



Practical Implementation of BPM and SOA: A Process Centric Approach

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I. Competitive Advantage

Great Execution is the only Long Term Competitive Advantage Left

Competitive advantage is critical for the success of any business strategy. What a company does, how they do it, what differentiates them from their competition, and why their customers should do business with them – these are all questions that should drive critical business decisions for any company. Unfortunately, these same questions have historically been very difficult for many companies to answer. Perhaps it is this difficulty that led companies to begin the adoption of technology in the early 1980's. Information technology systems enabled users to do things they never could before. This meant that companies could suddenly provide new and unique services to customers. Additionally, those same IT systems enabled companies to handle more volume, do more work with fewer resources, and more accurately manage their informational assets. As such, the adoption and utilization of IT systems became a *de facto* competitive advantage.

Technology is No Longer a Competitive Advantage

In the current marketplace, one would be hard pressed to find a company that does not utilize computers and IT systems. The constant advances in computer hardware and the proliferation of internet technologies have enabled even the smallest of businesses to garner the benefits of technology for which companies paid millions of dollars in the 1980s. The now classic Harvard Business Review article "*I.T. Doesn't Matter*"ⁱ by Nicholas Carr succinctly presented this argument in 2003. Time has proven that Carr was absolutely correct in his assertions – technology is no longer a competitive advantage. As a matter of fact, one could argue that as the pace of change quickens, legacy technologies are, at best, a hindrance and, at worst, have the potential to be detrimental to the overall success of a corporation.

People born after 1975 have almost no understanding of what business was like before computers.

Why is this the case? Why has having technology lost its benefit? To a great extent, it is because individuals now have access to better technology than most companies. The expectations of customers, clients, and users have outpaced most organization's abilities to evolve and adapt to change. People born after 1975 have almost no understanding of what business was like before computers. This means that their expectations are founded on their experiences growing up with gaming consoles, computers in their living rooms and classrooms, hand held video games, and cellular phones that have more computing power than the original IBM personal computers. As the proliferation of computers has continued, the expectations of individuals have shifted accordingly. It is now practically a given that all businesses utilize computers and information technology systems. Customers now expect that they can interact with their corporate vendors and partners via electronic means such as email, the internet, EDI, EFT, etc.

Companies are Faced with a Dilemma

Customers are increasingly technology savvy and are demanding quicker access to better services at lower prices. We see this all the time now. FedEx is a classic example, as is Dell Computer. Both companies provide near-real time access to industry leading products and services at competitive prices. Companies are being forced back into answering the hard questions asked above: what does the company do, how does the company do it, what differentiates the company from its competition, and why should customers do business with the company? Because technology is no longer the competitive advantage, companies now have to justify their existence based upon their ability to provide value to their customers.

Process is the Answer

So what is it that differentiates companies like FedEx and Dell Computers? Why are these companies successful at delivering value despite the lack of advantage derived from IT systems? The answer is **process**. *Successful companies have successful processes and those processes are enabled and controlled by IT systems.* The companies that business schools utilize as case studies are those that have superior processes and superior process controls. Financial analysts study and evaluate a company based upon how successful it is at performing its critical business processes. Process control and execution is the singular reason that Toyota can make a superior automobile for less money. An organization's ability to successfully execute its business processes has quietly become a benchmark metric in many industries. Manufacturing has ISO and Six Sigma certifications. Logistics has the P.Log certification. Even computer software development now has CMMI as a certification of an organization's ability to follow a process detailing how they generate software.

Superior process control and execution is now absolutely critical to the success and longevity of any company.

Understanding exactly what the company does and how it does those things demands knowing what the critical business processes are and how those processes are executed. Customers want instant access to their information and the status of their products and/or services. Customers also know that companies are using computer systems so not having instant access to information and status is no longer acceptable; in fact, it has become acceptable justification for seeking a new vendor.

Process and Metrics Show the way

Superior processes with appropriate execution control give companies the once fabled metrics reporting they need to make critical business decisions. Adaptation to change requires both flexibility and knowledge. It is dangerous to change without appropriate business intelligence... and process performance metrics **are** critical business intelligence.

II. Gaining the Competitive Advantage with Process and Technology

If the value and strength of a company lies within its business processes, and technology can now be used effectively to execute those processes, many organizations ask the question - how is a 'Process Centric' approach really different from a 'Technology Centric' approach? Technology exists today that allows companies to develop rules, roles, and workflows based on what their current requirements are instead of what they thought they needed yesterday when they were focused on programming logic. The benefit of an infrastructure that puts the focus on process instead of technology is that it allows for more execution control, better organizational knowledge capture, and efficient use of existing resources in the time of change. Besides the obvious corporate value, this ultimately aligns business and IT strategy.

III. Aligning Business and IT Strategy

According to CIO Insight, 60% of top IT executives believe that "improving alignment with business objectives is their top priority in 2008."ⁱⁱⁱ These results prove that technology has finally caught up with "Business Process Management," helping companies take advantage of the only long term competitive advantage left - Great Execution.

Although applying a process centric approach at different levels can be effective, in order to make the biggest impact for the organization, a broader approach is required. Strategy and execution must be established in a cooperative fashion between business and IT perspective. This requires establishing goals for process management and technology support requirements.

Initially, the business needs to establish a plan for recognizing and implementing a process management infrastructure. This plan should establish what critical process areas should be addressed, what reporting requirements are important, and what business goals and priorities exist. This is also the time to establish any quality program standards and determine how they should be fulfilled.

From a technology perspective, this is done by establishing an end-state technical architecture that supports process management and integration requirements. These include adding architectural components such as Business Process Management technology, Enterprise Service Bus, and Web Services. An end-state architecture should be created and an architectural migration plan established. The migration plan mitigates risk by naturally evolving the architecture over time to mirror the goals and requirements of business.

IV. *Process Centric* Approach

A *Process Centric* approach is broken up into three stages, including Discovery, Implementation, and Maintenance. These stages are integral to the successful execution of the overall project, and to overlook or not adequately perform these functions could prove disastrous in terms of project success.

A. Discovery

According to Gartner Research Inc., “more than 40% of the entire project effort takes place in the discovery phase.”ⁱⁱⁱ Consequently, the discovery phase is the most important step toward successful project completion. Many Business Process Management projects fail because organizations do not adequately understand their own requirements, nor are they thorough in their discovery. They are limited by the short-sighted nature of pre-existing software packages, or they are focused on the wrong goals and requirements. A *Process Centric* approach requires a mix of Process Analysis, Enterprise Architecture Planning, and Training programs to ensure that the correct solution is identified, and the desired results are attainable.

Macro Process Analysis (MPA)

A Macro Process Analysis identifies and assesses the processes (or a sub section of them) within a particular domain area of the organization. An MPA results in a Macro Process Assessment document which details each process, provides high level metrics for each process, demonstrates the interrelationships between the processes, and makes recommendations for process optimization and automation. Ideally, an MPA will generate a detailed requirements document for the next phase of the project.

Enterprise Architecture Analysis

An Enterprise Architecture (EA) provides a complete model of the enterprise. It shows how to combine the four needed perspectives – strategy, business, systems, and technology – into a cohesive EA plan that adapts to your needs over time. The resulting plan includes infrastructure and applications projects, as well as with standards, guidelines, and other activities that are needed to reach the desired state for the organization.

A major aspect of this stage is the RM-ODP (Reference Model of Open Distributed Processing). These models represent the goals, processes, rules and relationships that define how the organization operates or is going to operate.

Finally, an Architectural Transition Plan (ATP) is required in order to determine how the desired changes are going to occur and when.

B. Implementation

Consistent implementation is a major factor in successful Business Process Management implementation. The only way to be consistent is to establish a methodology that is geared specifically for a *Process Centric* project approach. Analyzing the process, implementing the

required tools, and establishing the right solution are all important for the overall success in the process. However, one thing to keep in mind is that they are distinct steps, and each need to be addressed individually.

Process Analysis (PA)

A Process Analysis is a short term project during which a team performs a detailed process discovery and analysis on a particular process within the organization. The team will need numerous participant interviews, engineering analysis sessions, and process model reviews to completely identify the scope of the existing process. The deliverable from a PA is a Process Specification document which includes detailed information regarding the six standard components of the identified process: Participants, Data, Business Rules, Systems, Organizations, and Process Flow. The Process Specification will document an optimized and automated future-state process derived from a detailed analysis of the client's existing process. Additionally, simulation data can be provided based upon the execution of a model of the future-state process within a simulation engine environment. This simulation data will provide baseline process performance metrics, as well as process costs.

Implement Business Process Management, Service Oriented Architecture, Enterprise Service Bus

Tool implementation is the next step in the process. Along with the BPMS product being used, it is important to implement the other pieces of the business architecture in order to get the most out of those resources. This includes identifying and utilizing needed or existing web services, as well as potentially deploying an Enterprise Service Bus.

Solution Implementation

An effective methodology specifically used for BPMS implementations should include five major phases (*planning, analysis, prototyping, quality assurance, deployment*) and specifically leverage the Macro Process Analysis and the Process Analysis previously performed. A strong methodology uses three major development cycles with multiple interwoven iterations to develop and stabilize a process. This is a unique approach taken because of the nature of BPMS tool sets. The actual Initial Operational Capability (IOC) happens between the end of the 2nd prototyping cycle and the end of the 3rd phase. Final Operational Capability happens after the 3rd cycle of development. The goal is a 90-120 day roll out period to IOC.

C. Continuous Improvement

Just as with discovery, another overlooked aspect of the project is the creation of a clear path to long term optimization efforts and organizational change. This is required to maintain desired results. Organizations adopting a *Process Centric* approach are able to align their IT and business operations departments and ultimately become their own best BPM consultant. This approach creates an environment and infrastructure necessary for organizations to continuously align their assets, streamline their processes, and improve their execution.

Change is a constant pressure on business. The more process mature an organization, the easier is to gauge and react. Organizations need to integrate management of the process within their infrastructure, thereby making process sponsorship, ownership, and change support to be a collaborative effort between executive level, business owners, and IT. Some organizations organize a Process Center of Excellence to provide that function. A Center of Excellence (COE) governs process practices, provides a change control infrastructure, and establishes a change implementation infrastructure. It is made up of executive sponsors, BPM savvy analysts, and software developers who work with process owners to improve process.

Implement Changes and New Requirements

Although most BPMS packages are marketed to the business community with the ability to change a process on the fly, a ‘*Process Centric*’ approach would caution against making unauthorized or unplanned changes just because an individual need arises. This is why the establishment of the “Center of Excellence” or a Change and Control Policy is so important. Just as great business execution calls for a process, great system maintenance does as well.

Gather Metrics & Analyze

Standard process metrics are required in order to realize constant improvement. BPMS stores all process data in a central database repository. This single point of storage ensures that all metrics are stored and accessed the same way, and that no metrics can be manipulated without the proper authorization. Using this information to generate a wide variety of reports on process metrics gives a ‘*Process Centric*’ organization the information it needs to make adjustments to their Process and IT environment and make the changes necessary for real improvement. It is even possible to simulate process changes and obtain metrics based on historical metric data and business change assumptions (“what if” scenarios). This ensures a certain amount of confidence that the process changes will, in fact, be significant and deliver the intended results.

Hold Improvement Sessions

Finally, the last step in this process is to hold improvement sessions that take advantage of the tools, information, and strategies developed throughout the course of this evolution toward a ‘Process Centric’ solution. The trouble that exists with most out of the box or custom built solutions is that, once they are implemented, they are usually obsolete. If superior processes with appropriate execution control give companies the fabled metrics reporting they need to make the critical business decisions in order to maintain sustainable execution, then these improvement sessions are the path to ensure that the system changes with the business environment.

V. How to Get Started

According to Gartner Research Inc., **“Organizations that had the most-successful BPM initiatives spent more than 40 percent of the initial project time on process discovery. Establish core team responsibilities, select the right tools and use an iterative method to create a process model that supports ever-changing business conditions.”**^{iv} These findings fall exactly in line with a *Process Centric* approach.

Too often, organizations see a certain benefit in process or one of the specific tools and decide that is what they need and then strike out without a plan or a methodology for success. This often leads to unwieldy projects that are deemed failures, and the value of process is diminished.

Thankfully, a good *Process Centric* strategy allows an organization to address the project slowly and deliberately without moving too fast too soon. The key is to get started with a project that is geared for success. Almost any part of an organization has some process that its personnel understand and know is failing. Highlighting and addressing this type of project is the best way to introduce the *Process Centric* approach and set it up for mainstream acceptance. The fact of the matter is that everyone is already using process; they simply don't call it that. Because they don't recognize or respect the process, they have not yet implemented the right tools for the job.

As an organization, the right first step is to find an obvious process, apply a *Process Centric* approach, examine the results, and determine the correct criteria for Return on Investment. If no obvious process exists, then perhaps start with a known business problem and work forward. A successful pilot project that is more than a proof of concept can be extremely effective in illustrating the benefit of this approach to the executive management and change agents within any organization.

It is easy to look at each of the individual traits that Gartner Research has found in the most successful BPM implementations and focus on the one in which an organization is particularly strong. Yet, when this is done, the big picture is lost. When implementing better processes in order to establish a long term competitive advantage, sometimes the most important process is the one that starts it all - The *Process Centric* approach.

ⁱ Carr, Nicholas. “IT doesn't matter.” *Harvard Business Review* May 2003

ⁱⁱ “CIO Top Management Issues for 2008” *CIO Insight website* (www.cioinsight.com) December 2007

ⁱⁱⁱ Melenovsky, Michael James. “Business Process Management's Success Hinges on Business-Led Initiatives” *Gartner Note # G00129411* 26 July 2005

^{iv} *ibid*