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Industrial Sector

# Hiding in plain sight

Service innovation, a new priority for chief executives



## **IBM Institute for Business Value**

IBM Global Business Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior business executives around critical industry-specific and cross-industry issues. This executive brief is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Global Business Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to [iibv@us.ibm.com](mailto:iibv@us.ibm.com) for more information.



# Hiding in plain sight

## Service innovation, a new priority for chief executives

*Many manufacturers are so focused on designing, manufacturing and selling products that they can overlook a surprisingly large opportunity: service. For most firms, the service function not only strengthens customer relationships, but can also provide a significant source of revenue and impact company cost structures. The time is now right for manufacturers to innovate their service function.*

### Introduction

For many manufacturers, the service function represents a significant source of untapped value, impacting cost structure, revenue and customer experience, the three primary drivers of business value. The opportunity is hiding in plain sight: the business payoff from service innovation is much bigger than commonly thought. And the barriers to achieving this kind of innovation are now significantly lower.

Yet in many manufacturing companies, service has been an “after thought,” getting little respect in the inner workings of the company. But the time is now right for innovating traditional after-market service operations and for moving the service model toward a profit center. Leading companies have shown that

service innovation can be successful and that the benefits can be significant. The companies that have been successful in developing this new opportunity have focused on three areas:

- *Service model innovation:* Establishing the service strategy and service business model for the firm
- *Service operational innovation:* Dramatically lowering the cost of existing service operations, while continuing to improve customer service levels and user experience
- *Services growth innovation:* Managing the creation, development and delivery of new service offerings using the same discipline and rigor as used with new products.



# Hiding in plain sight

*Service innovation, a new priority for chief executives*

**A narrow definition of service can cause companies to underestimate the full service innovation opportunity.**

## What is service?

We recommend a broad definition of “service” and have found that successful service innovators adopt this perspective in developing their strategies. The broader definition involves both traditional product service and quality functions, as well as new services targeted at improving the end-user experience and the customer’s perception of value. We include these service aspects in each category:

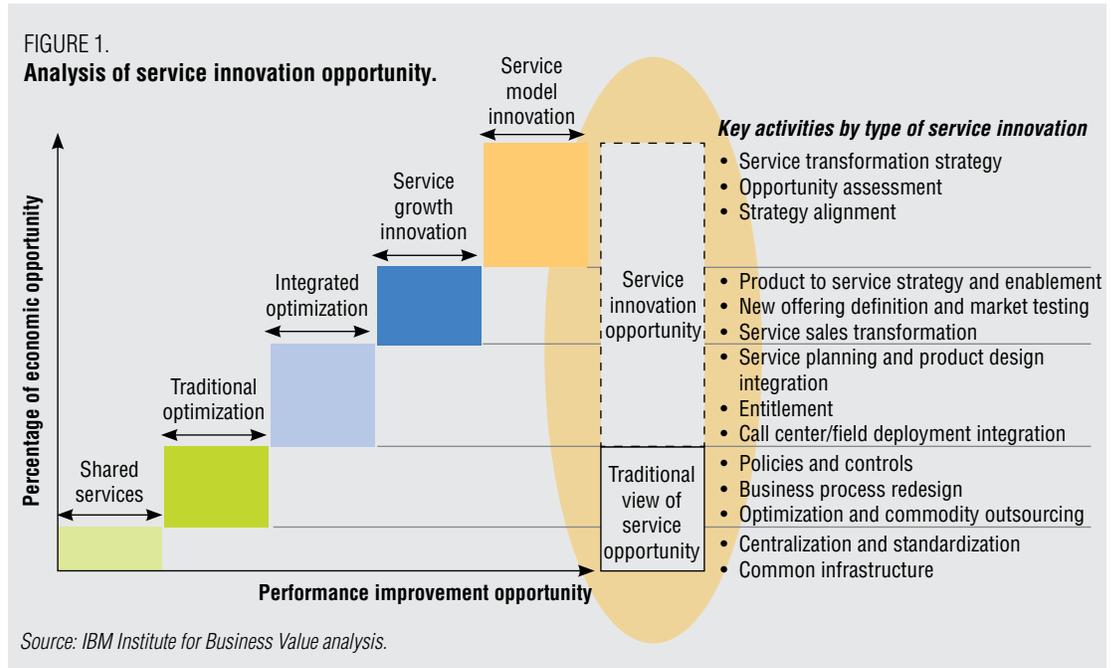
- **Traditional service:** Technical support contact centers, warranty management, service delivery (warranty and non-warranty repairs), service supply chain, product installation and maintenance, inspection and quality

- **New services:** Services targeting improved end-user experience, which may include enhanced product-related services, professional or advisory services, financial services and outsourcing services.

## The service opportunity

As shown in Figure 1, we estimate that the overall business opportunity for innovating service can be as much as three to ten times larger than chief executives realize.

Service provides two attractive business opportunities for a company: creating new services to drive new revenue, and reducing the cost of existing service operations without reducing customer satisfaction along the way.



**Relying on warranty claims data as the primary measure of cost is shortsighted.**

Service is more important than ever. Over the past 15 years, services has grown as a percentage of the U.S. gross domestic product (GDP), while product contribution has remained relatively flat at around 29 percent. Services in 2005 comprise 42 percent of the total U.S. GDP, versus 36 percent in 1990.<sup>1</sup> Focusing on service is attractive for several reasons:

- *Service can significantly impact shareholder value:* The revelation that customers were dissatisfied with service from overseas call centers contributed to Dell's stock declining more than 25 percent in 2006.<sup>2</sup>

- *Service can be a strategic differentiator:* Best Buy bought Geek Squad to differentiate itself via in-home electronics services; with 12,000 technicians, Geek Squad is projected to earn US\$280 million in operating profits in 2007 on just over US\$1 billion in sales.<sup>3</sup>
- *Service can drive new revenue:* Home Depot acquired several flooring companies as a path to quick services growth. Service revenue overall grew 40 percent in 2004 to US\$2.8 billion, and the company continues to gain market share, dominating the 2005 Focus 100 Retail list with flooring sales over US\$5.4 billion.<sup>4</sup>

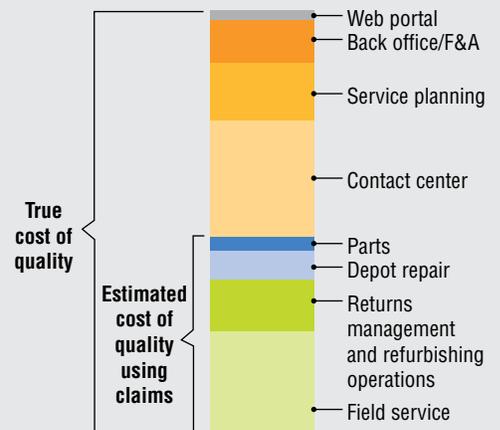
**Warranty cost pitfall**

Service accounting is an area that has very few standards to guide managers in assessing financial performance. While U.S. manufacturers are now required to publicly report claims data, this change alone is not enough; it only addresses part of the service value chain.<sup>5</sup> Using claims data as the primary measure of service cost leads to underestimating the real service cost.

Adopting “cost of quality” (COQ) as an approach to fully understanding the financial performance of the service value chain allows a more complete picture of service cost, including service incident prevention, as well as service delivery.<sup>6</sup> For example, the COQ approach picks up customer contact and quality costs (such as product failure rate and depth of analysis). This often results in a more accurate cost of quality measure, and, based on our analysis, is typically 1.5 to 4 times the costs indicated only by claims.

Companies with exposure to the consumer marketplace typically have a higher total cost of quality than pure business-to-business companies. While the factors driving cost of

FIGURE 2.  
**Cost of quality analysis.**



*Note: The size of each component of cost of quality differs significantly across industries and geographies.  
Source: IBM Institute for Business Value analysis.*

quality are both industry- and company-specific, one of the drivers behind total cost for a consumer products company is product returns. Based on our analysis, these returns and the associated lost profit from them can drive as much as 70 percent of the overall variable cost of quality.

- *Service can drive customer satisfaction and loyalty:* GM's OnStar in-vehicle global positioning system capabilities provide a touch point with customers, which can be leveraged in future product and service offerings. OnStar has 4.5 million members and 50 million interactions with drivers, and is projected to reach more than 10 million subscribers in the next few years.<sup>7</sup>

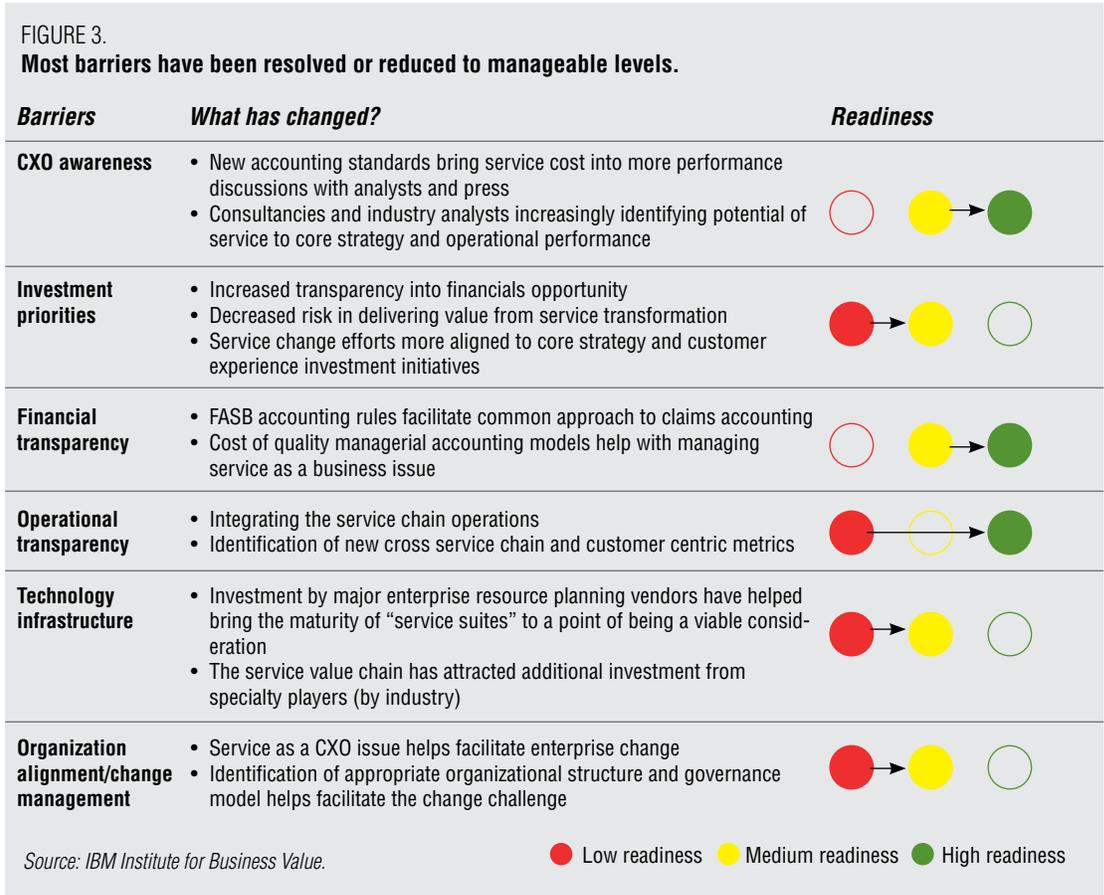
The common underestimation of the service opportunity comes from a combination of:

- Focusing on warranty costs with a cost formula that neglects key service elements

- Not fully seeing service in terms of a complete value chain (similar to the company's product supply chain)
- Ignoring the opportunity cost of not pursuing the market for new fee-based services.

### Barriers have fallen

Earlier progress in service innovation has been constrained by a number of fundamental barriers. However, many of these barriers have now been resolved, or have been reduced to manageable levels suggesting that service innovation can be more successfully accomplished today.



### Case study

A leading provider of office technologies needed to drive services growth, but needed an innovation effort that was also self-funding. The company innovated its service function by improving service processes and integrating those processes. This resulted in improved data visibility across the service chain, reduced service cost and increased profitability. Also, the changes gave service engineers a more complete, multi-angled view of customer information, increased productivity by 6 percent, reduced operating costs by 8 percent and set the direction to save US\$100 million over 10 years. These cost savings funded the project.

In summary, the service innovation opportunity is now hiding in plain sight. The next step is to consider how to take advantage of that opportunity.

### Successful service innovation involves focusing on three areas

Leaders in service innovation have focused on three areas to enable their success:

- *Service model innovation*: They establish the service strategy and service business.
- *Service operational innovation*: They improve and innovate existing service operations.
- *Services growth innovation*: They create, develop and deliver innovative service offerings.

The first area (service model innovation) involves establishing a clear direction for the overall service model, by aligning it with the core enterprise strategy; this will inform choices in both the service operational model and services growth strategy. The next two areas are typically tackled concurrently. Focusing on the service operational model and growth models together allows for formation of an operational model which can support new growth strategies.

### Innovating the service model

The first step for service innovation is to determine the strategic intent for service in the enterprise's overall strategy. Many product manufacturing companies are still operating traditional after-sales functions where service is managed in silos and operated as a reactive cost center.

In determining a firm's strategic intent for service, the key question is whether to focus on:

- Reducing the cost of existing service operations, often through improving the levels of integration and optimization of existing operations
- Growing new service revenue, which often means increasing the services portfolio
- Both cost optimization and revenue growth.

Each strategic alternative carries a unique value proposition to the firm and to the customer as shown in Figure 5.

The key strategic question: Should our services function be focused on cost reduction, revenue generation or both?

FIGURE 5.

**For each strategic intent, there are unique value-propositions and implications for the service innovator.**

Strategic intents	End-user value proposition	Company value proposition
<b>Focus on integrating service operations and reducing cost</b>	<ul style="list-style-type: none"> <li>• Better service and problem resolution</li> <li>• Fewer post-sales touch points</li> <li>• Manufacturers can pass on lower costs to customers</li> <li>• Customer history and preferences available across organization</li> </ul>	<ul style="list-style-type: none"> <li>• Optimized cost structure</li> <li>• Integration across business functions</li> <li>• Cross- and up-sell opportunities</li> <li>• Ability to perform advanced analysis with aggregated data</li> </ul>
<b>Focus on growing services revenue</b>	<ul style="list-style-type: none"> <li>• Broader range of product-related services</li> <li>• One-stop shopping/convenience</li> <li>• Greater choice in service providers</li> <li>• Compatible products and services</li> </ul>	<ul style="list-style-type: none"> <li>• New source of revenue growth</li> <li>• Ability to enter new markets and channels</li> <li>• Alternate financial models and profit mechanisms</li> </ul>
<b>Pursue cost reduction and new revenue opportunities in parallel</b>	<ul style="list-style-type: none"> <li>• Unique and flexible array of services</li> <li>• Premium service levels</li> <li>• Seamless and responsive interactions</li> <li>• Customized content</li> </ul>	<ul style="list-style-type: none"> <li>• Transformation activities can fund new growth opportunities</li> <li>• Deeper understanding of customer needs</li> <li>• Collaboration between services and product development, sales and marketing</li> <li>• Greater business insight and decision-making capabilities</li> </ul>

Source: IBM Institute for Business Value.

**Case study 1**  
***Integrating service operations and reducing cost***

A consumer electronics firm redefined its service strategy and transformed its service operations to dramatically lower cost. Driving the need to transform was increased competition, and escalating service costs as a percentage of revenue. The company developed a new approach for increasing its understanding of its target customers, improved service execution capabilities via new methods and measures and improved how well the different parts of the organization communicate and work together. The benefits included material cost optimization, client satisfaction improvement and revenue growth.

**Case study 2**  
***Grow new revenue***

IBM established its Engineering and Technology Services (E&TS) business in 2002 to allow clients to leverage IBM's own engineers and technical professionals, while improving the utilization of IBM's own engineering resources. Merged into the IBM Technology Collaboration Solutions organization in 2006, the E&TS business produced eight consecutive quarters of double-digit revenue growth through the end of 2005. IBM's goals for E&TS were to drive revenue from new services offerings based on new technologies and leading-edge engineering skills, launch offerings complementary to IBM's other services, and elevate client engagements to strategic partnerships.

### **Case study 3**

#### ***Both cost reduction and new revenue***

A major consumer electronics manufacturer developed a new strategy to drive greater revenue and profit from the company's services offerings. Several factors prompted its service innovation, including downward pressure on margins, the expanding role of customer experience, competitive differentiation for the solutions portfolio, and higher customer demand for end-to-end solutions and premium service levels. The company made its service strategy more of an integral part of the overall company business strategy, developed a detailed service offering portfolio (similar to a product portfolio) and improved the end-to-end service chain processes so they worked more smoothly and effectively. Services sales increased 10 percent in 2006 and are expected to grow by double digits for the foreseeable future.

In summary, the first important thing to do is to determine the strategic intent for service in the company. Is the intent to reduce service costs, increase revenue with new services, or both?

### **Innovating service operations**

Innovating traditional service operations serves as a foundation for improving customer satisfaction and, in many cases, for creating a successful services growth strategy.

In many companies, the service area today does not work as a single unit but rather as independently managed sub-functions. Senior line-of-business executives, as well as operational executives, will recall that supply chains were in the same shape five to ten years ago: siloed functions that don't communicate, processes that differ from silo to silo, automated tools that differ from silo to silo, and data collection and analysis that differs from silo to silo. What helped solve the supply chain problem was recognizing that there was a single interlinked chain. Knowing it was one chain implied that it was important to use common, integrated processes across the

entire supply chain, as well as using common IT tools and data.

Similarly, the "service chain" includes all functional areas involved in the planning and delivery of after-sales service, as shown in Figure 6.

Operational innovation of the existing service chain is one of the most significant opportunities awaiting manufacturers today. Yet many chief executives are reluctant to transform existing service operations. They assume that reducing service costs will lead to reduced customer satisfaction, and, thus, negatively impact customer loyalty and future product/brand sales. In fact, a company can reduce costs and still improve customer satisfaction, taking advantage of a synergy effect (see Figure 7).

That synergy effect is possible if you work through four stages of creating, proficiently running, and then optimizing an integrated service chain (see Figure 8).

#### ***Stage 0: Establish baseline.***

The first stage is to establish a baseline – a data-driven understanding of service chain economics and performance. The baseline will define the scope of the service chain, which is often the first time a company will have such a definition. Also included will be baseline financial data, operational performance data and customer satisfaction data.

#### ***Stage 1: Integrate the service chain.***

This stage integrates the existing service operations, pulling together siloed parts of the service chain, and then transforming the chain so that costs are reduced without reducing customer satisfaction. This integration requires identifying all the interrelationships of the service chain, and then transforming that "as is" situation into an integrated, cost efficient and effective operation that works as a unit. The activity here is very similar to integrating a product supply chain.

Turning existing service operations into an integrated service chain is crucial to improving those operations.

FIGURE 6.

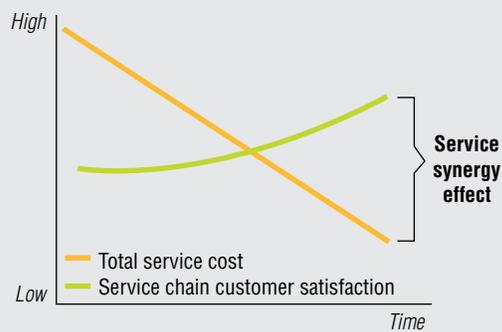
Service leaders define the “service chain” to include all functional areas involved in the planning and delivery of after-sales service.



Source: IBM Institute for Business Value.

FIGURE 7.

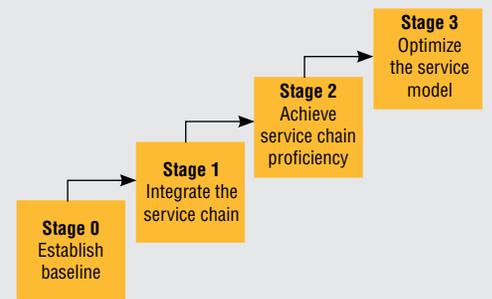
Service cost/customer satisfaction relationship.



Source: IBM Institute for Business Value.

FIGURE 8.

Stages for innovating service operations.



Source: IBM Institute for Business Value.

**An integrated service chain demands horizontal metrics that cut across the entire service chain.**

**Stage 2: Achieve service chain proficiency.**

Becoming proficient at running a service chain requires that you have the right measurement data to tell you what's really going on, that the data is being analyzed correctly, and that operational changes can be made based on the data. The key thing is to develop horizontal measures that cut across the entire integrated service chain. Horizontal metrics could include calls per service request (first contract resolution), cost per incident, or total cost of nonquality (percent of sales). Many service areas today have metrics that are ineffective. Average handle time for support center calls or parts inventory levels will help manage a siloed part of a service chain, but they are not sufficient for managing an integrated service chain. It is crucial to develop horizontal metrics across the entire service chain.

Once horizontal measurements are in place, the company needs to analyze and manage the metrics in a disciplined way. And based on such measurement data, companies need to be able to take corrective action at any point across the entire service chain.

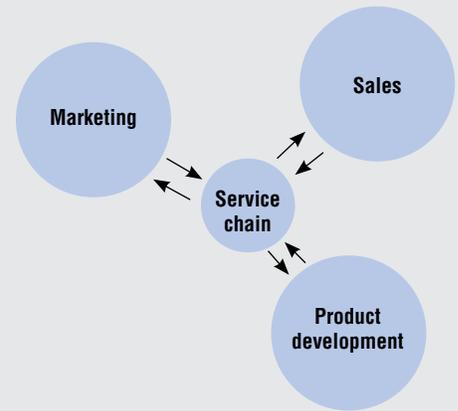
Finally, a company should assess core and non-core service functions, and decide the right sourcing strategy. The question is: what should you do yourself and what should you have partners do for you? By outsourcing selected non-core functions, a firm has the potential to become more proficient by focusing on its core competencies.

After achieving proficiency in running an integrated service chain, the next step is to get the service chain to integrate more closely with the other important parts of the enterprise, such as product development and sales.

**Stage 3: Optimize the service model.**

Full optimization of the overall service model can be achieved only after the service chain is running proficiently. Once the service chain itself is running well, the challenge is interfacing and collaborating with adjacent enterprise processes, principally sales, marketing and product development. In stage 2, the challenge was integrating the service chain so that it worked well as a single unit; stage 3 takes the integrated service chain and integrates it with the other strategic areas of the business, as shown in Figure 9.

FIGURE 9.  
**Stage 3: Enterprise service optimization.**



Source: IBM Institute for Business Value.

The opportunities for service to collaborate with other key areas of the enterprise include:

- *Product development:* Enabling better product design, reduced failure rates, improved serviceability and development of platforms for fee-based services. This collaboration is often inhibited by processes not being defined to facilitate cooperation between development teams and service, or by not measuring these interconnected processes (such as “fast feedback” programs or launch processes).

- *Marketing*: Setting appropriate service levels and creating new service offerings. This is often inhibited by inaccurate input about customers, by poor customer requirements and by misunderstanding how service-level objectives affect profitability.
- *Sales*: Increased sales of fee-based contracts and lowering warranty cost. This is often inhibited by sales teams that are not trained on service offerings.

When integrating with the other parts of the enterprise, you should consider:

- How can service play a role in enhancing the overall customer experience?
- How can service play a role in improving sales, marketing and product development?
- How should sales, marketing and product development support the optimization of the service chain?

In summary, the entire enterprise benefits when the proficiently running, integrated service chain is also strategically integrated with other key business areas of the enterprise.

### **Innovating for services-led growth**

The leaders in service innovation do, in fact, move their traditional service functions toward profit centers, seeking additional growth opportunities based on new services. These growth opportunities can take the form of professional services, outsourcing/alliances, information services or financial services, and each has the potential to result in significant new growth.

We find that many manufacturing companies fail to see several common operational challenges as they move toward service growth. This can cause initial efforts to fall short. In

fact, product-based companies typically experience these operational challenges in scaling their businesses:

- Deep channel conflicts risk the sales of both services and products
- Services sales are not taken seriously or rewarded, or may be the first margin trimmed in price negotiations
- Services processes that are created as an afterthought result in inefficient and risk-prone execution
- Teams have limited flexibility in designing and executing cross-enterprise service solutions
- Critical customer data, processing capabilities and reporting are lacking
- Outsourcing to third-party providers is not based on previous experience
- Services' success is not measured, resulting in a weak belief in service contribution to the business.

In short, manufacturers need to develop a robust, systematic way of translating a company's desire to generate more service revenue into a services-led business model.

We offer three major considerations for services-led growth, as described below:

#### ***(1) Create a services growth strategy that recognizes the different growth models***

Most manufacturers will start where they are comfortable: with new services based on their products. From there, they might expand into other growth models such as professional services, outsourcing/alliances, information services or even financial services, as shown in Figure 10.

FIGURE 10.  
Service business models.

← Product-centric is typically the first type of service offered

	Product-centric	Professional services	Outsourcing/alliances	Information services	Financial services
<b>Service value proposition</b>	<ul style="list-style-type: none"> <li>• After-sales support</li> <li>• Warranty services</li> <li>• Maintenance offerings</li> </ul>	<ul style="list-style-type: none"> <li>• Problem solving expertise</li> <li>• Functional or technology specializations</li> </ul>	<ul style="list-style-type: none"> <li>• Lower salary and/or infrastructure cost</li> <li>• Increased flexibility</li> <li>• Reduced headcount</li> </ul>	<ul style="list-style-type: none"> <li>• Information based services for:               <ul style="list-style-type: none"> <li>- Maintenance</li> <li>- Inventory Mgmt</li> <li>- Supply Chain</li> <li>- Trading</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Financing for product purchases</li> <li>• May include other financial services such as insurance, checking, loans, etc.</li> </ul>
<b>Operating model</b>	<ul style="list-style-type: none"> <li>• Integrated product/services delivery</li> <li>• No separate services organization</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional leveraged engagement model</li> <li>• Separate services organization</li> <li>• New channels</li> </ul>	<ul style="list-style-type: none"> <li>• Headcount transfer of client</li> <li>• Technology transfer or updating</li> <li>• Separate organization</li> <li>• New channels</li> </ul>	<ul style="list-style-type: none"> <li>• Remote monitoring devices</li> <li>• Networked products</li> </ul>	<ul style="list-style-type: none"> <li>• Separate financial services organization</li> <li>• May pursue customers beyond product segment</li> <li>• Data integration needed</li> </ul>
<b>Financials and metrics</b>	<ul style="list-style-type: none"> <li>• Bundled with products</li> <li>• Yearly fixed price or variable contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Fixed fee contracts</li> <li>• Time and materials contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Multi-year, fixed contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Tiered, value-based pricing</li> <li>• License fees</li> </ul>	<ul style="list-style-type: none"> <li>• Recurring, fee- and asset-based revenue</li> <li>• Tied to interest rates</li> </ul>

Source: "Operationalizing your services strategy," IBM Institute for Business Value.

Many manufacturers start their services-led growth with product-centric services, shifting to other models later.

**(2) Identify and address process and capability gaps**

A company's skill in making profitable products does not always translate into proficiency at producing profitable new services. New skills and new processes may be needed. An excellent checkers player is not always an excellent chess player. The capabilities and supporting processes required to manage a product-centric services model are very different from those required to deliver on a professional services business model.

**(3) Manage services development and delivery differently than product development**

While there are many similarities between developing and delivering products and developing and delivering services, they are still different. For example, when you deliver a service, the skills of the person delivering the service are crucial, and you can't manufacture or deliver people in the same way you can products. There are common pitfalls for product-based companies trying to create new service models and offerings:

- Poor value propositions for new service offerings
- Easy-to-copy offerings
- Ineffective bundling of products and services.

### Case study

IBM has firsthand experience in service-led growth after undergoing its own service transformation during the 1990s. IBM transformed itself from being almost exclusively a product manufacturer, deriving less than 10 percent of revenue from services, to a more diversified solutions provider, deriving close to 50 percent of its revenue from services. Services revenue grew from US\$5 billion in 1992 to over US\$45 billion in 2006.

For the transformation, IBM's company goals were to:

- Expand its services portfolio
- Deepen the relationship with the client
- Reduce the cost of support through Web-enabled transactions and electronically delivered products
- Strengthen service partnerships
- Deploy new relationship management and autonomies technology to improve its customer knowledge
- Reduce support costs
- Improve product availability.

Keys to IBM's successful transformation were:

- Executive focus on business and cultural change
- Listening to the customer
- Establishing new metrics
- Establishing the needed capabilities using internal and external resources
- Enabling a tolerance for risk.

### Are you ready for service innovation?

How significant is the opportunity for service innovation in your company? Assess your overall opportunity by answering the following key questions regarding the opportunity and your firm's current maturity.

Assess your business opportunity:

- After-market opportunity:
  - How competitive is the company's total spend on "cost of quality" relative to peers?
  - To what extent is there untapped opportunity in the after-market?
- Services growth opportunity:
  - To what extent is there opportunity to materially impact top-line growth with new services?
  - Are customers demanding these services or sourcing them from competitors?
- Strategic importance:
  - To what degree can service provide a competitive advantage to the firm's overall success?
  - To what degree would improvements in the service chain enable improvement across the enterprise?

Assess your maturity:

- Business model clarity:
  - How aligned is service's value proposition with the core enterprise business strategy?
  - How well does the current service operational model support the direction service is headed?
- Operational maturity:
  - How integrated are the processes, data, tools and management of the entire service chain?
  - How integrated is the service chain with sales, marketing and product development?
- Service offering maturity:
  - How well do the firm's service offerings match up with its customers shifting priorities?
  - How well do the firm's service offerings align with core product offerings?

If your opportunity looks significant after answering these questions, then you should take a deeper look at service innovation and give higher priority to service change initiatives.

## Conclusion

The opportunity for innovating the service function of a manufacturing company is now hiding in plain sight: the business potential for service innovation is much bigger than commonly thought. And the barriers to achieving this innovation are now significantly lower.

We find that companies that have been successful in developing this new opportunity have focused on three areas of service innovation:

- Establishing the service strategy and service model for the firm
- Dramatically lowering the cost of existing service operations while continuing to improve customer service levels and user experience
- Managing the creation, development and delivery of new service offerings using the same discipline and rigor as they do for new products.

To learn more about service innovation, please contact us at [iibv@us.ibm.com](mailto:iibv@us.ibm.com). For a full catalog of IBM Institute for Business Value research, visit:

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