Extreme Competition

Peter Fingar
Executive Partner
Greystone Group

pfingar@acm.org

Service Process Management

Several years ago, Brett Champlin, a founder of abpmp.org, piqued my interest in *service science* and its applicability to business process management. I've been researching, writing, and talking about this emerging field ever since, and you should too. After all, the services sector makes up 70 to 80% of GDP in advanced economies.

The best way to define the services sector is to understand what it is *not*. It's not agriculture or manufacturing or construction – the *shrinking* sectors. In the U.S., agriculture accounts for only 1.4% of the gross domestic product and less than 2% of employment. Meanwhile, 4.3% of firms fall into the manufacturing sector, accounting for 12.5% of employment. In the UK, agriculture accounts for around 1.5% of employment, manufacturing for around 10%, and services for over 80%.

In short, up to about 75 % of wealth in industrialized countries is created *not* by growing food or making things, but by performing services: teaching, designing, delivering health care, banking, retailing, consulting, delivering IT services, and so on.
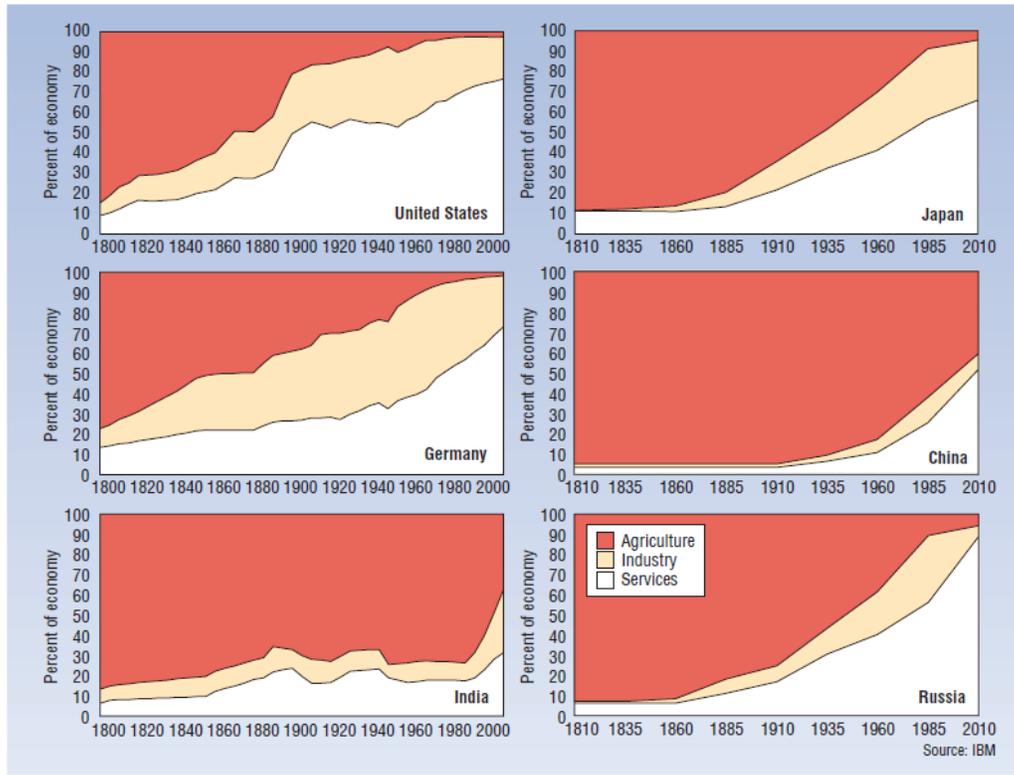
Figure 1. Services represent a growing segment of the developed and developing worlds' economies.

The link between *science* and agriculture and manufacturing is now a given and was ushered in over the last 200 years with the advent of the Industrial Age. But what about the link between science and services? The information technology driving innovation in services has really only been around since the Web came on the scene in the mid-1990s.

This column isn't a tutorial on service science and BPM, so I'll point you to the same place Brett pointed me to a while back:

http://tinyurl.com/lq4s97

IBM has been playing a leading role in this emerging field, which is no surprise, for IBM had to transform itself as it looked over the abyss in the early 1990s. Lou Gerstner left RJR Nabisco to become IBM's CEO in 1993 and led the way to unlocking talent inside the once stodgy company. Hmm, a move from the "cookies and crackers company" to mighty Big Blue. What's up with that? *Services.*

Today IBM pulls in the bulk of its revenues from services. Noting the lessons learned by IBM, HP bought EDS in 2008 and Dell bought Perot Systems in 2009. And last June, Howard Smith, my coauthor of *Business Process Management: The Third Wave*, and I were invited to speak at GE Global Research's *Whitney Symposium09* in Niskayuna, New York, a 600 acre research campus on the banks of the Mohawk River... the legacy of one Thomas Edison. It was a huge honor and an eye-opening experience (1,000 PhDs representing 22 disciplines in one campus!). And you guessed it, the theme for the Symposium was *The Engineering of Customer Services*. GE gets it.

My talk on *Business Process Management and Systems Thinking* was followed by Robert Morris, V.P. of Services Research and former director of IBM's legendary T. J. Watson Research Lab. Morris' talk was *The Transformation of IBM to a Technical Services Company.* To say the least it was an intense two days on the banks of the Mohawk River.

Why, you might ask, were we BPM types at a *services* symposium? The following call-out from an IBM publication says it all in one sound byte: "Service science melds technology with an understanding of business processes."

While much activity in BPM centers on supply chains, logistics, and other physical means of optimizing value delivery systems, that's not where the innovation action is in a service economy.

Yet, we have done little to take on services as the object of BPM initiatives as we don't really know much about what it takes to bring innovation to service processes.

As Smith and I wrote in *Business Process Management: The Third Wave*, "A business process is the complete and dynamically coordinated set of *collaborative* and transactional activities that deliver value to customers." Well it's the *collaborative* part that is the challenge when it comes to services. Just consider the very nature of service processes:

- *Intangibility:* May be some combination of both intangible and tangible results or processes.
- *Heterogeneity:* Outcomes vary from one knowledge worker to another. Skills-based routing is vital.
- *Simultaneity:* Production and consumption occur at the same time. Complex Adaptive Systems: self-production, self-organization. Perceived control. Decision-making processes of the customer.
- *Perishability:* May be consumed immediately. Can't be stored. Once the event or time has passed, the opportunity is gone forever.
- *Customization*: Services are almost always customized. Each transaction equates to a new "product."
- *Labor Intensive:* Products are capital intensive; services are labor intensive. People doing things for other people.
- *Resource Pull:* Appropriate service resources must be *pulled* on demand.

In physical supply chains customer demand is rarely perfectly stable, so companies do their best to make-to-forecast. Unfortunately, forecasts are rarely accurate and thus companies compensate by having a "safety stock." Going from the ultimate customer down to suppliers and suppliers' suppliers, each supply chain participant sees greater variation in forecast demand and thus has greater need for safety stock. In other words, forecast variations are *amplified* as one moves downstream in the supply chain – the situation is commonly referred to as the *bullwhip effect.*

While modern ICT technology can allow companies in a supply chain to move to a make-to-demand, versus make-to-forecast model, how can the bullwhip effect be tamed when it comes to meeting the demand for immediate, perishable services? The *bullwhip effect* is even more accentuated in services industries where processes are less likely to be defined and a single service may require many unique processes. What's the equivalent of safety stock in a services chain? Because safety stocks of knowledge workers cannot be stockpiled that's where the emerging field of service science comes in to help answer questions of: "What types of technologies can come to bear on service processes?"
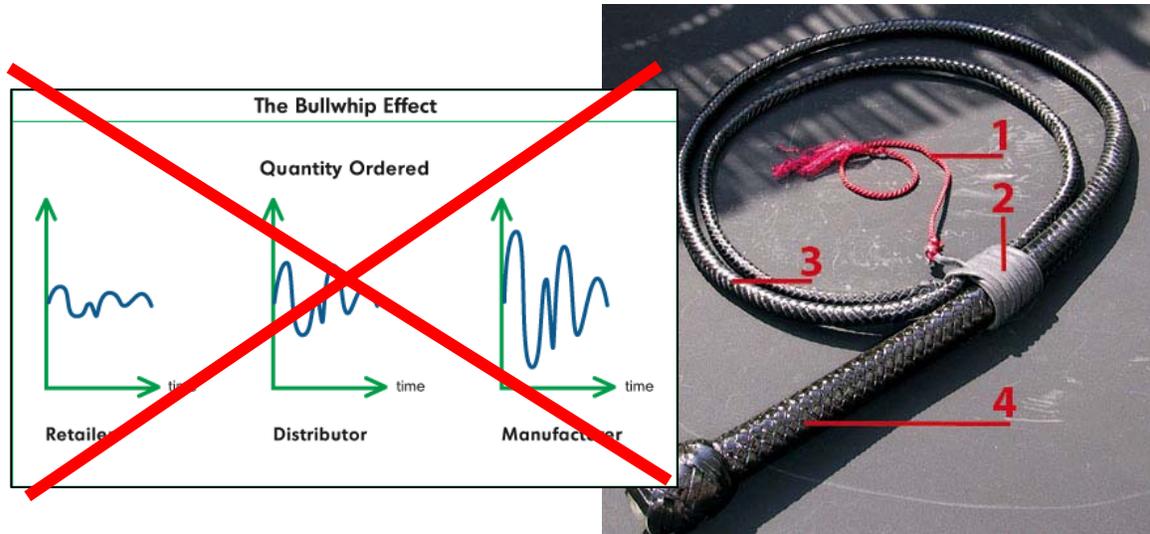
Let's take a look at what's involved in the service value chain.
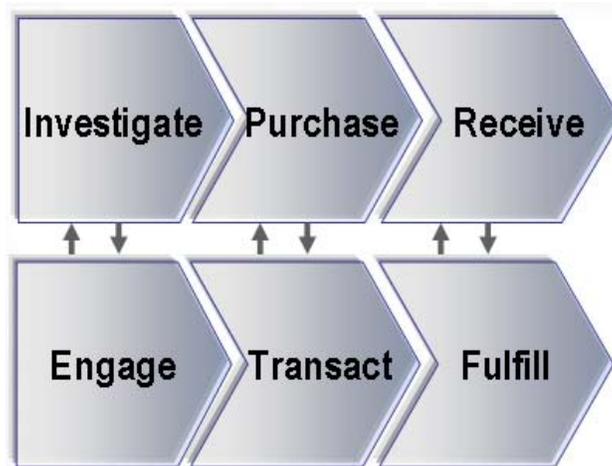
The Service Value Chain

A service process is a series of unique states involving the *co-production* of the provider and the consumer. Each "transaction" is a new product in itself, and the customer is a co-producer of the value rendered.

Too often, when we think of a service process, we think of what the provider must do, but such thinking results in frustration for the customer – who will defect in an instant. When we think of

service processes, think of the customer as a co-producer of value. Think of migrating from transaction chains to information chains, and then on to knowledge chains (or peer-to-peer knowledge webs to be more precise). And, moreover, think about the Cloud and Cloud computing technologies.

The automation of business processes is a key enabler of the Cloud phenomena – without process, the Cloud remains a passive environment that undoubtedly saves you money and removes some of the operational headaches, but does little else. The Cloud without process cannot deliver on the promise of services innovation.

All of the thoughts and ideas around assembling Cloud-centered applications quickly to support business services simply won't happen without process technology. As Jon Pyke writes in the forthcoming book, *Enterprise Cloud Computing*, "Process on Demand means having the capability to call up Services when needed to change or augment a process that is *already being executed.* This capability is an intrinsic part of the Service-Oriented Enterprise. The Services we are talking about are not the usual, fine-grained ones normally associated with the IT world. These Services are far more sophisticated than simple "get data/put data" activities. What we have are Services that contain

- User Interface
- Business Rules
- Key Performance Indicators
- Metadata

"In short, we have everything that makes a self-contained application all wrapped up as a Service that can be incorporated into an end-to-end service process."

By taking service process management into the Cloud, services from multiple knowledge sources can be delivered with maximum flexibility and adaptability to meet the requirement that "most services must be customized." On-demand service processes aren't sequenced as in many traditional workflow systems. In contrast, they are asynchronous and peer-to-peer, with the high-level process providing the choreography.

Let's turn our attention to the very core issues of providing services. When it comes to service forms of business processes, they reside in the domain of human-to-human interactions. Remember what was cited earlier, "People doing things for other people."

That is to say, services processes cannot be predefined or "flowcharted" in advance. In short, such collaborative human processes are "organic." They represent "emergent processes" that change not only their state, but also their structure as they are born, and then grow and evolve.

Such processes deal with case management, and each service renders a unique instance. These are not the kind of processes you call in IT to analyze, model, and code – and get back to you in 18 months with a solution. Human interaction management systems are peer-to-peer, choreographed processes, the kind needed to provide services that delight.
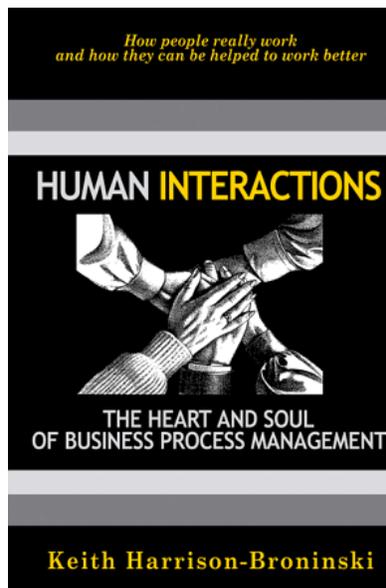
www.mkpress.com/hi
Processes don't do work, people do.
-- John Seely Brown, Former Chief Scientist, Xerox

There's even more when it comes to services processes, something called Social Computing. Instead of hiring or outsourcing armies of call-center employees to meet peak demand, how about employing your customers as experts?

That's exactly what Intuit has learned to do. Think "prosumer" and the co-production. of value (prosumer = producer+consumer). The roles of producers and consumers begin to blur and merge.

In a July 2009 *BusinessWeek* article, Innovation Editor, Reena Jena explained, "It's hard to get tangible results from social media. Giants from Coca-Cola to Wal-Mart Stores have set up Web sites where customers can share their interest in the brand. But many of these sites don't attract enough visitors to form a real community or have been slammed by critics, as was the case at schoolyourway.walmart.com. The retailer killed it in 2006 after just three months.

"Unlike many other companies, however, Intuit seems to have figured out a way to benefit from social media. Its insight: Rather than inviting the whole world, the accounting software maker funnels only diehard users of QuickBooks to a site where they can exchange truly helpful information. For customers, that means quicker answers to problems. For the company, this volunteer army means less need for paid technicians. 'What Intuit is doing is cutting-edge,' says Mikolaj J. Piskorski, a strategy professor at Harvard Business School.

"Intuit's QuickBooks Live Community is accessible automatically to anyone who opens Quick-Books 2009 on a PC or Mac. The site is similar to macrumors.com or macfixit.com – independent forums where Apple fans can trade tips – except that it's owned and monitored by the company.

"Intuit chose this 'narrowcast' approach after Chief Executive Brad Smith heard what was going on at the Web site of Intuit's popular TurboTax product. Customers were not only asking technical questions, they were often outshining Intuit's own tech support staff by answering 40% of the queries themselves."

In response to Jena's article, one reader, Paul, added a valuable insight, "Ingenious in the sense that the only people that can contribute are those that really have had actual exposure to and used the product first hand. By inviting the public to a truly open forum where the advice may or may not apply, a company can hurt its reputation or that of its product if a customer continuously subjects themselves to incorrect or inconsistent tips and advice." Mob-rule constructionism in social media must be carefully managed, especially considering that sock puppets of your competitors will be ready to pounce.

Carefully designed and managed, the Social Web can be more than a place where two-way dialogs happen. Moreover, it can also be the place where work gets done and your cloudsourced

customers become your customer service representatives – your call-center in the Cloud with world-sourced experts and little or no cost.

In conclusion, it's not your father's BPM when it comes to service processes. Are you ready for the leap from BPM as we know it – to SPM?

I don't come from a position of *knowing*, but from a position of *learning* when it comes to this important shift in what I call service process management. I hope you will join me in this intriguing journey.

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PS… I know I mentioned an IBM reading assignment earlier in this column, but here is another: *Hidden Wealth*: the contribution of science to service sector innovation from The Royal Society in the UK. The report discusses the role of science, technology, engineering, and mathematics (STEM) for innovation in services.
http://royalsociety.org/page.asp?id=8691
Sorry, I don't want to overload you, but it's really informative.