



THE BOSTON CONSULTING GROUP

Achieving Excellence in After-Sales Services

A Primer for Industrial Companies

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Achieving Excellence in After-Sales Services

A Primer for Industrial Companies

Our job is to sell more than just the box...We're in the services business to expand our pie.
—Jack Welch, CEO, General Electric, 1996

Introduction

Jack Welch recognized early on that many of GE's traditional markets for manufactured goods were likely to yield only slow growth and slim profits. His response was to embark on a strategy based on providing services to customers after the sale was made. That strategy not only enhanced GE's competitive differentiation but also significantly boosted the company's revenues and profitability. For 2008, GE reported revenues of more than \$35 billion from product-related services—and those services generated an average operational profit margin of more than 25 percent.

In 1981, Rolls-Royce generated some 20 percent of its revenues from after-sales services. By declaring the service business a high priority and aligning its strategy accordingly, the company was able to expand its service business impressively from 1981 through 2008. Today, more than 50 percent of Rolls-Royce's revenues are derived from its service businesses. The company's success in services has defined its growth story—and boosted its profitability significantly.

Inspired by the success of these and other pioneering manufacturers, a number of industrial goods companies have attempted to make the shift from pure manufacturing organizations to organizations with an added focus on after-sales services, such as preventive maintenance; spare-parts supply; repairs, retrofits, and upgrades; and disposal and recycling. But many companies are struggling in that effort, and few are reaping the full extent of the expected rewards. Part of the problem is that these companies tend to see their product-based businesses as central to their identity and their service businesses as tangential. As a consequence, their service businesses are often undermanaged, undertalented, and underdeveloped. In short, many industrial-goods companies are effectively ignoring a potential source of stable revenues and cash flows—precisely when they need them most.

Particularly in today's economy, with traditional manufacturers facing declines in sales of 20 to 50 percent—as well as intense competition, shorter product life cycles, and faster imitation of their innovations—companies that design and manage effective service businesses can enjoy manifold advantages:

- ◇ Stable revenue streams that smooth out the cyclical nature of the product-based business
- ◇ Additional revenues at higher margins, which can compensate for production that has moved offshore
- ◇ Competitive differentiation and additional barriers to entry
- ◇ Enhanced customer loyalty and stronger relationships throughout the product life cycle

A benchmarking study conducted by The Boston Consulting Group of 50 manufacturers of industrial machinery that also provide after-sales services confirmed the attractiveness of service businesses for industrial goods companies. On average, the service businesses of the companies in our sample accounted for about 30 percent of their revenues—and contributed more than 50 percent of their total operating profits, at a profit margin of 24 percent. Among the top-quartile companies, services contributed an average 47 percent of revenues and earned average profit margins of 36 percent.

After-sales services can often be a source of deep insight into customers, supporting retention and provid-

ing additional market share and profitability. Some examples:

- ◇ An engine manufacturer offers superior spare-parts logistics in conjunction with high-quality services and IT connections to help lock in customers during the current financial crisis
- ◇ A lighting manufacturer provides a unique value proposition by emphasizing consulting services
- ◇ A printing-machine manufacturer bundles services with its consumables to create a noncyclical business
- ◇ Another OEM overcomes sales weakness due to funding constraints by leveraging its financial-services offering

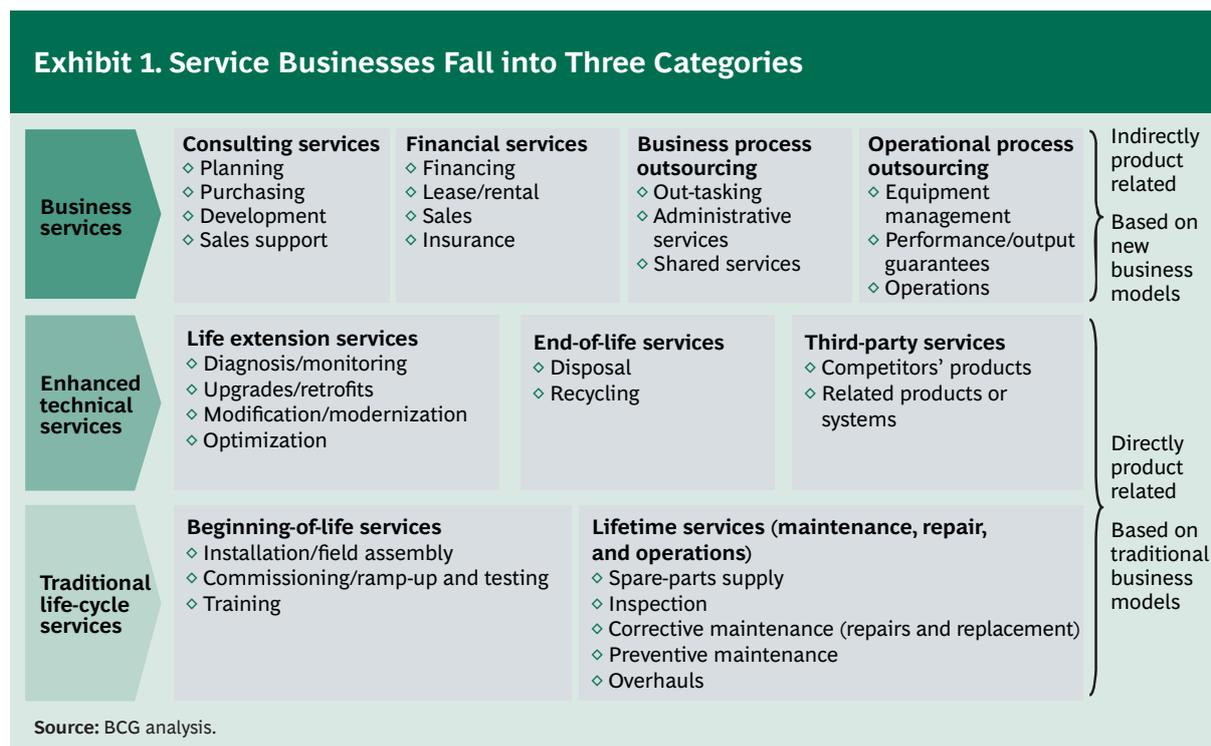
In short, manufacturers cannot afford to neglect the opportunity presented by after-sales services—or to risk losing ground in this arena to competitors. Service must become part of the CEO’s agenda. But creating service businesses—and running them effectively—is far from simple. Companies pursuing this strategy are wrestling with a range of strategic, organizational, and operational issues. In this report, we offer advice—based on insights gained from our work with leading companies in a wide range of industries around the globe, as well as from our benchmarking study—on how best to address these challenges, achieve service excellence, and generate higher revenues and profits.

The first step in taking services seriously is to understand the company’s particular service business: how it differs from the traditional product-related business and which factors are key to its success.

Success Factors in Different Service Businesses

After-sales services comprise a wide range of activities, from performing basic installation and providing spare parts and repairs, to selling sophisticated upgrades and retrofits, to providing consulting and financial services—all of which vary, to some extent, from industry to industry.

There are three main categories of after-sales services: traditional life-cycle services, enhanced technical services, and business services. (See Exhibit 1.) Currently, many industrial businesses focus on traditional



life-cycle services, such as spare-parts supply, repairs, and preventive maintenance. But enhanced technical services, such as retrofits and upgrades, are gaining in importance. And although traditional services (especially spare-parts supply) often generate higher profits, other types of services, including business services, offer significant growth potential. After-sales service businesses of all three kinds are generally more profitable than new-product businesses. In this paper, we focus primarily on the first two service categories.

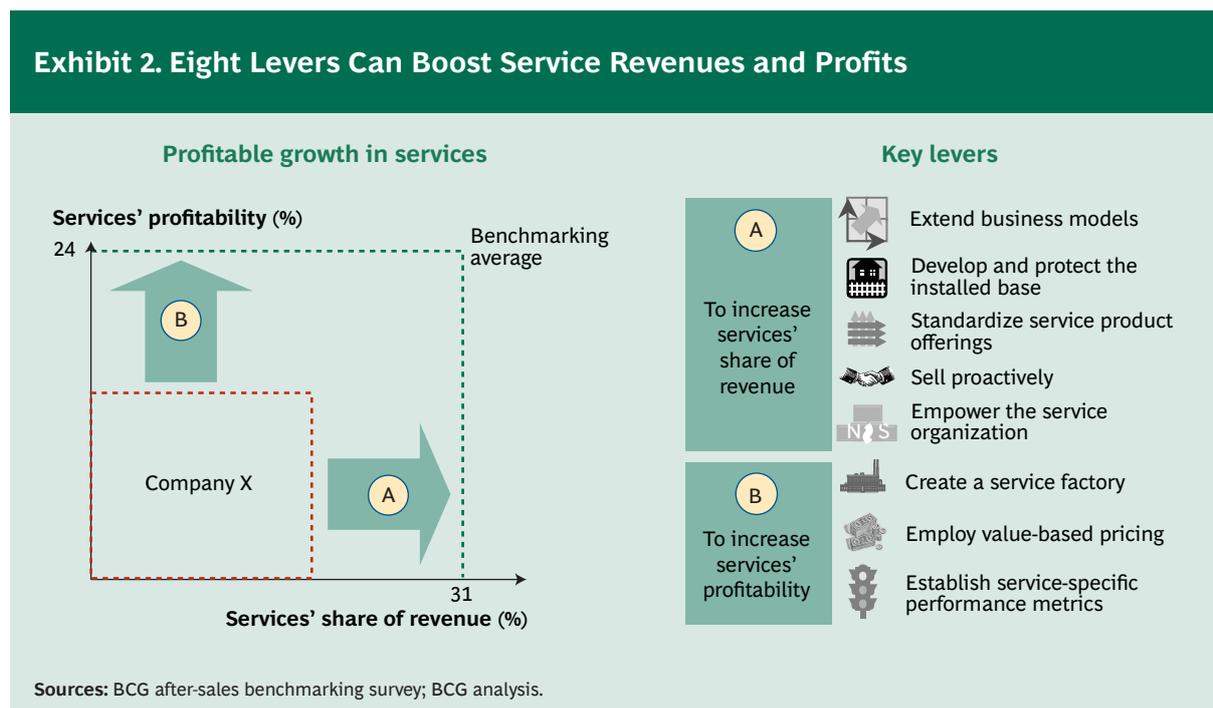
Different types of services have different success factors. In spare-parts supply, for example, pricing, availability, delivery speed, and a combined technical and customer database are key to proactive selling and profitability. Repair, by definition, is mostly reactive. Here it is important to achieve fast reaction times along with a high percentage of “fixed it right the first time” jobs and excellent shop-floor efficiency.

In preventive maintenance, efficiency in both routing and use of labor is important. But customer retention is perhaps the most essential success factor. To achieve it, one global machine-tool manufacturer set up a loyalty program for services. The company accrues each customer’s service expenses (for example, for spare parts, maintenance, and training) and converts them into points. Customers can exchange their points for special discounts on training and maintenance contracts or for VIP invitations to professional events such as trade shows, among other rewards.

During a recession, new products are typically used for longer periods and are often replaced by used products instead of new ones—hence the popularity of retrofits in the current economic crisis. In addition, the increasing regulation of carbon-dioxide emissions and the growing interest in sustainable business operations are creating many opportunities for companies to push their retrofit and upgrade services. Targeted selling, customer cost-benefit calculations, accurate project pricing, and technical competence are essential to success with retrofits.

Eight Key Levers for Capitalizing on the Service Opportunity

In the course of BCG’s work with companies engaged in after-sales services, we have identified eight key levers for enhancing revenue potential and improving profitability in service businesses. The levers are: extending business models, developing and protecting the installed base, standardizing service product offerings, selling proactively, empowering the service organization, creating a service factory, employing value-based pricing, and establishing service-specific performance metrics. (See Exhibit 2.)



Typically, a company that wants to increase sales must pull a different set of levers from the ones it would pull to boost profitability. A company whose service businesses account for less than 31 percent of its total revenues (like Company X in Exhibit 2) but more than 24 percent of its profit margin should probably focus first on those levers that drive sales, whereas a company in the reverse situation should do the opposite. In either case, it is important to recognize that to achieve true service excellence, companies must have command of all eight levers.

Extending Business Models

Companies can often capture additional growth opportunities by extending their current service-business models. For instance, a company might expand into servicing adjacent equipment categories, taking over customers' internal maintenance, offering business services (such as financial services or consulting), or sharing operational risks through guarantees, performance-based contracting, or operator models.

For example, a leading truck manufacturer successfully extended its business model into the leasing business. After first offering mainly fleet-financing services, the company gradually expanded into fleet management, including maintenance services. It now envisions operating entire fleets of vehicles, such as municipal waste-disposal trucks. Similarly, a company that produces power generators is extending its business by offering upgrades to reduce CO₂ emissions and increase efficiency. Its business plan rests on a detailed definition of target markets and clients, with penetration planned on the basis of technical and customer data and a proactive sales approach that includes tracking sales activities over time.

Developing and Protecting the Installed Base

A company's accessible installed base of equipment determines its primary after-sales service potential. But the installed bases of other companies can also present opportunities for services. OEMs need both to protect the service opportunity provided by their own installed bases and to consider expanding into servicing the installed bases of third parties.

Developing and Protecting the Company's Own Installed Base. In our experience, most OEMs do not fully exploit the potential of their installed bases. In most cases, there is considerable room to enhance the quality of their after-sales services as well as their logistics and information links to customers. Moreover, companies can better protect their installed bases by designing their products for proprietary services from the beginning.

Captive OEM services and spare-parts businesses generate double or even triple the profit margins of licensed or third-party-served installed bases. To capture profit margins of that magnitude, it is crucial to take a service perspective into account in the R&D process, when new products are being conceived, designed, and developed. In most of the industrial companies we studied, however, R&D takes place without input from the service business—and sometimes without even considering serviceability. And while design for serviceability is a first step, companies would be wise to go further and incorporate captive designs to protect their installed bases.

A global manufacturer of precision scales and instruments ensures the tight integration of after-sales services with R&D by assigning service representatives to the R&D task force for each new product. These employees are charged with identifying service products and their value propositions during the R&D process. Such close collaboration not only helps protect the company's installed base from third-party service providers but can also increase service volume. For example, a tool kit specific to a particular machine can be designed during the R&D process and then marketed by the service business. Overall, protecting the company's installed base by designing for service is an underrated but powerful lever.

Servicing Third Parties' Installed Bases. Across industries, there is intense debate about third-party services. Many companies are considering whether it would make strategic sense to leverage their competencies and generate additional revenues by servicing their competitors' products. At the same time, they are wondering how best to meet the threat of competitors angling to service their own installed bases. Industrial goods companies are closely monitoring how third-party service strategies shape the competitive landscape of the elevator and escalator and marine-engine industries. For example, one elevator company built up an internal competence center for its competitors' products and actively promotes its

third-party service competence. The company is now taking over the servicing of mixed-product portfolios in large department-store chains, thereby crowding out its competitors.

But third-party service is not as prevalent as the debate implies. While a small number of OEMs are actively pursuing this strategy, most have shied away from it. The reason is threefold. First, companies are reluctant to create a situation in which the losses from increased competition could outweigh the potential gains. Second, they are concerned about possibly diluting their brands and reputations. And third, servicing third-party products requires considerable financial and managerial resources. Paradoxically, although very few companies in our sample are pursuing third-party service strategies themselves, more than half reported that competing service providers (such as licensee manufacturers or joint-venture partners) are now serving more than 20 percent of their own installed bases.

Most of the companies that are losing service market share are losing it not to competing product manufacturers but to regional pure-service providers. The entry of pure-service providers into several industries—such as building technology (for example, HVAC), packaging machinery, and engine manufacturing—has been facilitated by these industries' use of standard components and extensive licensing and by the absence of professional service businesses run by product manufacturers. Companies in industries where this pattern prevails can unlock considerable service potential by crowding out pure-service providers. The key success factors in this effort will be the ability to shift from standard components to captive designs and to provide fast, excellent service based on deep product expertise.

Standardizing Service Product Offerings

Standardizing service products is crucial if a service business is to thrive and grow. Our benchmarking study confirmed that companies that offer standardized service products—and that also have service-specific customer segmentation in place—enjoy a considerably higher penetration rate for their maintenance contracts than do companies without those tools. Multinational customers value receiving the same service and quality wherever they use a company's products, from Hamburg to Singapore to Los Angeles.

For every product-based service bundle, there should be a catalog describing in detail each included service and its intended outcome, plus the roles played by both customers and service personnel. Such catalogs are an essential tool for building a service business. For customers, they confirm in writing the assurances made during the sales conversation and help to manage expectations. Thus, before a service is performed, the customer knows which task is involved, its intended outcome, and its cost. This transparency can considerably increase the customer's trust in the service provider. For companies, the description of standardized service offerings clarifies and simplifies the task of selling service products. In addition, a standardized service-products catalog can serve as an efficiency indicator, allowing the company to assess the performance of different market organizations and service technicians.

Selling Proactively

Successful service providers do not wait for customers to call. Instead they are proactive, initiating contact with the customer throughout the life cycle of the product. Our benchmarking study confirmed that selling proactively, while unlikely to increase margins significantly, is a powerful lever for increasing service revenues, which it can raise by 25 to 50 percent.

Some 30 percent of the companies in our sample employ proactive sales approaches that are clearly defined and systematic. Not surprisingly, service revenues represent a significantly higher share of overall revenues for these companies than for the rest of our sample.

BCG's project experience suggests that the success of proactive sales rests on three pillars:

- ◇ Offering standardized service products
- ◇ Tracking the installed base by means of sophisticated IT tools, including comprehensive service records and technical records for all installations
- ◇ Developing a sales-oriented culture

The third pillar may be the most challenging because it addresses the self-perception of service technicians, many of whom resent selling proactively and insist that they are technical experts, not salespeople. This mentality is hard to change; expensive training sessions generally have little impact. Companies have had more success by incorporating proactive selling into their incentive schemes. An innovative approach is to categorize service technicians according to their sales dispositions; those with a high affinity for sales are specially trained and given primary responsibility for the service sales process.

Empowering the Service Organization

How best to set up the service organization is the subject of much debate. A large majority of the companies we studied had opted to establish their service businesses as separate profit centers; only a few had integrated their service businesses with their new-product businesses or consolidated them as cost centers.

While there is no one-size-fits-all solution, we generally advocate making service a separate business unit with its own P&L responsibility. In our benchmarking study, companies with separate after-sales businesses earned 15 percent higher service revenues than integrated companies. This model ensures focus and accountability on the part of the service organization, which typically differs significantly from the new-product organization. (See Exhibit 3.) It also allows for the professionalization of services with respect to processes, interfaces, roles, and responsibilities, and it raises awareness of the value of service throughout the company.

In many companies, a lack of clear roles and responsibilities has inhibited the growth of the service business. Who is in charge of selling the service contract, and when does the sale happen? How is the sale aligned with the installation or ramp-up of the product? Who deals with warranty issues and in what way? These are only a few of the questions we heard repeatedly as we discussed organizational matters with the companies in our study sample.

A leading supplier of machines to the packaging industry addressed the problem by appointing heads of all its various after-sales services and clearly defining their responsibilities and points of interaction with the new-product business. For example, it made the field service force solely responsible for the “after-market business” and assigned the installation and ramp-up of machines to the new-product business. These clear organizational delineations have resulted in smoother, less costly installations and greater customer satisfaction.

Finally, the companies in our study whose top managers ensured that their service profit centers were at the same organizational level as their new-product businesses achieved the highest service shares. Indeed, service organizations cannot realize their full potential value and impact unless they are actively supported by top management. For this reason, we advocate including a genuine representative of the service

Exhibit 3. The After-Sales Business Differs from the New-Product Business in Both Business Model and Organization

After-sales service business	New-product business
High margin	Low margin
Stable	Cyclical
People as assets	Fixed physical assets
Delivers a process experience	Delivers a physical product
Value added in the field	Value added centrally
Sales and pricing imperative	Cost imperative
Sells relationship/brand management	Sells technology
Service culture	Engineering culture

Source: BCG analysis.

business on the company's board of directors. At too many companies, individuals assigned to this role are really functional board members representing finance or corporate development who take on service as an additional business area to oversee and represent on the board.

Creating a Service Factory

Management should focus on standardizing its service organizations and processes and building scalable platforms. We call this industrializing the service business, or creating a "service factory."

Global hotel chains perfectly illustrate the benefits of a scalable five-star approach to service. Travelers can count on finding the same service quality at every hotel in the chain, regardless of location. This uniformity rests on best-practice booking, housekeeping, and room-service processes worldwide. An establishment that belongs to a leading hotel chain is not necessarily better than a family-owned "best hotel in town." But the chain's business model is scalable, allows for systematic improvement and the sharing of best practices, and doesn't require that the best entrepreneur in town run every site.

Unlike manufacturing, which in the developed economies has been thoroughly industrialized, services provided by OEMs often depend on the activities of the local market head rather than on defined, standardized, and efficient processes. Too many companies neglect to address process-related questions such as the following:

- ◇ Which processes and tools are common across our service businesses?
- ◇ Where should we set best-practice standards?
- ◇ How can we combine local presence and leadership with global support and coordination?
- ◇ Do we have the appropriate metrics to monitor and measure these processes?

Rather than address these questions systematically, companies often take a fragmented local, national, or regional approach that reflects the predilections of individual managers. Of the companies in our benchmarking study, only 31 percent had optimized service networks that leverage shared expertise and ensure uniform service across the company's markets.

Best practices often can be found within a company's own organization. OEMs should systematically assess the practices of their individual service branches with respect to products, processes, and tools, identify the best ones, and define common standards. These standards should then be rolled out to all branches. In our experience, this process may not only boost service revenues by 15 to 30 percent but also increase margins by five or more percentage points. And having a dedicated service organization will facilitate the industrialization of the service business.

Employing Value-Based Pricing

In a business such as after-sales services, in which profit margins can be as high as 40 percent, pricing potential may seem limited. However, by shifting from traditional pricing paradigms (such as cost plus, with annual overall price increases) to advanced value-based pricing, companies can increase both volumes and margins. For one OEM, a competitive approach to pricing spare parts promptly yielded an additional five to six percentage points in margin.

In another example, a global engine manufacturer introduced an advanced pricing model that categorized spare parts according to the two major contributors to its clients' price sensitivity: the part's value and its competitiveness, or "captiveness" (that is, whether the part was furnished only by the OEM, by both the OEM and one or more licensees, or by one or more third parties). In segments with high price sensitivity, competitive pricing is crucial in order to win more volume, while in less price-sensitive segments, companies can apply much higher markups. On the basis of this logic, the company set appropriate markups for each part category to be applied across all its international sites. In addition, the company revised its discount policy to reflect each customer's classification in terms of realized and potential revenues and country-specific factors.

Companies must strike the right balance between capitalizing on captiveness and urgency on the one hand and customer retention on the other. Excessive markups for delivery of crucial parts, unless justified by a level of service that the customer values highly—such as same-day service—may undermine future customer relationships.

Surprisingly, most companies' pricing behavior shows erratic and apparently random patterns. Instead, companies should apply pricing logic by segment, with the segments defined on the basis of the value of the offering to the customer and the latter's price sensitivity. The pricing model should also include a harmonized rebate scheme and a stringent compliance system to monitor price leakages (pricing decisions can be made by tens, hundreds, and sometimes even thousands of people within an organization). In addition, some companies have successfully created bundled offerings, enabling them to leverage the captiveness of some spare parts and provide additional convenience to customers.

Establishing Service-Specific Performance Metrics

Steering a service business requires a different key-performance-indicator (KPI) "cockpit" from the one used to monitor a new-product business. Service-related KPIs encompass not only financial indicators, such as service share and service profitability, but also operational performance indicators, such as hit rate, on-time delivery ratios, quoting time, and stockout ratios. Best-practice companies use the information derived from service-specific KPI cockpits to benchmark their performance across business units and against historical values, peers, and recognized service leaders in other industries. In addition, they integrate these KPIs into the company's incentive system so that they influence the entire service organization by providing specific guidelines for action.

A systems manufacturer, faced with the challenge of upgrading its fragmented service processes, began by defining a standardized process for a corrective maintenance task. The team outlined the process steps in detail, from taking the initial call through selecting the service technician, notifying the customer, and traveling to the site. For each step, the company set a standard time allowance and other expectations. It then monitored its performance against a set of KPIs, including the first-time-right fix rate, deviations from mean time to repair, and number of customer complaints. After extensive testing and fine-tuning of the process steps and KPIs, the company extended this systematic approach to all its service-related processes and eventually across all its local service organizations.

This example shows that it is entirely possible to make productivity improvements in repetitive processes in service businesses if companies first standardize their offerings and then manage the underlying processes rigorously. However, few companies apply the same discipline to their service offerings that they bring to their manufacturing processes.

Achieving Best-in-Class Service

To provide best-in-class service, companies must achieve outstanding performance in all the distinct but interrelated components of what we call the BCG Service Pyramid.¹ (See Exhibit 4.) These components are: business logic and strategy formulation, the customer value proposition, the service organization, governance and control, and service processes and tools.

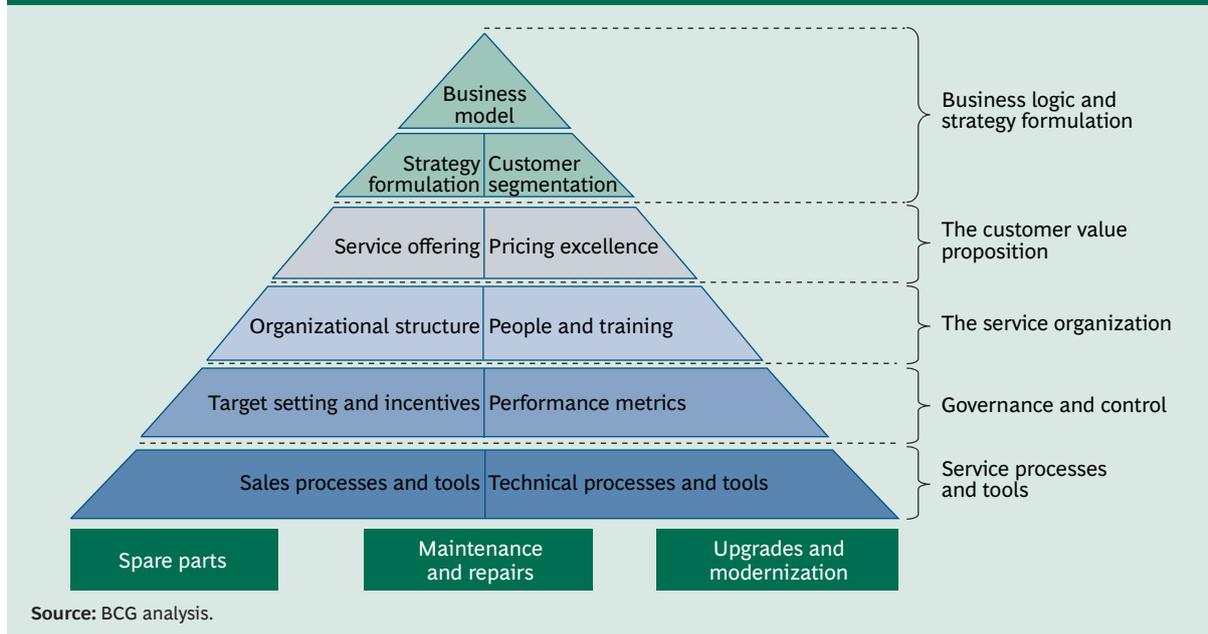
Business Logic and Strategy Formulation

In formulating strategy, businesses typically start out by addressing some basic questions: What are our product or service offerings? Who are our customers and what are their needs? Which companies do we compete with? Why should our customers buy from us rather than from our competitors? What additional opportunities do we have adjacent to our current business, and how should we exploit them? Pretty simple questions—or are they? Let's look at an example from the mining business.

Mining companies operate very big trucks with huge tires. These tires are crucial because if one of them blows, the truck is out of commission—and the cost of a lost day of mining operations is typically

1. For more information on the BCG Service Pyramid, please contact one of the authors, whose e-mail addresses are listed at the end of this White Paper.

Exhibit 4. The BCG Service Pyramid Comprises All the Key Elements of Service Excellence



\$4 million. Just a few years ago, the price for a single tire was about \$30,000. Then, during the boom that preceded the current economic crisis, runaway demand for raw materials drove a surge in demand for tires, and supply could not keep pace. By the end of 2007, the price of the tires on the spot market had exploded to \$300,000 apiece—a staggering tenfold increase. A huge windfall-profit opportunity for the tire companies' spare-parts businesses? Not necessarily.

In response to the sudden increase in tire prices, one mining company started a program to cut tire use. The levers were obvious: train drivers and operators to reduce abrasion, invest in improving the roads in the mines, and clean those roads daily. The company could do all these things at relatively low cost. Significantly, it also set up an internal tire-maintenance program to perform proactive inspection and repairs—a service that its tire supplier had previously provided. Finally, the mining company took over the database of tires in use at all its mines globally, which the tire company had formerly maintained to provide inspection and repair services.

The effects were tangible. The life span of a tire improved from 6,000 to 9,000 kilometers, reducing the need for spare tires by one-third—and causing a commensurate reduction in the tire company's spare-parts revenues. Moreover, the tire company's revenues for other services fell by 40 percent.

As a result of the mining company's initiative, the tire company's after-sales business took a strong and lasting hit. Where had it gone wrong? Basically, to the question "What are our customer's needs?" the tire company had answered, "When a tire blows, the customer needs a new one." So the tire company had used the database of in-use tires primarily to forecast the mining company's likely demand for tires. But, in fact, the mining company's problem was not a tire replacement issue but a cost optimization issue. Mining companies incur downtime costs when a machine fails; the more they invest in service, the lower their overall downtime costs. But investing in service costs money, too. So companies have to find the optimal balance point for overall costs.

The tire company was perfectly equipped to help the mining company find that balance. It was already running a tire maintenance program. It could easily have offered consulting services to optimize daily operations and reduce wear, as well as driver-training programs. It could even have taken over the management of all tire-related costs—and charged the mining company per kilometer of vehicle use.

The lesson of this example is that an after-sales business, like all businesses, must start with a sound

strategy. And a sound strategy starts with a deep knowledge of the customer and its needs. The after-sales business encompasses more than just selling spare parts and related services. Its goal should be to help customers reduce their total cost of ownership. Meeting this goal requires understanding the economics behind each customer's operation of the company's machines. It also requires defining win-win solutions that convey appreciable value—from the customer's point of view. However, many industrial-goods executives think of strategy as being relevant only to their new-product businesses. Few companies have a thorough understanding of their customers' service needs and economics—or of the implications of those needs and economics for their own business opportunities.

Highly effective service companies target their offerings on the basis of service-specific customer segmentation. One OEM segmented its customer base according to industry and application, which allowed it to price its inventory on the basis of availability, among other considerations. Later the company introduced a loyalty program to reward its best service customers, providing higher service levels, free training sessions, and regular updates on new offerings. In order to create such a segmentation, of course, a company must know its customer base intimately.

Many industrial companies are now collecting information on their installed bases. Real service champions go further, acquiring comprehensive knowledge not only of their installed bases but also of potential customers. Moreover, these companies track the profitability of each of their services by customer, rather than just the profitability of the aggregate service business.

A manufacturer of medical technology offers a notable best-practice example. For each of the services it provides, it segmented its customers according to “level of in-house infrastructure and support,” which indicates how much a customer wants and needs to outsource services, and “level of sophistication,” which reflects the extent to which a customer is focused on value as opposed to price. For each segment, the company developed tailored service packages. The result was a significant increase in maintenance contract penetration.

The Customer Value Proposition

Most industrial companies still design their service offerings to support their installed machines, basically supplying spare parts and repairs as needed. Service champions, however, broaden their service-value propositions by writing performance-based service contracts. These companies have service staff dedicated to product development who create—and continuously refine—comprehensive catalogs of service products that allow these companies to proactively market their services to customers.

Pricing excellence is critical to consistently fulfilling the customer value proposition. Some industrial companies set their prices for services in a decentralized way. However, this approach is coming under increasing scrutiny because of pricing anomalies not justified by regional differences or added services. A more effective approach is to coordinate pricing across the company, while taking into account legitimate variations by region and segment.

Many companies still employ a classical static-pricing model: full cost plus fixed net margin. Best-in-class service companies, in contrast, have adopted a dynamic model that incorporates product-specific pricing based on market values and price sensitivities. They have also recognized the value of a clear, consistently enforced discount policy. To prevent erratic discounts, these companies continuously track and assess the impact of discounts granted.

The Service Organization

As noted above, most leading service companies establish their service businesses as separate profit centers with full P&L responsibility. A few companies organize them as separate business units or consolidate them as cost centers only. But assigning full P&L responsibility to a service business can increase entrepreneurship while also clarifying assigned responsibilities.

Surprisingly, quite a few industrial companies still have no senior managers dedicated to their service businesses. Moreover, employees at these companies consider positions in service to be less attractive in terms of career development than positions in the new-product business. Many of them see the service business as a career dead end for weak performers. Companies in which this view persists tend not to

provide tailored training for service technicians.

In contrast, highly effective companies make sure that the leadership of their service business is at the same level as the leadership of their new-product business. These companies define specific career paths for their service people, including long-term training and development programs. By shifting the internal perception of service, they have been able to attract and retain talented people who thrive in the service business.

Governance and Control

Too often, industrial companies subsume sales targets for their service businesses under the targets for their new-product businesses, or they set sales targets only as an aggregate total at the company or unit level. And although all companies break down new-product sales targets to the level of the individual salesperson, only a small minority break down service sales targets to the level of the individual service technician. To run a top-notch service business, companies must set individual service targets. And as noted above, best-practice companies also link those targets to their incentive systems, rewarding individual performance along defined service-related KPIs. The establishment of service-specific metrics covering both financial and operational performance is essential to ensure the transparency, efficiency, and long-term sustainability of the service business.

Service Processes and Tools

Proactive selling depends on a sophisticated, IT-supported process for tracking the installed base. Advanced companies use a customer database that specifies in detail, for each customer, not only contact data and sales volume but the entire service history. Such a database allows these companies to systematically assess information over the life cycle of each installed machine and use that information to make tailored sales pitches for services.

Some service companies have been able to substantially improve their field-service efficiency by implementing integrated resource-management and capacity-planning systems, along with standardized processes and time allowances for each service. A few advanced companies have gone further and fully leveraged their IT tools by integrating their customer databases, technical databases, and planning tools into a single system. The resulting database combines installation data with service records, enabling technicians to identify needed parts fast; it can also include an integrated knowledge-management function.

A global manufacturer of heavy machinery set up just such a sophisticated database and now has a central dispatching system that transmits work orders, schedules, location information, and directions directly to service technicians' laptops through an Outlook template. At the customer's facility, the service technician can access the company's technical database (which contains all the relevant service records) and knowledge-management database (which includes technical manuals and instructions for installations), order the necessary spare parts online, fill out the service report, and transmit it to the central service center for storage and billing. These advanced technical tools and processes have enabled the company to substantially enhance its service technicians' productivity. The company calculates that the system saves approximately 100 hours of staff time per week. The system has also accelerated invoicing by three to five days, thereby freeing up cash.

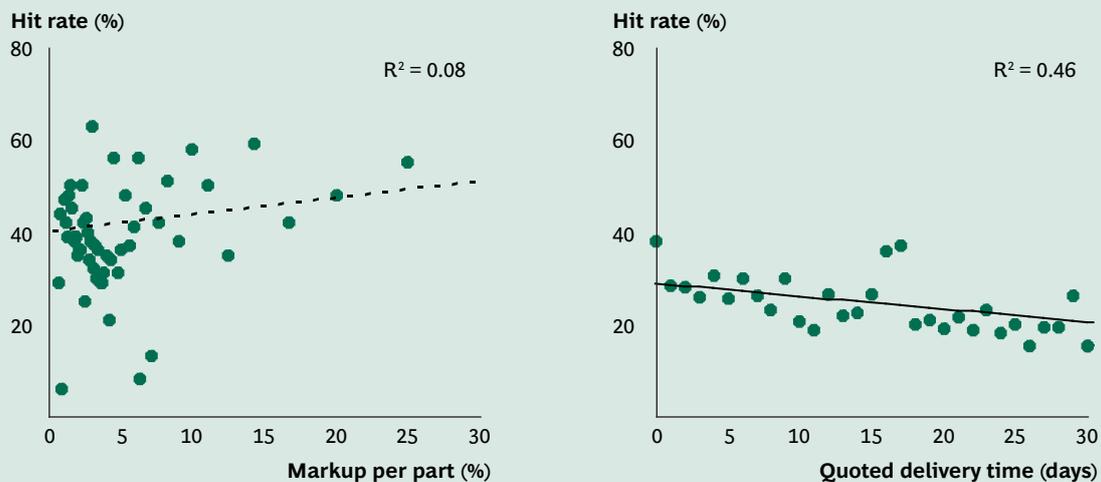
Applying the Elements of the Service Pyramid to Individual Service Businesses

Each type of service business can use elements of the BCG Service Pyramid to address its key success factors. Below, we discuss the roles of selected pyramid elements in spare-parts supply, maintenance and repairs, and upgrades and modernization.

Spare-Parts Supply

In the spare-parts business, delivery speed is important—often even more important than price. (See Exhibit 5.) But just how important it is varies from customer to customer and from part to part. Market conditions can also play a role. In an overheated market, response speed and on-time delivery can be more important than price in driving hit rates for spare parts, whereas in a more constrained market the reverse can be true. So as part of their strategy-formulation process, and also to help them define winning

Exhibit 5. In Selling Spare Parts, Speed Counts More than Price



Sources: BCG benchmarking study; BCG analysis.

customer-value propositions, companies need to systematically collect information on their customers' requirements regarding delivery of spare parts and then align their processes to fulfill those requirements.

In terms of service processes and tools, a central question in this business is how to determine the optimal level of inventory stock to ensure adequate parts availability without tying up capital unnecessarily. State-of-the-art solutions rest on a segmentation of spare parts according to the frequency with which they are ordered and the lead times needed for their delivery. This information feeds into advanced and integrated forecasting software, which triggers automatic replenishment procedures to maintain stock at the levels the company has defined as optimal.

A global manufacturer of large engines for industrial applications segments its spare parts into three types: strategic parts, special parts, and regular stock parts. Strategic parts are critical breakdown parts with long lead-times; these must be constantly available. Special parts are less critical but still require special attention; for these, the company employs predictive forecasting based on usage patterns and part lifetimes. Some 80 percent of all spare parts are regular stock, which the company has broken down into subsegments, defining differentiated service-level targets on the basis of historical demand. Service targets determine the safety stock levels for each segment and subsegment, and an automatic replenishment procedure is triggered when the inventory falls below those levels.

Maintenance and Repairs

Service champions have business models that offer not only corrective maintenance but also time-based maintenance and even condition-based maintenance. In terms of service processes and tools, these services integrate advanced remote-monitoring technologies that enable companies to continuously track the status of equipment and determine when maintenance is needed. Service champions generally enhance the customer value proposition by providing these services through a single contract, which eliminates the need to invoice services individually. Many companies have replaced ad hoc contracts with contracts for scheduled services that meet standards defined at the business unit level. A few companies with strong footholds in service-contracting models have even built up dedicated competencies and resources to manage the legal and commercial risks of such contracts.

Some companies have started pioneering an innovative service offer that goes beyond maintenance. "Power by the hour" and "power by the mile" agreements for engines, power stations, heavy equipment, and rolling stock extend the service offer to operational outsourcing. Rather than owning equipment outright, the customer contracts only for "time on the wing." In this arrangement, the OEM assumes

responsibility for, say, an engine's entire maintenance, sparing the customer the trouble of keeping track of maintenance intervals, warehousing spare parts, and so forth. By leveraging its expertise in monitoring, technical know-how, and maintenance, repairs, and operations, together with a thoroughly planned implementation, the OEM can turn its service offer into a very profitable business.

While offering long-term maintenance contracts can generate additional service revenue, it can also trigger cost overruns. To succeed in this service arena, companies have to thoroughly manage the risk of cost deviations. Typically this requires a systematic deviation analysis of past projects to create a platform for advanced planning, measuring, and corrective action in future projects. Moreover, the service organization must incorporate dedicated risk-management and contract-management capabilities.

To ensure high-quality services, it is essential to continuously improve service technicians' competencies. Rather than providing training to meet only current know-how requirements, companies should create forward-looking competence-development programs that anticipate future requirements. Through their interactions with customers, service technicians gain many insights into potential product improvements. Advanced service companies try to leverage this knowledge by implementing regular, systematic feedback loops between service and product development, and they incorporate those insights into training programs.

Upgrades and Modernization

OEMs are increasingly offering proprietary catalogs of predefined, standardized upgrades and retrofits, each with a clear and (if possible) quantifiable value proposition. These services are rolled out to the most promising customer segments, as identified by a sales process that is monitored and updated frequently. One manufacturer of power plant equipment developed such a predefined package after assessing its experience with upgrades and modernization services. The company now has an online tool that allows customers to log on and use a return-on-investment calculation to forecast the benefit they will derive from each solution. This tool has spurred a sharp increase in sales of the company's service packages.

Taking the Next Step

Evaluating your company's performance across each of the areas of service excellence in the BCG Service Pyramid is a good first step. BCG's After-Sales Maturity Check can help determine a company's performance on all 11 dimensions of the pyramid and can quickly identify levers for improvement.² You may discover that your company is performing at a highly professional level in some areas but has considerable room for improvement in others. To capture the full opportunity available in providing best-in-class service, it is essential to orchestrate all elements of the service pyramid into a unique service offer for your clients—not as an afterthought to your company's new-product business but as a powerful way to boost customer satisfaction, relationship retention, sales, profits, and growth.

In the current economic climate, as industrial goods companies face falling sales and shrinking profits, it is particularly urgent for management to promote well-run after-sales service businesses. You can start by reviewing your company's resource allocations. Is your new-product business getting a disproportionately high share of resources? Is your service business fully organized, managed, staffed, and equipped to succeed? We are convinced that intelligent investments in service businesses can yield high and sustainable returns. Adopting best practices—many of which require only modest investments of resources—to create a state-of-the-art service business can boost both service revenues and service margins significantly while also transforming the organizational mindset.

It is time for industrial goods companies to streamline and professionalize their after-sales service businesses, giving them the same attention they have traditionally devoted to their new-product businesses. The goal should be to make the profoundly rewarding transition from a manufacturing-centric organization to an organization that lives and breathes service excellence.

2. For more information, please contact one of the authors, whose e-mail addresses are listed at the end of this White Paper.

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