Activities in Trade-Flow Map



State Street can assess the degree to which the customer's processes deviate from benchmark practice

Source: State Street; Corporate Strategy Board research.

Clarifying the Value Proposition

Communicating the Value

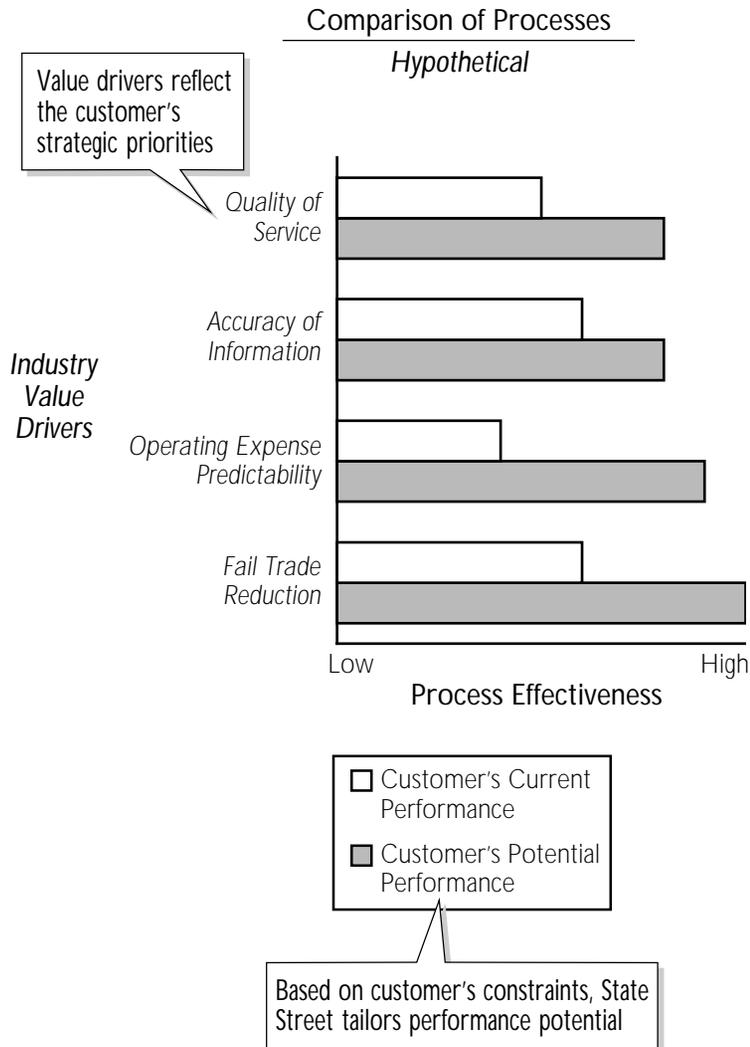
By using the templates and proprietary benchmark data, State Street can put together a rough gap analysis of the customer's middle- and back-office processes in a remarkably short period of time; this analysis demonstrates to the customer how much those particular processes could be improved. The gap analysis is shown in the order of the customer's strategic priorities to ensure that the customer sees the value of that improvement immediately.

If customers lack an in-depth knowledge of their own costs, they may tend to underestimate their own costs and thus underestimate the value of a solution. State Street—with its well-defined templates, knowledge of industry benchmarks and gap analyses—mitigates that risk.

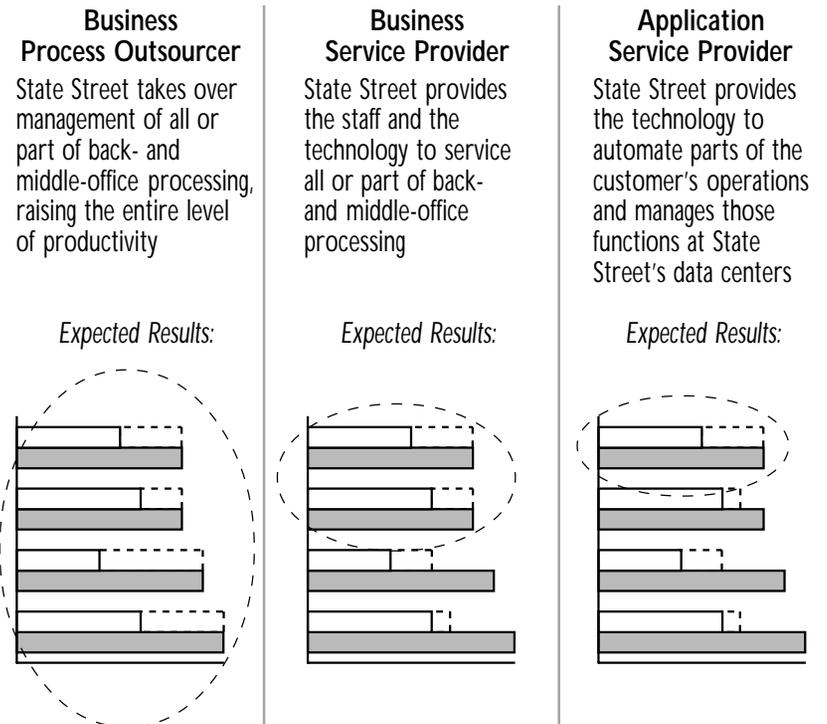
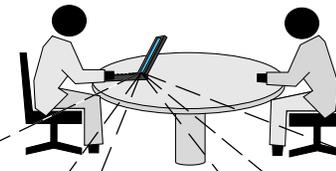
Closing the Gaps

State Street uses customer strategic priorities and performance-gap data...

...to develop multiple proposals for the customer



Solutions Proposals
State Street, Hypothetical



Source: State Street; Corporate Strategy Board research.



II. Closing the Customer Knowledge Gap

Practice #6: Total Value Sales Teams

In selling more complicated sets of products and services that are pitched much higher in the customer organization, the sales force needs new skills and new structures. The challenge is maintaining company performance while instituting the changes.

Profiled Practice: Johnson Controls Inc.



Johnson Controls develops an additional solutions sales force skilled in targeting the customer's shareholder-level value drivers rather than line-item cost negotiations to avoid disrupting the focus of the product-oriented sales force.

Controlling Its Future

The Controls Market

In the mid-1990s, Johnson Controls found itself facing an increasing number of bidding wars in its facilities management business. The Controls Group's products were being commoditized, and an increasing number of consultants offering similar facilities management services were entering Johnson Controls' markets.

However, given the number of commercial buildings that are not fitted with automated controls and are therefore underperforming as assets, the market for the Controls Group's core products is very large and presents an opportunity that Johnson Controls is determined to exploit.

Adapting to Customer Needs

Johnson Controls realizes the need to rethink its value proposition and subsequently shifts from offering products to offering bottom-line improvement through operational improvements and guaranteed performance targets.

Johnson Controls Inc.

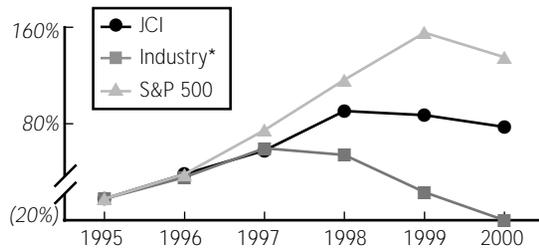
Company Profile

Overview Johnson Controls Inc. (JCI) is a global goods and services provider that makes environmental control systems for buildings and car seats, interior systems and batteries for automobiles. Johnson Controls offers facility management for commercial buildings through its controls division.

Selected Statistics

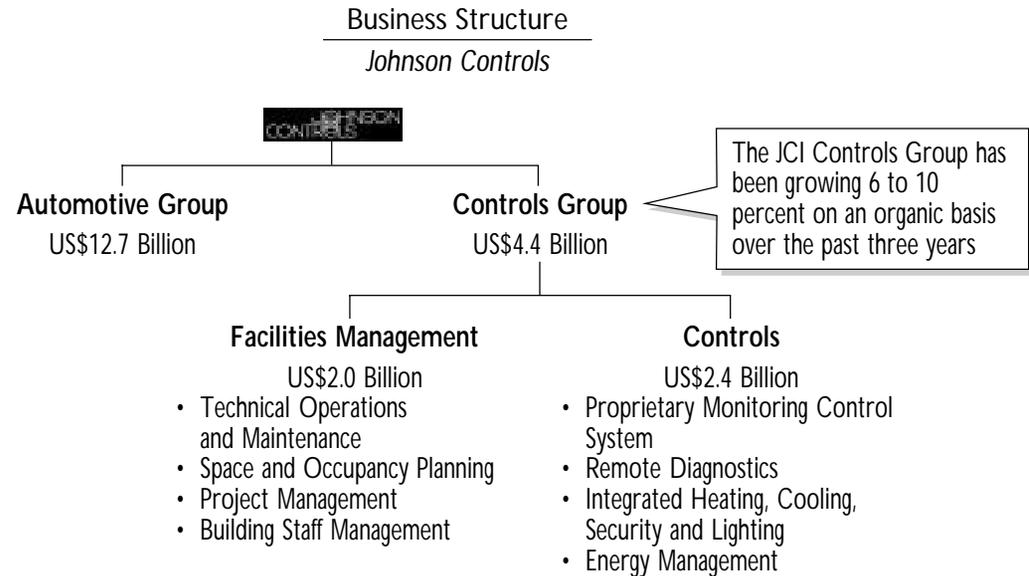
Five-Year Total Return to Shareholders

Percentage Return Since 1995



FY2000 Revenue	US\$17.2 B
FY2000 Earnings	US\$472 M
Market Capitalization (1 Sept 2001)	US\$6.4 B
Five-Year Average Annual Return to Shareholders	10.8%
FY2000 Employees	105,000
Approximate Number of Customers	25,000 in North America including 2,000 hospitals

Johnson Controls leverages its facilities and controls expertise...



...and its global installation and service franchise...



...to improve customers' aging assets

Improving Efficiency

“Less than 25 percent of the world’s nonresidential buildings have digital automated controls. Existing buildings represent a huge untapped market for Johnson Controls and remain the main growth target.”

2000 Annual Report

* Auto parts and equipment producers.

Source: Bear Sterns & Co. Inc. analyst report, 19 December 2000; Johnson Controls; Hoover’s Online; Corporate Strategy Board research.

Hospital Support Services Management

Finding the Customer's Value Drivers

Among Johnson Controls' customers are a number of hospitals whose facilities needed substantial improvement but which were hampered by serious capital constraints. Many hospital systems are still functioning with facilities that were built many decades ago, outfitted with antiquated electrical and ventilation systems.

Johnson Controls partners with hospital systems, guaranteeing in its performance contracts an increase in positive cash flow, which the hospitals can then use to pay for the major facilities improvements that JCI implements.

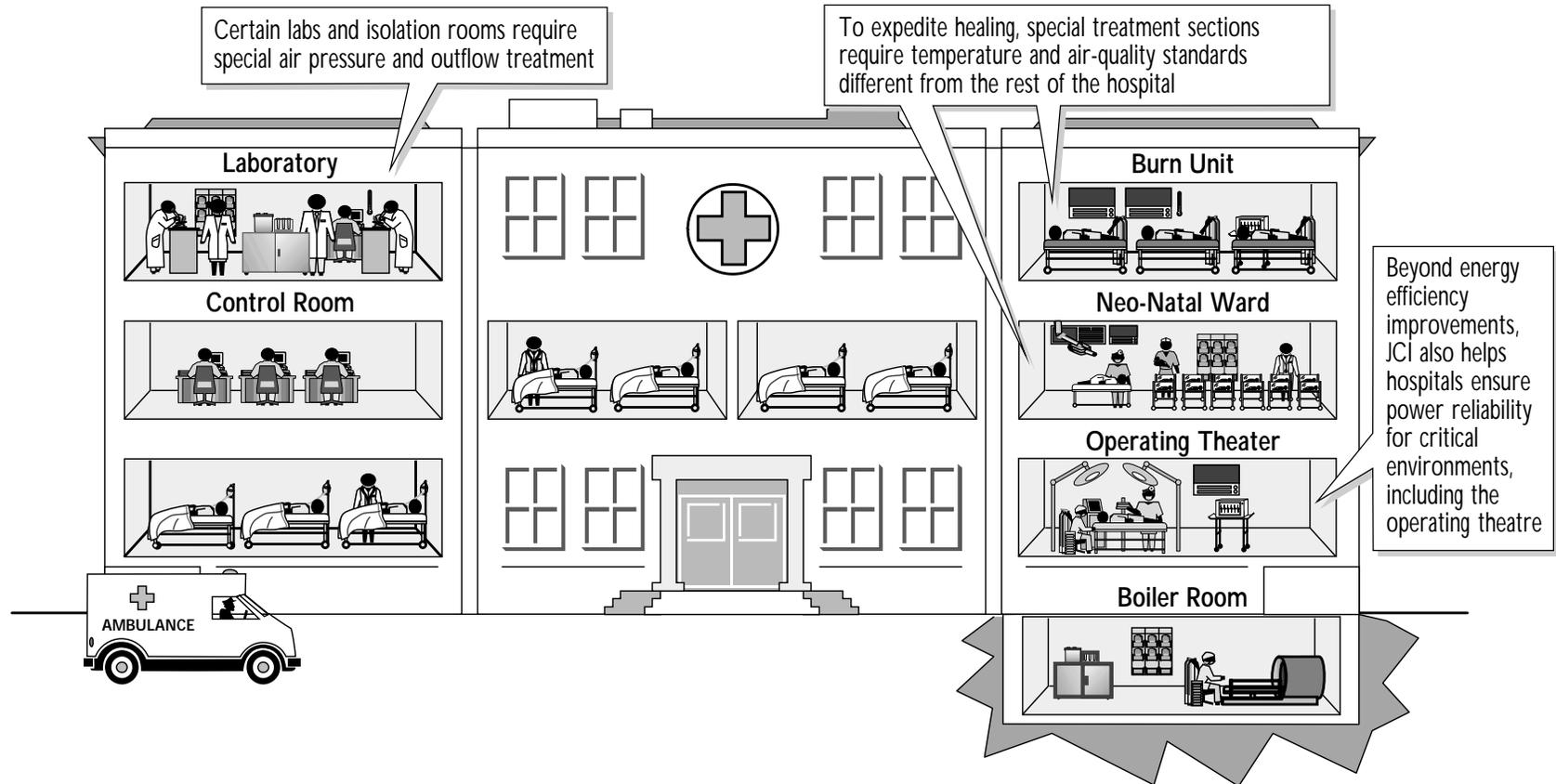
Leveraging Infrastructure Knowledge

Johnson Controls uses the knowledge it has amassed over the years about building system requirements to tailor solutions to individual clients. Hospitals require unique and complex building systems—from the special ventilation systems required for pathology laboratories to the very different heating and cooling needs of the neo-natal ward and the burn unit. The energy needs of a hospital make it imperative that backup systems be fail-safe.

From Manufacturer to System Integrator

Overview of Hospital Support Services Solution

Johnson Controls



Keeping Hospitals Healthy

“Given the capital constraints that existed, the Johnson Controls approach allowed us to rectify an impending deficit in our facility operations that we might otherwise not have been able to do.”

Mike Demster
Vice President of Operations, Methodist Healthcare

Source: Johnson Controls; Corporate Strategy Board research.

A Different Kind of Sale

Taking On Customer Risk

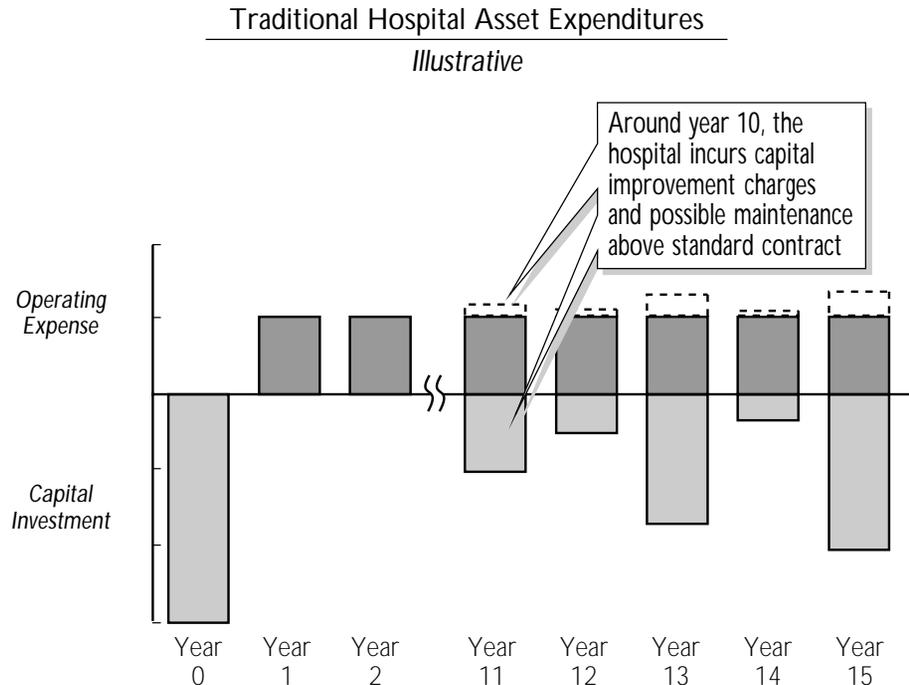
Johnson Controls is no longer paid a fee for service. Instead, it is paid based on its ability to change the structure of both capital and operating expenditures for the hospital's facilities. Because JCI is assuming performance and financial risk for the hospital, it is able to turn erratic and significant maintenance and improvement costs into predictable flows, thereby stabilizing expenditures and improving budgeting accuracy.

Mutual Benefits

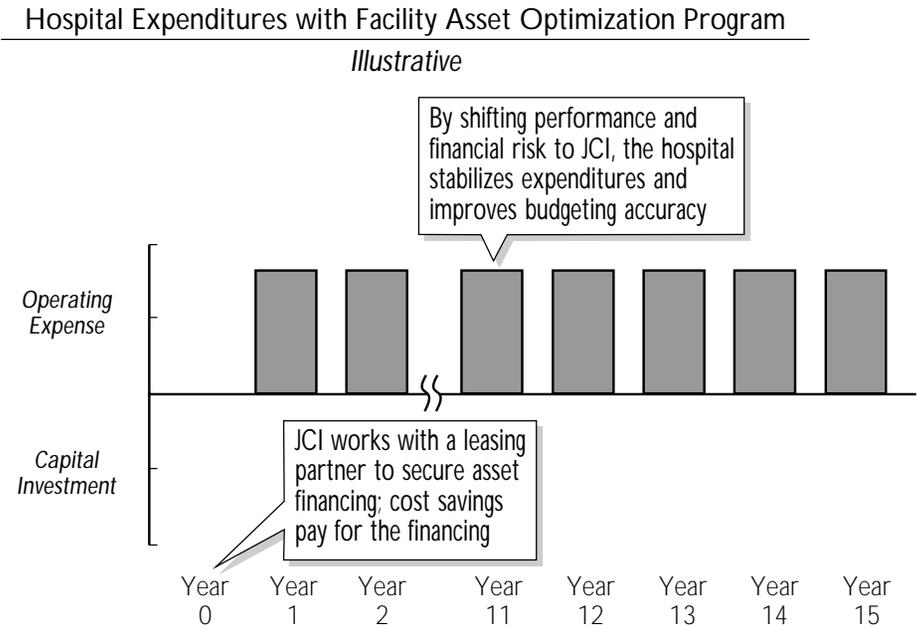
Both Johnson Controls and the hospital benefit in a number of ways. The benefits to the hospitals include not only lower operating costs but also financial benefits tailored to the balance-sheet needs of the specific client—benefits that an executive committee or board of directors would need to assess.

Ensuring a Healthy Balance Sheet

JCI helps hospitals turn erratic expenses...



...into predictable flows



Risk Shifting Benefits Both Parties

Benefits to the Hospital

- ✓ Increases system reliability
- ✓ Transfers performance and financial risk
- ✓ Obtains a new asset without affecting bond covenants or borrowing capacity
- ✓ Improves budgeting with predictable expenses
- ✓ Ensures that assets are maintained to schedule

Benefits to Johnson Controls

- ✓ Increases revenue stream predictability
- ✓ Assumes responsibility for performance risk (JCI is well-suited to take this on given its maintenance expertise)
- ✓ Decreases margin pressure
- ✓ Increases productivity of field-based service personnel

Source: Johnson Controls; Corporate Strategy Board research.

Separate Solutions Selling

Two Distinct Foci

Johnson Controls' traditional sales force was primarily comprised of engineers who were experts at making systems more efficient, not individuals who were necessarily prepared to position a sale based on off-balance-sheet financing. In considering a solutions business, the company evaluated the difference in focus, skills and strategy between selling products and solutions and discovered a substantial discrepancy.

Johnson Controls recognized the importance of the traditional sales force in maintaining the growth of the core product sales and decided to create a group that could explain the true economic value of JCI's solutions offerings to clients. It separated that group from its traditional sales force.

Total Value Sales Team

The new sales force includes individuals not usually seen in sales, such as auditors capable of analyzing the financial drivers of the industry and individual customer, and legal staff well-versed in complicated contract writing. The sales force pitches its solutions offerings to the executive committee, where decisions about larger balance-sheet items can be made. The sales cycle time is much longer, the pricing structure of solutions is very different from that of transactional sales, and solutions team members carry a revenue goal four times greater than their counterparts in core sales. All of this requires a very different skills profile within the solutions team.

Some of the members of this team were taken from the core sales force, but many were brought in from outside the sales force to augment the skill set necessary for selling solutions.

Solutions Specialists

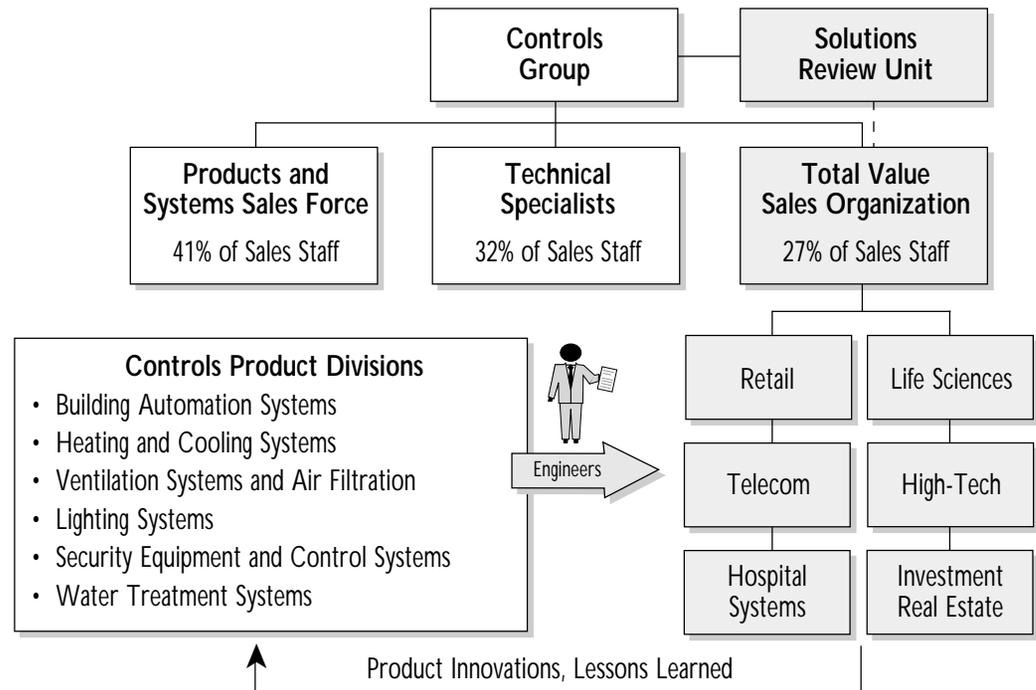
Solutions selling requires a strong foundation of financial skills...

...leading JCI to develop a separate sales force

Comparison of Johnson Controls' Sales Organizations

	<i>Traditional</i>	<i>Total Value</i>
Team Members	<ul style="list-style-type: none"> • Product sales rep • Technical specialist 	<ul style="list-style-type: none"> • Account manager • Operations • Deal structuring • Engineers • Auditing • Legal • Installation
Non-Sales Specialists/Resources	<ul style="list-style-type: none"> • Product engineer (potentially) 	<ul style="list-style-type: none"> • Central solutions review unit • External partners
Customer Contact	Administrator or facilities manager	Executive committee
Sales Cycle Time	One to six months	12 months minimum
Pricing	Fee for service	Joint growth
Sales/Rep	\$2.5 million	\$10 million
Accounts/Rep	Up to eight	One to three
Sales Force Background	Engineer	MBA, Marketing

Overview of Johnson Controls' Organizational Structure



Source: Johnson Controls; Corporate Strategy Board research.

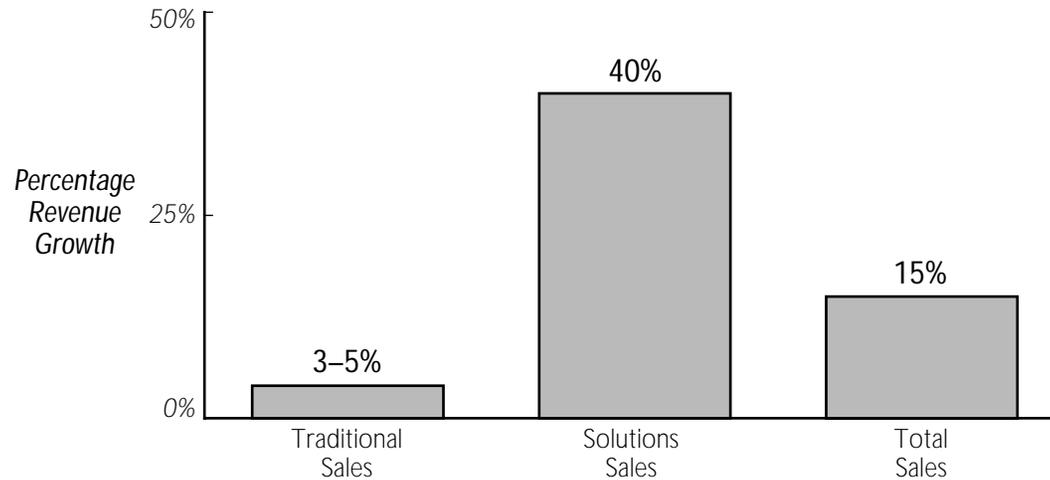
Preserving the Core Sales

This separation of the sales forces is functioning well. Early solutions sales growth is promising, while the sale of core products remains in line with expectations. The effect on total sales is to produce double-digit growth.

However, it is imperative that traditional sales not be jeopardized while the solutions business concentrates on refining its business model and gaining scale. Given the magnitude of the change required to succeed in selling solutions, many companies are adopting a “hybrid” model, with separate product and solutions sales forces, in an effort to minimize distraction of the traditional sales force.

Johnson Magic

Comparative Growth: Traditional, Solutions and Total Sales
1999–2000



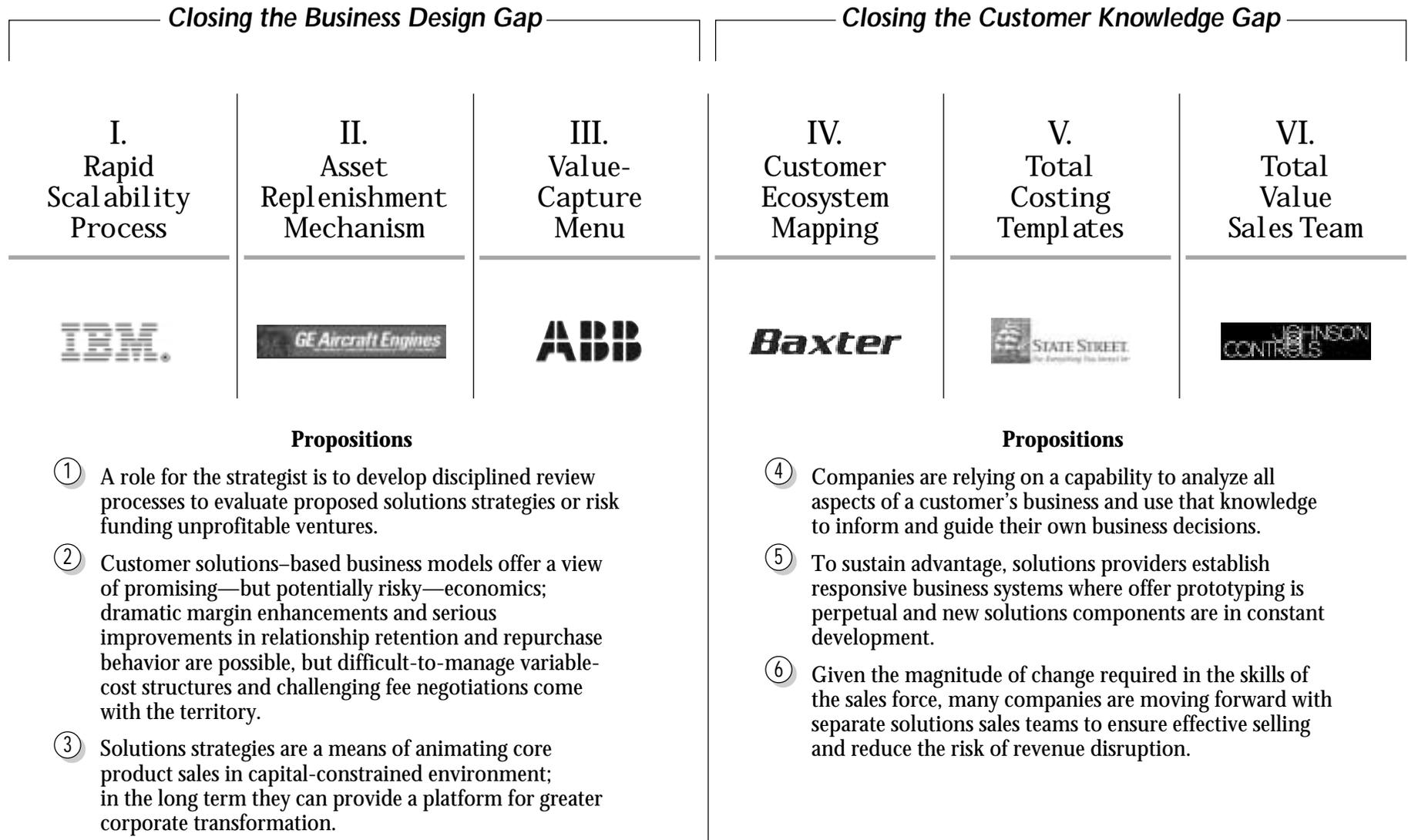
Keeping the Business Growing

“No company wants to stop growing while people figure out how to do solutions selling. If you are not careful, you will have people trying to sell solutions to the wrong person instead of taking advantage of the opportunity to get a good product or service deal. Solutions sales are handled by a separate group tasked with sales, services and operations for specific customer segments. This leads to products being designed for each of our customers.”

Alex Molinaroli
Vice President, Sales
Johnson Controls, Inc.

Source: Johnson Controls; Corporate Strategy Board research.

Refocusing Strategic Capabilities



Source: Corporate Strategy Board research.