Industry Watch

Business Process Management
- are we making the most of content-driven processes?

Underwritten in part by:

IBM  EMC²
About the Research

As the non-profit association dedicated to nurturing, growing and supporting the ECM (Enterprise Content Management) community, AIIM is proud to provide this research at no charge. In this way the education, thought leadership and direction provided by our work can be leveraged by the entire community.

We would like this research to be as widely distributed as possible. Feel free to use this research in presentations and publications with the attribution – "© AIIM 2009, www.aiim.org"

Rather than redistribute a copy of this report to your colleagues, we would prefer that you direct them to www.aiim.org/research for a free download of their own.

Our ability to deliver such high-quality research is partially made possible by our underwriting companies, without whom we would have to return to a paid subscription model. For that, we hope you will join us in thanking our underwriters, which include:

**IBM**

IBM
5065 Harbor Blvd,
Costa Mesa, CA 92626
Phone: 1.800.345.3638
Web: www.ibm.com/software/ecm

**EMC²**

EMC Corporation
176 South Street,
Hopkinton, MA 01748
Phone: 800.222.3622 or
508.435.1000
Fax: 508.497.6904
Email: softwaresales@emc.com
web: www.emc.com

Process Used, Survey Demographics and Terminology

While we appreciate the support of these sponsors, we also greatly value our objectivity and independence as a non-profit industry association. The results of the survey and the market commentary made in this report are independent of any bias from the vendor community.

The survey was taken by 495 individual members of the AIIM community between October 8th and October 23rd, 2009, using a Web-based tool. Invitations to take the survey were sent via e-mail to a selection of the 65,000 AIIM community members.

Survey population demographics can be found in Appendix 3. Graphs throughout most of the report exclude responses from organizations with less than 10 employees, and suppliers of ECM products or services.

About AIIM

AIIM (www.aiim.org) is the community that provides education, research, and best practices to help organizations find, control and optimize their information. For more than 60 years, AIIM has been the leading non-profit organization focused on helping users understand the challenges associated with managing documents, content, records and business processes. Today, AIIM is international in scope, independent and implementation-focused, acting as the intermediary between ECM (Enterprise Content Management) users, vendors and the channel.

About the Author

Doug Miles is head of the AIIM Market Intelligence Division. He has over 25 years experience of working with users and vendors across a broad spectrum of IT applications. He was an early pioneer of document management systems for business and engineering applications, and has been involved in their evolution from technical solution through business process optimization to the current corporate-level concerns of security and compliance. Doug has also worked closely with other enterprise-level IT systems such as ERP, BI and CRM. Doug has an MSc in Communications Engineering and is an MIET.
Introduction

Business Process Management (BPM) is not widely recognized as a single software product or even as a suite of related software tools. It is, more accurately, a business management practice which might utilize a number of dedicated software mechanisms. Many long-time users of document management systems would recognize BPM as the “Workflow” functionality that has been driving scanned documents and forms through departmental business processes since the early nineties. Whilst still majoring on this application in many businesses, BPM takes on both broader and deeper aspects. Broader in the sense of integrating with other enterprise applications, taking in electronic forms and e-documents, populating transactional databases and providing a single point of interface for users. Deeper features include process modelling and simulation, reusable process modules, and process monitoring and optimization.

By its nature, BPM is an intrusive technology. It has an excellent track record of investment return largely achieved by changing and re-shaping business processes for higher performance. As an agent of such change, the implementation of BPM presents many challenges, particularly when a process crosses departmental boundaries, or when the proponents of the BPM project are not from within the Line of Business affected.

In this report, we set out to explore these challenges – what are the motivations, what are the factors for success and what return on investment (ROI) is being achieved. We also measure planned levels of spend.

Key Findings

- 63% of responding organizations consider the importance of BPM to be significant or imperative.
- Hard-dollar savings from “Improving process throughput” and “Reducing process steps” are the two biggest drivers for BPM, followed by “Improving accuracy and repeatability”.
- 49% of organizations achieved payback of their investment in BPM tools within 18 months and a further 23% within two years. Additional projects are taking around 8 months on average to complete.
- 62% of those polled consider they have only addressed 1/5th of the potentially profitable BPM projects.
- Accounts payable and accounts receivable processes showed the strongest success factors, followed by customer support cases, proposals and contracts, and claims processing.
- In a third of organizations, BPM projects are likely to be initiated by Line of Business managers, whilst in another third, IT take the lead.
- Integration with other systems is the biggest technical challenge faced by our respondents.
- The strongest indicator for successful BPM processes is the presence of an existing process owner.
- 35% report that they have applied BPM to scanning all incoming mail.
- 6% are currently extending managed processes across the supply chain, but 19% have plans to do so.
- Just 4% of organizations are currently outsourcing BPM-enabled processes but this is set to rise to 18% in the future.
- In this sample, organizations are most likely to use BPM functions within DM/ECM systems (26%), followed by those using specific BPM functions in enterprise suites. Third is custom development and middleware, ahead of dedicated BPM suites (13%).
- 11% of organizations currently use BPM functions in SharePoint, and this is set to treble to 34% in the future, largely from new BPM users, and particularly in mid-sized organizations.
- Spending on BPM licenses looks set for a net increase over the next 12 months, with spending on BPM services and consultancy set to increase significantly.
- 36% look to buy their BPM tools from their existing ECM supplier, with 25% buying best-of-breed tools, and 23% preferring dedicated BPM suites.
Strategies and Business Drivers

Although many respondents report a lack of understanding of BPM within their organizations (see Figure 13), we can assume that those opting to answer this survey have a reasonable idea of what the term means. Most respondents to the survey acknowledge the importance of managing their business processes, with 63% rating it as “Imperative” or “Significant”.

When this translates into a BPM strategy, 60% of those responding to this survey have live BPM projects, including 26% who have extended BPM-enabled processes across departmental boundaries. A further 22% are at the planning stage. These results show a 7% increase in live projects since the 2008 survey.

These stages of adoption can be matched against the AIIM-developed 5-level BPM Maturity Model - see Appendix 2.
Drivers for Adoption

Looking at the drivers for adoption, we see that “Improving process throughput (productivity)” and “Removing unnecessary process steps (efficiency)”, are the two most often stated. “Improving accuracy and repeatability (quality)” comes a significant third, reflecting the role that BPM can play in continuous quality improvement and Six Sigma programs.

![Figure 3: What are the TWO strongest drivers for BPM in your organization? N=425](chart)

Perhaps due to its mixed heritage of Enterprise Application Integration (EAI), forms processing, and custom application development, there is no clear ownership of BPM. In a third of organizations the IT Department is most likely to initiate projects, compared to the next third where projects are initiated by Line of Business (LOB) managers. Given the need to focus BPM skills and experience, it is understandable that many organizations have created a Business Improvement group or a dedicated BPM unit. These are the consultants and analysts who would consider BPM software to be an essential part of their process toolkit. Interestingly, only 1% of respondents had BPM projects initiated by external consultants.

![Figure 4: Who takes primary responsibility for initiating BPM projects in your organization? N=416](chart)

Productivity and efficiency are the biggest drivers for BPM adoption, followed by continuous quality improvement. Projects are as likely to be initiated by IT, Line of Business, or a dedicated BPM/Business-Improvement group.
Scope of BPM Projects

As regards application areas, members of the IT department indicate a strong belief in BPM concepts for their own departmental processes, perhaps reflecting a level of custom application development rather than use of BPM toolsets. Customer support projects are next most popular, providing levels of escalation and ensuring consistent response management. Finance applications are the most universally applicable across all vertical markets, but Product Development makes a strong showing, reflecting the use of BPM for change management.

![Figure 5: What use is made of BPM across your departments?](image)

We next looked at the spread and ambition of existing BPM projects, and the planned expansion areas. Whilst 27% of organizations are currently extending projects across departmental boundaries, only 5% are extending to supply chain partners and customers. However, looking at aspirations here shows a will to utilize BPM across processes in their broadest definition, with a trebling of those planning to do so in the future, albeit that no planning horizon was set.

![Figure 6: At what levels do your BPM-enabled processes operate? (Tick those that apply)](image)

BPM is at present largely limited to within-business processes, but there is ambition to extend beyond the firewall. IT departments are the largest users followed by Customer Support.
Systems in use

In this sample, use of BPM functions within DM/ECM systems is the most likely scenario at 26%, followed by specific BPM functions in enterprise suites. Third is custom development and middleware, ahead of dedicated BPM suites (13%). Custom development looks set to continue but use of open source is set to grow considerably. 11% of organizations currently use the BPM functions in SharePoint, and this is set to triple to 36% in the future, largely from new BPM users, and particularly in mid-sized companies (500-5,000 employees).

Figure 7: Which of the following systems do you most actively use or plan to use for process management and workflow? (Max 2)

We mentioned earlier that Enterprise Application Integration was a forerunner of BPM. However, within the AIIM community base, it is still the traditional document-centric integrations within ECM that come to the fore. Only 25% have integrated BPM with finance and order processing systems, with 20% also linking to project management and HR systems. It is worth bearing in mind the result in Figure 7 that 20% of respondents utilize BPM aspects of their enterprise systems, such as SAP.

Figure 8: Which systems and applications have been integrated with your BPM solution?

Workflow functionality is provided via a wide range of sources: ECM suites, dedicated BPM suites, enterprise systems, best-of-breed toolsets, open source, and custom programming. Use of BPM within SharePoint is set to treble to 36%, mostly from new users.
Return on Investment

With the current economic pressures, investment projects that show near-term payback are likely to be favoured. BPM scores very well, with 49% showing return in 18 months or less, and 72% within 2 years. These returns are most likely to be from a first project, with additional projects likely to show an even faster return. As is common when we ask specific ROI questions, many organizations do not measure improvements (31%), limiting their ability to justify future projects.

*Figure 9: As regards live projects, what would you say has been, or is projected to be, the payback period for your investment in BPM tools? N=218 (excludes 31% Don’t Knows)*

[Graph showing payback periods]

If the ROI savings and experience from initial projects is fed back into other processes, there is considerable scope for further returns, with 62% indicating that there are 5 times as many processes that could profitably be improved as have so far been completed.

*Figure 10: What percentage of the processes in your business that could usefully and profitably be improved by workflow/process management would you say have so far been addressed? N=374*

[Graph showing process improvement percentages]

Business change projects can be notoriously long-running, but our respondents indicated an average of 8 months per project, with 6 months being the most frequent project time-line.

*Figure 11: What would you say has been the average project time to BPM-enable one of your processes? N=242*

[Graph showing project time frames]
We then asked which of a selection of likely processes had proved to be the most successful, not just in productivity terms, but also time reduction and accuracy. Customer support cases came out on top, followed by accounts payable (inbound invoice processing) and proposals and contracts. This graph is ranked by success rate, but the line length indicates how popular these processes are for BPM application, so we can see that some HR processes such as expenses processing are quite popular, with a high probability of achieving a reasonable return, others such as appraisements and reviews are not always as successful.

Figure 12: How would you rate the success (ROI, throughput, accuracy, etc) that you have achieved from BPM application to the following processes?

It is interesting to note that 35% of responding organizations are scanning all incoming mail. As a process in its own right, this is reporting an average success score, but it is also a useful enabler to many of the other processes.

ROI from an investment in BPM tools is readily achievable in 18 months or less. Customer-facing applications are leading the way, including proposals and contracts, followed by Accounts Payable and Accounts Receivable processes.
Implementation Issues

As we suggested earlier, user resistance to change is the biggest managerial issue, and all of the usual change management techniques should be used to reduce this. Involving users in the design of the process and modelling of changes is likely to improve acceptance.

Lack of understanding or knowledge of BPM has been highlighted as an impediment in previous AIIM reports, and is more likely to apply to senior management and LOB management than to users.

Another common theme from previous AIIM reports is “Underestimating the time to map and agree processes”. In many organizations, documented work instructions and actual working practices seldom match, and the prospect of encapsulating the process heightens these differences. It is worth spending the time to get this right. Failure to do so will result in users continually seeking workarounds within the BPM process in order to do their jobs. As we shall see later, a single identifiable process owner who can represent the process users is also a benefit.

Figure 13: What are/were the FOUR biggest managerial issues you experienced during the implementation of BPM?

By its nature, BPM is likely to involve interfaces to other systems, whether they are scan and capture systems or core enterprise systems. Transaction-centric processes might be expected to present greater difficulties in this area than document-centric ones. We explored this issue in the survey, but found that there was no real difference overall. We did detect that content-driven processes score a little higher for long-term optimization of the process.

"Unexpected exception requirements" was the second biggest technical issue, again reflecting time taken to fully map existing processes. The third factor, "Over-complexity of process creation and rules engines" suggests a difficulty of accommodating exceptions into the core process plan, or possibly a lack of experience and expertise. BPM applications can be daunting to untrained users, and many would benefit from more generic training in the BPM methodology itself.
In Figure 12 we showed a long list of candidate processes and their likely ROI, but we also wanted to find out what the common factors for success are. In Figure 15 we see the Process Owner aspect coming to the fore, followed by aspects of the process itself. If a process is currently heavily forms-driven, it is likely that over time the process steps and exceptions have been ironed out. However, good returns can also be achieved where processes allow a degree of optimization in areas such as parallelisation of serial tasks, and where formalisation of routing and branching can be handled in a more repeatable manner.

In Figure 12 we showed a long list of candidate processes and their likely ROI, but we also wanted to find out what the common factors for success are. In Figure 15 we see the Process Owner aspect coming to the fore, followed by aspects of the process itself. If a process is currently heavily forms-driven, it is likely that over time the process steps and exceptions have been ironed out. However, good returns can also be achieved where processes allow a degree of optimization in areas such as parallelisation of serial tasks, and where formalisation of routing and branching can be handled in a more repeatable manner.

### Figure 14: What were/are the FOUR biggest technical issues you experienced during the implementation of BPM?

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration with other systems</td>
<td>Roughly 40%</td>
</tr>
<tr>
<td>Unexpected exceptions requirements</td>
<td>Roughly 25%</td>
</tr>
<tr>
<td>Over-complexity of process creation and rules engine</td>
<td>Roughly 20%</td>
</tr>
<tr>
<td>Shortcomings within the end user interface</td>
<td>Roughly 15%</td>
</tr>
<tr>
<td>Inadequate process monitoring</td>
<td>Roughly 10%</td>
</tr>
<tr>
<td>Product limitations for mapping process requirements</td>
<td>Roughly 5%</td>
</tr>
<tr>
<td>Difficulty of modifying process once set</td>
<td>Roughly 20%</td>
</tr>
<tr>
<td>Difficult to scale or replicate into other business areas</td>
<td>Roughly 10%</td>
</tr>
<tr>
<td>Difficulty of copying and re-using processes</td>
<td>Roughly 5%</td>
</tr>
<tr>
<td>Lack of graphical process representation</td>
<td>Roughly 5%</td>
</tr>
</tbody>
</table>

### Figure 15: In your experience, which FOUR of the following factors would you say are the best indicators that a BPM project would be successful?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already has an identified process owner</td>
<td>Roughly 50%</td>
</tr>
<tr>
<td>Current process is heavily forms driven</td>
<td>Roughly 40%</td>
</tr>
<tr>
<td>Has potential for continuous optimization over time</td>
<td>Roughly 35%</td>
</tr>
<tr>
<td>Process has many branches and routings</td>
<td>Roughly 30%</td>
</tr>
<tr>
<td>Has serial steps that could be made parallel</td>
<td>Roughly 25%</td>
</tr>
<tr>
<td>High penalty for errors or mistakes in processing</td>
<td>Roughly 20%</td>
</tr>
<tr>
<td>Geographically dispersed participants</td>
<td>Roughly 15%</td>
</tr>
<tr>
<td>Currently subject to load variations and log jams</td>
<td>Roughly 10%</td>
</tr>
<tr>
<td>Restricted to one department</td>
<td>Roughly 5%</td>
</tr>
<tr>
<td>Not mission critical</td>
<td>Roughly 5%</td>
</tr>
<tr>
<td>Has potential for outsourcing</td>
<td>Roughly 5%</td>
</tr>
</tbody>
</table>
Purchasing Preferences and Level of Spend

As we mentioned previously, business process management suites and tools might have a heritage in forms scanning and document management, they might come from middle-ware and modelling applications, or they might be part of an enterprise system such as SAP. Within the AIIM community, we see a preference for purchasing BPM as part of the ECM suite (36%), but if we add together dedicated BPM suite suppliers and best-of-breed BPM tool suppliers, we have 48% of respondents that would more likely look to BPM-specific suppliers. We must, of course, overlay on this the level of vertical market expertise expected of a BPM supplier, and this can indicate very strong candidates of each type within specific vertical markets.

Figure 16: How do you prefer to purchase BPM tools?

Whether part of a suite or as best-of-breed, BPM offerings tend to be modularised. To assist with the selection process, about we asked existing users how useful they found particular modules, and also provision of standard process description/execution languages such as BPMN and BPEL. Interestingly, SOA (Service Orientated Architecture) comes quite low down on this list, whereas difficulty of integration is high on the list of technical issues.

Figure 17: How useful would you rate the following features in your principle BPM solution?
Based on responses to this survey, the BPM market looks to be in good shape with some increased spend on licenses for modules and suites, and with a significant increase in services and consultancy. It is heartening in this survey to see an increased appetite for training in this area.

**Figure 18: How will your spending on BPM tools and services in the next 12 months compare with the previous 12 months?**

<table>
<thead>
<tr>
<th>Category</th>
<th>Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPM modules within ECM suite</td>
<td>More</td>
</tr>
<tr>
<td>Dedicated BPM systems</td>
<td>More</td>
</tr>
<tr>
<td>Stand-alone modeling/simulation tools</td>
<td>More</td>
</tr>
<tr>
<td>BPM services and consultancy</td>
<td>More</td>
</tr>
<tr>
<td>Staff training in BPM</td>
<td>More</td>
</tr>
</tbody>
</table>

*Investment in BPM tools and services is likely to increase in the next 12 months.*

**Conclusion**

Due to its mixed heritage, BPM is still somewhat misunderstood. Within traditional document-centric applications, it is considered an enhancement and extension of document workflow, connecting more with other enterprise systems whilst providing additional toolsets in process modelling and simulation.

Initial BPM projects show strong financial return on investment, frequently in less than 18 months, and once the expertise and experience is achieved, additional projects generally take 9 months or so to bring to fruition. Prime application areas are customer-facing processes, accounts payable and accounts receivable, but there is a widespread record of success in most other business areas.

Business change issues inevitably arise from application of BPM, but identification of an end-to-end process owner is one of the most important aspects of project management. Integration of other enterprise applications is a technical issue to be overcome, but increasing availability of SOA applications should help to overcome this.

Investment in BPM modules and licenses looks set to increase, with traditional ECM vendors well placed to take a share of that, as well as dedicated suite vendors and best-of-breed solutions. Custom applications and open source also have a part to play.
Appendix 1: “Do you have any further comments to make about ROI or BPM in general?” - selected responses

- We originally purchased an ECM solution to handle documents without too much thought about BPM. The experience showed that the real payoff is in the BPM features.
- Great tool and technology. Can turn around business processes, but this is not a technology solution. It works best when combined with business process re-engineering.
- Process needs to be well defined - users need to understand that there cannot be an exception to every rule for BPM to succeed. Tools are important but process analysis and implementation are key to success.
- Once we had a process owner it started work very powerfully. At first no one group wanted to take ownership.
- Dedicate the required time to clarify processes on paper—it is worth it.
- You have to wear many hats to be successful; i.e., salesman, visionary, analyst, cheer leader, mentor, coach, etc.
- Our biggest challenge is trying to automate processes that are not formally documented.
- Establishing a dedicated team/department to this function is key to long term success.
- Getting all departments to agree on any processes is a real challenge!
- If a process can be graphically represented and rebuilt as such within the application, then it is generally accepted by users and is subsequently successful.
- IT must recognise that the LOB is the driver and IT is the enabler. The tools must fit the business and not the other way around.
- Definitely a senior level champion is important. Obtaining CLEAR and understandable requirements is the single biggest challenge. A lot of time is wasted in chasing down unexpected exceptions that should have been mapped during the design phase.
- The tool should not care about content or transaction driven. The key is that the business users understand the differences between data and content.
- It is very important to have a process evangelist from the business side (non IT)
- BPM tools need to be user-friendly, simple and quick to put together.
- Our several projects to this point have been excellent in increasing productivity and decreasing errors with the processes.
Appendix 2: The BPM Maturity Model

- **Level 1: Initial** - Enterprise lacks consistent practices, management is reactive, little or no BPM strategy.
- **Level 2: Managed** - Stabilization of local work through department-level expertise, control, and metrics. Processes are repeatable and documented.
- **Level 3: Standardized** - Enterprise-wide process improvement competencies with product and service orientation. Best practices are standardized and documented.
- **Level 4: Predictable** - The enterprise has established common, integrated assets and processes with measurement and predictability. Variations of process performance are minimal, and processes are stable.
- **Level 5: Optimizing** - Process excellence and re-engineering is fully integrated into the organization. Emphasis is on continuous improvement.
Appendix 3: Survey Demographics

Survey Background

The survey was taken by 495 individual members of the AIIM community between October 8th and October 23rd, 2009, using a Web-based tool. Invitations to take the survey were sent via email to a selection of the 65,000 AIIM community members.

Survey Demographics

Organizational Size

Survey respondents represented organizations of all sizes. Larger organizations over 5,000 employees represented 29%, with mid-sized organizations of 500 to 5,000 employees at 45%. Small-to-mid sized - 10 to 500 employees - were 27%. Organizations of less than 10 employees were excluded from all of the results.

Industry Sector

There was a higher participation (19%) from Finance, Banking and Insurance than is usual for the AIIM demographic, indicating a higher usage of BPM in this sector. Local and National Government made up 27%, and Utilities Oil & Gas 12%. The remaining sectors were evenly split. To avoid any bias, consultants and suppliers of ERM were removed from the report.
Geography

Just over three-quarters of participants were based in North America, with the remainder split between Europe and the rest-of-the-world.
EMC Corporation (NYSE: EMC)

EMC is the world’s leading developer and provider of information infrastructure technology and solutions that enable organizations of all sizes to transform the way they compete and create value from their information.

**EMC Documentum xCelerated Composition Platform (xCP) offers Speed to Value**

EMC Documentum xCP sets a new standard for rapidly building case management solutions. Case processing is a pattern of work common to a variety of industries that requires a group of people to systematically collaborate on a case folder that consists of both content and data. Today, organizations demand a fast ROI from their IT investments. As a result, projects must be completed more quickly and successfully than before.

With Documentum xCP, SIs, ISVs and IT organizations can rapidly build applications up to 50% faster and with fewer resources. Documentum xCP is an applications composition platform that emphasizes configuration versus coding and provides fully integrated technologies that combine the power of content management, business process management, intelligent capture, customer communications, collaboration and compliance. It offers composition tools and pre-built components, along with deployment best practices to deliver case-based solutions at a lower cost, with less complexity, and with substantially less project risk.

To learn more, visit: www.EMC.com (use this link: http://www.emc.com/solutions/business-need/collaboration/documentum-xcelerated-composition-platform.htm)

---

IBM

IBM Enterprise Content Management solutions enable the world’s top companies to make better decisions, faster. As a market leader in content, process and compliance software, IBM ECM delivers a broad set of mission-critical solutions that help solve today’s most difficult business challenges: managing unstructured content optimizing business processes and helping satisfy complex compliance requirements through an integrated information infrastructure.

More than 13,000 global companies, organizations and governments rely on IBM ECM to improve performance and remain competitive through innovation.

To learn more, visit: www.ibm.com/software/ecm
About AIIM

AIIM (www.aiim.org) is the community that provides education, research, and best practices to help organizations find, control, and optimize their information. The AIIM community has grown to over 65,000 professionals from all industries and government, in over 150 unique countries, and within all levels of management including senior executives, line-of-business, and IT.

For over 60 years, AIIM has been the leading non-profit organization focused on helping users to understand the challenges associated with managing documents, content, records, and business processes. Today, AIIM is international in scope, independent, implementation-focused, and, as the representative of the entire enterprise content management (ECM) industry - including users, suppliers, and the channel - acts as the industry’s intermediary.