Making the case for BPM

A benefits checklist

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Executive summary

For several years running, Business Process Management (BPM) has become a top priority for companies. CIOs and IT executives continue to place business process improvement as the top business priority for their IT organizations.[1,2,3] Of course, there are many options for improving business processes—ranging from complete process reengineering to adopting new process management methodologies, like Lean Six Sigma, or adding new capabilities to existing systems. At IBM, we believe that an investment in BPM software, while leveraging proven methodologies and best practices, is the best investment companies can make in delivering sustainable business process improvement.

This paper is intended for groups who want to make the business case for investing in BPM to drive process improvement. It provides an overview of the areas of benefit that companies can expect from BPM as well as concrete examples of value. It also compares the use of BPM to alternative approaches for driving process improvement. Finally, this paper provides a basic introduction to the costs associated with a BPM initiative.

The strategic value of BPM

Better processes produce lower costs, higher revenues, motivated employees, and happier customers. The most dramatic examples of economic value driven by process improvement come from the companies that have led the adoption of the Six Sigma (and Lean Six Sigma) methodology—most notably General Electric (GE). Mikel Harry, one of the founders of the Six Sigma methodology, has documented the economic impact of focusing on process improvement. Using the base measure of his methodology—Sigma, Dr. Harry provides a tangible example of how companies like GE have benefited from a commitment to process improvement:

With just a one-sigma shift, companies will experience a 20 percent margin improvement, a 12 to 18 percent increase in capacity, a 12 percent reduction in the number of employees, as well as a 10 to 30 percent capital reduction.[4]

When you consider that GE achieved multiple Sigma shifts on their core markets, it is clear why they have become a top competitor in any market where they compete. Their costs are lower and their quality is better.

Of course, GE also made Business Process Management a core part of their corporate culture—from the CEO down. Most groups making the case for BPM cannot assume such commitment—at least not to begin with. Not a problem. Even a basic investment in a BPM can yield significant returns. Without any process redesign, Connecticut-based research firm Gartner indicates that companies can still expect to receive significant operational improvements for any given process. Gartner claims that by simply "making the current-state handoffs, timing and responsibilities explicit, productivity improvements of more than 12 percent are normally realized."[5] For many processes that is just the start of the efficiency gains. Later in this paper, we will compare a BPMS investment to other alternatives for driving process improvement. However, we can already see that even a basic BPMS investment can drive significant value. In fact, the typical BPMS projects are driving more value—a lot more. Even a few years ago, Gartner reported that 78 percent of BPM projects saw an internal rate of return (IRR) of greater than 15 percent.[6] Moreover, these projects typically deploy quickly (67 percent in less than six months, 50 percent in less than four months). So companies have already been able to realize significant value with rapid returns by driving process improvement with BPM.

A value case study: Logistics

The concept of continuous improvement is at the heart of the BPM value proposition. In fact, the ability to continuously improve processes and gain incremental ROI on a consistent basis is what sets a BPMS apart from other means of driving process improvement. So, when making the case for BPM, it is critical to consider not only the first iterations of processes and what value they might bring—it is essential to consider the incremental value that will be added over time.

A large computer manufacturer identified a process improvement opportunity in their logistics operations. Products that could not be delivered (referred to as "distressed shipments") were costing the organization millions of dollars per quarter in lost revenue. Process analysis confirmed that:

- Improvements were needed in many areas, and because internal departments and external partners were involved, a complete view of the order as it progressed through the process was difficult to obtain.
- The window of opportunity to save a shipment was a short 48 hours and work priorities, task completion and escalation were crucial to successful resolution.
- Data about the order was often too little and too late. The organization needed real-time notifications in order to save the shipments.

The initial process deployment monitored and notified the customer service team the instant an order was marked "distressed." Resolution deadlines were automatically assigned and tasks routed so that shipping problems could be addressed immediately. The process also enforced standard procedures so that call-center agents were guided to the best options for the customer.

The results of proactive management of the current process yielded outstanding results. With each new version of the process, they moved their key metric of Percentage Saved—from 5 percent to nearly 70 percent. That represents a savings of over 2 million U.S. dollars each quarter. With continued global growth, that number continues to increase.[7] But this company is not finished. They are using analytical and simulation capabilities available from IBM® WebSphere® Lombardi Edition to identify the next round of improvements.

For several years, the company has been using innovative, visual process analytics and optimization capabilities available from IBM WebSphere Lombardi Edition. In addition to simulating the behavior of business processes, the company has been able to pinpoint process bottlenecks, recommend workarounds, and even guide their analysts step by step to make process changes. For example, the logistics team has identified new steps to proactively notify customers of pending deliveries and enable the customer service agents to confirm

deliver details before delivery is attempted. Based on pilot results of this newest process version, the team estimates that there is a potential to raise the Percentage Saved to above 90 percent.

Identifying your potential benefits

The basic operational value proposition of BPM is the ability to process more with less effort and higher quality. So BPM has become a cornerstone discipline for companies that must grow revenues quickly while containing their growth in head count. These companies have made the case for BPM based on three core benefits—efficiency, effectiveness and agility. Depending on the process, these different benefits will be realized in different proportions and in different cycles.

Efficiency

It is typical for a company to first see efficiency benefits when deploying BPM. Most processes have significant waste because of manual effort, poor handoffs between departments and a general inability to monitor overall progress. The initial deployment of a BPM solution eliminates these problems—and the benefit is typically expressed in full-time equivalent time saved. For example, a healthcare customer realized a vings of 21,000 hours (10 FTEs) for their employee onboarding process in the first year using IBM WebSphere Lombardi Edition.

Effectiveness

Once a company has realized the basic efficiencies that a more controlled process brings, they will often focus on making the process more effective. These are where some of the largest gains are realized. The returns here are typically expressed in the context of handling exceptions better or making better decisions. One telecommunication service provider found that by better controlling their billing disputes process they were able to reduce the amount they were paying out each quarter by 3 million U.S. dollars (approximately 10 percent). Their BPM deployment helped them identify duplicate issues, research disputes more completely and enforce more consistent payout policies. For processes that are regulated, this level of control and consistency provides an added benefit—the avoidance of fines because of incorrect, inconsistent or lack of timely execution of the process. In some cases, this benefit can be monetized (for example, reduction in fines), but often this compliance benefit is viewed as critical even if a financial benefit cannot be directly associated with it.

Agility

The final key benefit BPM provides is agility. In the era of the Service-oriented Architecture (SOA) and On-Demand market messages, agility is a well-understood concept. In the world of process management, the ability to change quickly is essential. Our customers change their key processes four to seven times per year. The driver for change can be internal or external. New opportunities can arise. New partners or customers need you to support a different way of doing business. Federal or international regulations can require you to change your processes. BPM provides the platform you need to be able ion than any other option. Agility benefits typically include supporting federal regulations faster—eliminating chances of fines or delays in approval. Another example includes the ability to change a process to accommodate unforeseen events. An insurance agency can quickly adjust their claims approval threshold upward when a natural disaster happens in a specific part of the country. It can be difficult to calculate hard returns from agility, though most organizations recognize that the ability to quickly adapt processes is a critical competitive capability.

Below is a checklist that you can review for each of your candidate processes or to get a general sense of the types of benefits you can expect from BPM.

Benefit	Example
Efficiency	
Eliminate Manual Data Entry	Reduction in time to add a new employee record into the HR system from 9 hours to 10 minutes.
Reduce Process Cycle Time	Reduction in compensation processing timing for 12,000 sales reps from 33 days down to 7.
Reduce Manual Analysis/Routing	Elimination of 80 percent of the manual work previously required to route invoice exceptions to the appropriate resolution teams.
Effectiveness	
Handle Exceptions Faster and Better	Evolve process from saving 5 percent of distressed shipments to saving 70 percent—yielding 2 million U.S. dollars per quarter in saved revenues.
Make Better Decisions	Better review process results in 3 million U.S. dollars saved in billing dispute write-offs that would formerly just been processed because the process was poorly controlled.
Consistent Execution	Customer satisfaction improvement to 92 percent based on proactive tasks that help ensure the home loan process executes better and faster.
Agility	
Faster Regulatory Compliance	Change customs related processes after 11 September 2001 within 90 days to comply with new federal regulations for better shipping visibility.
Support New Business Models	Ability to change shipping partners within 10 minutes in core process allows manufacturer to change primary shipper every quarter—based on best bid provided.

Table 1: BPM Benefits Checklist

Comparing the alternatives

Typically, there are three possible alternatives to using BPM to drive process improvement. These include buying a pack-aged application that addresses the process or functional area; extending an existing software application; or custom develop-ing a solution to address the organizations needs.

Buying an application

There are four problems with buying applications to solve process problems: Time to value, risk of adoption, responding to change, and expanding scope.

- **Time to value:** According to Forrester Research, at one point the industry average for installing new applications was 14.5 months—and 36 percent of the projects were delivered late.[8] When compared against the data for BPM installations, many BPM deployments would have three or four versions of a process deployed in that time—each generating significant business value. Additionally, most applications require organizations to start with their core data model and base functionality. A great amount of time could be spent implementing capabilities that are not directly relevant to your process problem, but are required for the proper execution of the application. There are no such start-up costs for working with BPM.

- **Risk of adoption:** Users often resist having to learn an entirely new application. Worse still, if the capabilities do not match the users' needs, then it will not be used and process efficiency will get worse—not better. In contrast, leading BPM solutions can bring process into the tools that users are familiar with today—like Microsoft® Outlook. This virtually eliminates training and adoption hurdles. Furthermore, BPM allows project teams to focus on the specific capabilities needed by participants in the process—and no more. No time is lost identifying which application capabilities will not be used or need to be customized.

- **Responding to change:** Once the application has been installed, organizations are often faced with difficulties keeping the application synchronized with the changing priorities of the business processes. Applications are not designed to accommodate frequent change—they are focused on standardizing actions and processes. In fact, customizing a standard application often introduces addi-tional problems and costs, as discussed in the next section.

- **Expanding scope:** Process improvement requirements can come from all parts of the organization. While the first problem might be in onboarding new employees, the next could be in managing shipment logistics. Buying specific applications for each of these process problems would not be practical. In contrast, a BPM suite can be used to improve any process.

Extending an existing application

If an existing application is in place, some companies will evaluate extending that application to help drive improvement in key process areas. There are three problems with taking this path: Cost, complexity and immaturity.

- **Cost:** The cost of purchasing additional modules and the development tools required to customize the existing application can often be extensive—more costly than adopting BPM. In addition, extending the applications often requires unique, expensive skills. Often, applications must be extended using proprietary application-specific languages. Contracting consultants with this knowledge can be expensive. In contrast, leading BPM solutions are standards based and many consultants have been trained in the core skills and technologies required for deployment.
- **Complexity:** Extending packaged applications generally makes future upgrades more complex—sometimes significantly more complex. Most application vendors advise clients not to extend or customize their applications. They suggest a "vanilla" implementation in order to make future upgrades possible. In addition, extending a transactional application to support process management capabilities often means that companies will have to custom develop capabilities like workflow and reporting. This exposes development teams to the greatest possible risk: They are constrained by the existing application on things like data model, user interaction, yet they must also custom develop complex new capabilities specific to process management.

- **Immaturity:** While many application providers are adding process to their applications and platforms, their offerings are still immature. The process management capabilities offered by the large application vendors cannot presently drive process improvement to the same degree and speed as mature BPMSs.

Traditional application development

Most companies have the capability to develop applications in house. So, it is not uncommon for these companies to evaluate whether they can use their traditional application development instead of using a BPMS. There are two areas where traditional application development is a poor fit for driving process improvement: Requirements and time to market.

- **Requirements:** In one study, Forrester Research reported that 57 percent of traditional application development projects were poorly scoped and 30 percent had unattainable requirements.[8] These same percentages—or worse—can be expected using traditional application development for process improvement. In contrast, BPM project success rates—over 90 percent—suggest that BPM is a superior technology for getting process improvement requirement right.
- **Time to market:** BPM projects tend to be delivered faster, cheaper and more reliably than most application development projects. How much faster? Based on our research with customers that have existing application development capabilities (for example, Java™-based development), BPM delivers productivity gains in virtually every phase of the project delivery.

Typical BPM Project Phases	% of Project	Productivity Improvement
Functional Requirements and Functional Design	25%	50%
Development	50%	20 - 25%
QA/Testing	25%	30%
Business Rollout	N/A	N/A

Table 2: Productivity Improvements across Project Phases

There are several reasons for this improvement in productivity. First, BPM provides the key functionality necessary to define process improvement requirements and implem entation—modeling, workflow, simulation, and so on. These are all capabilities that development teams will need to custom develop or integrate if they are using traditional application development tools. Second, all of those capabilities are integrated into a cohesive development environment in leading BPM suites like IBM WebSphere Lombardi Edition. This integration simplifies implementation and change management. Finally, leading BPM suites support graphical development of process solutions—instead of requiring complex coding. Not only does this speed developments—it also means that less skilled technical resources are required to deploy BPM.

Common areas of cost

By now, the benefits of BPM should be clear. But what does it cost to implement this type solution? What should companies include on the cost side of the BPM equation? The primary cost areas are software, people, and hardware. The sections below provide an introduction to the key considerations in each area.

Software

A detailed review of pricing models from various BPM vendors is beyond the scope of this document. An organization investigating BPM must ensure that they completely understand what "software" includes. Some vendors license components individually or require additional software to support the BPM deployment. BPM suites that are based on industry standards like the IBM BPM Suite are more likely to be successfully deployed using the existing infrastructure components of organization. Most BPM vendors support the ability to buy BPM at the departmental level and grow that license to the enterprise as requirements grow. This allows companies that wish to grow their BPM footprint more slowly the ability to get started with process improvement at the departmental level.

People

An organization should plan for a project manager, a subject matter expert, one to two business analysts and one to two developers. This core project team aligns the Business and IT organizations to ensure project success. The team is generally made up of customer resources, system integrators that may be contracted by the customer and BPM consultants from IBM. This may seem like a small project team when compared to traditional development technologies. That is the value of the productivity BPM brings for delivering process improvement. For example, a Fortune 1000 customer manages almost 100 percent of their manufacturing and logistics process through IBM WebSphere Lombardi Edition, with a core team of five to six people. This deployment supports over seven core procurement and logistics processes. Compared to their ongoing SAP deployment support staff, the BPM team investment is a fraction of their overall staffing costs.

Companies seeking to drive continuous process improvement must recognize that these teams need to be dedicated to ongoing BPM projects. They do not work and then disperse to other projects. This means that staffing BPM capabilities becomes an ongoing investment and one that will grow as companies add processes. Recognizing this, some companies set up Centers of Excellence (COE) for BPM through which a all process management projects pass.

Hardware

Ongoing hardware costs are comparable to other application deployment needs. BPM allows organizations to start with a modest infrastructure and grow over time and their process portfolio grows. As always, organizations should remember to account for different environment needs, such as development, QA and production environments. Organizational requirements, such as CPU Utilization guidelines must also be accounted for when reviewing the minimum hardware sizing estimate provided by a BPM vendor.

Summary

BPM is the best investment a company can make in establishing a platform for continuous improvement. The challenge for many companies is justifying the BPM investment instead of using traditional paths for solving process problems—like buying an application or building a custom application. When developing a business case for BPM, examples of successful BPM projects can help frame a value proposition or even highlight areas of benefit that may not have been considered. Using the customer stories and benefit checklist outlined in this paper, an organization is armed with the information required to make the case for BPM as the lowest risk, highest return investment a company can make to drive process improvement.

Why BPM from IBM?

Business Process Management (BPM) software and services from IBM help organizations optimize business performance by discovering, documenting, automating and continuously improving business processes to increase efficiency and reduce costs.

For more information

To learn more about IBM BPM and IBM WebSphere Lombardi Edition, please contact your IBM marketing representative or IBM Business Partner, or visit the following Web sites:

IBM WebSphere Lombardi Edition:
ibm.com/software/integration/lombardi-edition/
IBM BPM: **ibm.com**/bpm

1   "The 30 Most Important IT Trends for 2007," CIO Insight, November 17, 2006

2   "CIOs Rank Their Top Priorities for 2008," CIO Insight, December 20, 2007

3   "McKinsey Global Survey Results: IT's Unmet Potential," McKinsey Quarterly, November 2008

4   Six Sigma: The Breakthrough Management Strategy, Mike Harry, Richard Schroeder

5   "Business Process Management's Success Hinges on Business-Led Initiatives," Gartner, 26 July 2005

6   "Justifying BPM Projects," Gartner, 2004

7   "Minimizing Distressed Shipments," IBM WebSphere Lombardi Edition case study

8   Forrester Research, Business Technographics Study June 2003, Survey of Corporate Executives

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