

How Product Companies Are Competing Through Services

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Pick a few leading industrial companies. Now close your eyes and try to visualize their operations. What images come to mind?

Very likely you envisioned gleaming R&D laboratories and bustling factories fed by smoothly running supply chains – in short, well-oiled industrial machines geared to delivering high-tech products of impeccable quality at competitive prices to ever-more-demanding customers. Chances are that you visualized the operations of companies such as ABB, GEC Alstom, General Electric, Otis, Renault, Siemens, or Xerox, to name but a few.

Now consider the following:

- Of Otis Elevator's \$5 billion revenues, two-thirds come from service and maintenance.
- Xerox Enterprise Systems, which provides products and services that support the entire document cycle, became a \$4 billion business in 1996 and is expected to grow approximately 20 percent annually.
- General Electric brings in some \$8 billion in revenues from servicing its huge installed base of industrial equipment (medical systems, aircraft engines, power generation apparatus, locomotives)
- and expects service revenues to more than double to \$18 billion by the year 2000.
- ABB Service manages more than 100 large full-service contracts worldwide for maintaining its own or competitors' equipment.
- At leading power equipment manufacturers, such as Siemens and GEC Alstom, servicing now accounts for up to 55 percent of revenues – and an even higher proportion of profits.
- RVI, Renault's truck division and parent of Mack Trucks, announced a target of generating 40 percent of turnover from services by the year 2000.

As these examples show, leading manufacturers of capital goods are blurring the increasingly artificial distinction between „industrial“ and „service“ industries. These manufacturers are turning themselves into service providers, as service provision is rapidly becoming the cornerstone of their customer management strategy.

Today, no product company can afford to ignore the potential benefits – and risks – of making the transition from manufacturing to manufacturing-plus-service-provision. However, to make this transition success-rally, product companies must understand the driving forces behind this transformation, the service strategies available to them, and the opportunities and risks of providing value-added services.

Driving Forces for Service Provision

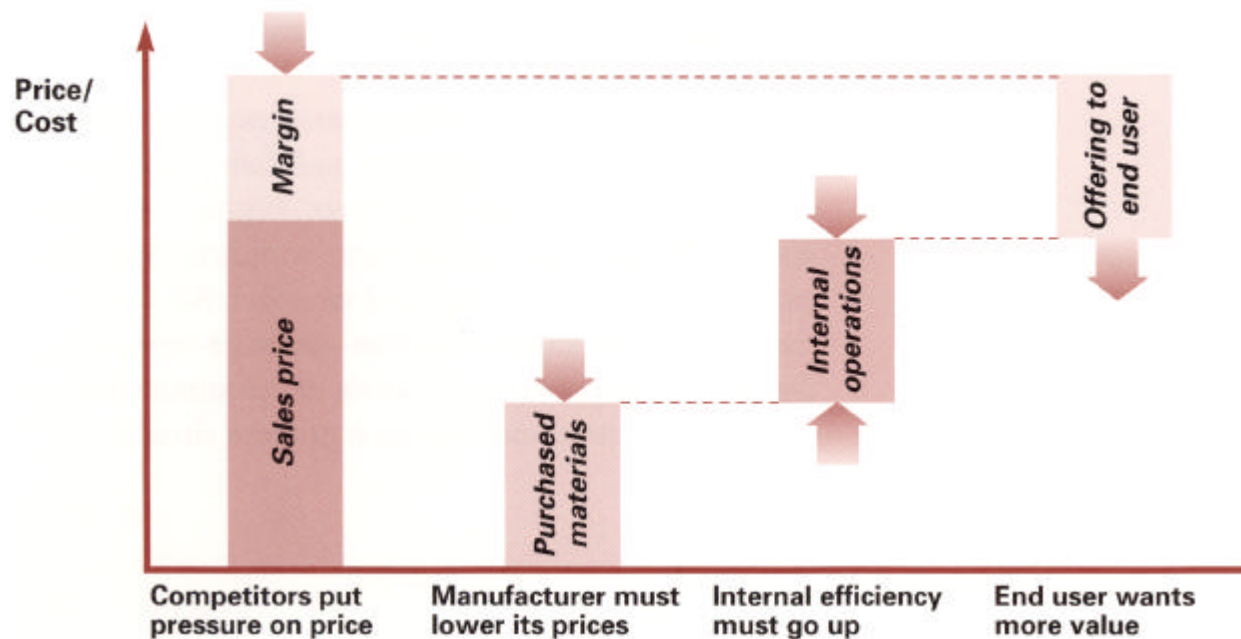
The realization that companies cannot be seen as autonomous units, at arms' length from their customers and suppliers, has marked management thinking and action over the last decade. The strategies, organization, and operations of suppliers, customers, and customers' customers are intimately intertwined. Movements in one player's value chain rapidly ripple through to the other players' operations. The automotive industry is a case in point, with, for example, Volkswagen in Brazil inviting suppliers such as VDO to set up shop within its own truck assembly plant.

Why would the closer relationships among the various players incite product manufacturers to provide services to their customers? This behavior can be traced back to the pressure that manufacturers' customers – often wholesalers or distributors – experience from their own customers to provide ever more value. These „customers' customers“ or end users expect products that are customized to their needs, that generate the best performance around, and that they can use without worrying about maintenance. The manufacturers' customers are well aware that if *they* cannot deliver, their competitors will be eager to do so. Manufacturers' customers are forced to invest in niche marketing, fast product renewal, and full-service offerings. With high pressure on sales prices in a hyper-competitive world, such investments can be profitable only if these companies also improve the efficiency of their internal operations, for example, through reengineering. In addition, with the cost of purchased materials in many industries accounting for roughly 60 percent of sales, customers will also try to exact significantly lower prices from manufacturers (Exhibit 1).

Thus manufacturers often find themselves in an adversarial position vis-a-vis their customers. They can comply with the demand for lower prices, or they can try to compensate for the price pressure on their products by providing value-creating services to their customers. These take various forms.

Exhibit 1

Pressures on the Customer's Value Chain



They can make their customers' internal operations more efficient. For example, ABB Service often takes over the maintenance workshops and personnel of the customers with whom it has established full-service contracts. GE Medical is selling training and management consultancy services to hospital chains. Electrabel, a European electrical utility, provides energy-management services to industrial customers.

They can help their customers create more value for their own customers. For example, truck companies are starting to offer pay-as-you-drive services to transport companies, so that the latter can focus management attention on their core business, which is to provide logistics services to shippers.

They can also reduce complexity for their customers and minimize their risk of making the wrong choices, such as those related to technology. For example, automotive suppliers such as Johnson Controls supply complete seating or dashboard systems, thus effectively providing design services to the car assembler. Scania, working with its dealers, is offering truck customers long-term supply contracts with a product-recall-and-replacement feature, enabling Scania to call back trucks when the market for secondhand trucks is at a high and enabling its customers to obtain new vehicles with the latest technology and performance.

What we are witnessing is the emergence of a virtual alliance between manufacturers and their customer communities, cemented by services. It goes far beyond simple outsourcing of production or indirect services (such as cleaning, catering, and security). All along the chain, each player's focus on customer care pulls that player's suppliers and pushes its customers into re-thinking where and how each of them should create value.

Defining a Service Strategy

As the examples have shown, there are various ways to create value through services. We find it useful to distinguish among three generations of service strategies, each carrying its own risks and potential benefits (Exhibit 2).

First Generation. With this strategy, a supplier aims at providing to its customer a combined product-and-service functionality. For example, a manufacturer of capital equipment (such as elevators, earthmoving equipment, or trucks) may equip its products with smart electronics that constantly sense the condition of the product and send a signal to the local representative whenever the product needs maintenance, thus preventing breakdowns. Usually, the customer pays for each intervention of the manufacturer and so bears the bulk of the risk.

Second Generation. In other situations, the customer expects from the manufacturer only the performance of the product not the product itself. The customer pays for consumption of the function the product provides, i.e., actual product usage. For example, the floor-cleaning equipment division of Electrolux is starting to sell cleaning capacity rather than equipment, with Electrolux remaining the equipment owner. Truck manufacturers are

experimenting with having transport companies pay for actual ton-kilometers driven, with vehicle ownership vested with a finance company, instead of the customer purchasing or leasing the vehicle. In this strategy the customer often shifts the risk to the manufacturer and an intermediary.

Exhibit 2
Three Generations of Service Strategy

	First Generation	Second Generation	Third Generation
Nature of service	Functionality	Performance guarantee	Total business solution
Manufacturer's income	You-pay-as-I-perform	You-pay-as-you-consume	Split-the-gains
Parties involved	Manufacturer and customer	Manufacturer, customer, and intermediary	Multiple parties
Risk-bearing party	Customer	Manufacturer and intermediary	All parties, shared
Customer's motivation	Focus Less complexity Higher efficiency	Lower risk	Higher revenues

Third Generation. With this strategy, multiple parties combine their competencies and/or assets to create novel business solutions. For example, Shop 24 is a European manufacturer of robotized 24-hour shops. Using a keypad, the consumer selects one or more of the 200 products on display behind a glass panel, and a robot picks up and delivers the products. While Shop 24 sells its products to daytime retailers, it has at the same time established a joint venture with a specialized logistics service provider to replenish the shops. Furthermore, it is arranging for pizza home delivery companies to suggest to the pizza orderer that the delivery person pass by a Shop 24 and pick up any last-minute items the pizza eater may wish (say, soft drinks). While at heart Shop 24 is a hardware manufacturer, it is offering services for and with its customers and third parties, splitting the gains and the risks along the way.

Success Factors for Service Provision

Defining a strategy is one thing, reaping its benefits another. We have found five factors critical to the success of product companies' service strategies (Exhibit 3).

A Service-Creation Process. Product companies have long realized how hard it is to continually develop and launch winning new products. It requires a carefully managed process with well-defined product specifications, a thorough concept phase, extensive prototyping and testing, and early involvement of the manufacturing and marketing functions.

Developing winning new services requires an equally well-managed process. However, very few product companies have anything that comes close to a systematic service-creation process, let alone a service R&D laboratory. At best, some companies set up ad-hoc multifunctional project teams to develop specific new services. Even genuine service companies, such as financial institutions, are still amateurish in new-service development relative to the ways product companies go about new-product development.

When setting up a service-creation process, there is much to be learned from new-product development. However, product companies would be mistaken to transfer word-for-word the proven principles of their product-creation process to the service-creation process.

There are some important differences. For example, a product company can protect the intellectual capital vested in a new product through patents or by hiding it in an invisible manufacturing process. However, the same company must use different means to protect its service concepts against copying, e.g., by investing in proprietary information systems and customer databases and by continually adding new service features to stay ahead of competitors. For example, a product company selling pay-as-you-consume services must mine the information streaming into its consumption databases to improve the economics of its service (for example, by optimizing its pricing strategy) and to develop new formulas tailored to the individual needs of its customers.

Exhibit 3
Changing Success Factors

Area	Product Provision	Service Provision
Protection of know-how	Intellectual property rights	Customer information
Investment priorities	Manufacturing infrastructure	Delivery infrastructure
Pricing strategy	Cost-plus pricing	Value pricing
Focus of alliances	R&D/manufacturing alliances	Finance/delivery alliances
Company culture	Merchandising mind-set	Problem-solving attitude

Another area that requires new thinking is testing. A product company tests its new products by developing physical prototypes that enable the company and selected test-customers to experience the product's features and benefits before it's launched. The company can conduct these tests on a relatively small scale, keeping the new product hidden from prying competitor eyes. Services, on the other hand, lack the physical form that enables upfront and hidden testing. Information mining and field experimentation become critical.

Moreover, while design-for-manufacture and design-for-assembly are critical competencies for the development of new products, services are produced as they are delivered, in most cases by a human being in the field and not by a machine in the factory. As a result, design-for-delivery is a critical competency for new service development. For example, if a Caterpillar dealer receives a call from a smart electronics device embedded in a bulldozer out there in the middle of nowhere warning the dealer of an imminent breakdown, the dealer had better be able to fall back on a well-thought-through process for getting the replacement part to the former – fast.

A Service-Delivery Infrastructure. As the examples above demonstrate, the delivery infrastructure is as critical to service provision as the manufacturing infrastructure is to product provision. Manufacturing excellence has been high on the management agendas of product companies over the last decade. These companies have devoted immense efforts to rationalizing their product manufacturing operations by concentrating production in focused factories, raising productivity and quality levels in each factory to levels unknown before, and linking factories with suppliers and distributors through an efficient logistics chain.

In contrast, for many product companies, the delivery infrastructure is the most neglected part of their value chain. This is despite the fact that delivery accounts for a large part of the total cost to the end-customer (for example, in industries such as car manufacturing, a product that leaves the manufacturer at \$100 is typically sold to the end-customer for \$150). The neglect stems partly from the fact that the downstream distribution chain (importer, wholesaler, retailer) is often made up of independent parties with sometimes diverging interests and different mind-sets, leading to at best a love-hate relationship with the product company.

If poor delivery is bad for product provision, it is lethal for service provision. Customers experience services through their delivery. If someone is stuck in an elevator for which he has a „within-30-minutes“ service

agreement with the manufacturer, the service representative better be there within 15 minutes. For a product company turning to service provision, it is of paramount importance to invest in its delivery infrastructure – which is often fragmented and outside its direct control – so as to ensure predictable quality and a consistent image.

A second reason for the importance of superior delivery is the opportunity it creates for customer intimacy.

Product companies obtain feedback about their products from customers through instruments such as warranty claims and market research. While these instruments may also offer useful feedback about services, they are a distant second to the wealth of insights that the person delivering the service can provide. He or she intimately lives the experience of the customer consuming the service. For example, a transport company that operates tractor/trailer combinations may buy a „load-to-destination“ service from the truck manufacturer, in which the latter commits to providing a replacement tractor within one hour in case of a mechanical breakdown. The service person who has helped the truck driver get back on the road in the middle of the night will have a gold mine of information about the shortcomings and potential of the service. These insights will flow back to the product company only if the delivery chain and all its people are geared up to communicate them.

Service-Management Competencies. Product companies usually have a product management function, which sits between the R&D function and the operational marketing/sales function. Product managers are responsible for tasks such as determining pricing policy and planning the evolution of a particular product line (the latter is written down in a so-called product plan). By the same token, successful service provision calls for a service-management function. However, a service manager needs competencies that are different from those of the product manager.

Pricing services, for example, is quite different from pricing products. First, in contrast to products, services' variable material and manufacturing costs are negligible; instead, services often carry heavy „sunk“ development costs (for example, new information systems) and large fixed costs (for example, distribution networks). Second, as the variable cost of services is low, it is difficult to use cost-plus or a competitor's price as a good first estimate of an acceptable price.

Therefore, value pricing is an important skill. Third, services generate costs and revenues over the entire life cycle of the product. Fourth, the costs and revenues of delivering a service are fairly unpredictable, as the product company can only estimate, say, how many times a bulldozer will break down or how much capacity the floor cleaning equipment will use up in a pay-as-you-consume service. Therefore, risk analysis is an important skill in pricing services. Finally, many of the costs and revenues generated by a service may have to be shared with third parties.

Effective Alliances. Product companies have become accustomed to alliances. Driven by appetites for critical mass, scale, or novel competencies, most of these alliances pertain to R&D or manufacturing. Product companies usually leave marketing and delivery out of alliances, to preserve their brand identity and keep ownership of the customer.

However, product companies intent on making service provision a cornerstone of their customer management strategy will have to venture into unfamiliar alliances at the marketing and delivery side of their business. This puts them in a quandary. On the one hand, their lack of service management competencies – or the time required to develop them internally – drives them into alliances with service companies. For example, a manufacturer of capital equipment offering breakdown insurance is likely to depend on collaboration with an insurance company. A copier manufacturer developing a smart frequent-copier-cum-payment card for use in copy shops nationwide is likely to depend on the competencies of a credit-card company.

On the other hand, the importance of customer intimacy in service delivery requires the product company to be at the customer front-line. If the capital equipment company offers breakdown insurance, it will want one of its own salespeople to sell the insurance as part of a complete product/service package. Furthermore, while alliances between two product companies are difficult to manage, alliances between a product company and a service company are more perplexing. Said the marketing manager of a manufacturer of uninterruptible power supplies who was investigating insurance-like services: „It's like having a heavy-metal band play music with a children's choir.“ While complementary competencies is obvious, compatibility of cultures is much less so.

Service-Minded People. Clearly, any product company that wants to offer services will need to attract service-minded people and nurture a service culture. *Yet* this is the most difficult task for a product company. Service-mindedness must inspire all employees, both those at the customer front-line and those hidden from the customer, such as R&D personnel. For example, the engineer at the copier manufacturer who develops a frequent-copier-cum-payment card must complement his man-machine-interface design skills (e.g., layout of the keypad and messages on the display) with skills for designing efficient transactions between the customer and the service provider (e.g., arranging that the customer's bank guarantees payment to the copy shop operator). By the same token, the product salesperson must abandon his or her merchandising mind-set in favor of a problem-

solving attitude.

The five success factors described above constitute a daunting challenge for the product company transforming itself into a service provider. The success stories recited at the beginning of this article appear deceptively simple to emulate. The skills that make a product company great in delivering products do not guarantee success in services. *Yet* the product company has no choice but to embrace services. Its customers have to focus all their attention on satisfying the needs of their own customers. As a result, they are merciless with manufacturers that give them the slightest headache. Conversely, they will be loyal to a manufacturer that gives them full care. With product technologies spreading fast and product performance less and less differentiating, services are the manufacturer's key to full care.

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