

The Third Wave

May 2004



Howard Smith
Chief Technology Officer
(Europe) of
Computer Sciences
Corporation (CSC)

Peter Fingar
Executive Partner
The Greystone Group

co-authors
*Business Process
Management: The Third Wave
and
IT Doesn't Matter --
Business Processes Do.*

authors@bpm3.com

www.bptrends.com

Neatly side stepping the unfashionable term *reengineering*, replacing the overloaded word *process* with the prosaic term *work*, and with a push from *Harvard Business Review*, “operational innovation” is destined for stardom. In the April 2004 *HBR*, reengineering guru, Michael Hammer, defines “operational innovation”¹ as the *invention and deployment of new ways of doing work*, citing Progressive Insurance, an automobile insurer based in Maryland Village, Ohio which grew from \$1.3b sales in 1991 to \$9.5b in 2002. Sound similar to stories in his 1990 *HBR* article, “Reengineering Work: Don’t Automate, Obliterate?” Once again, however, the current “Deep Change” stories are just that, stories, for they lack one crucial ingredient—a path to execution.

If a proposed change in work design results in a 10 or 20 percent improvement, it is an incremental change—not reengineering, not operational innovation. Hammer explains that, “Operational innovation should not be confused with operational improvement or operational excellence. Those terms refer to achieving high performance via existing modes of operation: ensuring that work is done as it ought to be to reduce errors, costs and delays but without fundamentally changing how that work gets accomplished. Operational innovation means coming up with entirely new ways of filling orders, developing products, providing customer service, or doing any other activity that an enterprise performs.” Okay so far, but where is the path to execution for these great ideas?

As during the past era of reengineering, Hammer’s stories of *operational innovation* do not address the associated *systems innovation* required. We find this to be a major oversight, because virtually every work process in any major firm today is already heavily dependent on automation of one kind or another.

Companies are not so free, as Michael suggests they are, to re-invent and re-deploy new work designs, because business practices and work processes are locked to rigid, inflexible packaged software solutions. For example, the CIO of a global manufacturer told us his firm was “stultified under the weight of numerous legacy systems.”

Hammer claims that “operational innovation is a step change: It moves a company to an entirely new level. Once there, the organization can focus its effects on a new generation of additional changes—refinements of the innovation—that will keep it ahead of the pack until the inevitable time comes for a new wave of innovation.” But how can a firm re-invent work and simultaneously re-invent the systems that work depends upon for efficiency? The process improvement director of a bank told us, “I am not proud of the fact that numerous business-led improvement projects are held up because of the complexity of associated IT systems consolidation and development projects.” Indeed, Hammer himself recognizes that, “many companies implementing ERP or CRM systems merely use them to enhance existing processes. Real innovations in order fulfillment or supply chain management are also likely to involve these technologies, but they may be dismissed because, people think, ‘We’re already doing ERP.’” Yet Hammer underestimates just how badly ERP architectures limit *systems innovation*, thereby limiting operational innovation. Ovum has written that “IT implementation projects [associated with reengineering] would be set up to wrestle with deploying paper-based designs within system development projects. The



The Third Wave

by
Howard Smith
and
Peter Fingar

May 2004

implementation project then took months, if not years, to embed the new processes in static application code leaving organizations with a changed, but not changeable, business process fossilised in the underlying IT system.”²

Hammer tells a story about the value of drawing diagrams of processes. He gives the example of a major semiconductor maker: “A group of middle managers who were frustrated with the complexity and poor performance of their order management process decided to make a case for change to executive management. They created a two-page diagram illustrating the endless series of steps every order went through, the redundant moves of the product between factories and depots, the accumulations of inventory, and the enormous delays. When members of the company’s executive committee saw it, they were incredulous: “We do *this*?” But what should happen next? All too often the systems development associated with needed operational innovation is a barrier to moving forward. A logistics company had to scale back an innovation in logistics exception handling when its implementation became more difficult than expected, until that is, they discovered Business Process Management (BPM).

In the 1980s, Texas Instruments competed in the semiconductor market on *price*. To *execute* on that strategy, it shipped electronic and other components around the globe to locations that offered low-cost manufacturing. Shipping lightweight components was not so expensive when factored into the total cost of production. Initially, the strategy and its execution all went fine. But the market changed. *Time* became as important as cost, because competition and innovation drove consumers to demand ever more sophisticated and ever more varied products on a cycle that could be measured in weeks, not months. As a result, TI had to reengineer its business processes from a lowest-cost model, to a fastest-time-to-market model, and they had to do this without increasing the total cost of production. TI initiated a business process reengineering project.

It took eight months for TI to design the new processes required to compete on *time*. The resulting process maps and diagrams, mainly documented on large sheets of paper, occupied eighty feet of one corridor where the “reengineers” were working. Some at TI must have felt pleased after all this reengineering heavy lifting. But others began to realize that they were standing on the edge of an abyss. The ideas of the reengineers had created a chasm between thought and action, between process design and process deployment. TI began to realize that their problem had never been the capacity to dream up new processes. Instead, the real problem was how to make change happen, and how to do so incrementally and on a continuous basis. They needed to make the newly designed processes operational, and to do so step-by-step, process-by-process. Instead of radical reengineering and grand designs, what they needed was an actionable and sustainable approach to operational innovation.

In the 1980s, TI’s reengineering methods were state of the art, but they, like the many stories reengineering gurus so often tell, offered no *path to execution*. Today, TI would certainly take a different path knowing that the results of reengineering must have a direct path to execution if the effort is to be worth the reengineering investment. That path is called a Business Process Management System (BPMS).



The Third Wave

by
Howard Smith
and
Peter Fingar

May 2004

As a business approach, BPM feels like an amalgam of existing concepts drawing on ideas from reengineering, the quality movement, six sigma and lean thinking. BPM's focus is on the design of end-to-end work, underpinned by key performance indicators and made visible through scorecards and management dashboards. But BPM's true power is evident when process change can be directly and immediately reflected in IT systems, slashing both the time and resource cost of business process design to deployment. The value of a BPMS rests in its ability to integrate process reengineering (*operational innovation*) with IT systems development (*systems innovation*), in one solution, obliterating, not bridging, the business-IT divide.

Following recent demonstrations at Computer Sciences Corporation of an enterprise IT architecture that includes a BPMS, industry analysts at Ovum stated that, "The problem with the BPR projects prevalent in the late eighties and early nineties is that they tended to focus on immediate, radical change, but did not have appropriate technologies to support them ... Given the impressive impact on business performance this [BPMS] approach has produced ... Ovum believes that this is a technology that has the potential to reshape the IT services opportunity and will contribute to a market shake-out in the application vendor community."

Is Ovum talking about the broad category of BPM tools referred to by most analysts as an *evolutionary development*, with major roots in CASE, workflow, EAI, rules and packaged applications? Of course not, for such claims about evolved and re-branded technologies would be tenuous. For while many BPM tool vendors use similar language to describe process management, citing continuous process improvement, few define what they mean by the word "process" in the context of their specific "BPM" solution. We have seen the word "process" used to refer to superficial user interface scripting, traditional workflow, application code logic, EAI transformations, business rules and ad hoc diagrams. It matters not one iota if a "BPM" tool vendor has the very best "process" development and deployment tool if its definition of "process" is so meager that the use of the tool is limited. So what if the tool can model, design, deploy, monitor, analyze and improve "processes," if the "processes" the tool supports are local to the tool, represent an incomplete computing approach and are unable to represent and implement the *systems innovation* associated with needed *end-to-end* operational innovations.

Just as companies digitized *data* during the 80s using the RDBMS and later went on to realize the value of that data using ERP systems in the 90s, today, the first users of the BPMS are digitizing *processes*. They are doing so within business-led operational innovation projects. While there is value in evolved and rebranded BPM tools, we describe a totally new category of enterprise infrastructure software that unifies and extends preexisting technologies. Just as the RDBMS platform that emerged two decades ago had a solid foundation for data, the emergence of the "third wave" BPMS platform, with its theoretical and mathematical underpinnings, provides the cornerstone for process—it provides a rock-solid path to execution for operational innovation.

In one BPMS project during 2002, an early-stage BPMS product reduced the systems development costs associated with systems changes in order



The Third Wave

by
Howard Smith
and
Peter Fingar

May 2004

management processes from one year and 3,000 staff days, to six months and 300 staff days. Using Hammer's terms, the *operational innovation* required step-change improvements in cash flow, delivery time, exception handling and customer satisfaction, through the *re-invention* of the order management *work*. Initial attempts were stalled because of the difficulty and high costs, in terms of time and resources, associated with necessary changes in an associated ERP system. The BPMS, on the other hand, digitized and then extended the functionality of the ERP system, allowing innovation to be achieved directly at the business process level, bypassing the need to change the complex data-centric plumbing of the ERP system.

In another project during March of 2004, using a more mature version of the same BPMS, a logistics process change that was estimated to require months of effort by a large team to customize a CRM package was achieved in 2 weeks with 4 staff members. The CRM package was kept in its vanilla form. The end-to-end process across two tiers of customer service support was implemented in the BPMS reusing code from the CRM system.

As BPMS products improve over the coming months and years, they will yield further reductions in process design-to-deployment time and effort. In addition, as BPMS platforms demonstrate their propensity to support ongoing change, companies will build BPM into their enterprise architectures so that operational innovation becomes the rule, rather than a one-off, episodic event. Unlike the reengineers' notions of episodic innovation, sustainable competitive advantage requires maintaining the *pace of innovation*, with each innovation followed by its own continuous process improvement. This desired state cannot be achieved by story telling, for as compelling as the stories of Progressive Insurance and other exemplars might be, companies need powerful process management tools, not stories, as the bedrock for business change and innovation.

The BPMS performs "Deep Change" surgery on IT *systems* just as Hammer urges "Deep Change" surgery on *work*. To do this, the BPMS embodies a process language and *process processing* tools that are open, complete and formal, yielding directly executable processes that reuse both the depth and breadth of existing IT assets. As Ovum points out, "In terms of business transformation projects, the wrong tools continue to be used—the hard coding of processes into [packaged] software is simply not appropriate." Welcome to the era of process digitization where operational innovation has a direct path to execution through the BPMS. Welcome to the "third wave" of Business Process Management.

¹ M. Hammer, "Deep Change: How Operational Innovation Can Transform Your Company," *Harvard Business Review*, April 2004, http://www.hammerandco.com/dynamic/articles-files/R0404E_Hammer_universal.pdf

² "Computer Sciences Corporation—Lighting a slow fuse in the business transformation services market," Ovum, *BPM and the Transformational Application Services Market*, March 2004

