# **Digitally Enabled Services Strategies**

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## Digitally enabled service strategies can be used to protect revenue and reduce cost in different competitive situations, or to create entirely new business models.

Executives in a wide range of industries are betting on services as the single largest revenue and profit growth opportunity in the coming years. Yet in many product organizations, the focus of activities such as product configuration and support services, supply chain services, and after-sales services has been simply cost-avoidance. Transforming traditional product-focused organizations into service-oriented growth engines requires changes in both strategy and culture. There is little doubt that supply chains offer a wealth of opportunities for building new revenue-generation engines. Exploiting those opportunities requires understanding the right level of service to offer (more is not always better!), nurturing the right service organization (harder than it looks!), and harnessing the right technologies to deliver the service (careful investments!).

In this article, we explore how digital technologies can be used to enable service offerings. We examine four different strategies for digitally enabled services and see how those strategies can be used in different competitive situations to protect revenue and reduce cost or create entirely new business models.

#### The Service Challenge

The rapid economic deceleration of the world economy over the past two years has forced nearly every company to find ways to protect existing revenues and seek new growth opportunities. In some industries like apparel and electronics, globalization and relentless deflation<sup>1</sup> has driven firms into outsourcing relationships to achieve ever-lower costs in lessdeveloped countries. With profits squeezed and growth nonexistent, services beckon as a high-margin, growth opportunity.

Many product firms have successfully implemented new service strategies and captured important service revenues. For example, IBM pulled itself up from a multiyear slump with a daring services strategy. Likewise, equipment firms like Caterpillar and Boeing have built legendary business models in after-sales service and support. It is little wonder that firms from Hewlett-Packard to United Technologies are making technology investments to boost service offerings. In some cases those investments are focused on efficiency and cost reductions. For example, Sears invested \$77 million in GPS and wireless connectivity to increase the efficiency and reliability of its field service operation.<sup>2</sup> Yet, some product companies have struggled to bring services to market. Hoping to combine new services with existing products, they failed to understand the unique challenges of service offerings. Recently, a group of CIOs and functional executives gathered for a roundtable hosted by Cisco Systems and the Center for Digital Strategies at the Tuck School. After a day of active debate, the group concluded that: 3,4

Companies that expand from products into services can create genuine synergies and achieve new levels of growth. The secret is to find ways of leveraging their customer contact, their brand, their customer database, their product database, and

their ability to guarantee product and service compatibility. Opportunities for doing these things can usually be found in the service spaces adjacent to their product spaces.

- Adding services extends the customer-supplier encounter and makes it more intense. This means that companies need to consider the encounter as a kind of drama played out over time, framing the key moments and building the emotional connection, so that customer satisfaction is converted into customer loyalty.<sup>5</sup>
- Services are more challenging to offer because, unlike with products, customers can directly affect quality and cost through their actions.
  Therefore, companies should seek to mold their customers' behavior in ways that will reduce the costs of supplying them, while simultaneously offering the customers more choices in the areas of least operational impact.
- The most important change when a company moves into services is cultural. To transform the company's culture, executives should provide: a clear vision of what the service activities are supposed to achieve; a common service terminology; a mechanism for sharing service stories; appropriate measurements and incentives; and regular contact between senior management and service customers.
- Value chain thinking will become as pervasive in services as it is in products. Companies must think carefully about who their partners are, their relative competencies, what the consequences for their value

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chain partners might be as they expand further into services, who controls customer contact and can guarantee quality, and for whom loyalty and brand value is ultimately generated.

 The use of digital technologies to empower customers needs to move beyond cost reduction to service enhancement. Merely coaxing customers online can have the unintended effect of eroding customer loyalty and profitability.

Keeping these observations about building services in mind, many CIOs face the endless question about how digital strategies can be used to reach customers and deliver services. Certainly the Internet has enabled some of the most exciting and competition disrupting service strategies seen in the past decade. Many firms saw the Internet as an opportunity to radically reduce costs. Others saw the possibility of opening markets and increasing revenue. Still others have found completely new business models that lowered costs and created new revenues.<sup>6</sup> Depending on the competitive environment, all of these strategies can be very effective. Of course, there are many pitfalls to avoid. In the next section, we present a framework for

understanding when and how to use digital strategies to bring services to life.

### Digitally Enabled Service Strategies

Digitally enabled service strategies can achieve many different objectives. They may be employed to preemptively protect current revenue streams or as a competitive reaction to other offerings in the marketplace. They may be developed to expand existing markets for improved profitability by reducing costs or they may result in entirely new business models that both reduce costs and enhance revenue. Figure 1 illustrates these four different strategies.

For example, in the late 1990's many firms cautiously went online simply to protect their turf. They implemented "brochure" Web sites that did little to increase revenue or reduce cost. But, by moving online, firms made themselves available to customers who were searching for product information on the Web. Often these moves were defensive in nature - stemming a shift of demand to online rivals. Moreover, managers often hoped the move would expand the exiting market, but found later they did little beyond achieving parity and preventing erosion. Certainly, in some cases, the digital offerings truly expanded their

market. For example, small regional firms that went online sometimes found national markets. More exciting product related services often supported sales and successfully expanded revenue.

Some firms found that developing services for their resellers can significantly improve revenues of their products and build channel loyalty. For example, Eaton developed a Web-enabled configuration tool that allowed its distributors to configure highly complex electrical products. Now Eaton distributors take the tool with them to their end contractors to help them develop a product solution. The service enables the distributor to cement its relationship with that contractor and ultimately cement the relationship with Eaton. Eaton also observed that the tool created back-office efficiency for Eaton because they were able to integrate the product information all the way down to the shop floor, where a fully configured panel board is constructed and shipped with little engineering interaction. Many other firms, from Dell to Cisco to John Deere, have experienced similar benefits from digitally enabled product configuration tools.

Many other firms have focused their digital service strategies on cost reduction. In some cases, they also found that the service not only reduced cost, but also expanded their market. For example, when FedEx began offering its tracking service online, the cost savings were substantial. Customers who previously called service centers could now access the tracking information themselves drastically reducing the cost for FedEx. However, their early service offering quickly became a feature for many customers, increasing revenue. By the time UPS reacted to offer its own tracking service, it enjoyed the cost reductions (over a manual system) but saw little competitive advantage - UPS simply protected its turf. Many airlines found the same result when they began offering flight status, schedule, and departure information on the Web.

Worse yet, some firms experienced revenue and profit erosions when trying

to move customers into online services. For example, a recent set of studies7 in the retail banking industry found that the self-service8 focus of online banking could backfire. Online banking was largely seen as a way to reduce costs by moving customers who were expensive to serve into the lower-marginal-cost, online channel. Surprisingly, the studies conducted at Harvard and Wharton found that customers who moved to the online channel actually became more expensive to service, and the revenue generated from those customers decreased. So the profitability of those customers decreased after they adopted the lower-marginalcost channel.

The most exciting strategies are those that used a combination of services and a new organizational structure to create entirely new business models. Often the key to such new offerings is finding the right bundle of products and services. Interestingly, there are successes with company created a new organization, maintaining financial control of the business but offering the management of the new venture tremendous autonomy in creation of the business model and delivery organization. Significantly, in both cases the focus of the new business was a digitally enabled strategy that fundamentally redialed the service bundle mix. However, on the service dimension the two firms went in separate directions.

Univar created Chempoint, whose business was about adding service to its product offerings.<sup>9</sup> It identified a market opportunity in the specialty and fine chemical distribution – smaller customers who historically received very little service. Neither the larger chemical manufacturers nor distributors wanted to deal with them because of their low volumes and high cost of service in the traditional sales model. But rather than simply reduce service by trying to move those customers to an online channel, as many

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radically different levels of service. For example, consider the strategies implemented by two chemical companies -Univar, which is the largest independent chemical distributor in the world (an offspring of the Dutch conglomerate Royal Vopak) and Dow Corning, which is the joint venture between Dow and Corning best known for its wide range of innovative silicone products. In the mid to late 1990s, during the business-tobusiness craze, many firms tried to build e-businesses in chemical distribution. Univar and Dow Corning both held back, plotting their strategy for a completely new business. Many of the others are gone now, but these two have turned out to be very successful. Today, their e-businesses stand in stark contrast to each other, but they share some similarities in their history, organizational culture, and governance. In both cases, the parent

e-businesses did, Chempoint added an important element of service to the bundle. Chempoint hired chemists, chemical engineers, and problem-solving technicians to go out and find these small businesses and help them understand what they should be buying. Working with the chemical suppliers, they offered to help them cultivate and grow this under-represented segment.

So, for example, Chempoint might go to the little dairy in Vermont and help that dairy find the right food dye for their ice cream. If the dairy was using an artificial dye, Chempoint might suggest a natural one so the dairy could promote "all natural" on the product. Then, after helping them learn about using the new product, Chempoint would transition the dairy to a lower cost channel on the Web or even through phone/fax, if that was what the customer desired. Chempoint integrated its fulfillment system of suppliers and third-party warehouses over the Web to further cut fulfillment costs and to facilitate another service – order tracking. So Chempoint added service in what was a low service environment and bundled the service together with the product, creating a very successful business.

Dow Corning, on the other hand, was historically a very high service provider of silicon products. It traditionally provided customers with many services, from ordering and shipment flexibility to chemical engineering and product support. Re-evaluating its business, the company realized that a fraction of its business was being eroded away to commodities. Other customer segments had never been penetrated because Dow Corning was a high-service business. So it launched a new e-business and a new brand called Xiameter.<sup>10</sup> The goal of Xiameter was to capture the high-volume customers that required very competitive prices and that didn't require extensive service offerings. Thus, Xiameter redialed the service bundle to reduce services. Realizing that the Dow Corning culture couldn't accommodate this low-service model, the company created a new organization to bring Xiameter to life. To signal the differences between Xiameter and Dow Corning, both to customers and to both organizations, it even rebranded the silicone products themselves under the Xiameter name.<sup>11</sup> Chemically equivalent to Dow Corning products and produced in Dow Corning facilities, these products carried the Xiameter name with no reference to Dow Corning.

Xiameter's focus is large-quantity distribution, cutting prices 15 to 20 percent over traditional competitive pricing. And it nearly eliminated all of the Dow Corning services. If you want service, you buy it separately (from Dow Corning). Xiameter products are for firms that know exactly what they want and are willing to follow very specific business rules to receive a lower price. For example, there are strict rules about order quantities, timing, and shipment lead-time. One of the most fascinating aspects of the model is Xiameter's use of technology to focus the customer. The company realized it couldn't do this internally at Dow Corning because as soon as a customer is on the phone, the scope of the service offering begins to creep. In the Xiameter Web interface, very tight business rules on order sizes and shipping lead-times focus the customer. These rules helped Xiameter cut manufacturing costs by transitioning the supply chain from what was historically a make-to-stock business to a maketo-order. Thus the company's innovations in the supply chain and the focus of its digitally enabled service reinvented the business model, reducing costs and expanding demand. The new offering is not for every customer, but in the highvolume commodity segment, the new business model was very well-received.

Not every firm that ended up developing new businesses started out with that goal in mind. In some cases, the firms started out implementing digital services with a focus on cost reduction. Along the way, they discovered that there was a bigger opportunity to reinvent their businesses. Implementing a new supply chain, together with the new "go-to-market" strategy, they created better value for the customer. In some cases, they found that as they improved supply chain information-sharing and coordination, they discovered that they have new access to information that either had value in the marketplace or could be used to change their business model.

GMAC followed such a progression in creating a breakthrough in its business model and supply chain for off-lease vehicles. GMAC returns nearly 1 million vehicles

per year to the market as their leases run out. For years, GMAC shipped those cars to non-GMAC auction houses for sale. GMAC realized that in addition to being costly to physically move the cars, the company was missing an opportunity to learn about the marketplace and interact directly with customers through the auction process. GMAC now sells the cars through five digital auctions, run by GMAC, for five geographic markets. As the world's largest vehicle auction house. GMAC has established a new business that includes revenues from vehicle sales, from services such as vehicle inspection and certification, and from detailed information about the weekly value of vehicles in each region of the country. GMAC now has its own direct source for vehicle value information that is more detailed and timely than Kelly Blue Book.12 The result was a new business model with both cost reductions and revenue growth.

Digitally enabled services offer tremendous possibilities for firms to grow their businesses. One key to unlocking the opportunities is finding the right strategy focused on cost reduction or revenue growth, or a new business model that achieves both.

#### **Endnotes**

- 1 Johnson, M. E. (2002), "Product Design Collaboration: Capturing Lost Supply Chain Value in the Apparel Industry," Tuck Working Paper, Dartmouth College, Achieving Supply Chain Excellence Through Technology, Vol. 4, Montgomery Research, Inc., http://www.ascet.com.
- 2 Radjou, N. (2003), "Firms Seize Aftermarket Opportunities," Forrester TechStrategy Research Report, February 27.
- 3 These summary points along with more details on the summit conclusions can be found in

Borg, S. (2003), "Service and Support: From Cost Reduction to Revenue Generation," Center for Digital Strategies Report, Tuck School of Business at Dartmouth College, www.tuck.dartmouth.edu/digitalstrategies.

- 4 Brechbuhl, H. (2003), "Best Practices: Establishing Service Organizations in Product Companies," Cisco Thought Leadership Newsletter, www.cisco.com/go/tlsummit.
- 5 For more on the behavioral dimensions of service encounters see Chase, R.B. and S. Dasu (2001), "Want to Perfect Your Company's Service? Use Behavioral Science," *Harvard Business Review*, June, 79-84.
- 6 Johnson, M. E. and S. Whang (2002), "e-Business and Supply Chain Management: An Overview and Framework," *Production and Operations Management*, Vol. 11, No. 4, 413-423.
- 7 Hitt, Lorin and F. X. Frei (2002), "Do Better Customers Utilize Electronic Distribution Channels? The Case of PC Banking," *Management Science*, June, 732-748.
- 8 Moon, Y and F. X. Frei (2000), "Exploding the Self-Service Myth," *Harvard Business Review*, May-June, 2-3.
- 9 Johnson, M.E. and J. Johnson (2001), "ChemPoint and Yantra: Extraprise management in the specialty chemical industry," Center for Digital Strategies Report, Tuck School of Business at Dartmouth College, www.tuck.dartmouth.edu/digitalstrategies.
- 10 Lin, S. and E. Senger, (2003) "Xiameter e-Commerce Solution Covering Business Customer Ordering and Information Processes," Tuck School of Business & IWI-HSG/S, www.tuck.dartmouth.edu/digitalstrategies.
- 11 Rozin, R.S. and L. Magnusson (2003), "Processes and Methodologies for Creating a Global Business-to-Business Brand," The *Journal of Brand Management*, February, vol. 10, no.3, pp.185-207
- 12 Kopczak, L.R. and M.E. Johnson (2003), "The Supply-Chain Management Effect: How Supply Chain Management Is Changing Managers' Thinking," *Sloan Management Review*, Spring, 27-34.