

State of the Business Process Management Market 2008

*An Oracle White Paper
Updated August 2008*

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State of the Business Process Management Market 2008

BPM has helped organizations improve visibility into market risk, double profit margins through operational efficiencies, and triple customer satisfaction rates by automating manual and paper-based processes.

EXECUTIVE SUMMARY

On January 25, 2008, Oracle completed a thorough analysis of the business process management (BPM) market, drawing on more than 100 analyst reports, articles, and customer surveys. To help customers better understand the market, this white paper explores the rise of BPM, its current trajectory, and trends to watch. The early adopters of BPM have much to share. BPM has helped organizations improve visibility into market risk, double profit margins through operational efficiencies, and triple customer satisfaction rates by automating manual and paper-based processes.

Over the last few years, BPM has seen rapid growth because it succeeds where earlier approaches have failed—uniting business strategists and technologists together with a shared set of tools to accomplish common goals. The future promises even more explosive growth as BPM products continue to mature, early success stories are shared, and enterprise-class vendors bring stability and scale to the market.

OVERVIEW OF KEY FINDINGS

To provide context for the ensuing detailed discussion of the BPM market, the key findings of Oracle's market survey are listed below. The remainder of this document expands on these points to further illustrate the strength of this market.

- **Rapid market growth.** The BPM market is one of the fastest growing software markets, estimated to grow tenfold in five years, from approximately US\$500 million in 2006 to US\$6 billion in 2011.
- **Market consolidation and technology convergence.** The BPM market is consolidating from nearly 150 vendors recognized in 2006 to just 25 in 2007. Large enterprise-class vendors are replacing the small pure plays, offering more-holistic solutions that combine BPM with collaboration, portals, document management, service-oriented architecture (SOA), and business intelligence (BI).
- **Ability to quickly bridge gaps.** BPM is increasingly being used to manage processes that span multiple packaged applications: Oracle's customer survey

showed 65 percent of BPM deployments integrate three or more systems and 60 percent of customers deploy their first process in less than six months.

- **Beyond technology.** In numerous surveys, respondents indicate that organizational challenges such as internal politics, change management, a dearth of skilled business analysts, and lack of organizational alignment outweigh the technical challenges of BPM. Organizations with successful BPM deployments not only focus on the technology, but they also see continuous process improvement as an imperative business strategy.
- **BPM, collaboration, and social computing.** New tools allow business users to participate in building, managing, and monitoring applications like never before. Leading BPM products support a range of collaborative and social process activities that today are lost in e-mails, documents, and hallway discussions. In an information economy, organizations must capture these unstructured processes to improve productivity and leverage best practices.

BUSINESS PROCESSES: A GROWING CORPORATE PRIORITY

Today's global climate demands a constant drive to outperform and outinnovate the competition. Leaders of organizations of all types—governments, nonprofits, small businesses, and enterprises—are asking tough questions:

- How can our organization improve customer service levels and enhance productivity without incurring costs?
- How can we manage risk and compliance without losing business advantage?
- How can we empower every employee to innovate—to discover new products, find new markets, or develop more-efficient ways to execute?

This quest is not unique to our time, performance management initiatives such as Total Quality Management and Business Process Reengineering date from the 1950s. Still, improving business processes remains a critical executive priority today. CFOs surveyed by Robert Half Management in November 2007 highlighted process improvement as the most likely corporate initiative to pursue in 2008 and 2009, as shown in Figure 1.

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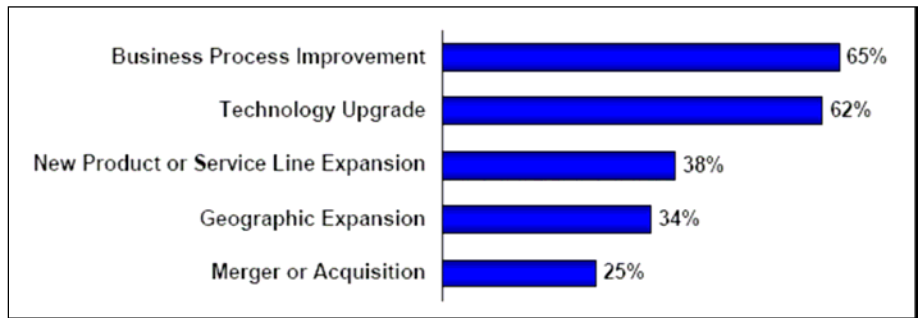


Figure 1: Corporate initiatives most likely to be pursued in the next two years.

Source: "Ounce of Prevention, Pound of Cure," Robert Half Management, November 1, 2007. Data is from 1,400 CFOs of companies with 1,000 or more employees. Respondents could choose multiple priorities.

Process Is a Competitive Differentiator

For many CFOs, the value of process improvement is likely seen in reduced costs—less redundant work leads to more efficiency, which then provides greater profits. However, that formula is only part of the value equation for business process improvement. A recent *Economist* article showed that process improvements can also benefit top-line growth: "Analysis done by the McKinsey Global Institute shows that competition and innovation—not information technology alone—led to the extraordinary productivity gains seen in the 1990s. 'Those innovations—in technology as well as products and business processes—boosted productivity. As productivity rose, competition intensified, bringing fresh waves of innovation,' the institute explains."¹

The same *Economist* article described the critical nature of innovation in the current global economy: "With manufacturing now barely a fifth of economic activity in rich countries, the 'knowledge economy' is becoming more important. Indeed, rich countries may not be able to compete with rivals offering low-cost products and services if they do not learn to innovate better and faster."

Recent data from global CIOs showed a similar focus, prioritizing innovative avenues for growth over strict cost cutting. A September 2007 survey by *CIO Insight* magazine showed that even as recession worries loom for 2008, the majority of businesses remain focused on revenue growth over cost cutting, as shown in Figure 2.

¹ "Something New Under the Sun," *The Economist*, (October 11, 2007), http://economist.com/specialreports/displaystory.cfm?story_id=9928154 (accessed July 30, 2008).

For many CFOs, the value of process improvement is likely seen in reduced costs—less redundant work leads to more efficiency, which then provides greater profits. However, a recent *Economist* article showed that process improvements can also benefit top-line growth.

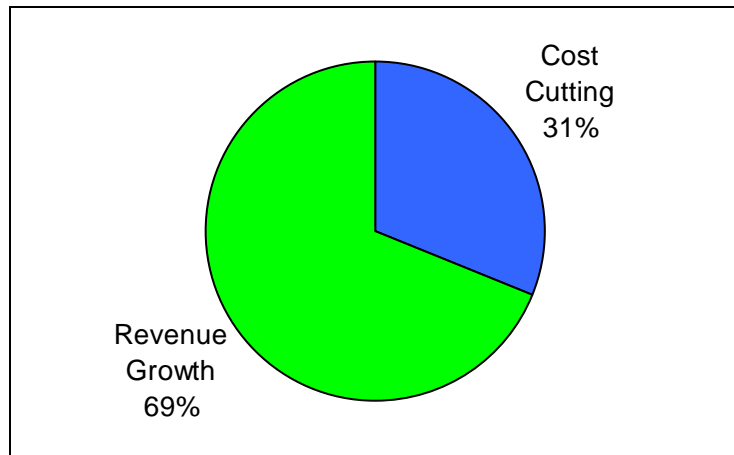


Figure 2: How organizations are focusing their business strategy.

Source: “Managing IT Costs in a Weakened Economy,” *CIO Insight*, September 11, 2007. Survey of 256 CIOs of companies ranging from less than US\$100 million to more than US\$1 billion.

A good example of this can be found in China, where more than 150,000 new cell phones are purchased every day.² To grow fast enough to meet that incredible demand, two of China’s largest telecommunications companies have turned to BPM. Given the steep competition in a rapidly growing market, neither company can afford slow processes or “tribal knowledge.” New employees must rapidly assimilate and provide value, customers need to feel appreciated at all times, and business leaders need to act quickly with maximum effectiveness. BPM has been selected as a critical ingredient to a successful growth strategy for both of these leading companies.

Bridging Enterprise Applications

For most of the past decade, organizations have looked to large packaged applications to streamline, automate, and manage processes. They bought customer relationship management (CRM), supply chain management (SCM), and enterprise resource management (ERP) applications hoping to consolidate data and processes into one centralized system to improve efficiency, visibility, and business performance. In some cases, customers have been satisfied with their packaged application purchases, especially with structured processes that remain fairly static over time.

For most of the past decade, organizations have looked to large packaged ERP, CRM, and SCM applications to streamline, automate, and manage processes. Unfortunately, some critical business processes are not static and process inefficiencies, or gaps, can emerge between applications.

² Associated Press, “China Claims 400M Mobile Phone Users,” MSNBC (February 23, 2006), <http://www.msnbc.msn.com/id/11519322/> (accessed July 30, 2008).

In a recent study by Aberdeen Group, more than half of the 125 executives surveyed reported that manual intervention was necessary to compensate for missing functionality in their enterprise applications.

Unfortunately, some critical business processes are not static. Processes such as order-to-cash transactions are often complex, dynamic business processes involving multiple technologies and business silos. Frequently, process inefficiencies are the direct result of “gaps” that exist between these silos; the manual handoff of a purchase order from sales to finance, for example, can create the need to enter the same data twice into two different systems. Gaps among systems, people, business units, and geographies undermine the efficacy of the business overall.

BPM Seamlessly Unites the Enterprise

Business process management emerged as both a management principle and a suite of software products focused on bridging diverse systems, people, and processes. A BPM suite is a collection of integrated tools to support the entire process lifecycle, from modeling and execution to measurement and optimization. BPM suites coordinate tasks and synchronize data across existing systems, helping organizations extract more value from existing IT assets. BPM suites also help coordinate human process activities, streamlining tasks, triggers, and timelines related to a business process, and assuring they are completed as defined by a process model.

BPM suites empower developers and business users to collaborate and quickly modify systems and processes to adapt to business changes.

A BPM suite makes processes more efficient, compliant, agile, and visible by ensuring that every process step is explicitly defined, monitored over time, and optimized for maximum productivity. Given optimal, up-to-the-minute process data, managers and employees can take quicker action and make smarter decisions. BPM suites empower developers and business users to collaborate and quickly modify systems and processes to adapt to business changes.

As a consequence, BPM has become a top priority for many organizations:

- A recent *CIO Insight* survey found that CIOs are betting on BPM suites, ranking them the No. 1 “technology most likely to provide business value today.”³
- Another *CIO Insight* survey ranked BPM suites as one of the most promising technologies in the future, meaning CIOs see both the short- and long-term potential for BPM suites.⁴
- A *Baseline* magazine customer survey ranked BPM No. 1 in its Top 10 Technology Projects of 2007, with one-third actively engaged in business process improvement projects today.⁵

Oracle’s customer base also reflects this priority. In a November 2007 survey of more than 200 Oracle Business Process Management Suite customers, 60 percent ranked BPM as a “top 5” IT priority. Among customers with mature deployments,

³ “Getting from Promise to Payoff,” *CIO Insight*, August 2007, 27.

⁴ “2008 Top Trends,” *CIO Insight*, December 2007, 15.

⁵ “Top 10 Technology Projects in ’07,” *Baseline*, March 2007.

BPM remains a priority—72 percent ranked it in their “top 5”—reflecting a focus on continued optimization.

One of the explanations for BPM’s popularity is that the benefits are clear, measurable, and impactful. The Oracle customer survey revealed several areas where customers expect the greatest return on investment (ROI) from their BPM deployments, as shown in Figure 3.

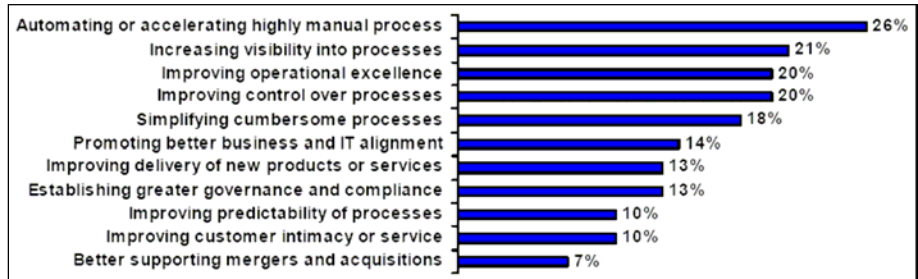


Figure 3: Anticipated drivers of ROI from BPM investments.

Source: Oracle survey of more than 200 Oracle Business Process Management Suite customers worldwide, November 2007. Multiple responses possible.

Process agility can help companies launch new products more quickly, respond to new customer demands more accurately, and stay one step ahead of the competition.

As this survey shows, companies are realizing big gains by tackling automation and operational excellence projects and bringing control over previously unmanaged processes. As companies begin to triage and dispatch these first-order problems, they can begin to apply BPM to even more ambitious projects such as using BPM to respond faster to changing market dynamics. Process agility can help companies launch new products more quickly, respond to new customer demands more accurately, and stay one step ahead of the competition.

BPM Is More than Just Technology

Business process management is as much about organizational discipline as it is about technology. BPM tools are far less effective without the method and strategy for defining, measuring, and improving processes. So it is not surprising that the Association for Information and Image Management (AIIM) discovered that organizational challenges are primary obstacles in many BPM deployments, as shown in Figure 4.

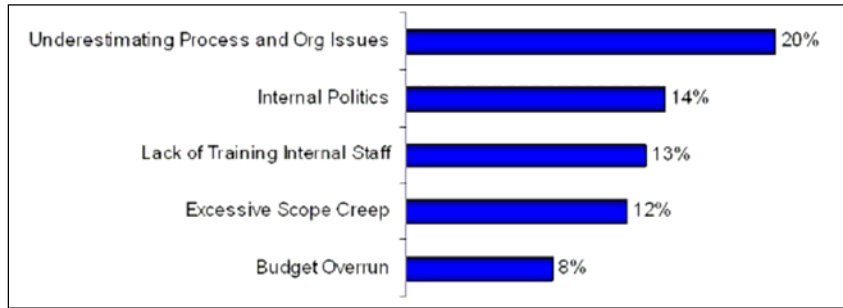


Figure 4: The most important BPM obstacles to overcome.

Source: “BPM: Not Just Workflow Anymore,” AIIM, 2007. Survey of 812 technology professionals with experience on BPM deployments.

Growing a process-centric organizational discipline takes time and focus. At the highest end, organizations establish BPM centers of excellence to aggregate best practices, methods, and procedures to support enterprisewide process improvements. These groups focus on the training of process project owners and participants in the way the organization thinks about process improvement, as well as the technologies and tools used to achieve it. Organizations with strong process awareness have executives who prioritize, sponsor, and fund process initiatives, and process metrics are commonly used to make important decisions. Organizations that embrace “process thinking” understand that processes span multiple divisional boundaries, and therefore are focused on end-to-end processes improvement, rather than settling for change within a single department, team, or group.

Dix Amico has reaped tremendous results from process thinking. With more than 800,000 clients, Dix Amico is Brazil’s second largest health plan provider. Every month, the company adds between 8,000 and 20,000 new health plans, each of which flows through seven different functional departments. Dix Amico analyzed the complete process—from the initial customer contact to the acceptance package—and eliminated functional disconnects between teams. Today, every part of that process is now linked to customer touchpoints and key performance indicators. BPM reduced the company’s operating costs by more than 6 percent.

Process-centric organizations quickly realize that many processes will change over time as companies reorganize, launch new products and services, respond to changing regulations, and acquire new partners. Therefore processes need to be built in a way that enables easy, constant, dynamic change.

“By thinking in processes, Dix Amico achieves a better understanding of its business and allows proven processes to be reused throughout the company during both contraction and growth periods.”

**—Mauro Bastos,
CIO,
Dix Amico**

BPM MARKET SIZE AND SEGMENTATION

Large, Rapidly Growing Market Though Size Estimates Vary

There are five universally accepted truths about the BPM suite market:

1. It is growing at a rapid rate, somewhere on the order of 30–80 percent annually. IDC’s Maureen Fleming describes it as the “fastest growing segment of application deployment software.”⁶
2. It is a relatively large segment of the deployed software market—from hundreds of millions of dollars per year on the low end to multiple billions on the high end.
3. Large vendors such as Oracle and IBM have recently entered the market through acquisition of smaller BPM vendors.
4. The market is consolidating. In 2006, the market consisted of more than 150 BPM vendors. Gartner predicts that “by year-end 2008, the leading 25 BPM suite providers will be evident.”⁷
5. Every analyst has a unique, slightly different definition of the BPM market.

It is this last point that makes the task of market sizing so difficult—analysts disagree over the boundaries of BPM and which vendors actually comprise the marketplace. Further adding to the confusion, some enterprise vendors, seeking to ride the BPM wave of success, have rebranded any process, integration, or SOA offering as BPM. The discrepancy between analysts is so profound that the second largest vendor in one ranking isn’t even considered in the ranking of another.

Gartner, Forrester, and IDC use different methodologies to determine market size. Though the numbers vary, all estimates demonstrate a large, growing market.

	2005	2006	2011 Projected
Gartner ⁸	\$1.0B (estimate)	\$1.7B (estimate)	\$5.1B
Forrester ⁹	n/a	\$1.6B (actual)	\$6.3B
IDC ¹⁰	\$495M (actual)	\$890M (actual)	\$5.5B

Table 1: Every analyst has a unique, slightly different definition of the BPM market.

Note: All amounts are expressed in U.S. dollars.

⁶ “Worldwide Business Process Management Suite 2007-2011 Forecast and 2006 Vendor Shares,” IDC, August 2007.

⁷ Janelle B. Hill et al., “Magic Quadrant for Business Process Management Suites, 2007,” Gartner, December 2007.

⁸ Michele Cantera et al., “Forecast: Portal, Process and Middleware Software, Worldwide, 2006-2011, Update,” Gartner, September 2007.

⁹ “BPMS Revenue to Reach \$6.3 Billion by 2011,” Forrester, July 2007.

¹⁰ “Worldwide Business Process Management Suite 2007-2011 Forecast and 2006 Vendor Shares,” IDC, August 2007.

Overall, BPM market trends and projections indicate that the BPM market will grow much faster than most other technology sectors. The factors that IDC believes will accelerate growth include¹¹

- Successful deployment results from early adopters
- Ability for BPM suites to address a wider set of requirements
- Importance and complexity of IT governance and regulatory compliance
- Growth of agile SOAs
- Enterprise workplace and Web 2.0

Importantly, growth is not confined to a single geography. BPM suites are seeing strong adoption across the Americas, Europe, Middle East, and Africa (EMEA) and Asia Pacific, as IDC showed in its most recent BPM suite research:¹²

	2006 Revenue	2006 Share	Cumulative Annual Growth Rate, 2006-2011
Americas	\$289M	58.3%	44.8%
EMEA	\$137M	27.6%	45.4%
Asia Pacific	\$70M	14.1%	37.0%

Table 2: BPM growth is not confined to a single geography—growth is strong in all regions of the world.

Note: All amounts are expressed in U.S. dollars.

Most BPM Deployments Focus on Departmental Usage

Despite rapid growth and vibrant market interest, the BPM market is still quite young. Most BPM deployments are still in the early stages, focusing mostly on solving departmental process challenges. In fact, an Oracle market maturity survey completed by nearly 1,200 business and IT professionals throughout 2007 showed that just 18 percent of companies were currently deploying enterprisewide BPM.

¹¹ Ibid.

¹² Ibid.



Figure 5: BPM maturity is still in the early phases.

Source: The Oracle BPM Lifecycle Assessment Survey aggregated the results of 1,191 completed surveys: January 1, 2007 to December 15, 2007.

According to Gartner, “Although spending has grown rapidly, only 20–30 percent of deployments address enterprise-wide, cross-functional processes. There are many more narrowly scoped process improvement initiatives that are underutilizing the full power of a BPM suite.”¹³

Similarly, a recent survey by the AIIM found only 11 percent of respondents were actively integrating BPM suites across the enterprise.

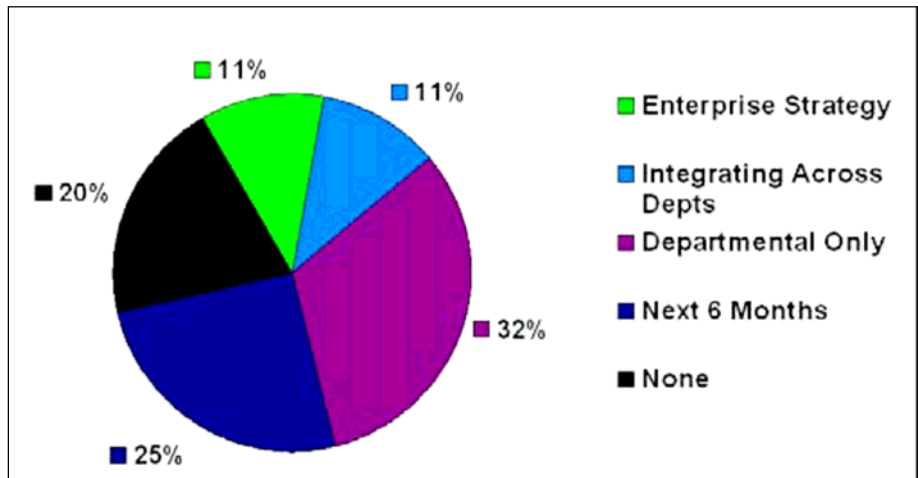


Figure 6: Most organizations are only leveraging BPM at the departmental level, leaving substantial value untapped.

Source: “BPM: Not Just Workflow Anymore,” AIIM, 2007.

¹³ Janelle B. Hill et al., “Magic Quadrant for Business Process Management Suites, 2007,” Gartner, December 2007.

The Evolution of BPM

To understand the current BPM market segmentation, it is useful to see how BPM evolved from previous technologies and approaches. The early 1980s saw growth in workflow products for human-facing processes such as the approval flow for a large purchase order. Integrations between enterprise applications and these workflow processes had to be custom built, thus they were typically expensive and inflexible. During the same time frame, enterprise application integration (EAI) products emerged to improve system-to-system communications—so that the data in one system could automatically appear in another, without having a human retype the data.

By the late 1990s, the boundary between workflow and EAI became fuzzy, with some products spanning both domains.

By the late 1990s, the workflow and EAI markets began to converge and envelope other functions, such as business rules engines, advanced process modeling tools, process monitoring, governance, and optimization tools. The boundary between workflow and EAI became fuzzy, with some products spanning both domains.

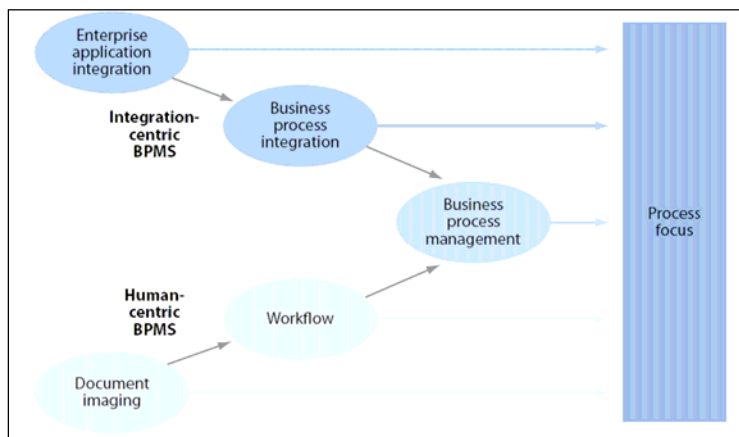


Figure 7: The evolution of BPM.

Source: “The Forrester Wave: Integration-Centric Business Process Management Suites,” Forrester Research, 2006.

In 2000, analysts began combining EAI and workflow into a single category: BPM.

In 2000, analysts began combining EAI and workflow into a single category: BPM. However, analysts ended up creating separate subcategories of BPM that roughly followed the old boundaries. Most analysts predict that the BPM market will converge into a single category within the next few years as every new generation of BPM software makes the distinctions less relevant. However, the old division between workflow and EAI remains visible in many of the analysts’ BPM reports.

- IDC identifies people-centric automation, transaction-centric automation, and sense-and-respond systems (complex event processing) as the three main BPM suite categories.¹⁴

¹⁴ “Worldwide Business Process Management Suite 2007-2011 Forecast and 2006 Vendor Shares,” IDC, August 2007.

- Forrester categorizes BPM suites as human-centric, integration-centric, and document-centric processes.¹⁵ However, it expects a convergence in 2008.¹⁶
- Gartner published its BPM suite Magic Quadrant and authored a market report titled “Market Trends: Portal, Process and Middleware Software, Worldwide, 2006-2011.”¹⁷

Products like Oracle Business Process Management Suite challenge these market segmentations because they cross the functional and technical boundaries established by the analysts.

Primary Components of BPM Suites

Although BPM suite functionality differs somewhat depending on the categorizations above, there is general agreement that a BPM suite includes the following:

- **Process modeling tool.** This might include separate business and technical views of the model, where a nontechnical user (such as a business analyst) can create a flowchartlike model of the business process, and technical users can connect the model to Web services and other points of integration. A single shared model is most desirable so that important information from one audience isn’t lost in the handoff to the other. To qualify as BPM, the model must be executable, or able to force action on the process design, sending tasks to people, and messages to systems, for example.
- **Server-based process execution engine.** This engine orchestrates all processes and their resources—people, organizations, applications, and systems—managing proper sequences, enforcing business rules, and auditing each step to ensure flawless process execution, escalation, and exception management.
- **Browser-based workspace.** This is an interface where human process participants can locate, open, and complete the tasks assigned to them within the BPM suite. At a minimum, this should include out-of-the-box workspaces. Many products also include an easy way for organizations to create custom forms, portal user interfaces, or integrations with the user interfaces of packaged applications, such as through JavaServer Faces.
- **Intelligence dashboards.** Both historical and real-time process monitoring, reporting, and analytics dashboards are used to disseminate information to all users.
- **Simulation and optimization capabilities.** Tools are employed to support testing, analysis, and continuous process improvement.

A single shared creation model is most desirable so that important information from one audience isn’t lost in the handoff to the other.

¹⁵ “The Forrester Wave: Human-Centric BPM for Java Platforms,” Forrester Research, 2007.

¹⁶ “BPMS Revenue to Reach \$6.3 Billion by 2011,” Forrester, July 2007.

¹⁷ Michele Canter et al., “Forecast: Portal, Process and Middleware Software, Worldwide, 2006-2011, Update,” Gartner, September 2007.

Some analysts insist the following elements are essential to the BPM suite. Others believe the following functions are not mandatory, and when needed, can be loosely coupled into the BPM suite, or provided as an add-on from another type of product.

- **Business rules engine or decision services.** These can be used to build, execute, and manage business rules.
- **Content management.** This is a repository for attachments to processes.
- **Collaboration.** This offers support for unstructured interaction within a process.
- **Enterprise service bus (ESB).** This is a service-oriented integration layer underneath the BPM suite. Although all BPM suites support direct Web services calls, an ESB includes functions such as mapping and transformation.
- **Industry-specific or application-specific frameworks.** These shorten the customization time for standard processes such as employee onboarding.

Each customer can prioritize the functions above in a different manner, depending on the intended scale of their BPM deployment, their organizational skills and preferences, and the types of technologies already in use. An Oracle customer survey from November 2007 highlighted the most significant functions that Oracle customers considered in selecting Oracle Business Process Management Suite.

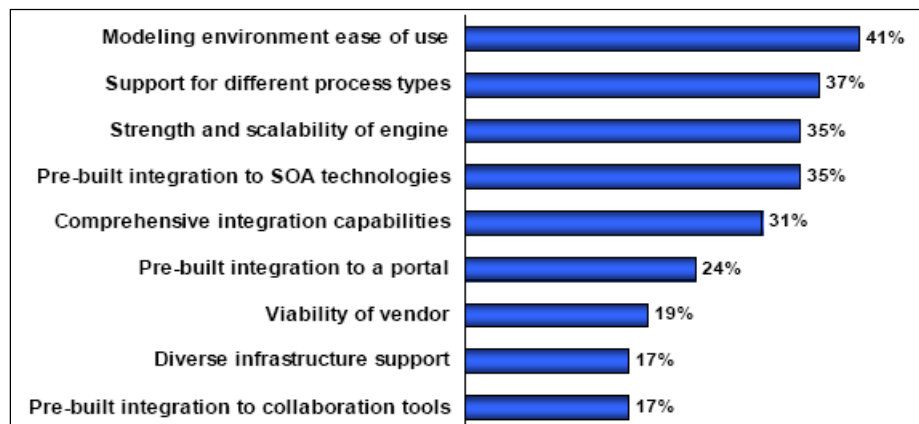


Figure 8: Top features in selecting a BPM solution.

Source: Oracle customer survey of more than 200 Oracle Business Process Management Suite customers worldwide, November 2007.

BPM Industry Standards

BPM standards are focused on one of two goals—common visual notation and the interchange of process models between tools.

It can be a daunting task to keep up with the evolution of industry standards in any technology space. Early markets, such as the BPM market, often lack effective standardization until they mature. But standards matter: they can help reduce ambiguity between different approaches, facilitate portability between different tools, and potentially reduce internal and external costs. It is important for IT decision-makers to understand the value, relative maturity, and vendor commitment to BPM standards when considering their overall BPM strategy. BPM standards are focused on one of two goals—common visual notation and the interchange of process models between tools.

Common Visual Notation for Process Diagrams

A common visual process model notation establishes the standard for how to read and construct process diagrams. The models provide a common language for people to communicate about processes across teams, divisions, tools, and even industries. This makes it easier to learn new tools, expands the pool of available business analysts, and improves reusability of processes.

Business Process Modeling Notation (BPMN) by the Object Management Group (OMG) is currently a significant standard for this purpose and has been stable for more than two years. Most vendors have committed to supporting BPMN as a modeling notation, but have not yet fully standardized product offerings.

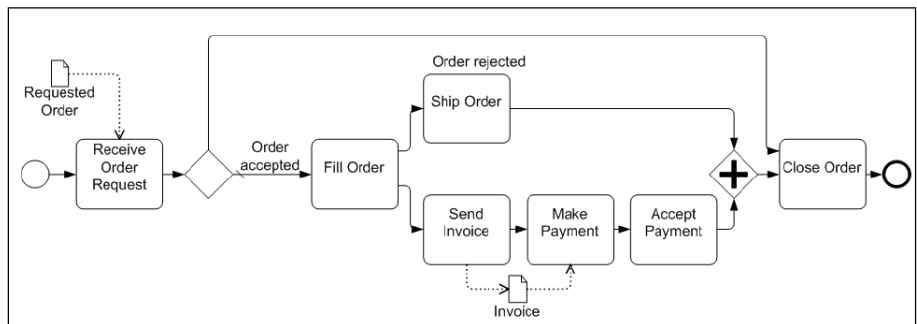


Figure 9: A BPMN process model diagram.

Source: OMG BPMN 1.0 specification.

Seamless Interchange of Process Models Between Tools

Some companies end up using multiple BPM tools. For example, a company might choose a process modeling tool from one vendor and a process execution server from another. Alternatively, two divisions within one company might select two different tools for different types of projects. Even if the modeling tools conform to the same notational standard, the execution of those models must also be interchangeable—that is, the model executes the same way in one engine as another. A standardized process interchange format makes this possible and several standards target this goal.

An interchange of process models between tools is a challenging problem. Until BPM technologies and associated standards mature further, some level of custom integration work will be required to move models between tools.

- **XML Process Definition Language (XPDL).** XPDL is an interchange format created by the Workflow Management Coalition. It was originally intended for routing work between people but its flexibility and extensibility make it suitable for any type of business process. XPDL is today supported by more than 70 vendors.
- **BPEL.** Created by the Organization for the Advancement of Structured Information Standards, BPEL is a Web services orchestration language. BPEL usually applies better to integration-centric process types (processes that coordinate interactions between systems rather than people) because these map better to the original intent of the language. For system-centric use cases, BPEL is considered mature and dominant.
- **Business Process Definition Metamodel (BPDM).** A newly released process definition standard that provides full support for all BPMN objects, BPDM will be incorporated into the BPMN standard as its default interchange format.

A forthcoming update to BPMN, version 2.0, seeks to provide an interchange format like BPEL as well as support BPDM.

MARKET TRENDS: PARTICIPATION, SCALE, AND CONVERGENCE

Leveraging SOA to Achieve BPM Success

As shown in earlier surveys, BPM initiatives typically begin where the pain is most acute—within a specific business unit. In its infancy, BPM tools were directed at the needs of those business units. For those business units to realize quick success from projects tied closely to their business goals, implementation costs were kept to a minimum and IT was largely kept out. However, processes are often complex, requiring data from diverse systems, automatic exchanges of information, and mission-critical support. As such, IT's involvement has become essential. Companies now realize that to effect real business change, they need tighter alignment between IT developers and business strategies. As discussed in early sections of this paper, CIOs recognize this need and rank BPM and process improvement initiatives as top priorities for their IT departments.

Over the last few years, many organizations have turned to SOA to build simpler, more-reusable and more-flexible business services on top of disparate, siloed, and redundant IT systems. Conceptually, SOA enables IT to respond more rapidly to new business requirements by composing new solutions from existing business services. Implementing SOA requires a combination of new practices and technologies. An enterprise service bus is typically a core technology requirement that helps the enterprise mediate services. This is often combined with a service registry and repository to manage service assets and policies. Other components include data services middleware and service monitoring solutions.

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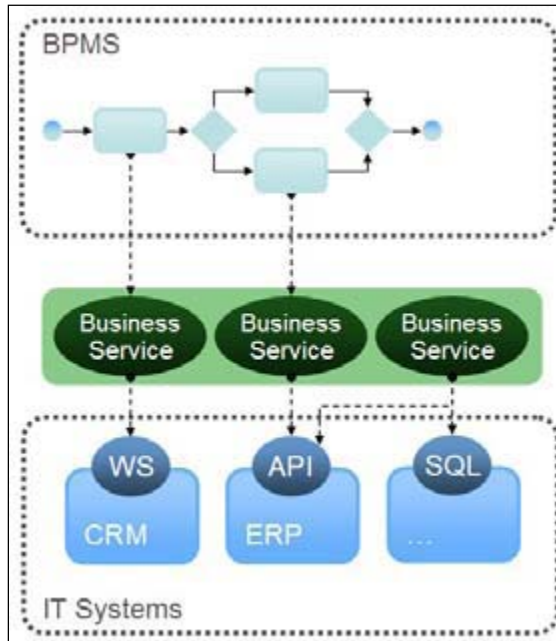


Figure 10: SOA infrastructures help drive enterprisewide BPM adoption.

According to *CIO Insight*, 75 percent of CIOs surveyed are working to remake their IT architectures based on SOA, Web services, and related technologies within the next five years.¹⁸ A recent survey by Aberdeen Group clarifies the link between BPM and SOA—supporting agile business processes is a primary driver behind many SOA projects.

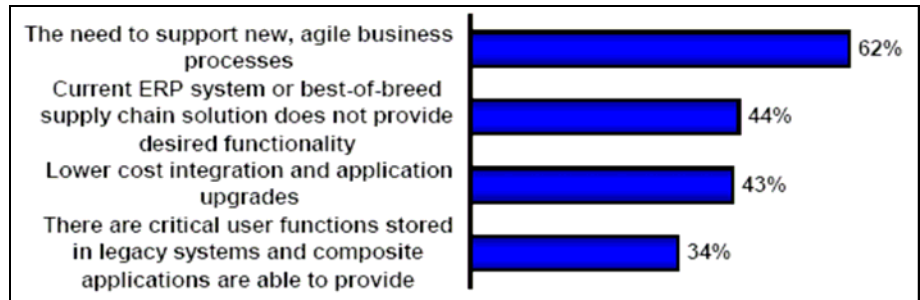


Figure 11: Top drivers of SOA.

Source: "Aligning IT to Business Processes: How BPM Is Complementing ERP and Custom Applications," Aberdeen Group, May 2007.

¹⁸ "Future of IT: Technology," *CIO Insight*, December 2007.

SOA insulates BPM from having to know about the details of the underlying systems, while BPM provides a higher level abstraction for defining, monitoring and managing businesses processes.

Mutually Beneficial Technologies

Oracle’s survey of Oracle Business Process Management Suite customers also revealed that 68 percent of respondents are connecting BPM and SOA, further supporting the idea that deep synergies exist between these approaches. As a key consumer of business services, BPM helps to justify and fund SOA investments. SOA, in return, enables BPM to scale quickly and effectively. Although you can implement BPM without SOA, using prebuilt, reusable services reduces the time and costs associated with system integration. SOA insulates BPM from having to know about the details of the underlying systems, while BPM provides a higher level abstraction for defining, monitoring, and managing businesses processes.

Oracle’s BPM Lifecycle Assessment Survey showed that companies that combine BPM and SOA are able to execute better, achieve greater reuse, and provide better control over business processes than with BPM alone, as shown in Figure 12.

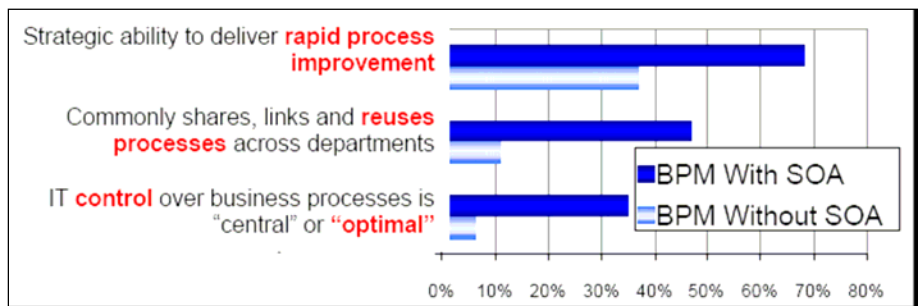


Figure 12: Customers report more success combining BPM with SOA.

Source: Oracle BPM Lifecycle Assessment Survey, 2006-2007. Respondents having already deployed BPM = 291; respondents with BPM and SOA = 141.

AMR Research finds the combination of BPM and SOA particularly valuable for companies with major ERP systems at the core of their IT implementations: “For these companies, the value of SOA will be found in BPM, which promises to allow companies to create unique and differentiating business processes on top of the same software many of their competitors use.”¹⁹

BPM and SOA together provide even greater flexibility than ERP systems because they allow easier integration with other enterprise applications and business partner applications and are overall easier to change with requirements that continually evolve. Additionally, many BPM suites provide better visibility into process progress and performance than what is available within the ERP suites directly.

Create a Shared Business and IT Perspective

Although IT’s enthusiasm for connecting BPM and SOA is overall a good thing, it is important for business and IT to agree together on the prioritization of BPM and SOA projects. In some companies, IT sees BPM as merely the “process piece” of an SOA strategy. This IT-centric BPM definition is often at odds with a

¹⁹ “SOA and BPM for Enterprise Applications: A Dose of Reality,” AMR Research, May 2007.

business-centric approach, which sees SOA as just the enabler to (a more primary) process initiative.

While nuanced, the difference between these two approaches can lead to vastly different investments and results. The question, which should we develop first, the process or the services? often emerges in using BPM and SOA together. In practice, a hybrid approach works best. This ensures that services are identified and constructed based on real needs. Working on both together also helps guide BPM practitioners on how to define services with the right level of specificity, providing maximum impact and reusability.

Key Takeaways: Uniting BPM and SOA

IT's support of BPM is critical for its growth and success and increasing impact. IT's progress with SOA initiatives will benefit BPM as joint BPM and SOA deployments enable greater scalability and development speed through process and component reuse. But organizations must be careful to strike the right balance between business and IT ownership: business need should drive technology priorities, not the other way around.

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Enable Real-Time Visibility with Event Processing

Historically, business process initiatives have been focused on transactional, routine, and regular processes where the range of outcomes is relatively easy to predict. For example, a purchase order can be accepted, rejected, or delegated. Because the process is fairly routine, it is relatively easy to predict and normalize surges in volume, such as a toy manufacturer seeing a rush of purchase orders leading up to Christmas. In addition, because the process is fairly predictable, it's easy to spot bottlenecks.

But the vast majority of actual business processes do not follow much routine. Customer interest often spikes without an apparent cause; asset prices fluctuate unpredictably; competitors act in the market on their own time; and even politics, weather, and major regional or global incidents, which are obviously unpredictable, often impact the way we do business. The success of a business often relies on its ability to sense and respond to these external and internal events as they happen.

Thus far, BPM and supporting technologies have provided very limited support for sense-and-respond patterns. But with the growing adoption of BPM as a strategic discipline, enterprises are now interested in connecting BPM to an event-driven architecture (EDA). IDC identified this trend in its BPM forecast and market share report from August 2007.²⁰ Figure 13 from IDC describes the relationship between sense-and-respond and traditional BPM suite functionality, which IDC groups as different types of BPM suites.

²⁰ "Worldwide Business Process Management Suite 2007-2011 Forecast and 2006 Vendor Shares," IDC, August 2007.

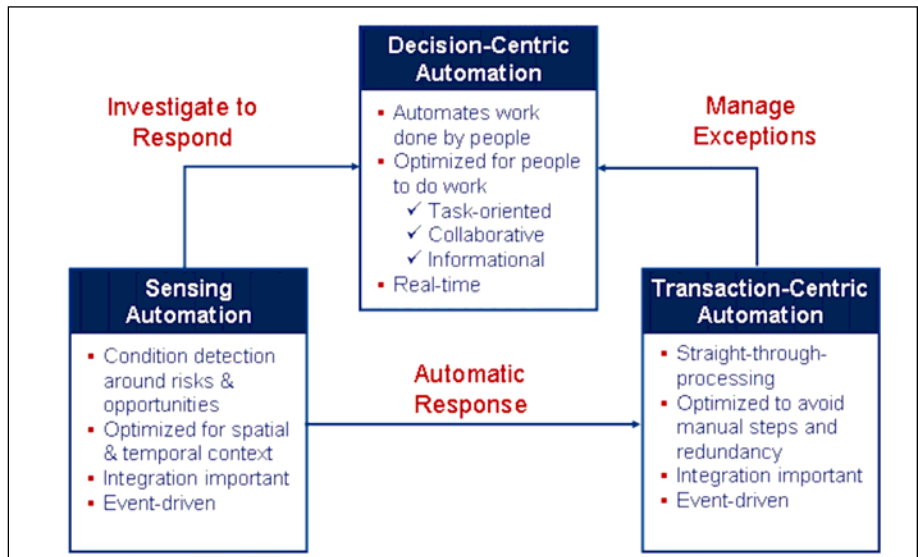


Figure 13: Relationships among different types of BPM suites.

Source: Maureen Fleming, "Business Process Integration & Deployment, 2008," IDC.

According to an Oracle customer survey, visibility into business processes was the second most common path to return on BPM investments.

As discussed earlier, most BPM deployments today automate transaction-centric processes. But today's decision-makers require real-time, actionable insight on nearly all aspects of the business, not just the transactional—visibility is critical. According to an Oracle customer survey, visibility into business processes was the second most common path to return on BPM investments. Business activity monitoring (BAM) dashboards provide some of that visibility, but the need really demands a different approach altogether: one that combines the power of an EDA with a BPM suite.

In the report "Predicts 2008: Business Applications' Architectural Styles Are Changing," Gartner says: "By 2012, business demand for near-real-time visibility of information and processes will be the leading driver of BAM and EDA deployments." The firm adds: "As companies turn to BAM, they soon recognize that request/reply ('pull') design patterns cannot be used to build effective BAM applications, so they adopt 'push'-based EDA patterns instead."²¹

Core Components of Successful EDAs

There are several elements involved in successfully deploying EDAs and incorporating events into business processes.

- **Event middleware and complex event processing.** Two important pieces of middleware are required to fully support EDA—a robust messaging middleware and complex event processing (engines). The processing engine is responsible for listening to the event feed, detecting patterns based on a rule set, and sending out events once a pattern has been found. An example

²¹ Roy Schulte, "Predicts 2008: Business Applications' Architectural Styles Are Changing," Gartner, January 2008.

is a fraud detection unit monitoring the feed of all trades executed on a stock exchange.

- **Event-enabled BPM suites.** Many BPM suite vendors built their products without envisioning a need for sense-and-respond models. A BPM suite must reliably consume events from the underlying event feeds and support true asynchronous execution of business processes so they can listen and respond to incoming events. This communication should be bidirectional, meaning the BPM suite can also create events to send into the event middleware to feed other services.
- **Event-enabled process modeling.** Business process modeling techniques don't always incorporate events. Fortunately the BPMN standard provides strong support for events as modeling constructs.
- **Business analyst skill set.** Thinking in terms of events is more challenging than it seems. Ordinary process models are sequential in nature, making it easy to read "what happens next" from the diagram, but when modeling processes interact via events, it becomes harder to follow the flow. This often causes business analysts to avoid using events, or to use them incorrectly. Learning to think in terms of events is a matter of habit and it is a skill that can be acquired by most business analysts.

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Impact on Business Intelligence and Business Rules

The emergence and adoption of EDA will impact more than just BPM suites. The combination of EDA and BPM will exert a strong influence on business intelligence. Many of today's business intelligence (BI) solutions are no more sophisticated than batch transfers of operational data into data marts, which then serve up the data for dashboard applications and batch generated reports. As decision-makers have gradually raised their demands for more real-time visibility and more flexibility in the slicing and dicing of data, this approach is no longer sufficient. EDA combined with event-driven BAM or BI solutions provides even deeper visibility on a real-time basis into any business event, not just events coming from business processes.

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The business rules engine (BRE) market is also feeling the impact. Traditionally, a BRE will receive a request containing a set of data such as a customer's credit history or demographic information, and the engine evaluates the data against a set of rules and returns a decision (such as approval for new credit). EDA requires the evaluation of rules as well, but the architecture is fundamentally different. Complex event processing consists of looking for patterns across a certain time window in a high-volume stream of events. Rules describe those patterns and when a pattern is found, it triggers an outgoing event that other systems can listen for and take action. BRE vendors will have to decide whether to compete in this new category and must then evaluate their ability to build out the required technology. This market shift might even drive or influence vendor consolidation and cause BRE and EDA specialists to join forces.

Key Takeaways: Event-Based Real-Time Visibility

Decision-makers need real-time, detailed visibility into the business. BPM suites meet some of this demand, but as operations grow increasingly complex and transaction volumes soar, a new event-centric infrastructure will be required to meet demands. BPM suites must evolve to reflect these event-oriented demands.

Empowering Knowledge Workers with Collaborative BPM

Although BPM customers have seen huge productivity gains in streamlining and automating manual processes, improving person-to-person, collaborative work could propel BPM customers to new heights.

Although BPM customers have seen huge productivity gains in streamlining and automating manual processes, there's a new frontier that could propel BPM customers to new heights—improving person-to-person, collaborative work. As McKinsey, a global management consulting firm, observed in 2006: “Some of [software spending] growth will come from continued automation of transactions (which continue to make up 44% of labor activity in the United States)... [however, other software spending will need to] empower ‘tacit interactions’—the judgment-based, highly collaborative interactions that account for more than 40% of workforce activity today... but have not had substantial software-investment support yet.”²²

These knowledge worker interactions are often complex and ambiguous, requiring intelligent individuals to make decisions using their knowledge of the situation, the organization, and the task at hand. For these activities, judgment and insight are often more valuable than documented procedure. Knowledge management, document management, and collaboration systems have tried to capture tribal knowledge, best practices, and team experiences for decades, but with mixed results. These systems often fall victim to the “tragedy of the commons” in which everyone wants to find information, but people are inconsistent in contributing content themselves. Often, content is contributed after an activity is resolved, meeting some tracking and compliance needs but failing to provide maximum value when it is needed most—in context and within the natural flow of work.

As explored earlier in this paper, modern BPM suites increasingly support both system and human-centric processes. To date, human-centric process support is mostly focused on orchestrating predictable human workflow process steps for activities such as claims processing, accounts receivable, and customer servicing. Although tasks are assigned to people, it is often assumed that knowledge workers will research options, communicate with peers, make decisions outside of the process, and then input the results back into the BPM system. It is recognized that collaborative processes might take place in support of BPM, but BPM suites were not generally designed to support or coordinate these collaborative interactions.

Combining Collaboration, User Interaction, Social Computing, and BPM

Today, companies like Oracle are starting to combine collaboration, user interaction, social computing, and BPM capabilities to provide purpose-based

²² “Software 2006 Industry Report,” McKinsey & Company and Sand Hill Group, 2006.

collaboration in the context of processes managed by BPM. The ambiguous knowledge worker processes—often completed through e-mails, shared documents, and spreadsheets—are being explicitly connected to BPM activities and articulated by business analysts within the process model. When collaboration is required at any point of a structured process, leading-edge BPM products allow process participants to create and manage ad hoc tasks or attach collaborative workspaces to individual steps in process.

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For example, to gain consensus on a decision, a process participant might upload a project proposal and supporting resources for team review, before continuing the structured process. The team might contribute different versions of the document or create ad hoc review tasks. All of this activity and knowledge will be captured as part of the process. This forms the basis for future process improvements by accelerating the completion of collaborative tasks and providing a more-comprehensive audit trail of how decisions were reached.

Collaborative BPM has the potential to be more effective than previous knowledge management initiatives, because the collaboration takes place at the point of need. Specifically, the trail of tribal knowledge and best practices are extracted from individuals as they take action in their own self-interest.

The recent Oracle BPM customer survey showed that 91 percent of Oracle customers are deploying processes that involve collaborative activities. Further, the survey revealed that sharing and producing documents is the most common collaborative activity tied to processes, followed by shared workspaces and ad hoc tasks attached to structured processes.

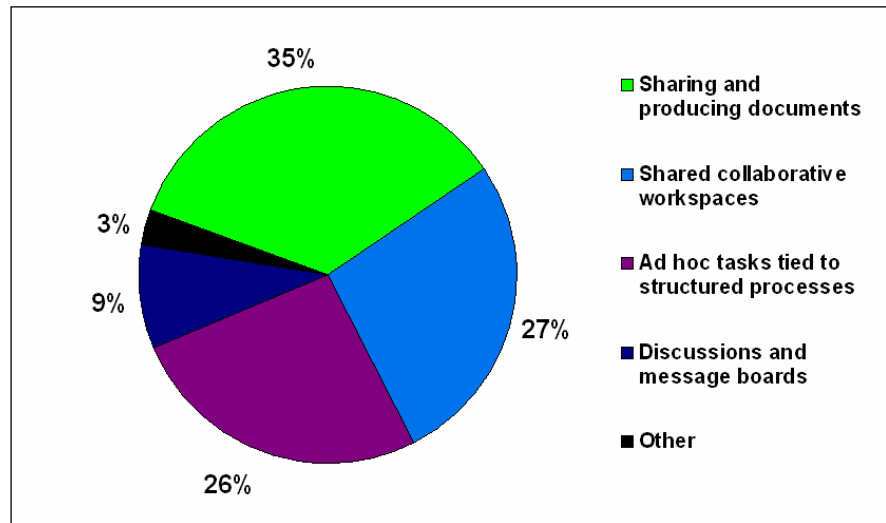


Figure 14: The human collaboration activities most important to BPM.

Source: Oracle survey of more than 200 Oracle Business Process Management Suite customers worldwide, November 2007.

Most Common Uses of Collaborative BPM

Although collaborative BPM is still a relatively new trend, it is commonly used in exception handling, case management, and research processes.

Exception Handling

As previously discussed, much collaborative knowledge work happens today in support of structured processes, but is not formally supported or captured. When an exception is flagged within a structured process, and an activity is assigned to a process participant to remedy it, participants often must consider a number of factors and might take a number of informal steps before resolving the issue. For example, if loan thresholds were recently increased, and a loan officer sees that an application from a premier customer was denied, the officer might contact several people in the bank to evaluate additional holdings or to discuss ways to modify the new threshold to better handle these situations. All of the e-mails and the documents used to resolve the situation could be captured as part of the exception-handling itself using collaborative BPM. This can lead to improved visibility in the overall process, better management for future exceptions (for faster customer service at lower cost), and a detailed record of why the process needs to be changed. The cumulative knowledge gained from handling many different exceptions can provide immeasurable improvement to the process if the knowledge is effectively captured and used.

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Case Management

In many industries, the concept of a *case* is a known form of collaboration around a topic. The legal industry's "court case," the healthcare industry's "customer case," and the financial industry's "premier customer management" are but a few examples. For this type of activity set, the case is the central organizing principle. Many different processes can support or be initiated from the case situation, but process activities, results, and collaborative artifacts must be collected around the case.

One of Oracle's customers uses collaborative BPM for managing the cradle-to-grave history of airplane engine repairs. Each engine has its own collaborative community where all of the documents for the repairs, maintenance reviews, flight certifications, and other data are stored. Many different processes cut across the case, but all processes, collaboration artifacts, and related data from different systems involved can be gathered together in one virtual case. This method organizes the entire engine history and status, even in-flight process information, in one collaborative workspace.

Case handling can follow many defined processes cleanly, but often requires careful, undefined exception handling as well. Case management requires a great deal of knowledge work, undefined interactions between case managers and participants, long-running case resolution situations, and multiple process fragments—just the type of situation collaborative BPM was intended to handle.

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Research Processes

Another common human activity that frequently happens outside of structured BPM processes is research. For example, the process for a patent to be approved is long, complex, and requires a great deal of research. Although the process is ultimately structured at the macro level, much of the detailed work done by patent officers and patent applicants involves a highly disjointed and dynamic research environment. The vast quantities of research and information are a critical component of the overall patent process.

For research projects like this, it is not sufficient to have a process system orchestrating the process separate from the different threads of information that might be stored in personal files, e-mails, shared file directories, and document management systems. Linking the process with the research, analysis, discussions, and related findings can vastly improve the current and future productivity of teams engaged in such processes. Many document management or collaboration systems have tied basic workflow to research and documents, but using BPM in concert with these technologies helps put the organizing principle of this scenario on the process rather than the artifacts. This is a critical distinction for results-focused organizations that want to get to process-based business results rather than run-of-the-mill knowledge gathering.

Key Takeaways: Collaborative BPM

A lot of collaborative work and activity happens in support of structured processes, but is not supported or captured by many BPM systems today. By explicitly linking BPM and collaboration, organizations can attach collaborative artifacts (research, documents, discussions, e-mails, and decision rationale) to the processes themselves. Collaboration tools integrated with BPM is a natural step in the evolution of BPM—increasing participant productivity, the opportunity to improve future processes, and greater achievement of business objectives.

You can expect to see many more types of collaborative BPM emerge in the next few years, as well as a larger number of vendors supporting this type of work.

A Foundation for Dynamic Business

According to IDC, enterprises spend more than US\$100 billion every year on packaged applications, but only 34 percent of that is spent on well-known ERP applications such as Oracle or SAP.²³ The vast majority of application expenditures are highly specialized, industry-specific applications that are customized to specific customer requirements or developed from scratch. Even large, packaged applications can require extensions and customization.

In spite of this effort and expense, most organizations remain discontented with the result—applications of all types are often unwieldy, inflexible, and brittle.

²³ “Worldwide Packaged Applications 2007-2011 Forecast and 2006 Vendor Shares: 2007 Reference Guide November 2007,” IDC. 2007.

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Organizations fear application change, because the time to change can be long, the costs great, and a seemingly small change in one part of the application can have dramatic unintended consequences in another. Instead, IT departments stave off the inevitable for as long as possible, refraining from any changes or fixes until the pain sufficiently warrants marshalling resources for a massive upgrade.

The problem isn't design. Most packaged applications are designed to perform discrete, well-known, routine activities, and they perform those types of activities very well. The problem is the business need for dynamic change. Years ago, an organization would be content with the one-size-fits-all supply chain application, because they rarely, if ever, would need to alter the process. Now, organizations move at an incredible pace—supply chains are influenced by technologies and techniques that were unimaginable a decade ago, such as demand forecasting and just-in-time fulfillment. Today's knowledge workers use real-time data to make efficient decisions and maximize returns, and today's businesses also reorganize regularly and experience mergers and acquisitions frequently.

Participant-Driven Process Management

Over the last few years, a new generation of Web and social computing technologies has spread quickly in the consumer space. Known broadly as Web 2.0, these applications exhibit several unique characteristics that make them more user friendly than earlier Web applications and most enterprise Web applications.

- **Participant-driven, collective intelligence.** A fundamental pattern shift, Web 2.0 applications embrace participant-driven feedback loops and networks to improve or change as use increases. A simple example is Wikipedia, the online encyclopedia that is editable by anyone and now boasts the largest encyclopedic collection by an order of magnitude.
- **Social environment.** Most hallmark Web 2.0 consumer applications build upon the effect of human networks and human interactions and provide special value to trusted relationships established within them. As an example, a photo site, www.flickr.com, is more than just a place to post photographs, it is a community where photo enthusiasts share, comment, tag, and browse photos of their friends. Popular bookmarking site www.del.icio.us.com is more than just a place to host bookmarks, it is a place to share and discover information from your friends based on their personal self-interest.

This network effect has tremendous potential to change how traditional enterprise systems support users and their requirements, from the sales forecasting process within a CRM system to the activities applied to resolving a customer trouble ticket in an enterprise help desk.

- **Dynamic, intuitive, and immediately usable.** Because of their orientation toward participants and user-driven interactions, Web 2.0 applications demonstrate a higher degree of usability and more-intuitive user experiences. Web 2.0 applications feel like fast and comprehensive desktop applications,

which improve adoption and encourage increased usage. By comparison, most enterprise Web applications still feel like very early Web sites: slow, complex, and often requiring extensive training.

- **Open, data in/data out, and remixability (mashups).** Most Web 2.0 applications demonstrate a new level of openness, offering richer programming interfaces that are simpler for developers to interact with and more freedom to mix data both inside and outside of the original system. These systems incorporate openness in their underlying design and have architectures built to create new opportunities for systems and people to remix data, commonly referred to as mashups. For example, most of the traffic to www.flickr.com is from requests made by other applications that incorporate photographs managed within Flickr. The Web site www.moo.com allows users to make business cards or stickers from Flickr photographs, and www.bighugelabs.com turns Flickr photographs into a jigsaw puzzles or posters.

By comparison, most enterprise systems are closed, designed to pull data in and keep it there, stifling the potential for those systems and reuse of the data. It is incredibly important to centralize information about customers, and CRM systems often do that well, but CRM systems underserve the users, situations, and systems that would benefit from access to that data.

Emergence of Enterprise 2.0

Enterprise social software, or Enterprise 2.0, is enterprise computing that leverages Web 2.0 principles and functionality behind and beyond the corporate firewall. Introducing social networking concepts and capabilities into the enterprise changes the way previously inaccessible corporate information can be discovered, consumed, and delivered.

Many social computing capabilities are already being adopted in enterprises, including collaborative search tools, wikis, blogs, social bookmarking, Really Simple Syndication feeds, and widgets. However, more-traditional enterprise software, including BPM, lags behind the Enterprise 2.0 vision, and often feels pedestrian in comparison. Enterprise applications place huge importance on central control to the detriment of individual user control or contribution. Corporate culture tends to reinforce that command-and-control structure. This creates more rigidity than is required, locking down software into predetermined uses, and limiting any changes to the applications or business processes to experts only. Many BPM suites can support broader participation and more-dynamic process change, but strict enterprise governance or organizational policies limit the contributions from a broader base of potential users.

Enterprise 2.0 and BPM

The Enterprise 2.0 version of BPM is already starting to emerge, providing the Web 2.0 functionality and the enterprise-class security, logging, and governance

Enterprise social software, or Enterprise 2.0, is enterprise computing that leverages Web 2.0 principles and functionality behind and beyond the corporate firewall.

functions corporate IT departments need to feel comfortable with the deployment. The Enterprise 2.0 version of BPM is likely to develop as follows:

- **Richer, more-dynamic Web interfaces and tools.** Simpler, more accessible Web-based tools will encourage participation in process design and modification from anywhere in the organization, even outside the firewall. These tools will also lower the barrier to entry for BPM, allowing organizations to stretch the benefits of BPM into the long tail of process need, from strategic processes that require planning and coordination to dynamic, just-in-time processes that increase productivity.
- **Ingrained design-time collaboration.** Collaboration will creep into all aspects of the full BPM lifecycle: process modeling, development, execution, and management. Business and IT participants will collaborate on process modeling, regardless of their location, which will enable much-easier outsourcing of development and execution while retaining design control.
- **Runtime collaboration and social software.** Many BPM vendors are already adding basic runtime collaboration capabilities, which allow a process participant to append collaborative activities—document sharing, threaded discussions, whiteboarding—to an in-flight instance of a business process. Social software will expand the set of capabilities made available to process participants to coordinate and manage ad hoc human interactions, from expertise location and collaborative filtering to situational wikilike spaces to iterate on out-of-band tasks and focus on the tacit interactions upon which process outcomes depend.

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The modern consumer internet has demonstrated the promise of open, user-driven approaches—from producing the world’s largest and most reputable encyclopedia to changing the nature of presidential debates through user-contributed video. BPM will surely benefit from embracing these innovations. Social software and Web 2.0 capabilities are important ingredients for helping businesses revolutionize the processes that matter most: driving new levels of customer service, launching products to market faster, and ultimately seeing more substantial financial gains.

Key Takeaways: Participant-Based Process Management

Massive improvements in Web technologies and social computing should be considered as part of a long-term BPM strategy to ensure that BPM deployments maximize value gained from implicit knowledge, effort, and human interactions across your organization. This convergence can be particularly useful in driving the higher value innovation-centric processes that will deliver substantial gains to organizations that achieve successful deployments.

The convergence of Web 2.0 and BPM can be particularly useful in driving the higher value innovation-centric processes that will deliver substantial gains to organizations that achieve successful deployments.

NEXT STEPS: THINK BIG, START SMALL, AND MOVE FAST

The BPM market is quickly growing and evolving, with a range of vendors and solutions spanning the market. Fortunately for customers, the market is maturing,

resulting in a smaller number of vendors offering more-complete solutions to the full range of process problems. In addition, early BPM adopters are reporting substantial success stories—companies saving more than US\$9 million per year improving billing processes, reducing the time to process healthcare claims from months to days, handling 80 percent of customer change requests automatically—each of which helps instill confidence to organizations just embarking on their own BPM initiatives.

It is important to remember that BPM is not just about technology, it is both a methodology and a toolset for solving process problems. Those customers that have been most successful have embraced this reality. To help you replicate their success, below are key principles to remember.

Create an Integrated Partnership Between Business and IT

IT and business have long had a tumultuous relationship. But business users ultimately need IT's help for big projects, and IT ultimately needs business to fund initiatives. BPM projects, more than most others, provide a medium for IT and business to work together better, with one shared process model and one shared language to discuss challenges and solutions. Successful BPM implementations follow iterative deployment methodologies that encourage shorter development cycles so that business and IT are more closely connected throughout the project.

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Prioritize Process Opportunities Based On Complexity and Value

In evaluating BPM initiatives, it is useful to map out process challenges on a matrix of complexity versus value. Getting both business and IT teams to work through this exercise helps establish agreement on the most effective use of resources. Starting with less-complex projects gives teams the opportunity to move quickly, gathering early wins while learning about the best technology and organizational approaches. Knowing which projects will provide the biggest impact gives project teams clear focus on where to go next.

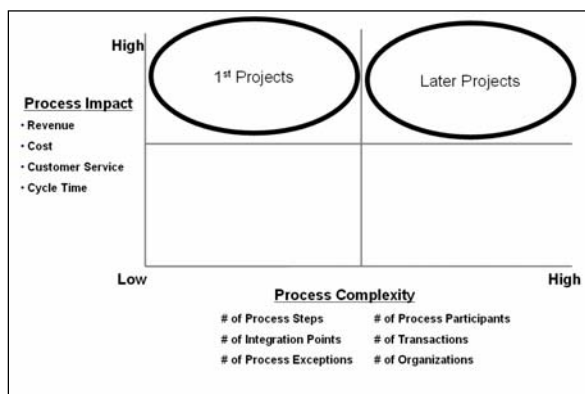


Figure 15: Prioritize BPM projects based on process complexity and impact.

Address People Issues Early in the Process

As discussed earlier in this paper, organizational issues can quickly impede BPM success. If you make process improvements, but can't reassign workers, or if you create a new process approach, but people don't follow through, the best technology in the world won't make your project a success. Accordingly, a well-run BPM project needs to have effective executive sponsorship, include training for the project team and participants, account for unique cultural preferences of the organization, and create effective bridges from "old ways" to "new ways." The more you can build a process-centric culture, where the whole organization is focused on continual optimization of end-to-end processes, the more successful your BPM project will be.

BPM promises big returns for those who can do it right. Hopefully this white paper has provided some clarity on the current BPM market, its trajectory, and how you can optimize the value and utilization of this practice within your organization.

ADDITIONAL RESOURCES

There are countless sources of information to help you learn more about BPM from industry analysts, experts, and standards organizations. Below is a sample to help you get started.

Industry Resources

- **BPM Institute.** A peer-to-peer exchange for BPM professionals. The BPM Institute publishes an objective report of BPM suites. www.bpminstitute.org/bpmsreport.html.
- **Business Process Trends.** A news source on business process change, trends, directions, and best practices. www.bptrends.com.
- **BPM Suite Watch Blog by Bruce Silver.** www.brsilver.com/wordpress.
- **Column 2 Blog by Sandy Kemsley on BPM and Enterprise 2.0.** www.column2.com.

Analyst Reports

- **Gartner Research.** This technology analyst firm has many reports on BPM. www.gartner.com.
- **Forrester Research.** This technology analyst firm has a host of BPM reports at www.forrester.com. Forrester also publishes a process-related blog. blogs.forrester.com/business_process/.
- **IDC.** This technology analyst firm specializes in statistical market intelligence and publishes very useful information on BPM. www.idc.com.

Oracle Resources

- **Oracle.** Find all BPM-related resources at oracle.com/goto/bpm.

Standards Bodies

- **Object Management Group.** This organization oversees Business Process Modeling Notation (BPMN) and Business Process Definition Metamodel (BPDM), among others. www.omg.com.
- **Workflow Management Coalition.** This organization oversees XML Process Definition Language (XPDL), among others. www.wfmc.org.
- **OASIS.** The organization that oversees BPEL, among others. www.oasis-open.org.



State of the Business Process Management Market 2008
Updated August 2008

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