

The State of Business Process Management

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Introduction

This report summarizes information provided by 274 respondents who took a BPTrends survey in November and December of 2007. It analyzes the responses and it compares them with the responses provided by a similar group of 348 respondents who took a very similar survey in February of 2006.

In both cases, the respondents, who work in large, medium, and small companies, represent a broad cross section of industries from around the world. Given the size and diversity of the respondents, we believe this is the most comprehensive and representative overview of how organizations understand BPM, what BPM activities companies are currently engaged in, and what BPM activities companies are planning for the future.

Like other BPTrends Reports, this 2008 BPTrends report on the State of BPM is available FREE to all registered members of BPTrends. We hope this report will provide readers with insight into the kinds of BPM development efforts currently under way and the ways their own company's BPM efforts compare with those of other companies.

Business Process Management (BPM) has been a hot business topic since 2003. Most people think of it as the logical continuation of the interest in business processes that started in the Eighties and reached a crescendo in the mid-Nineties with Six Sigma, Business Process Reengineering, Workflow, and ERP. Because of its extensive roots, and because there are several new approaches included in today's discussions of BPM, it can be very difficult to develop a clear picture of BPM. Like any phrase that is comprised of familiar words and embraced by a number of rather different communities – including executives, business process consultants, business analysts, Six Sigma practitioners, enterprise architects, CIOs, and software developers – the phrase *Business Process Management*, or *BPM*, means different things to different people. There's nothing we can do to force uniformity on such a diverse and rapidly changing body of practitioners. The best we can hope to do is to define the different ways the term *BPM* is used and report on the different goals of the different groups using the term.

BPTrends has tried to establish a common BPM vocabulary. Despite our best efforts, however, authors we publish still regularly use a variety of terms in different ways. Thus, for example, *process* or *framework* mean whatever the author wants them to mean. To minimize confusion, we wrote multiple-choice questions and, where the possibility of confusion existed, provided very descriptive choices to minimize unclear results. Overall, we believe we succeeded.

To repeat, this report summarizes data gathered during the months of November and December of 2007, and most of the questions are exactly the same questions we asked in a survey we undertook in February of 2006; thus we are in a position to compare answers from respondents in early 2006 and in late 2007. We hope that this survey, and future surveys like it, will begin to provide benchmarks that the community can use to gauge its evolution.

The respondents to this survey were either members of the BPTrends community, which numbers 25,000, or they were visitors to the BPTrends website. While we cover the entire range of topics that a business process manager or practitioner needs to know, we tend to draw more managers and practitioners interested in the latest concepts in BPM than those from the more specialized communities, like Six Sigma or Business Process Outsourcing. Therefore, our results reflect the perspectives of a broad base of business managers interested in Business Process Management.

In 2006, when we published the first report in this series, we converted the data into pie charts and focused on percentages. This year, in part to achieve greater accuracy and in part to get this report to you with a minimum amount of delay, we chose, instead to use tables that provide the actual

responses as well as the percentages. This makes it much easier to compare the responses from the early 2006 survey with the results obtained in late 2007, and we hope you find it useful.

It may seem that we have overemphasized the statistical significance in this report. We did so because we have been outraged by other BPM reports that make broad generalizations based on surveys of a mere 25 or 35 respondents. It's highly unlikely that a set of 30 responses accurately reflect anything other than a very skewed sample. We have confidence in our basic sample and in the broad conclusions we have reached, although we caution readers to keep in mind that even those conclusions are probably slightly skewed in that they represent the responses of managers and practitioners who are sufficiently interested in business processes to pay an occasional visit to the BPTrends website. We are reasonably happy with the response sets we got from Europe and North America and believe that the statements we make about how Europeans or North Americans are more or less willing to do this or that represent valid generalizations. We avoid comparing response sets from Asia and Africa. We had only 42 total respondents in Australia and Asia and only 19 from Africa and the Middle East. We are not confident that our sample adequately represents the typical position of business process managers and practitioners from those regions. We mention considerations like these in various places in the report to raise our readers' awareness of these issues. Our hope is that our readers will increase their demands for a higher standard from other analyst groups and become more critical of reports that make much out of data sets that simply cannot support the statistical conclusions or the comparisons their authors claim to make.

Throughout this report, we use a number of terms we assume are familiar to most readers. Specifically, we have assumed readers will be familiar with the BPTrends way of classifying business process software products – with CMM process maturity levels; with the concept of Enterprise, Process, and Implementation Levels, as used on the BPTrends pyramid; and with Geoffrey Moore's way of classifying the development of technology markets. For readers who are unfamiliar with any of these terms and concepts, we have included explanations in Appendix I.

We are grateful to our many BPTrends members and readers who worked with us to make this Survey Report a reality. Without the many respondents who took the time to fill out our Questionnaire, we could not have produced this Report. For our part, we have reported and summarized the data as accurately and fairly as we could. This year we have avoided pie charts and rely instead on tables with the actual numbers of respondents and percentages to provide readers with an even more accurate understanding of the data. We particularly want to thank William G. Morrissey, who helped with data analysis and preparation, and Carolyn Potts and James Eilers who edited the report.

As always, we welcome your comments and suggestions regarding this Survey as well as your suggestions for topics and issues you would like to see included in future reports.

Finally, we hope this Survey Report will provide BPM practitioners with insights that will suggest new ideas for future development in their organizations.

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The Respondents

BPTrends conducted this survey in November and December of 2007. We conducted an earlier survey, with similar questions in February of 2006. In both cases we sent an email to our membership inviting them to participate, and we posted a pointer on the BPTrends website to encourage participation from both members and site visitors. The questionnaire remained available for almost two months in 2007 and for a little over one month in 2006. During the fall of 2007, 274 people took the survey. During the spring of 2006, 348 people took the survey. In both cases about four times that number looked at the survey and answered a few questions, but we have ignored those visits and are reporting only on the responses of those who took the time to complete the entire questionnaire. Even then, the total responses to each specific question vary because some respondents answered every question while others skipped a few questions.

Job Title or Function

Each respondent was asked to describe his or her job or function within his or her organization. In the table pictured in Table 1 we show how the respondents answered this question in 2007 and in 2006. In each case the first column indicates the actual number of responses, and the second number indicates the percent that chose that option. Since there were more respondents in 2006 than in 2007, it is usually best to simply focus on the percentages.

In both 2007 and in 2006, over fifty percent of the respondents identified themselves as Business Practitioners or Business Analysts. Roughly similar numbers identified themselves as an Executive (12% in 2007 and 17% in 2006), Business or Line of Business Managers (17% in 2007 and 19% in 2006), or IT Managers/IT Developers (15% in 2007 and 15% in 2006). Only 1% identified themselves as an HR Manager or a Human Performance Practitioner in either year. (See Table 1.)

Which of the following best describes your job function? (Choose one)			2007 Results		2006 Results	
Executive (CEO,COO,CFO)	33	12%	55	17%		
Business or Line of Business Manager	46	17%	60	19%		
Process Practitioner/Business Analyst	148	55%	167	52%		
IT Manager/IT Developer	41	15%	47	15%		
HR Manager or Human Performance Practitioner	2	1%	3	1%		
Total	270	100%	332	104%		

Table 1. Respondent's job title/function

The nature of the respondents' jobs means that this survey tilted slightly toward a business perspective, as opposed to an IT or an HR perspective. More broadly, we might say the survey represents a business/IT perspective. We believe these numbers reflect the market in general, although we were surprised in both 2006 and this past year that we didn't get a slightly larger participation from HR and Human Performance practitioners.

We were particularly impressed by the number of executives and line of business managers who took part in the survey. This seems to suggest that companies are still exploring BPM and that business people in organizations are visiting sites like www.bptrends.com in order to learn more about what BPM might hold for their organizations. It also reflects the fact that business managers are in charge of BPM initiatives at many companies.

We not only analyzed the data in order to compare responses from 2006 and 2007, but also filtered it in various ways. For example, we looked at the responses to each question we asked in 2007, to see if respondents from the North America answered in significantly different ways from respondents in Europe or in other parts of the world. (In this case, “Other” refers to any response from a country other than those in North America and Europe.) Similarly, we always checked how Business Executives and Line Managers answered questions to see if they responded differently than the average. We also checked to see how the results would look if we filtered out responses from consulting and computer companies. We checked how those who said they had installed BPMS software responded, and we checked to see if respondents from the Finance Industry answered in any significant deviation from the norm. (Finance was the only industry from which we had enough responses to make significant generalizations about how Finance might differ from the average.) We are not going to report the data from each of these analyses as we look at each question. Instead, we will only report differences that are significant. Thus, for example, if we don’t comment on how Financial people responded to a particular question, you can assume that they responded, on average, like everyone else.

When we look at job functions, applying various filters, we find that we have slightly fewer executives from non-computer and consulting, and from North America, responding. And only 2% of those who are from the Finance Industry claim to be executives. In fact, only 2% of those responding from large companies identify themselves as Executives, while 21% of those from small and medium sized companies say they are Executives. We’ll also see in a moment that more Computer and Consulting respondents claim to be from small companies and that more Financial respondents claim to be from large companies. In other words, our overall response from individuals claiming to be Executives (CEO, COO, CFO) is slightly skewed by the fact that we have more responses from individuals in small computer or consulting firms who are CEOs, COOs, or CFOs. Similarly, we have good data about BPM activities in the Financial Industry, but that data comes from Business or Line Managers, Process Practitioners, Business Analysts, and IT Managers and not from Financial CEOs. We also find that we have a significantly larger number of Executives responding from European companies.

The Scope of the Respondents Coverage

We asked respondents to tell us if they would be describing their entire organization, or simply a division or business unit within a larger organization. Two-thirds of our respondents (69% in 2007 and 64% in 2006) indicated that they would be reporting on their entire organization. That’s a bit unusual, but it corresponds with the fact that so many respondents were executives or line managers. (See Table 2.)

Which of the following best characterizes the organization you are describing? (Choose one)	2007 Results		2006 Results	
	Entire Enterprise	186	69%	207
Division	51	19%	73	23%
Single Business or Functional Unit	32	12%	43	13%
Total	269	100%	323	100%

Table 2. The business unit the respondent is describing

Although the difference is slight, it is in keeping with other results in this survey that a growing number of people are focused on the enterprise level in 2007 than was true in 2006. In part, this simply reflects the fact that as companies undertake more process work they tend to focus more on

connections that cut across departmental lines. Non-North American, including European, respondents were significantly more likely to be reporting on their entire enterprise and less likely to be reporting on a division. Small and medium sized companies are slightly more likely to describe their entire organization compared with respondents from large companies that more frequently report on divisions.

The Size of the Participating Organizations

We asked each respondent to indicate the overall size of the organization he or she would be describing. A slightly larger group reported that they would be describing large organizations (46% in 2007 and 41% in 2006), while a slightly smaller group said they would be describing small organizations (20% and 26% respectively). Overall, we thought it was a nice balance. We might have expected the number of large companies to be more extensively represented, as large companies are more likely to be engaged in the exploration of new technology, but this was clearly balanced by companies doing other types of business process work, and by consultants, who generally come from smaller organizations. (See Table 3.)

Which of the following best describes your organization's size (Choose one)			2007 Results		2006 Results	
Large	124	46%	132	41%		
Medium	93	34%	107	33%		
Small	55	20%	85	26%		
Total	272	100%	324	100%		

Table 3. The size of the respondent's organization

Financial respondents were significantly more likely to come from a large company and much less likely to come from a small company. By the same token, Non-North American, including European, respondents were less likely to be from a large company.

Industries Represented in the Survey

The survey provides the perspective of individuals from a wide range of industries. In both 2006 and 2007 Financial Services and Insurance is the best represented industry (19% in 2006 and 20% in 2007). Moreover, in both years, only Financial Services/Insurance is represented by enough individuals that we feel confident in comparing and contrasting what Financial respondents think relative to other respondents.

The next two largest groups, Computer/Consumer Electronics/Software (14% in 2007) and Professional/Business Services/Consulting (14% in 2007) are always a little difficult to analyze. Vendors make up a good portion of the Computer/Software category, and Consultants, with particular approaches, make up a good portion of the Consulting category. We always include both categories, but always check to see what the results are like if we exclude them, just to be sure we aren't introducing a vendor/consultant bias. The fourth largest group is the Government/Military.

Which of the following best describes your industry (Choose one)			2007 Results		2006 Results	
Aerospace/Defense	7	3%	7	2%		
Heavy manufacturing	6	2%	5	2%		
Light manufacturing	5	2%	8	2%		
Chemicals/Energy	9	3%	17	5%		
Computers/Consumer Electronics/Software	38	14%	56	17%		
Education	12	4%	12	4%		
Financial Services/Insurance	55	20%	63	19%		
Food/Beverage	3	1%	5	2%		
Government/Military	27	10%	28	9%		
Healthcare/Medical Equipment	5	2%	8	2%		
Leisure/Entertainment/Travel	3	1%	4	1%		
Professional/Business Services/Consulting	37	14%	52	16%		
Retail and Wholesale	7	3%	12	4%		
Telecommunications	7	3%	27	8%		
Utilities	14	5%	12	4%		
Other, Please Specify	35	13%	28	9%		
Total	270	100%	344	106%		

Table 4. The range of industries represented in the Survey

Reviewing the filtered data, one interesting thing stands out immediately. When we look at responses from individuals who said their companies were using BPMS products, we notice that industries with the largest number of BPMS users are Computers/Software, Professional/Consulting and Financial Services. We assume that the fact that there are so many BPMS users in the Computers/Software and Professional/Consulting industries simply reflects that many are BPMS vendors or consultants or that they are early adopters of new software technologies. The fact that Financial companies used significantly more BPMS than other industries reflects the industry’s well-known role as the leading consumer of the new computer/software technology that provides a competitive edge. (In other surveys we have asked BPMS vendors what types of companies they are targeting or selling their products to, and Finance invariably heads the list.) When you analyze the data by region, the only area in which the Financial Industry is not the most represented industry is among the Non-North American and Non-European countries. In these “other” areas, government constitutes 22% of the respondents, while Financial Services/Insurance constitutes only 16%.

The Geographical Locations of the Respondents’ Companies

We also asked respondents to tell us where their organizations were located. This past year and in 2006, the largest group of respondents was from North America. The next largest group of respondents in both cases (30% in 2007 and 31% in 2006) was from Europe. Smaller groups of respondents were from South America, Africa, and the Middle East.

In 2006 we only offered respondents the option of choosing Asia/Australia. In 2007, given the growing business interest in that region, we asked respondents to tell us if they were from Australia, India, and SW Asia, or from China, Japan and NE Asia. As you can see by looking at Table 5, we got about the same number of responses in both years. Now, however, we know that the great majority of the Asia/Australia responses came from Australia and that the smallest number of responses came from the Asia area.



Where is your organization located? (Choose one)			2007 Results		2006 Results	
North America	111	42%	156	48%		
Europe	81	30%	101	31%		
South America	14	5%	21	6%		
Australia	31	12%				
India and SW Asia	7	3%				
China/Japan & NE Asia	4	1%				
<i>Subtotal Asia/Australia</i>	42	16%	45	14%		
Africa/Middle East	19	7%	25	8%		
Total	267	100%	348	107%		

Table 5. Where respondents’ organizations are located

In all cases, comparisons between responses from individuals from North America and Europe are possible. Similarly, if we group Asia/Australia, South America, and Africa/Middle East together (75 total responses in 2007 and 91 responses in 2006), we can make statistically valid statements when we compare North America, Europe, and a generic category of “Other” regions. Were we to make comments about how individuals from South America, Africa and the Middle East, Australia, or Asia responded, however, readers should be more skeptical, as we do not have a sufficient number of responses from individuals in those regions to assure that our conclusions would be statistically accurate..

Comments on Respondents

We have already suggested that we are impressed by both the size of the sample – the number of people who responded – and the distribution of the sample among industries, geographical locations, and company size. These elements all suggest that the data will be representative of the broad scope of BPM today.

We do want to suggest a couple of qualifications readers should consider in reviewing the data.

First, we did not ask each respondent to identify his or her company. Thus, we don’t know how many respondents come from the same company. We have generally assumed that each respondent represents a different company. Thus, if 20% of the respondents said their companies used Business Process Modeling tools, we have assumed that 20% of the companies used those tools. This assumption is reasonable, even if a few of the respondents do come from the same company, but readers should be aware that we are actually reporting on the responses of individuals, and not responses from different companies.

Second, a large number of respondents were from Computers/Consumer Electronics/Software and Professional/Business Services/Consulting. Many of these respondents are probably consultants and software vendors who are not actually doing BPM work themselves, but helping others in their BPM efforts. We checked several questions and did not find that their responses were very different from those of obvious end users, such as those from Finance or Manufacturing. Where it does seem to skew the data a bit is in the number of Executives included in the survey. Of the 56 respondents from Computers and Software in 2006, for example, 16 were Executives. Of the 52 respondents from Professional and Consulting, 20 were Executives. Of the 63 respondents from Financial Services and Insurance, only 7 were Executives. Only 2 of the 13 respondents from manufacturing listed themselves as Executives.

Something similar happens when you consider the relationship between company size and job titles. Most of the executives come from small companies. And most of the professional and consulting companies are small companies. Thus, readers shouldn't focus too much on the number of Executives taking part in the survey, as they probably represent executives from consulting companies and software vendors, and not executives from end user companies. On the other hand, the Business Line Managers are mostly from larger companies and are more broadly representative of the entire range of industries involved in the survey.

We use filters to check as we go to assure that we notify you when we think the data might be skewed.

How Corporations Understand BPM Today

The Meaning of BPM

Different people use the term “BPM” in different ways. Some use BPM to refer to “Business Process Management.” Others use BPM to refer to “Business Performance Management.” Some use BPM to refer to a general approach to the management of business process change, while others use it more narrowly to refer to the use of software techniques to manage the runtime execution of business processes. To better understand how our respondents were using the term, we asked respondents to choose among four options, or to suggest an alternative to the four options we presented. Table 6 provides an overview of the results.

Which of the following best describes your organization's understanding of BPM? (Choose one)	2007 Results		2006 Results	
	A top-down methodology designed to organize, manage, and measure the organization based on the organization's core processes	110	40%	141
A systematic approach to analyzing, redesigning, improving, and managing a specific process	79	29%	93	26%
A cost-saving initiative focused on increasing productivity of specific processes	36	13%	41	12%
A set of new software technologies that make it easier for IT to manage and measure the execution of process workflow and process software applications	26	9%	56	16%
Other, Please Specify	23	8%	22	6%
Total	274	100%	353	100%

Table 6. How organizations understand BPM

As you can see, a significant majority of our respondents – 40% in both 2007 and 2006 – indicated that their organizations understand BPM to refer to a “top-down methodology designed to organize, manage, and measure the organization, based on the organization’s core processes.”

The next largest segment, in both 2007 and 2006, associated BPM with the analysis and redesign of processes, and with the management of redesign or improvement projects. Given the numbers involved, the difference between 29% and 26% is not significant, so one should not conclude that more companies now favor a systematic approach. In a similar way there is no significant difference between the 13% in 2007 and 12% in 2006 that think BPM is a cost-saving initiative – these are simply insignificant sampling variations. There is, on the other hand, a real difference between the 16% in 2006 and the 9% in 2007 that think BPM refers to “a set of new software technologies.” Clearly, companies have become more sophisticated about BPM in the course of the past 12-18 months and now discriminate between BPM and BPMS when determining their general approach to improving business processes.

Those who answered “Other” either suggested that the correct response was some combination of the alternatives – often a combination of 1 and 2 – or they suggested there was no consistency at their organization and that different people in their organizations held different opinions.

Overall, we are impressed with the consistency between the views held by companies in 2007 and 2006. Many BPMS vendors don't seem to understand this distinction and continue to refer to their products as BPM products and suppose that everyone that comes to a BPM show is looking for a software solution. This response is consistent, however, with our understanding of the market. Most of the people we talk with are interested in improving business processes, and think that software is only one option.

The more interesting distinction is between those respondents who think BPM is a management philosophy and, thus, are committed to the development of a business process architecture and the establishment of process managers, and those respondents who are more focused on improving processes, one at a time. In essence, companies who conceptualize BPM as a process redesign and improvement methodology are working at CMM maturity level 2 and are generally focused on departmentally-focused process work. (See Appendix I: CMMI – Organization/Process Maturity Levels if you need more information on CMM.) This is especially true of companies whose BPM efforts are led by IT groups that are focused on automating specific processes. Companies that seek to move from CMM maturity level 2 to level 3 or 4 put more emphasis on integrating processes across departmental boundaries, on enterprise architectures, and on managing processes as a corporate asset. Only a few companies have attained level 5, but, clearly, many companies are focused on moving to levels 3 and 4.

We looked at the responses to this question by geographical region and found the preference for defining BPM as a top-down methodology was more pronounced in Europe (44% in 2007) and in "Other" regions (49% in 2007) than it appeared to be in North America (33% in 2007). This same distinction was also true in 2006. In other words, Europeans and respondents in "Other" regions are more likely to consider BPM a management philosophy, and North American respondents are slightly less likely to do so. "Other" European respondents, however, are more likely to view BPM as a set of new software technologies (15% in 2007). We expect this describes the difference between those who have been involved in business process change for a long time and those that are new to the idea. We assume European respondents involved for a longer period have a broader view of BPM and see it as a philosophy, or at least as a systematic approach to process change. We assume newer respondents, on the other hand, are more likely to confuse BPM and BPMS, because they have received so much information from BPMS vendors who hardly ever discriminate between BPM and BPMS.

When we look at the responses of only those who identified themselves as Business Executives or Line Managers, 49% suggested that they thought of BPM as a "top-down methodology." On the other hand, if we only look at respondents from the Finance and Insurance industry, 29% think BPM is a "top-down methodology," and 40% say BPM is a "systematic approach to analysis and redesign." (Only 7% of the respondents from Finance say that BPM is a "set of new software technologies.")

The pattern we see in 2007 is largely consistent with the results from 2006. If anything, there is a slight decline in the number of respondents who see BPM as a "software technology." We believe this represents the growing sophistication of the market, and the fact that writers and even vendors have increasingly stressed the difference between BPM and BPMS.

Interestingly, if we look only at respondents who said that their organizations are already using BPMS products, we find their responses almost exactly mirror the average. In other words, only 7% of the respondents from companies using BPMS, think of BPM as a "software technology."

The Current Interest in BPM

We asked all respondents to describe their organization's current interest in BPM. The largest segment (26% in 2007 and 28% in 2006) indicated that their organization regarded BPM as a "major strategic commitment by executive management." Slightly smaller groups in both years suggested that their organization either had a significant commitment to multiple high level projects, an initial

commitment to a limited number of mid or low-level projects, or were just exploring opportunities. Two percent of the respondents in 2007 and Six percent of the respondents in 2006 indicated that their organizations had no interest in BPM at this time. There is no significant difference between the responses in 2006 and 2007, except for the “no interest” category and that, presumably, reflects a growing awareness of BPM. (See Table 7.)

How would you characterize your organization's current interest in BPM?(Choose one)	2007 Results		2006 Results	
	Major strategic commitment by executive management	70	26%	92
Significant commitment to multiple high level process projects	64	24%	77	23%
Initial commitment to limited number of mid or low-level projects	69	25%	77	23%
Exploring opportunities	63	23%	68	21%
No interest	6	2%	19	6%
Total	272	100%	333	101%

Table 7. The current commitment of respondent’s organizations to BPM

If we eliminate the respondents from computing and consulting companies, then only 18% of the 2007 respondents said BPM was a “major strategic commitment.” On the other hand, if we only look at respondents who identified themselves as Business Executives and Line Managers, then 39% of the respondents indicated that BPM was a “major strategic commitment.” (Keep in mind that computing and consulting executives are disproportionately represented among Business Executives and Line Managers.) Twenty-Six percent of the Finance company respondents suggested that BPM was a “major strategic commitment.” Thirty-three percent of the European respondents indicated that BPM was a “major strategic commitment” suggesting the Europe is more committed to BPM as a strategy than either North American respondents or respondents from Other regions.

BPMS users are much more likely to say that BPM is a major strategic commitment. Thirty-nine percent said so in 2007. Similarly 33% of the BPMS using respondents said that BPM was a significant commitment.

European respondents were slightly more likely to view BPM as a “major strategic commitment” (33% in 2007) than either North American respondents (23%) or respondents from Other regions (24%).

There are no significant differences in the commitments of large and small or medium sized companies.

Business Drivers of BPM

A *business driver* refers to a situation or goal that motivates management to support business process change. Historically, the two leading drivers of business process work have always been (1) the need to save money, and (2) the need to improve an existing process or to create a new business process. Our respondents suggested that these two traditional drivers were still the leading drivers. In 2007 56% of the respondents indicated that their companies were involved in BPM to save money or improve productivity. In 2006 33% said they were focusing on BPM to save money by reducing costs or improving productivity.

We made a mistake in wording this question. In 2006 we asked respondents to choose THE major driver, and only let them choose one. In 2007 we asked respondents to choose the major drivers and

let them choose more than one. This means that you cannot compare the percentages, directly, but only indirectly, noting which drivers got the most response both years. (See Table 8.)

In both years, however, other concerns were nearly as important. In 2007 51% suggested that they were driven by a “need to improve management coordination or organizational responsiveness.” In 2006, 23% said this was a major driver. Other drivers, in both years, that proved important were “the need to improve products” (36% in 2007 and 19% in 2006) and the “need to improve customer satisfaction” (37% in 2007 and 19% in 2006).

What are the major business drivers causing your organization to focus on business process change? (Choose one or more)	2007 Results		2006 Results	
Need to save money by reducing costs and/or improving productivity	152	56%	111	33%
Need to improve existing products, create new products, or enter new lines of business to remain competitive	97	36%	64	19%
One time event (merger or acquisition)	11	4%	7	2%
Government or business risk management (Sarbanes-Oxley, ISO 9000)	46	17%	37	11%
Need to improve customer satisfaction to remain competitive	102	37%	64	19%
Need to improve management coordination or organizational responsiveness	138	51%	77	23%
Need to improve management of IT resources (ERP applications)	53	19%	31	9%
Other, Please Specify	31	11%	31	9%

Table 8. Business drivers causing organizations to focus on business process change

Large companies were more inclined to say that the need to save money by reducing costs or improving productivity was their major driver (65% of the large companies in 2007 chose this response); small and medium sized companies, less inclined to do so. (49% of small and medium sized companies chose the first option.)

When considered from a geographical perspective, in 2006 the North American companies that were more driven by the need to save money amounted to 54%, vs. 28% of Europeans. In 2007 the drive to save money or increase productivity was more equal: 66% of the North American respondents said they wanted to save money or increase productivity while 62% of the European respondents said the same. Europeans were more likely to be driven by a need to improve the management of IT. (25% of the European respondents choose this option in 2007.)

If we look at responses from business executives and line managers in 2007, they are much more likely than average to think that the “need to improve products” and the “need to improve customer satisfaction” are important drivers.

We would say that all of the Other responses could have been placed within the existing categories – they were simply worded a little differently. The word Innovation was used several times and the desire to gain a Competitive Advantage was cited by some respondents. Others mentioned the need to develop common processes throughout the organization.

Organizational Maturity and Process Performance

We asked respondents to tell us how their organization performed a number of business process activities, ranging from process documentation, through modeling, to process management. In each

case we asked respondents to tell us if their organization simply Never did it, did it Occasionally (1-30% of the time), did it Frequently (31-60% of the time), did it Most of the Time (61-99%), or Always did it (100% of the time).

We asked this question because we wanted to get an idea of where most organizations were in mastering and performing common business process activities. We set the questions up to suggest a maturity scale, like CMMI. If organizations Never performed common BPM activities, we assumed they were immature organizations that weren't focused on processes. If organizations Frequently performed most of the common business process activities, we Tabled that would suggest they were between 2-4 on a CMM scale. If organizations performed most of the activities Most of the Time, we assumed that would suggest that they were between 3-5 on the CMM scale. (For those unfamiliar with CMMI and the CMM maturity scale, it is described in Appendix I.)

Overall, the most popular response to each item on these questions, in both 2006 and in 2007, was 2 (Occasionally). In a few cases, responses were nearly evenly balanced between 2 and 3. We took this to suggest that most of our respondents would measure between 2 and 3 on the CMMI scale, and that corresponds to most of the research by SEI on organizational maturity.

We will consider each part of the question independently.

Are Work Processes Documented?

We actually asked if work processes were documented and kept up to date. Any organization that undertakes a process redesign or an ISO certification effort creates some kind of process documentation. Only companies with a real commitment to processes have a system that consistently maintains process documentation. We weren't surprised that those who bothered to take this survey had some documentation; neither were we surprised that almost half only Occasionally had up-to-date documentation. We were pleasantly surprised that almost a quarter of our respondents said that their organizations Frequently had their process documentation up to date. (See Table 9.)

Are business processes documented and kept up to date? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Occasionally (1-30%)	149	55%	148
Frequently (31-60%)	66	24%	80	24%
Most Times (61-99%)	38	14%	77	23%
Always (100%)	11	4%	14	4%
Total	272	100%	319	97%

Table 9. Work processes are documented and documentation is kept up to date

The difference between 2006 and 2007, on this and several other questions in this series, occurred among respondents indicating that their companies had their documentation up-to-date at Most Times. If one looks at the data, one might think that companies had stopped working so hard at keeping up their documentation. We suspect, instead, that the 2007 sample includes more companies new to process work. If you look at the responses by region, we see that 21% of European respondents said they had their documentation up-to-date Most Times, but only 8% of the North American respondents said they did.

Large companies were slightly more likely to say that they documented their processes Most Times in 2007. North American companies were much less likely to say Most Times (8%), and Europeans, in 2007 said it 21% of the time. This undoubtedly reflects the greater importance of ISO 9000, and

documentation in general, in Europe than in the US. BPMS users were also much more likely to say that they documented Most Times (27% in 2007).

Do Units That Perform Similar Activities Use Standard or Similar Processes?

Many large companies perform similar processes throughout a variety of different divisions, business units, or geographical units. For example, all sales units have processes for documenting the existence of a prospect, or keeping track of a customer and pending orders. Obviously, efficiencies can be achieved if all of these similar processes are consistent. Thus, it would be good if every unit or division within the organization gathered the same information on customers and entered it in the same way in the same type of database. It would mean that employees would be more interchangeable, that enterprise information would be more consistent, and that the organization would only need a single instance of an ERP application, worldwide, to support customer information entry.

Unfortunately, as most larger companies were created via mergers and acquisitions, and most processes were defined at the local or departmental level, most large corporations support a variety of different processes that all, ultimately, lead to the performance of the same tasks – each in slightly different ways. Most large process-focused organizations, as they move from CMM Level 2 to CMM Level 3, make an effort to standardize common processes throughout the company. For some companies, establishment of standard business processes becomes a major driver for process change, especially when pursued in conjunction with an effort to standardize on a single instance of ERP throughout the company.

Do units that perform similar activities use standard or similar processes? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	17	6%	19
Occasionally (1-30%)	124	46%	153	47%
Frequently (31-60%)	79	29%	80	24%
Most Times (61-99%)	47	17%	63	19%
Always (100%)	5	2%	13	4%
Total	272	100%	328	100%

Table 10. Are similar processes throughout the company performed in a similar way?

To explore this issue, we asked respondents whether their company had similar activities or standardized processes throughout all their business units. Table 10 suggests that companies are making progress, but most still have a way to go. As you can see, in both 2007 and in 2006, almost half of the companies said they had only Occasionally standardized their common processes. In 2007 it seems as if there might be a slight increase in the number of companies who Frequently had standard processes, but that has to be balanced against the fact that in 2007 fewer respondents report that they had standardized processes Most Times or Always.

Business Executives and Line Managers are more likely than average to report that their companies have standardized processes at all levels. European respondents say they have standard processes – Most Times, 28% of the time. Respondents from companies with BPMS are also more likely to have identified and standardized similar processes Most Times. (27% of the time in 2007.)

Are Standard Process Models Defined for Each Major Process?

We asked respondents if they had defined the high-level processes that make up their major value chains. Typically, organizations start defining processes at the departmental level (CMM level 2). It's

only when process becomes an enterprise concern, at CMM level 3, that companies began to think in terms of value chains, of the major processes that make up each value chain, and of aligning and streamlining the flow of high-level processes across departmental boundaries. It often occurs as part of an enterprise-wide business process architecture initiative.

Are process models defined for the major value chains in the organization? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	30	11%	64
Occasionally (1-30%)	118	44%	106	32%
Frequently (31-60%)	63	23%	72	22%
Most Times (61-99%)	46	17%	66	20%
Always (100%)	13	5%	19	6%
Total	270	100%	327	100%

Table 11. Does the organization have standard process models for each of its value chains?

The overall pattern continues and it looks about the same in 2007 as in 2006. The clear majority of our respondents said they defined major value chains Occasionally. This is followed by those who said they do it Frequently. (If the responses really corresponded to CMM levels, and Occasionally was Level 2, then we would say that most companies were at CMM level 2, with a smaller, but still respectable number were at CMM level 3.

By now you can see the pattern that we alluded to earlier. A higher percent of our 2007 respondents said they Occasionally do whatever we are asking about, while fewer of our 2007 respondents do it Most Times. In this case, as earlier, Europeans responding to the questionnaire were more likely to do it Most Times and North Americans were less likely to do so, resulting in a slightly lower average for Most Times in 2007. As we said earlier, we suspect this reflects the fact that our overall sample includes more respondents from North American companies that are new to business process work. In this specific case, in 2006 20% of our respondents said they had their major value chains defined Most Times. In 2007, only 17% said they did. But if you look at the responses by region, in 2007 only 13% of the respondents from North America choose Most Times, while 25% of the European respondents choose Most Times. Those from Other regions choose Most Times 15% of the time. In 2007 Large companies were slightly more likely than Small and Medium sized companies to have defined their major processes Most Times. (20% for Large companies.)

Are Standard Measures Defined for Each of Major Processes?

We asked participants if their companies had standard measures defined for evaluating the performance of value chains and major processes and subprocesses. Most companies have a set of KPIs (Critical Performance Indicators) that are used to evaluate corporate performance. Too often, however, their performance metrics are not related to specific value chains or business processes. Thus, a change in a KPI does not automatically suggest which value chain or process should be examined or which needs improvement. The shift to a process perspective depends on developing a set of KPIs that measure the performance of business processes.

Are performance measures defined for evaluating the success of all major processes and subprocesses? Please indicate your organization's overall level of performance. (Choose one)			2007 Results		2006 Results	
Never (0%)	33	12%	47	14%		
Occasionally (1-30%)	146	54%	137	42%		
Frequently (31-60%)	47	17%	79	24%		
Most Times (61-99%)	36	13%	51	16%		
Always (100%)	9	3%	14	4%		
Total	271	100%	328	100%		

Table 12. Does the organization have standard measures to evaluate the performance of major processes?

Table 12 suggests that very few organizations have tight, comprehensive process performance systems. In 2007 54% reported that their measures and processes were only Occasionally aligned. In 2006 42% reported the same thing. Only 17% in 2007 and 24% in 2006 reported that their performance measures aligned to processes between 31% and 60% of the time.

Once again, 24% of our European respondents in 2007 reported that they Frequently had their processes and performance measures aligned, while only 6% of those from Other regions reported that their alignment was Frequent. Similarly, in 2007, Large companies were more likely to have performance measures for processes Most Times (18%) than Small and Medium sized companies were (11%).

Is Support Provided by Automated Applications Consistent With the Processes?

We also asked how well the existing software applications served the company's processes. In an ideal world, business people would define the best possible processes, and then IT would create tailored applications to support those processes. In the real world, processes are constantly changing and applications are often purchased from vendors and prove hard to tailor. Thus, in many cases, companies find themselves "fighting" the software applications that are supposed to help them. We run into this all the time as customers, when sales or service people try to enter something, find it isn't accepted, and then wink at us and explain that "the system" doesn't like the entry, but that they know how to get around the problem, and proceed to circumvent the system.

Is the support provided by automated applications consistent with the defined processes used by the organization? Please indicate your organization's overall level of performance. (Choose one)			2007 Results		2006 Results	
Never (0%)	26	10%	25	8%		
Occasionally (1-30%)	139	51%	136	42%		
Frequently (31-60%)	61	23%	106	33%		
Most Times (61-99%)	38	14%	46	14%		
Always (100%)	6	2%	13	3%		
Total	270	100%	326	100%		

Table 13. How Well Does the Existing Software Support Processes?

As you can see from Table 13, most respondents feel that their software only Occasionally or, at most, Frequently supports their business processes. Only 16% in 2007 believe that their company's software Always or Mostly supports company processes.

Only 5% of the respondents from the Finance/Insurance industry, in 2007, thought their software supported their processes Most Times. Otherwise there was broad agreement on the overall pattern across all the subgroups we examined.

This data is good news for those promoting and selling BPMS systems. As a generalization, BPMS is being widely used to make existing ERP and CRM systems more flexible. In essence, the BPMS layer sits between the actual business process and the software that automates and supports the process. One can describe the process in the BPMS software and incorporate activities in BPMS that are not provided in the current, underlying BPMS software, thus improving the match between the actual process and automation. In other words, the current lack of alignment between actual processes and software designed to automate activities is a major driver for the acquisition and use of BPMS products.

Are the Skills Needed to Perform the Tasks Defined and Documented?

We asked if respondents' companies had defined the tasks needed for major processes, and then defined the skills needed for specific jobs to assure that people were being hired or trained to perform the requisite tasks. It's one thing to define the activities that need to be performed. It's another thing to define exactly what knowledge and skills are required to perform the activities. The latter requires a system of job definitions or job models, created by practitioners knowledgeable in human performance technology, or in some similar discipline. It requires that the tasks be carefully analyzed and that the human activities be precisely specified. This kind of human performance analysis has been well defined in more operational areas and is usually done precisely in manufacturing jobs. It is harder to do in more complex jobs where more knowledge and greater flexibility is required. Some analysts refer to these more complex jobs as "knowledge work" and propose that new technologies are needed to define human performance requirements in these areas. Examples of knowledge work range from sales activities and customer service through jobs like new product development and software systems development. In these cases, it is easy to specify the broad, high-level activities that need to occur, but hard to define exactly what specific steps need to be followed, as they vary greatly, depending on the specific circumstances the employee faces. Some have argued that these tasks are better conceptualized in terms of rules that constrain actions rather than as a step-by-step procedure. In any case, we would expect manufacturing companies to have better employee job descriptions, and we would expect that service industries and organizations, involving lots of knowledge processing activities, would be less likely to have well-defined job descriptions.

Are the skills needed to perform the tasks in the major processes defined and documented? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	23	9%	27
Occasionally (1-30%)	139	51%	103	32%
Frequently (31-60%)	60	22%	96	30%
Most Times (61-99%)	41	15%	84	26%
Always (100%)	7	3%	12	4%
Total	270	100%	322	100%

Table 14. Does the company have descriptions of the skills required to perform its processes?

Once again, most companies choose Occasionally, in both 2006 and 2007. Once again, fewer choose Frequently and Most Times in 2007 than in 2006. Business Executives and Line Managers were

more likely to think skills required to perform processes were Frequently defined than the average. Otherwise there were no significant differences between the various subpopulations we examined.

Are Managers Trained to Do Process Redesign and to Manage Processes?

We changed this question in 2007. In 2006 we asked if the company provided training in redesign and project management. In 2007 we asked if managers were trained to do redesign and to manage projects. Thus, it probably isn't fair to compare the results between the two years too closely. In 2006 37% of the companies indicated that they provided training in redesign and project management. In 2007 50% of the respondents said they trained managers to do analysis, redesign, and to manage processes. Elsewhere in the 2006 survey, respondents indicated that a major goal for 2006 and 2007 was to train more managers in process management, so one might think this was the natural result of that training. On the other hand, more companies indicate that they Never provide such training, and fewer claim to provide the training Frequently. It may be that if we'd simply asked if any employees got training in analysis, redesign, or process management, we'd have gotten results in 2007 that were more similar to those obtained in 2006.

Are managers trained to analyze, design, and manage business processes? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	55	20%	42
Occasionally (1-30%)	135	50%	121	37%
Frequently (31-60%)	48	18%	96	29%
Most Times (61-99%)	30	11%	54	16%
Always (100%)	3	1%	15	5%
Total	271	100%	328	100%

Table 15. Are Managers Trained to Analyze, Redesign, or Manage Processes?

As we will see, elsewhere, many companies say they need and intend to institute process analysis, redesign, or process management training. The response to this question suggests that most companies need to do so. Business Executives and Line Managers in 2007 are less likely to think managers are trained to manage processes. European respondents and respondents whose companies have BPMS report that their managers are trained in process skills more Frequently than others. (Specifically, 16% of the European respondents and 20% of the respondents who use BPMS say that Managers are trained Most Times.)

Do Process Managers Use Performance Data to Manage Processes?

Continuing to focus on managers, we asked if the managers at companies used performance data to manage their processes. Implicitly, this assumes that the processes are monitored and that the data is organized in a manner that can support decisions. In most companies, this kind of data is more common at the lower levels of the organization and less likely to be available at higher levels. Thus, for example, supervisors usually monitor the performance of workers and can usually point to specific instances where employees succeeded or failed to perform specific activities. The problem becomes more complex as one looks at higher-level managers, who, in effect, manage other managers. Higher-level managers can only manage their subordinates, using process performance measures, if their subordinates are assigned responsibilities for specific processes and know what measures are to be used to evaluate the success or failure of the process they must manage.

In CMM terms, this question probes the extent to which the company is moving from CMM level 3 to level 4 and is focusing on measuring and managing processes in a systematic manner.

Do process managers use performance data to manage their processes? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	42	16%	51
Occasionally (1-30%)	129	48%	127	39%
Frequently (31-60%)	58	21%	84	26%
Most Times (61-99%)	36	13%	51	16%
Always (100%)	5	2%	13	4%
Total	270	100%	326	101%

Table 16. Do managers use performance data to manage their processes?

A glance at Table 16 shows that the pattern we have observed over the course of the last several questions continues here. The 2007 results are very similar to the 2006 results, although more 2007 respondents indicate Occasionally and fewer indicate Frequently, Most Times, or Always. One could generalize, based on this pattern, that about 2% of the companies being considered in this survey are between CMM levels 4-5, and that about 13% are moving between 3-4, but that most companies 85% are between levels 2 and 3. In 2006 we would have suggested a few more companies were between 3-5%, and we suspect the number is actually the same.

Financial respondents don't think their managers rely on performance data as much as most other respondents. Only 5% of the financial respondents say their managers do it Most Times. European respondents are a bit more likely to report that their managers use process performance data. They report that it occurs Most Times 19% of the time.

Are Process Improvement Programs In Place to Maintain Processes?

Broadly, there are two aspects of process change – process redesign that reorganizes broken or deficient processes and generates new, more effective processes, and continuous process improvement that incrementally improves existing processes. Some would argue that the natural lifecycle of a process involves an initial redesign effort to assure that a process functions as it should in the context of the larger process in which it is a subprocess, and then continuous process efforts refine the design and assure that the process is as efficient as possible. Many companies rely on Six Sigma initiatives to manage continuous process improvement.

Are process improvement programs in place to identify and improve problems and defects? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	35	13%	43
Occasionally (1-30%)	117	44%	107	33%
Frequently (31-60%)	63	24%	112	34%
Most times (61-99%)	43	16%	51	16%
Always (100%)	8	3%	12	4%
Total	266	100%	325	100%

Table 17. Are Process Improvement Programs in Place?

We would not assume that everyone who answered this question distinguished between redesign efforts, which are more extensive, and process improvement efforts, which are more narrowly focused. In any case, the response follows the pattern we have been observing. A few companies Always or nearly Always have process improvement programs in place, and a significant number

(13%) don't, and most are likely to be in the Occasional or Frequent range, having process improvement programs available from 1% to 60% of the time.

Large companies are much more likely to report having process improvement programs in place. Only 5% of the respondents from Large companies report Never having them. Respondents from companies with BPMS are more likely to have Process improvement. Only 8% of the respondents who report having BPMS report Never having a process improvement program. Otherwise, there are no significant differences – Europeans are as likely as North Americans to report process improvement programs.

Do Major Process Models Include Activities Performed By Outside Vendors/Partners?

We also asked respondents if their companies modeled processes that included activities performed by outside vendors or partners. Many of the BPMS vendors, and the currently popular Service Oriented Architecture (SOA), are focused on helping companies create distributed or virtual business processes. Most companies have processes like this. Consider, for example, your credit card approval process. A customer presents a credit card. You swipe the card through a credit card reader, which then goes online and accesses the credit card system (e.g., Visa, MasterCard) to determine if the card is good and the charge is within the customer's credit limit. In essence, the credit card system is undertaking steps in your overall purchase process – specifically, to approve the credit card, to approve charge. In this case, you may not care about the detailed tasks or steps in the Credit Card systems part of the process, and are probably content to simply accept that it is being done. In other, more complex or more integrated processes, you may want to know exactly what the external process involves and may wish to track the steps in the external processes progress. At a minimum, you might want to know if the package is still at the warehouse, or is on a truck being delivered. Increasingly, companies are going to model large-scale processes, like supply chains, and want to understand not only their own processes, but the processes of their partners and suppliers.

Do major process models include activities performed by outside vendors/partners? Please indicate your organization's overall level of performance. (Choose one)	2007 Results		2006 Results	
	Never (0%)	60	22%	81
Occasionally (1-30%)	125	46%	115	35%
Frequently (31-60%)	50	19%	72	22%
Most Times (61-99%)	26	10%	40	12%
Always (100%)	8	3%	18	6%
Total	269	100%	326	100%

Table 18. Do companies model processes that include partner or supplier activities?

As you can see with a glance at Table 18, about a quarter of our respondents' companies do not model processes that include "external" subprocesses or activities. The largest number of respondents (35%) indicated that their companies Occasionally modeled external processes, while 6% indicated they Always did it, and 12% indicated that they did it Most of the Time.

As in 2006, in 2007 medium sized companies were much more likely to report activities performed outside the company than large companies were. Respondents from companies with BPMS were much less likely to respond that they Never had processes that included outside activities. (11%)

An Overview of Company Maturity

We wouldn't want to claim that our series of questions was the equivalent on a comprehensive CMMI audit. On the other hand, we did design this set of questions to test a number of key items that are associated with specific levels in the CMMI model. (See Appendix I for a quick overview of the CMMI levels.) In Figure 1 we summarize how respondents answered each of the questions we asked.

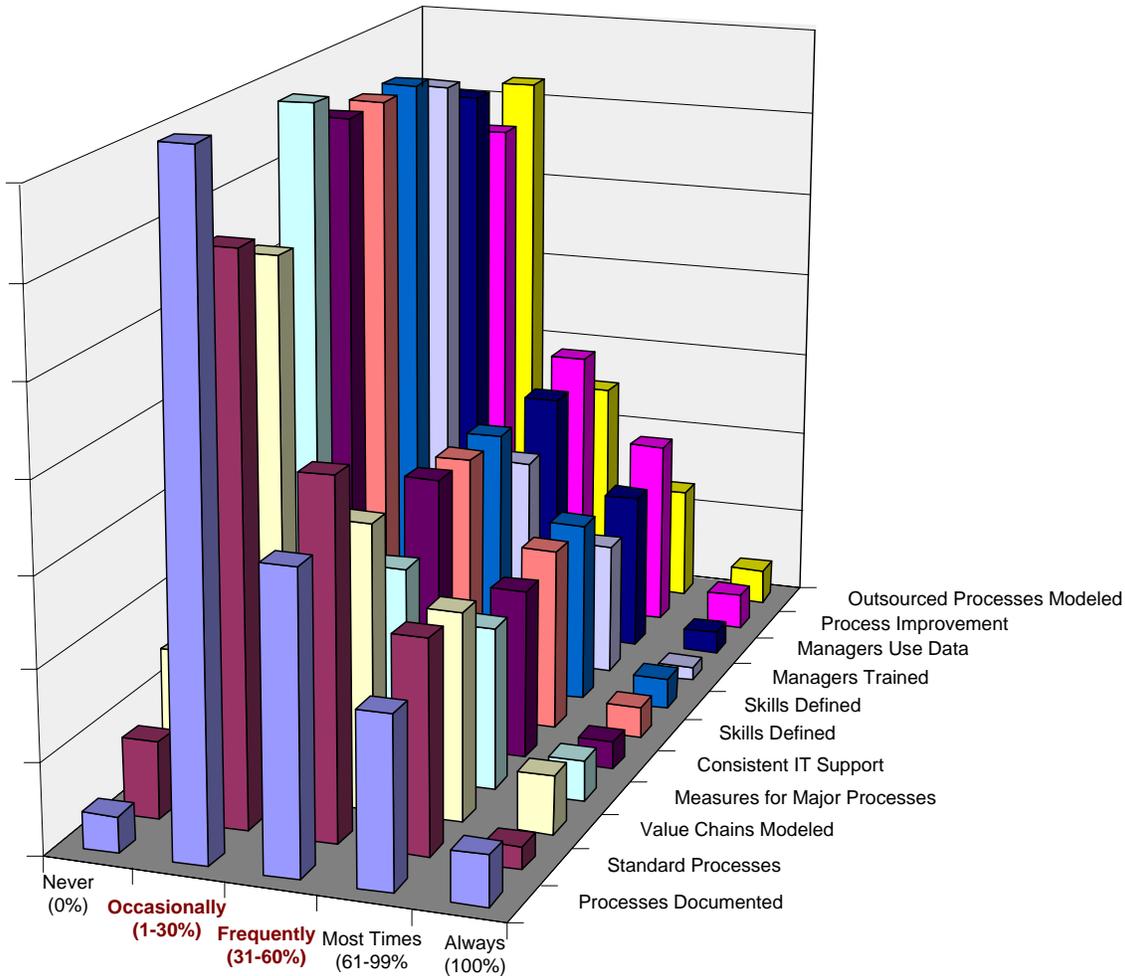


Figure 1. An overview of how often organizations are undertaking various types of process work.

The main conclusion is that most companies are doing most process work between 1% and 30% of the time. The next largest group are Frequently doing the various tasks. Some are doing it Most Times and a very few are Always doing it. Assuming that Always equates with Level 5 organizations, then our data suggests that about 3%-5% of the respondents taking this survey come from Level 5 organizations. The majority – between 40-50% -- come from organizations that are at Level 2. They are focused on processes at the departmental level. The next largest group is made up of respondents from organizations somewhere between Levels 2 and 3. These organizations are working to move to Level 3 by refocusing their organizational efforts on the enterprise level management of processes. A few come from organizations that are at Level 3 and working to reach Level 4.

Process Standards

Anyone who deals with commodity items is helped by standards. Imagine if every hardware vendor created a unique type of screw head and you had to buy a different screwdriver to deal with the screws on each different piece of hardware you acquired. Any company that has invested in a new technology, and has used one of the early products and subsequently decided to switch to another product and found that everything had to be redone (since there was no way to move data from the one tool to the other), would prefer that vendors conform to common data representation standards. The problem in a new market, however, is that everyone needs to agree on what's important and how best to represent things before anyone is ready to define a standard. It's that way at the moment with business processes. Every user would like representation and software standards, but most users are still trying to determine what standards they would like or really need. Meantime, different vendors are promoting their own standards, hoping that others will rally round and agree to let that vendor define the standard.

Some process areas have remained remarkably free of formal standards. There are no formal standards in the Six Sigma area, for example. A Black Belt means different things to different groups, and everyone seems to get along with this lack of precision.

The software vendors, however, need more precision, and there have been a number of standardization efforts launched to spell out process-related software standards. Most are still in committee. We asked companies what standards they were using, involved with, or interested in, and we suggested a wide range of options. We added some new standards that have gotten more attention in the course of 2007 to make the list more comprehensive.

Which of the following process standards is your organization interested in adopting? (Choose as many as apply)			2007 Results		2006 Results	
ISO 9000	104	40%	142	49%		
Sarbanes-Oxley	86	33%	131	45%		
CMM/CMMI	73	28%	82	28%		
BPEL	67	26%	68	23%		
XPDL	15	6%				
BPMN (Notation)	106	41%	65	22%		
UML (Notation)	78	30%	96	33%		
OMG Business Process Metamodel	19	7%	28	10%		
OMG Business Rules Metamodel	10	4%	12	4%		
OMG Business Process Maturity Model	28	10%				
OMG Model Driven Architecture (MDA)	21	8%				
Other, Please Specify	61	23%	60	21%		

Table 19. Standards in which companies are interested

In 2006 the standard most companies were interested in was ISO 9000, followed by Sarbanes-Oxley. The most impressive difference between 2006 and 2007 is the sharp rise in interest in BPMN. Clearly, this new process notation is gaining momentum as new vendors add it and as companies standardize on it for process work. It now ranks as a standard that is at least as important to our respondents as ISO 9000. It's impossible to say from our data whether the respondents who are interested in BPMN are only interested in it as a business process modeling notation (the core notation) or whether they are interested in the entire notation and the ability to generate code like BPEL from a process diagram. We expect more of the latter than the former, but can't be sure.

XPDL has been promoted as an alternative to BPEL and clearly hasn't gained too many supporters, at least among those responding to this survey. It may be more popular for more technical IT developers. In a similar way, the OMG's MDA is probably more popular among IT developers.

The OMG adopted a Process Maturity Model standard in 2007 that was meant to replace CMM/CMMI among those engaged in process work. Clearly it has not gained much momentum yet, at least compared with CMM/CMMI.

The large interest focused on ISP 9000 (19%) and Sarbanes-Oxley (19%) reflects the fact that they are required in specific geographical areas. The US government required US companies to define their financial decision making processes to comply with the Sarbanes-Oxley Act, and most US companies spent a significant amount of time on Sarbanes-Oxley documentation in 2004-2005. Since that effort is now completed, the interest is declining. ISO 9000 and related ISO process standards are required by many European companies and are occasionally required by US companies. Thus, most companies that sell products in Europe seek to establish that they are ISO 9000 compliant by creating appropriate process documentation.

The interest in CMM/CMMI (28% in both 2006 and 2007) reflects a continuing interest in having some way of evaluating how well a company has mastered process techniques. Software companies are required to have CMM certification for many US Defense Department contracts. Other companies have sought CMMI certification as a way of rallying everyone in the company around a measurable goal, or simply to prove that their process management efforts are superior. This approach is especially popular with certain Six Sigma groups that conduct CMMI reviews every few years. The OMG's new BPMM standard, derived from CMMI, has yet to achieve as much attention.

BPEL is a standard for BPMS. It's an incomplete standard – it lacks support for workflow and is more properly thought of as an EAI standard in its current form – and it isn't actually implemented in many of the popular BPMS tools, but clearly companies are still interested in having such a standard.

The OMG is working on a series of business process metamodels, semantic models that define relationships, and are used in conjunction with the OMG's generic approach to software modeling and development – MDA (Model Driven Architecture). This is sophisticated and technical stuff, and it isn't surprising that only a few – predictably, large and technically sophisticated companies – are interested in these standards efforts. These efforts will likely have a major impact on the industry, but since they will be embedded in products and invisible to most users, their impact will be indirect.

Predictably, North American companies are much more concerned with Sarbanes-Oxley (a U.S. government requirement) than companies in other regions, while European companies are much more likely to be concerned with ISO 9000 than those in other regions. Interest in CMM/CMMI is about the same worldwide. Interest in BPEL is greatest among companies using BPEL products and higher in Europe than in North America.

The size of the company affects the interest in standards. Large companies are more interested in standards than small or medium sized companies.

The standard that most companies that suggested was an Other standard mentioned with ITIL. ITIL is a standard for IT services and is very popular among IT groups at the moment. Some respondents mentioned regional standards and a couple mentioned the Baldrige criteria. (The Baldrige criteria are associated with a contest conducted by the US Commerce Department each year to identify an outstanding US company with superior processes and performance. A couple of respondents mentioned Lean Six Sigma, but as far as we know there are no formal standards for either Lean or Six Sigma.

BPM Spending

How Much Are Companies Spending on BPM?

We asked each survey participant to estimate how much money his or her organization was spending on BPM. In 2007 we added a new category – Over \$50 million – just to check on how much a company might spend. Similarly, it will vary according to what companies include. We asked respondents not to include outsourcing, but left it up to them if they included automation efforts, which could include ERP applications that some companies consider a vital part of their process improvement programs. (See Table 20.)

How much would you estimate your organization spent on business process analysis, process management, monitoring, redesign, and improvement in 2006? Include BPM management, Lean Six Sigma, process automation, and overhead staff. DO NOT include outsourcing.			2007 Results		2006 Results	
\$0-\$500,000	136	51%	185	57%		
\$500,000 to \$999,999	42	16%	50	15%		
\$1 million \$5 million	55	21%	63	19%		
\$5 million to \$10 million	10	4%	10	3%		
Over \$10 million	18	7%	16	5%		
Over \$50 million	5	2%				
Total	266	100%	324	99%		

Table 20. How much organizations are spending on BPM

In both 2007 and 2006 over half the companies spent under \$500,000. We were more impressed, however, by the number who spent much more. Overall, we would say that spending patterns haven't changed from 2006 to 2007, although you could argue that there was a significant increase in the number of companies spending over \$10 million (16 in 2006 and 23 in 2007). When you consider the total number of respondents in 2006 and 2007, the number of companies spending large amounts of money on BPM becomes even more significant.

In 2007, 73% of the small to medium sized companies were spending under \$500,000; only 25% of the large companies. Conversely, 17% of the large companies were spending over \$10 million and only 1 medium sized company reported a similar expenditure. In 2007, 18% of the companies that reported that they were using BPMS were also spending over \$10 million. In other words, every large company that is spending over \$10 million on BPM is also investing in BPMS. Among the companies spending more than \$10 million, Finance companies are well represented and European companies are better represented than North American companies.

Corporate BPM Activity Today

We asked a number of questions to gain some insight into what companies were doing to improve their business processes. Several questions were asked about process activities that occurred at the Executive, Process, or Implementation Levels. These questions rely on a common BPTrends classification. If this classification is unfamiliar, you can review it in Appendix I. In a similar way, in discussing software products being used in support of BPM efforts, we often rely on the categories that we have defined in the BPTrends Software Tools Classification and in our various Reports. The BPTrends Tools Classification is also described in Appendix I for readers who might not be familiar with our approach to dividing up this rather confusing marketplace.

The Existence and Location of BPM Groups

We asked all respondents if their organizations have a Business Process Management Group to coordinate, train, and support business process efforts within the organization. We asked those that had a BPM Group to tell us where it was located. It's been our experience that organizations that are serious about enterprise level work – organizations moving from CMM level 3 to CMM level 4 – usually have their BPM Group at the enterprise level report to a corporate executive or to an executive level committee, like planning or strategy. Organizations that have their business process groups located in IT or Quality Control usually have a more limited perspective on BPM and are focused on only a part of the total BPM picture.

Does your organization have a group (or center of excellence) responsible for Business Process Management and, if so, where is it located within your organization? (Choose one)	2007 Results		2006 Results	
	We do not have a formal BPM Group	96	36%	110
Our BPM Group is at the Executive level	36	13%	59	18%
Our BPM Group is at the Divisional or Departmental level	48	18%	63	20%
Our BPM Group is located within IT	44	16%	46	14%
Our BPM Group is located within HR or Training	3	1%	1	0%
Our BPM Group is located within Finance	7	3%	4	1%
Our BPM Group is located within Quality Control	16	6%	21	7%
Other, Please Specify	19	7%	26	8%
Total	269	100%	330	102%

Table 21. Where the BPM Group is located within the organization

As you can see in Table 21, the results between 2006 and 2007 are greatly similar. About a third of the respondents say they do not have a BPM group or center of excellence. Of those having a BPM group, about equal numbers have the group located at the executive level, at the departmental, or at the divisional level and in IT.

Only 20% of the respondents from large companies said they didn't have a BPM group, while 47% of those from small or medium sized companies reported that they lack a formal BPM Group. Respondents from regions outside North America and Europe are much less likely to have a BPM group (45% said they didn't). On the other hand, Europeans are much more likely to have one than companies in North America. In 2007 21% of our respondents from Europe reported they had a group at the Executive level, and 26% reported a group at the Departmental level. Respondents from companies with BPMS reported a BPM Group at the Executive Level 21% of the time and a

Group within the IT department 22% of the time. Respondents from Finance and Insurance reported a BPM Group at the executive level only 6% of the time and a group in IT 24% of the time.

Respondents who choose Other either suggested that their organization had more than one group that functioned as a BPM Group or Center of Excellence, or they identified an individual (e.g., Enterprise Architect, COO, or Head of Supply Chain) who served the function.

Use of BPM Strategy and Planning Consultants

As a way of gauging where respondents thought they needed outside expertise, we asked how respondents would use outside consultants if they could hire them. In the first question in the series, we asked about the uses they might make of a consultant at the enterprise level.

If your organization could hire outside consultants to help with your BPM strategy and planning, where would you focus their efforts? (Choose all that apply)	2007 Results		2006 Results	
	Defining the relationship between Strategy and Process	125	47%	134
Developing an Enterprise Process Architecture	121	45%	122	39%
Developing an Enterprise Performance Measurement system	98	37%	115	37%
Coordinating and managing your Business Process Management projects and programs	100	37%	101	33%
Other, Please Specify	30	11%	33	11%

Table 22. How respondents would use consultants at the enterprise level

The first thing to note is that, unlike the responses to many other questions in this survey, here, clearly, respondents in 2007 were more likely to have uses for a consultant than they did in 2006. We interpret this as reflecting the growing interest in enterprise work. In essence, since respondents could choose more than one item, the increased percentages mean that respondents chose more items in 2007 than in 2006. Put another way, the 2007 respondents can think of more ways they would like to use an enterprise consultant. Overall, however, the pattern remains the same, with most preferring to use a consultant to help in defining the relationship between Strategy and Process, closely followed by those who would use the consultant to help with an Enterprise Process Architecture. There is a slight, but significant increase in the number of respondents who would use a consultant to help with coordinating and managing BPM projects and programs.

This even division of opinion represents one interesting feature of Enterprise Level activity. There is no standard way companies approach Enterprise Level work, and no set sequence. Some companies begin with the development of a performance measurement system and then go on to architecture work. Others begin with architecture work and then focus on aligning the architecture to their corporate strategy, or aligning their process architecture with their IT resources.

Large companies are significantly more interested in developing process management systems and process architectures. Medium and small-sized companies put more emphasis on developing performance measurement systems.

There were no significant variations from the general pattern shown in Table 22 when we examined the various subpopulations.

The Use of Consultants at the Process/Project Level

We also asked respondents to tell us how they would use outside help if they could hire consultants to help them at the process level.

18. If your organization could hire outside consultants to help with BPM projects, where would you focus their efforts? (Choose all that apply.)	2007 Results		2006 Results	
	Process Manager training	121	45%	116
Balanced Scorecard	64	24%	69	22%
Process Redesign projects	114	43%	111	35%
Using BPM Frameworks (SCOR, ITIL)	64	24%	87	28%
Six Sigma Process Improvement projects	59	22%	55	17%
Process Automation projects	86	32%	94	30%
Process Analysis and Design training	115	43%	136	43%
Business Process Outsourcing	23	9%	23	7%
ERP support for BPM	32	12%	40	13%
Linking Knowledge Management and BPM	94	35%	89	28%
Other, Please Specify	18	7%	21	7%

Table 23. The use of consultants at the process level

Once again, our respondents have chosen more options. Clearly, as people learn more about BPM they think of more things they would like to do.

In this case, there were several significant differences between 2006 and 2007. More respondents in 2007 wanted help with Process Manager training, Process Redesign projects, and Linking Knowledge Management to BPM. Other shifts were less significant. In a similar way the pattern between 2006 and 2007 is largely unchanged, although Process Manager training has become the most popular in 2007 and Process Redesign projects and Process Analysis and Design training are nearly as popular.

The emphasis on training is probably significant. Most companies know that process work is something that companies ultimately have to do for themselves. Process projects can be led by outside consultants, but companies that really want to make steady progress with changing processes, maintaining the changes, and then continuing to improve the processes need the commitment of day to day employees who are committed to process improvement. That doesn't result from the use of outside consultants; it results from the training of and the commitment of a company's own managers and employees. Most companies seem to realize this and focus on creating a staff that is committed and knowledgeable about process improvement.

The other thing to note is the wide range of concerns – from process redesign to knowledge management to automation and manager training. BPM encompasses this wide variety of concerns, and anyone who wants to help companies with BPM needs to be aware of all of the intersections and communities that make up the corporate BPM audience.

In 2006 we reported that large companies are significantly more likely to be interested in obtaining help in Process Redesign Projects than small or midsized companies. That reversed in 2007, with more small and midsized companies saying they would use an outside consultant to help with a redesign project.

Respondents from companies outside of North America and Europe indicated they were much more likely to use a consultant to help with Business Process Outsourcing. Finance companies would be much more likely to use a consultant to help with automation, and respondents from companies with

BPMS indicated they would be much less likely to use a consultant for Business Process Outsourcing. Otherwise, the pattern shown in Table 23 applies to all the subpopulations we tracked.

BPM Products and Services Currently Being Used

We asked respondents to tell us what business process products and services were currently being used at their organizations, and we have summarized their responses in Table 24.

19. What BPM products and services is your organization currently using? (Choose all that apply.)	2007 Results		2006 Results	
	Graphics Modeling tool (Visio, PowerPoint)	199	74%	247
Repository based Modeling tool (ProVision, MEGA, Casewise)	85	32%	122	38%
BPM Suite that can manage the runtime execution of a business process	64	24%	74	23%
Tool for managing a Rule-based process or application	50	19%	56	17%
Process Monitoring/BI tool that can feed information to an executive dashboard	65	24%	58	18%
Training in Process Strategy, Architecture or Performance	44	16%	56	17%
Training in Process Analysis and Design	82	31%	107	33%
Training in Process Redesign and Improvement methodology	65	24%	78	24%
Training in BPM Systems	38	14%	47	15%
Attendance at BPM Conferences	94	35%	99	31%
Other, Please Specify	26	10%	23	7%

Table 24. Process products and services currently used by companies

Once again, the results in late 2007 were very similar to those obtained in early 2006. The products most frequently cited were simple software modeling tools like Visio and PowerPoint. (77% in 2006 and 74% in 2007) This supports our previous suggestion that most companies are between CMM level 2 and 3, and that they are focused on the analysis of specific business processes, often at a departmental level. (When companies get serious about moving to level 3, they almost invariably switch to a more sophisticated process modeling tool with a repository capability so that they can start to accumulate information about all their processes in a single database.)

Once again you will notice the pattern where respondents in 2006 were slightly more likely to say they were doing something than those who responded in 2007. Thus, the exceptions stand out. As many or more, in 2007 said they were using BPM Suites, using a Rule-based tool, or a Process Monitoring tool to support an executive dashboard. Similarly, more in 2007 said they had attended a BPM conference.

Large companies were much more likely to be using a more sophisticated modeling tool, and small and mid-sized companies were much more likely to depend on a simpler Graphics Modeling tool. North American respondents indicated their companies were more likely to be using a simple Graphics tool and not a Repository-based Modeling Tool (84% and 22% respectively), while European respondents were less likely to be using a Graphics Tool and more likely to be using a more sophisticated tool (65% and 44% respectively). In 2007, respondents from the Finance and Insurance industry are more likely to be using a BPMS suite (33%).

Which Tools Are Most Valuable

We shifted from simply asking what business process tools were being used, and asked each respondent to tell us which specific business process tool was most valuable to his or her organization. The results shown in Table 25 are interesting, not because they show that process modeling tools were most valuable – that was predictable – but because of the wide variety of other tools that some companies found most valuable. Thus, for example, in 2007, 3% of the respondents found a Simulation Tool to be their most valuable business process tool. Similarly, 8% found some kind of performance metrics tool or system was their most valuable tool. Obviously, these responses suggest the range of projects being undertaken by the respondents.

We assume that most companies are at CMM Level 2 and focus primarily on analyzing and redesigning their basic processes. This leads directly to the use of process modeling tools.

Which of the following software tools was most important to your business process management efforts in 2007? (Choose one.)			2006 Results	
	2007 Results		2006 Results	
Organizational Modeling environment	13	5%	37	12%
Graphics tool (Visio, PowerPoint)	83	31%	133	42%
Process Modeling tool (Casewise, IBM Modeler, ProVision)	63	24%	122	39%
Business Rules tool	5	2%	30	10%
Repository	11	4%	41	13%
BPMS Suite or execution environment (Workflow, EAI)	34	13%	64	20%
Simulation tool	8	3%	34	11%
BAM/Real-Time Process Monitoring tool	3	1%	23	7%
Performance Metrics tool/system	22	8%	51	16%
Other, Please Specify	22	8%	21	7%
Total	264	100%	556	177%

Table 25. The BPM software tool that was most important in 2005

Respondents from companies using BPMS suites are much more likely to say that Process Modeling tools and BPMS tools are their most important tools (38% and 30% respectively). It's an interesting response which suggests that BPMS users value the tool more for its modeling capabilities than for its ability to manage the execution of runtime processes. This may reflect the fact that companies have only recently acquired their BPMS tools and are still working to redesign the processes they hope to manage with BPMS. Large companies are much more likely to value their Process Modeling tools than small or midsize companies (30% and 18% respectively). North American companies are much more likely to see Graphics tools as more valuable while European respondents are much more likely to see more sophisticated Process modeling tools as more valuable. Business Executives and Line Managers are more likely to value Performance Metric tools.

BPMS Tools Used

About 24% of the respondents indicated that their organization was using a BPMS tool. Interestingly, only 13% said it was their most valuable BPM tool. We assume this reflects the fact that, as yet, BPMS tools are used only on exploratory projects where all processes need to be modeled. In 2007, we asked the respondents that indicated that they used a BPMS tool to tell us what product they used. (We didn't ask in 2006.) The results are shown in Table 26.

If your organization is using a BPMS Suite, what Suite are you using? (Choose one or more.)	2007 results only	
Adobe Lifecycle Workflow	3	2%
Appian	5	3%
Ascentn AgilePoint	0	0%
BEA/Fuego BPM Suite	7	4%
EMC/Documentum	8	5%
Global 360 Ent. BPM Suite	2	1%
Handysoft BizFlow	0	0%
IBM WebSphere BPM	30	18%
IBM/Filenet	19	11%
Intalio	6	4%
jBPM	1	1%
Lombardi	5	3%
Metastorm BPM	9	5%
Oracle BPEL Process Mang.	15	9%
Pegasystems Smart BPM Suite	2	1%
SAP NetWeaver	18	11%
Savvion	8	5%
Singularity	0	0%
TIBCO iProcess Suite	11	7%
Workpoint	1	1%
Ultimus BPM Suite	4	2%
webMethods Fabric	7	4%
Other, please specify	71	42%

Table 26. BPMS tools being used by respondents' organizations.

The BPMS tools that are the most widely used come from the platform vendors – IBM, SAPA, and Oracle. (As we go to press, Oracle has just announced that it will acquire BEA and will thus increase its position in the market.) The leading non-platform BPMS vendors are TIBCO, Metastorm, Savvioin, EMC, and webMethods, followed by Intalio, Appian, Lombardi, and Ultimus. None of the differences among these vendors is so significant as to be taken as a definitive description of their position in the overall market. Instead, they highlight the fact that there are still a lot of vendors in the BPM market. Predictably, the platform vendors with their huge existing client bases dominate the market. Among the smaller BPM vendors, there is still fierce competition and no vendor has clearly emerged as a winner.

Another way of looking at the BPMS data is to ask if the vendor is selling a BPMS tool that is primarily used for integration or selling a tool that is better used for managing human-centric or workflow processes. Most analysts would probably agree that BEA, IBM (WebSphere), Oracle, TIBCO and WebMethods (owned by Software AG) are primarily used for processes that integrate software applications. On the other hand, Adobe, Appian, EMC, Global 360, Handysoft, IBM (Filenet), Lombardi, Metastorm, Pegasystems, Savvion, Workpoint and Ultimus are more commonly used for workflow or human-centric process management. Looked at this way, we can see that about 71 respondents are using workflow tools while only 65 people are using Enterprise Application Integration (EAI) oriented tools. There is a high correlation between the platform vendors and EAI tools. The smaller BPMS vendors, on the other hand, are mostly workflow-oriented. Looked at this way, the BPMS vendors focusing on human-centric processes are being used more frequently than the BPMS vendors who offer EAI tools.

In addition to the platform vendors' products, Pegasystems, TIBCO, and webMethods are more popular with Finance and Insurance respondents. The interest in Pegasystems reflects the commitment of the Finance industry to business rules and rule-based approaches to BPMS. SAP's Netweaver is most popular among respondents from regions outside North America and Europe.

All BPMS products are more popular with large companies than with small or mid-sized companies. The only exceptions are Intalio and Oracle products, which are more popular with small to mid-sized companies than with large companies. The popularity of Intalio undoubtedly reflects the fact that it is an open source product. The popularity of Oracle probably reflects the fact that Oracle databases and ERP applications are widely adopted, and that Oracle is promoting its BPMS suite to its existing client base. Similarly, Intalio, Oracle, TIBCO, and Ultimus BPM suites are especially popular among non-European and North American respondents.

Two respondents listed Microsoft BizTalk under Other. Most of the Other responses were either for "BPMS" vendors we had never heard of, or for a process modeling product, like ARIS, which isn't, in fact, a BPMS product and cannot manage the runtime execution of a process.

What Business Process Initiatives Are Under Way Today

To determine what kinds of business process efforts companies were currently engaged in, we asked respondents to choose from a wide variety of BPM initiatives. Table 27 summarizes their responses. Interestingly, in 2007 as in 2006, the largest number indicated that they were working on the development of an enterprise process architecture. The second largest group is focused on Major Process Redesign projects. Given other indicators that suggest that most companies are between CMM level 2 and 3, we see this as an indicator that many companies are at least interested in moving from level CMM Level 2 to level 3. On the other hand, given the complexities of the BPM market, most companies may be firmly at Level 2, as regards business process redesign, but be engaged in ERP installations that are leading them to focus on an IT architecture.

What business process initiatives are underway in your organization this year (2007)? (Check all that apply.)	2007 Results		2006 Results	
	Count	Percentage	Count	Percentage
Development of an Enterprise Process Architecture	111	43%	135	42%
Development of an Enterprise Process Performance Measurement system	66	25%	79	25%
Coordinating Enterprise Process Change efforts	81	31%	86	27%
Coordinating Enterprise Process Management efforts	76	29%	79	25%
Process Manager training	58	22%	60	19%
Balanced Scorecard	57	22%	79	25%
Major Process Redesign projects	93	36%	123	38%
Redesign projects with Frameworks (SCOR, ITIL)	31	12%	43	13%
Six Sigma Process Improvement projects	66	25%	69	21%
Major Process Automation projects	71	27%	83	26%
Process Analysis and Redesign training (Non-Six Sigma)	52	20%	85	26%
Lean Six Sigma Process Modeling and Redesign Training	56	22%	48	15%
None of the above	18	7%	35	11%

Table 27. Activities in which companies were engaged in 2005.

One thing is clear from these Tables, from both 2006 and 2007, and that is that our respondents do not confuse business process work with either Lean Six Sigma efforts or BPMS efforts. Only 25% in 2007 say they are engaged in Six Sigma Process Improvement projects, while 36% say they are

engaged in redesign projects, and another 27% say they are engaged in major process automation projects. Clearly, our respondents understand that there are lots of different activities that all go under the general heading of Business Process Management.

Only 34% of the respondents from North American companies say they are engaged in developing an Enterprise Process Architecture. 50% of European respondents and 51% of the respondents from Other regions report that they are engaged in Enterprise Process Architecture development. Similarly, 16% of North American respondents are engaged in creating an Enterprise Process Performance system, while 32% of the European respondents and 33% of the respondents from Other regions report they are engaged in this activity. Large companies are more likely to be involved in an Enterprise Process Architecture effort than mid-to-small companies.

Only 16% of the respondents from Europe say they are engaged in a Balanced Scorecard initiative. Only 7% of the respondents from North America report an effort to use a framework in redesign, while 9% of the Europeans and 21% of those from Other regions report such an effort.

33% of the respondents from North American report Six Sigma Process Improvement efforts. Only 22% of the European respondents report such an effort, and only 18% of those from Other regions report a Six Sigma effort.

Europeans are less likely to be engaged in an Automation effort (20%) than either those from North America (31%) or from Other regions (29%).

Plans for the Future

BPM Products and Services Being Considered for the Coming Year

Earlier, we asked respondents what products and services they were currently using. In this question we asked them what products and services their organizations were likely to purchase in late 2007 or in 2008. In Table 28 we compare what respondents said they were using in 2007 (from Table 24 above) with what they suggest their organizations might acquire in 2008

What BPM products and services is your organization planning on purchasing during the remainder of 2007 or in 2008? (Choose all that apply.)	Will Purchase in 2008		Currently Using During 2007	
Graphics Modeling tool (Visio, PowerPoint)	37	15%	199	74%
Repository based Modeling tool (MEGA, IBM Modeler, ProVision)	56	23%	85	32%
BPM Suite that can manage the runtime execution of a business process	61	25%	64	24%
Tool for managing a Rule-based process or application	37	15%	50	19%
Process Monitoring/BI tool that can feed information to an executive dashboard	56	23%	65	24%
Training in Process Strategy, Architecture, or Performance	54	22%	44	16%
Training in Process Analysis and Design	70	29%	82	31%
Training in Process Redesign and Improvement methodology	55	23%	65	24%
Training in BPM Systems	52	22%	38	14%
Attendance at BPM Conferences	97	40%	94	35%
Other, Please Specify	31	13%	26	10%

Table 28. What companies are using and what they are considering purchasing in 2008.

These Tables suggest that companies will be very active in acquiring business process products and services in 2008. For example, 24% of our respondents say their companies are already using BPMS suites. And 25% say they are likely to acquire a BPMS suite in 2008. In other words, the number of BPMS users is set to double in 2008. Similarly, about a quarter of the respondents suggest that their companies are likely to acquire repository-based modeling tools, and process monitoring tools that can support executive dashboards. Further, about a quarter of the companies intend to invest in training. And 40% intend to attend conferences, up from 25% in 2006.

Table 29 compares what respondents said they were likely to purchase when they responded to the 2006 survey with what respondents to the November 2007 survey said they were interested in acquiring.

What BPM products and services is your organization planning on purchasing during the remainder of 2007 or in 2008? (Choose all that apply.)	2007 Results		2006 Results	
	Graphics Modeling tool (Visio, PowerPoint)	37	15%	50
Repository based Modeling tool (MEGA, IBM Modeler, ProVision)	56	23%	58	23%
BPM Suite that can manage the runtime execution of a business process	61	25%	28	11%
Tool for managing a Rule-based process or application	37	15%	67	26%
Process Monitoring/BI tool that can feed information to an executive dashboard	56	23%	38	15%
Training in Process Strategy, Architecture, or Performance	54	22%	55	22%
Training in Process Analysis and Design	70	29%	54	21%
Training in Process Redesign and Improvement methodology	55	23%	70	27%
Training in BPM Systems	52	22%	42	16%
Attendance at BPM Conferences	97	40%	84	33%
Other, Please Specify	31	13%	32	13%

Table 29. Products and services companies are considering acquiring in 2006

Clearly, our 2007 respondents aren't exactly the same as our 2006 respondents, or, alternatively, they didn't acquire quite as much as they had hoped to acquire at the beginning of 2006 – probably a bit of both.

Note that in our 2006 survey 7% of our respondents said they were using BPMS products at the beginning of 2006, and 11% said they hoped to acquire a BPMS product during 2006 or 2007. At the end of 2007, 24% of our respondents said they had a BPMS product and 25% said they were likely to acquire one in 2008. This suggests a rather sharp rise in BPMS use.

We suggest that the decline in those planning to acquire a graphics tools means little since 74% of the companies already say they have them. If the respondents are to be believed, by the end of 2008 about 90% of the respondents' companies will have graphics modeling tools. What's more interesting is the rise in the more sophisticated repository-based modeling tools, which are also rising rapidly, and the rapid rise in business process training of all kinds.

As a broad generalization, large companies are more likely to acquire nearly everything listed in Table 29 than small and mid-sized companies. In a similar way, companies that already have BPMS are more likely to purchase more BPMS and a variety of other BPM products as well. European respondents indicated that their companies were much more likely to acquire a repository-based Modeling tool, and North American companies were less likely to acquire a BPMS Suite in 2008. We have consistently said that the BPMS market is in the Early Adopter phase – a few leading companies are exploring the technology. We suspect that most of the Early Adopters in North America are already trying the technology out and that European companies are beginning to do so. In the meantime – pending case studies and announcements that convince others that BPMS is a valuable technology – most companies are waiting.

Areas in Which Companies Will Be Active

We asked all respondents to the 2007 survey to tell us what they expected their organizations to focus on in 2008. When we conducted the survey in early 2006 we had asked our respondents to tell

us what they expected their organizations to focus on in last half of 2006 and in 2007. Specifically, we suggested a number of activities and asked if their organizations would be less active in that area than they had the year before, more active in that area than the year before, or whether they expected to put the same degree of effort into that area in the coming year that they had in the past year. Note that in this case, since there are three possible responses per item, we have reported the absolute number of responses on the top line and the percent on the second line. (See Table 30.)

24 Please indicate whether you expect your organization to be more active, less active, or about as active in 2008 in each of the following areas.				2006 Results		
	2007 Results			More	Less	Same
	More	Less	Same			
1. Development of an Enterprise Process Architecture	151	9	104	167	30	121
	57%	3%	39%	53%	9%	38%
2. Development of an Enterprise Process Performance Measurement system	147	10	104	167	30	121
	56%	4%	40%	53%	9%	38%
3. Coordinating Enterprise Process Change efforts	148	18	97	159	27	126
	56%	7%	37%	51%	9%	40%
4. Coordinating Enterprise Process Management efforts	158	18	84	165	27	117
	61%	7%	32%	53%	9%	38%
5. Process Manager training	117	21	123	120	43	148
	45%	8%	47%	39%	14%	48%
6. Balanced Scorecard	82	35	139	86	50	170
	32%	14%	54%	28%	16%	56%
7. Major Process Redesign projects	125	28	106	155	50	105
	48%	11%	41%	50%	16%	34%
8. Redesign projects using Frameworks (SCOR, ITIL)	52	47	145	79	55	159
	21%	19%	59%	27%	19%	54%
9. Six Sigma Process Improvement projects	56	54	140	76	73	145
	22%	22%	56%	26%	25%	49%
10. Major Process Automation projects	112	30	109	136	44	117
	45%	12%	43%	46%	15%	39%
11. Process Analysis and Redesign training (Non-Six Sigma)	113	33	105	109	46	142
	45%	13%	42%	37%	15%	48%
12. Lean Six Sigma training	53	59	128	52	67	169
	22%	25%	53%	18%	23%	59%
13. Development of Business Rules systems	87	46	111	110	44	136
	36%	19%	45%	38%	15%	47%
14. Development of BAM or Real-Time Monitoring systems	79	52	112	85	48	148
	33%	21%	46%	30%	17%	53%

Table 30. Areas in which companies will be more or less active in the year ahead.

First, as a broad generalization, respondents indicate that their companies are more likely to do more in 2008, or at least to do the same in 2008, as they did in 2007. There is no area in which respondents suggest that their company will be doing less. We'll consider each separate response below, but the overall pattern is toward an expansion of the BPM effort. Figure 2 compares the various responses to highlight where respondents suggest their companies will be most active.

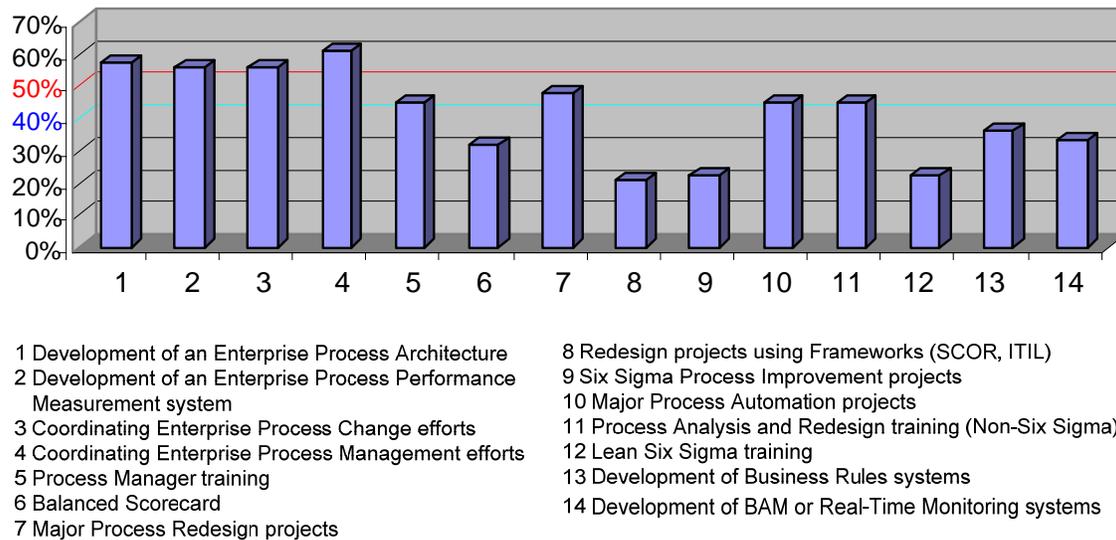


Figure 2. Areas in which respondents expect their organizations will spend more in 2008.

A quick glance at Figure 2 suggests that 50% of the respondents expect their company to spend more on 4. Coordinating Enterprise Process Management efforts, 1. Development of an Enterprise Process Architecture, 2. Development of an Enterprise Process Measurement system, and 3. Coordinating Enterprise Process Change efforts.

The four other areas in which at least 40% of the respondents expect an increased effort are 5. Process Manager training, 7. Major Process Redesign projects, 10. Major Process Automation projects, and 11. Process Analysis and Redesign training (Non-Six Sigma).

There is no area in which 40% or 50% of the respondents expect their organizations to spend less money. The areas in which over half of respondents expect their organizations to spend the same amount of money include 8. Redesign projects using Frameworks, 9. Six Sigma Process Improvement projects, and 12. Lean Six Sigma training.

The emphasis on spending more on enterprise efforts of all kinds is in keeping with the emphasis of BPM on managing process work at the corporate level. The emphasis on not spending more on Frameworks represents, we suspect, a lack of awareness about the use of frameworks, or, perhaps, the fact that frameworks tend to be niche focused and that most companies probably feel they have benefited as much as they can from Frameworks like SCOR or ITIL. We suspect more of the former than the latter but have no way to prove that. The emphasis on spending about the same on Lean Six Sigma initiatives and training represents two things. First, companies have already spent a lot on Lean and Six Sigma, and many do not feel the need to spend more. Second, with the interest in BPM, the emphasis at many companies has shifted from enterprise process improvement back to innovation and more focused redesign projects.

We will now consider the results of individual questions more closely.

The Development of an Enterprise Process Architecture

In 2007, 43% of our respondents said they were active in developing an enterprise architecture. Thirty-Nine percent of those respondents said their companies would be at least as active developing an enterprise architecture in 2008 and 57% indicated their organizations would be more active. Only 3% suggested that their organizations would be less active in their enterprise process work

	2007			2006		
	More	Less	Same	More	Less	Same
Development of an Enterprise Process Architecture	151	9	104	167	30	121
	57%	3%	39%	53%	9%	38%

In 2007, as in 2006, respondents thought their companies would be doing more Enterprise Process Architecture development next year than this year.

The BPTrends website has posted a number of articles demonstrating either how enterprise process architectures can be used as a management tool to make corporate decisions or how process architectures can be used to organize process change or automation efforts. Clearly, this message has been understood and is being acted upon. In a similar way, many organizations pursued process redesign and improvement in the Nineties and are now ready to transition to a CMM level 3-4 organization that has the enterprise level resources to use to manage the organization’s processes more effectively.

The Development of an Enterprise Performance Measurement System

In 2007, 25% of our respondents indicated that their organizations were developing an enterprise performance measurement system. Forty percent said that they would be just as active in 2008, and 56% said they would be more active. Again, the pattern in 2007 is similar to the pattern in 2006, suggesting that interest in enterprise process performance measurement continues to rise and to be seen as an important investment.

	2007			2006		
	More	Less	Same	More	Less	Same
Development of an Enterprise Process Performance Measurement system	147	10	104	167	30	121
	56%	4%	40%	53%	9%	38%

Coordinating Enterprise Process Change Efforts

Thirty-One percent of our respondents said that they were working to coordinate enterprise process change efforts. Fifty-Six percent said they would be doing more in 2007, similar to the 51% that said they would be doing more in 2006.

	2007			2006		
	More	Less	Same	More	Less	Same
Coordinating Enterprise Process Change efforts	148	18	97	159	27	126
	56%	7%	37%	51%	9%	40%

The question is a little vague so we cannot be sure that an effort to coordinate enterprise change efforts translates into a BPM group or center of excellence, but we have certainly heard of more company efforts to establish such groups, usually in an effort to better coordinate and prioritize process change efforts, so we suspect that there is a high correlation here.

Coordinating Process Management Efforts

In 2007, 29% of our respondents said their companies were engaged in coordinating process management efforts. In answering this question, 32% of our respondents said they would be doing something similar in 2008, and 61% said they would be doing more. Once again, this is similar to 2006 and again reflects a continuously growing interest in business process management efforts.

	2007			2006		
	More	Less	Same	More	Less	Same
Coordinating Enterprise Process Management efforts	158	18	84	165	27	117
	61%	7%	32%	53%	9%	38%

Process Manager Training

In 2007, 22% of our respondents said their companies were engaged in process manager training. 47% said they would be similarly engaged in 2008, while 45% said they would be increasing their training efforts. This represents a significant increase over the 39% who said their companies would be doing more process management training in 2006.

	2007			2006		
	More	Less	Same	More	Less	Same
Process Manager training	117	21	123	120	43	148
	45%	8%	47%	39%	14%	48%

Balanced Scorecard

Twenty-Two percent of our respondents said their companies were engaged in Balanced Scorecard initiatives. In 2007 54% of the respondents said they would be doing the same in 2008 and 32% said they would be doing more. In 2006 only 28% said they would be doing more in 2007, while in 2007 32% said they would be doing more, suggesting significant growth in the inclination of companies to use a scorecard in conjunction with business process work.

	2007			2006		
	More	Less	Same	More	Less	Same
Balanced Scorecard	82	35	139	86	50	170
	32%	14%	54%	28%	16%	56%

Major Process Redesign Projects

In 2007, 36% of our respondents said their organizations were engaged in a major process redesign project. Forty-One percent said they would do about the same in 2007, while 48% said they would be doing more process redesign in 2008. The results were similar to those attained in 2006.

	2007			2006		
	More	Less	Same	More	Less	Same
Major Process Redesign projects	125	28	106	155	50	105
	48%	11%	41%	50%	16%	34%

Redesign Projects Using OR Frameworks (SCOR, ITIL)

There are a number of Operation Reference (OR) Frameworks like the Supply Chain Council's SCOR, or the Telemanagement Forum's eTOM, that can serve as templates and radically simplify the creation or improvement of business processes. And there is considerable effort under way to create new OR standards that can facilitate the rapid redesign of the entire value chain. There are also specialized standards, like the IT Infrastructure Library (ITIL), which provide a template for IT service provision. Leading edge companies have begun to use these framework-based approaches to speed process change initiatives, but most companies are only beginning to explore the use of these innovative approaches.

In 2007, 12% of the companies said they were using Operation Reference Frameworks in conjunction with their redesign efforts. Fifty-Nine percent said they would be doing the same in 2008, and 21% said they would be doing more with frameworks in 2008, while 19% said they would be doing less. The results are similar to the responses in 2006, or suggest a slightly decreasing interest in the use of frameworks. It also suggests that about as many people are moving away from the use of frameworks as are moving to adopt them. Our conversations do not suggest that companies committed to frameworks are unhappy with them, and we suggest that this finding only reflects the fact that framework use, to date, is confined to niche markets, like Supply Chain redesign or IT services development. We expect this to change as some of the newer frameworks that provide support for the entire value chain become more readily available in 2008.

	2007			2006		
	More	Less	Same	More	Less	Same
Redesign projects using Frameworks (SCOR, ITIL)	52	47	145	79	55	159
	21%	19%	59%	27%	19%	54%

Six Sigma Process Improvement Projects

In 2007, 25% of our respondents said they were engaged in Six Sigma Process Improvement projects. Fifty-Six said they would be using Six Sigma in a similar manner in 2008, while only 22% said they would be doing more, and 22% said they would be doing less. It would be easy to speculate that companies had tried Six Sigma. Some are happy with it, while others are about as likely to try it as to drop it. Again, from our conversations, we see a growing interest in Six Sigma, especially when combined with Lean. We expect that Lean Six Sigma and BPM will gradually merge into some more generic approach to process redesign and improvement.

	2007			2006		
	More	Less	Same	More	Less	Same
Six Sigma Process Improvement projects	56	54	140	76	73	145
	22%	22%	56%	26%	25%	49%

Major Process Automation Projects

Twenty-Seven Percent of our respondents said they were currently engaged in a major process automation project. In 2007, they indicate that 43% will likely do the same, while 45% will do more. The results in 2006 were very similar.

	2007			2006		
	More	Less	Same	More	Less	Same
Major Process Automation projects	112	30	109	136	44	117
	45%	12%	43%	46%	15%	39%

Process Analysis and Redesign Training (Non-Six Sigma)

In 2007, 20% of our respondents said they were engaged in process analysis and redesign training. Forty-Two percent said they would do the same in 2008 while 45% said they will do more training in 2008. This represents a shift from 2006 when only 37% expected to do more analysis and redesign training in 2007.

	2007			2006		
	More	Less	Same	More	Less	Same
Process Analysis and Redesign training (Non-Six Sigma)	113	33	105	109	46	142
	45%	13%	42%	37%	15%	48%

Lean Six Sigma Training

In 2007, 22% of our respondents said they were engaged in Lean Six Sigma training. Fifty-Three percent said they would be doing the same in 2008, 25% said they would do less, and 22% said they would do more. This is about the same as 2006. When you consider how long Six Sigma has been popular – throughout most of the Nineties – and how much training has already been done – it makes sense that companies may not plan to keep increasing their commitment.

	2007			2006		
	More	Less	Same	More	Less	Same
Lean Six Sigma training	53	59	128	52	67	169
	22%	25%	53%	18%	23%	59%

The Development of Business Rule Systems

As with Six Sigma and Frameworks, Business Rule Systems represent a niche market – largely confined to the Financial and Insurance industries, and the commitment to rules seems likely to remain in 2008 what it was in 2007. Rules will undoubtedly play a growing role in business process redesign efforts, but it is unclear whether most companies will think of rules as a separate technology or simply conceptualize them as a capability within a BPMS product. In any case, there will only be modest growth in rules initiatives in 2008, similar to the increase in 2007.

	2007			2006		
	More	Less	Same	More	Less	Same
Development of Business Rules systems	87	46	111	110	44	136
	36%	19%	45%	38%	15%	47%

The Development of BAM or Real-Time Monitoring Systems

In response to an earlier question, respondents suggested there was an increase in interest in BAM, real-time monitoring and executive dashboards. When asked if they will be doing more in 2008, 33% said they would, 46% said they would be doing the same, and 21% said they would be doing less. Thus, this is another area of modest growth, as in 2006.

	2007			2006		
	More	Less	Same	More	Less	Same
Development of BAM or Real-Time Monitoring systems	79	52	112	85	48	148
	33%	21%	46%	30%	17%	53%

Summary

In many industries, 5% growth is quite exciting. Those interested in Business Process Management have come to expect quite a bit more. Some analysts report a billion dollar market and suggest that it will soon be many times that size. This survey suggests something more modest. Overall, we suggest that many of the leading BPM areas will grow at a rate of something between 40% and 50% during 2008. This isn't too modest, but when you consider where most companies are starting from, it still translates into a market that is in an early stage of development.

The problem with this analysis, and most others, is that there is so much that goes under the BPM umbrella. Six Sigma and process redesign have been around since the late Eighties. Both have gone through other growth periods and have seen periods of decline. ERP, Workflow, and EAI have been popular technologies since the mid-Nineties and already constitute large markets. Depending on what an analyst wants to include in his or her "BPM" analysis he or she can either identify a large market or a much more modest market that is only gradually accumulating momentum. And, of course, there is no right answer – it simply depends on what process techniques and technologies you decide to include in your definition of BPM.

In this survey, we have tried to be particularly careful about definitions. We have used multiple choice questions to avoid having respondents cluster lots of diverse things together under the business process umbrella, and to suggest clearer alternatives to readers.

This is the beginning of an effort to develop some longitudinal data about the development of the BPM market. We asked nearly the same questions to a similar population of respondents in early 2006, and then in November of 2007. Thus, we are able to look at how the market is developing by looking at answers to similar questions.

Broadly, the market is developing and growing, but not as fast as some suggest. Respondents tended to say very similar things at the end of 2007 as they said at the beginning of 2006. The market for BPM has not become a mass market yet. Many companies are still in the experimental stage, while others are waiting to see what the early adopters find successful and unsuccessful before committing themselves to a strategy.

Most companies are focused on redesigning and improving their processes and on automating existing processes. As most companies describe their current activities, they are between CMM Maturity Level 2 and 3. They have documented and improved many core processes and are working to develop a more comprehensive description of their processes and an understanding of how all their processes work together. The great majority of companies are spending around \$500,000 a year on BPM. A smaller group of companies, worldwide, are moving from CMM Maturity Level 3 to 4 and are focused on creating the enterprise architecture, process-based performance measurement systems, and process management systems necessary to become truly process-centric. These companies are spending from \$1 million to over \$10 million a year, and have embraced a wide variety of technologies to achieve their goals.

A common pattern occurred when we asked respondents about whether their companies were focused on process architectures, on BPMS development, on Six Sigma, or on process automation. Moreover the pattern was fairly consistent in both the early 2006 survey and the late 2007 survey. About 5% of the companies were Always doing it – these are the mature companies in our survey. About 15% of the companies were doing it Most Times. These are the companies moving from CMM level 3 to CMM level 4. Most companies were Frequently or Occasionally using the approach being discussed. These are the companies moving from CMM Level 2 to Level 3. About 5% of the companies were Never doing what we asked about. These are the companies between CMM Level 1 and 2. They have not begun the process journey.

BPMS applications – applications that execute runtime business processes – have made significant inroads in the market.. In early 2006, only 23% of our respondents reported that their companies were using this technology. By late 2007, 24% of the respondents indicated they were using the technology, and another 25% of the respondents expect their companies will invest in the technology in 2008. Clearly, BPMS is gaining momentum rather rapidly. In addition, a variety of responses indicate that companies using BPMS are more sophisticated in handling other aspects of process work. They are more likely to have identified their common practices and to have created process models for enterprise level processes, for example. This makes sense: The companies that already know about processes are investing in BPMS at this point, to increase their mastery of processes and to gain additional competitive advantage.

Figure 3 looks at some of the areas in which respondents suggest their companies will be doing more in 2008 than they did in 2007. (In parentheses we have indicated what respondents in early 2006 said they would be doing in 2006 and 2007.) The broad pattern here is that companies will be doing more in most areas of BPM. What is especially noteworthy is the fact that most indicated they will be doing more in the enterprise area. In other words, rather than simply doing specific BPM projects, companies are beginning to develop an enterprise process management system that lets executives track processes, measure performance, and control new process initiatives at the executive level. Interestingly, the major difference between 2006 and 2008 will be the emphasis on enterprise level control and coordination of process management efforts. A quick glance, however, will suggest that all companies will be doing more in the enterprise area in 2008 than they expected to do in 2006-2007.

Companies will also be doing more at the process level, but they don't expect to be increasing their efforts at that level to compare with the expected increases at the enterprise level. This undoubtedly reflects the fact that companies have been working on process level projects for 15-20 years, while enterprise level process work is relatively new for most companies. Similarly, the increase in implementation level activities will be more modest. Training is the exception, and everyone expects to do more process training in 2008.

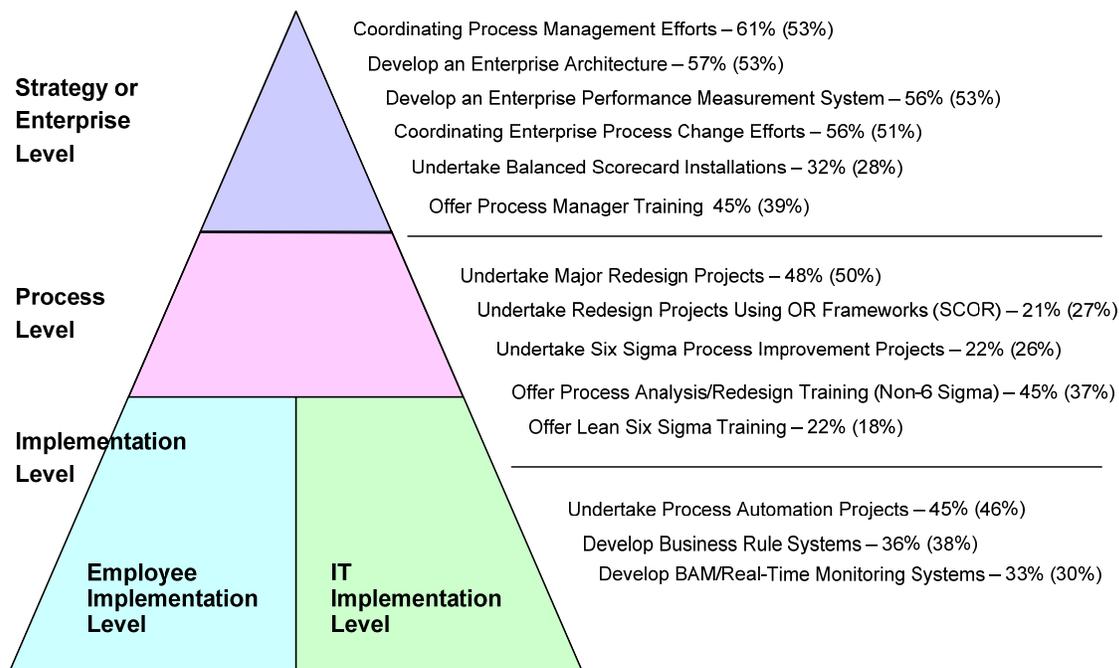


Figure 3. Respondents indicating their companies will be doing more in 2007 (2006)

As we noted in our Introduction, BPM is a complex subject that contains many specific technologies. Some have been around for decades, and some have only begun to be explored in the past few years. Companies of all sizes, in all geographical areas, are exploring BPM options. They are moving more rapidly in adopting more established areas of BPM – like process modeling and redesign – and more slowly when faced with newer technologies like BPMS and automated process monitoring systems. An even larger group of companies, worldwide, are attending conferences and obtaining training in order to better understand their options. Broadly, however, leading companies see BPM as a top-down methodology designed to organize, manage, and measure the organization based on the organization's core processes, and they are moving ahead to determine how to implement technologies that will help them do that.

➤ Appendix I

➤ Concepts Used in This Report

➤

We have assumed most readers would be familiar with the terms and concepts widely used on the Business Process Trends website. For readers who might not be familiar with these terms or concepts, we briefly describe them below. In this report we have relied on three different sets of related terms or concepts:

- **BPTrends Levels.** The BPTrends Pyramid provides a way of defining the type or level of process activity in which an organization is engaged.
- **CMMI or Process Maturity Levels.** CMMI defines five levels of process maturity. Organizations at level 1 do not support processes in any significant way and are immature. Level 5 organizations are completely mature and have mastered the use of processes.
- **BPTrends Process Software Tools Classification.** This classification describes the terms we use for the various types of software products that BP practitioners use.

We consider each in sufficient detail to allow readers to understand how the terms are used in this report.

The BPTrends Pyramid – Enterprise, Process, Implementation Levels

The BPTrends Pyramid describes three groups of business process activities that occur at different levels within an organization.

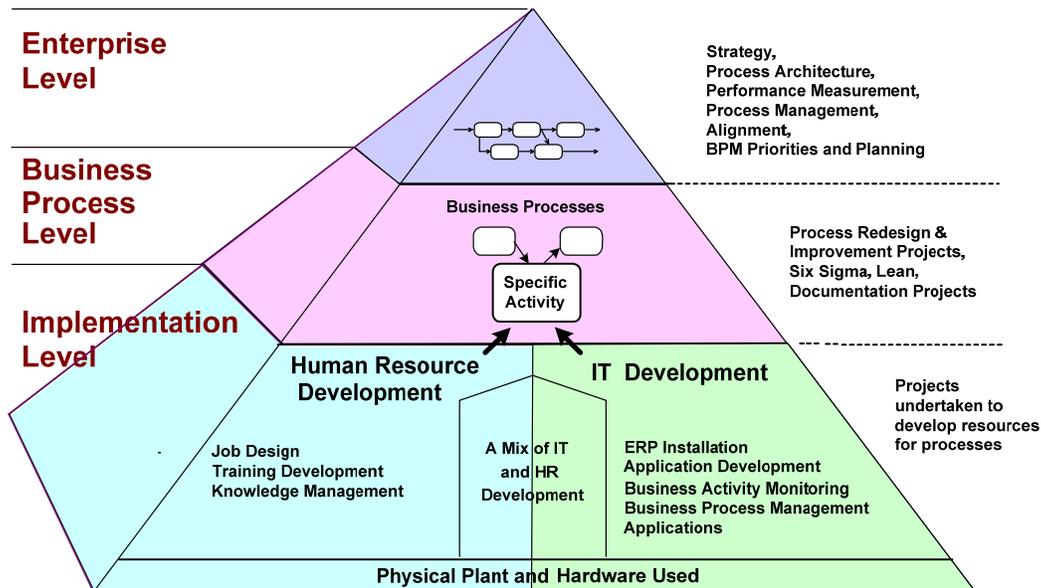


Figure 4. The BPTrends Pyramid and levels of corporate BP activity

The Enterprise Level

Enterprise Level activities occur at higher levels in the organization and are independent of any specific day-to-day processes. Enterprise Level activities focus on aligning strategy and processes, on defining an enterprise-wide business process architecture, on defining enterprise performance measures, and on aligning them with value chains and high-level processes. Other enterprise level activities involve the establishment of a process management system and of the development of ways to survey all of the organization’s process needs and to set priorities and plans to assure that processes are changed and maintained.

The Process Level

Process Level activities are organized into projects. Typical process level projects include efforts to document processes (ISO 9000), projects to create new processes or to redesign existing processes, or projects to improve existing processes (Lean, Six Sigma). Typical process analysis, design, and modeling activities all occur at this level, organized by various popular business process methodologies.

The Implementation Level

The Implementation Level provides the resources needed to implement process change projects. In essence, a redesign team, operating at the Process Level, may specify that a given process should be redesigned to incorporate the use of a new software application. Thus, at least one and probably several new projects are initiated, to develop or acquire and tailor the new software application, to train employees in the use of the new software application, and so forth. Projects undertaken to provide support resources for process change efforts occur at the Implementation Level. There are specific tools, notations, and methodologies that are only used on the Implementation. Thus, for example, a software development methodology like RUP or a notation like UML, is usually only used at the Implementation Level.

CMMI Maturity Levels

The concept of Process Maturity Levels was developed at the Software Engineering Institute (SEI) at Carnegie Mellon University in the Nineties, based on quality work originally undertaken by Watts Humphrey. Originally developed to support the analysis of software process maturity (CMM), the latest version, the Capability Maturity Model Integrated (CMMI) has been generalized so that it can be applied to any of a wide variety of processes in diverse organizations.

Software organizations often pay SEI certified evaluators to do a formal evaluation to determine where their organizations are on the CMM scale. Many other companies do informal evaluations, based on the broad concepts inherent in the CMM “stair step diagram” reproduced in Figure 5. What follows is an informal description of the CMM process maturity model.

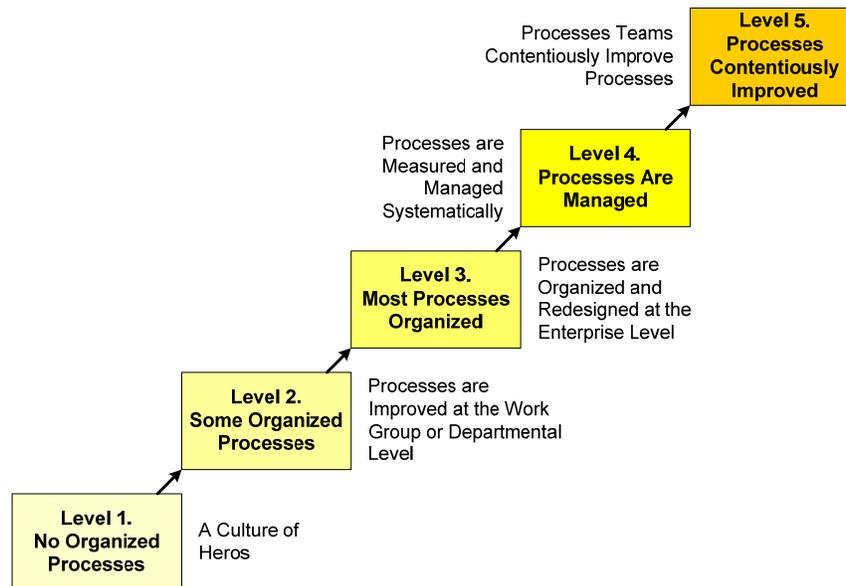


Figure 5. An Overview of the basic CMMI maturity levels.

Level 1. No Organized Processes

Level 1 organizations don't rely on processes. Things get things done according to plans made on the fly. CMM folks often refer to them as organizations based on heroes. Things get done because

someone makes a heroic effort and gets the report out at the last minute. If someone asks how long something will take, or what resources will be needed, those answering the question are just making a guess – they don't have a systematic procedure or the data needed to provide accurate answer these questions.

Level 2. Some Organized Processes

When organizations first began to embrace processes, they begin by trying to define their core or most commonly used processes. At this stage they don't conceptualize the entire company as a set of processes, all interrelated, but focus only on a specific process as it functions within some more or less arbitrary set of boundaries. Level 2 Organizations have several of their major processes defined.

Level 3. Most Processes Organized

Level 3 organizations have most of their processes defined. They not only have models of their core business processes, but understand how management and support processes work to support those processes. Most Level 3 organizations have a process architecture that shows how all of the organizations in the company function. Thus, if there is a problem, it's easy to quickly identify the processes that could be causing the problem and the implications of any suggested change.

Level 4. Processes Are Managed

Level 4 organizations have gone well beyond simply defining all their processes. These organizations have process managers who gather data on process performance and customer satisfaction and use this data to make decisions about how to optimize the processes they manage.

Level 5. Processes Are Continuously Improved

Level 5 organizations have built processes right into the essence of the organization. They know and manage their processes. Moreover, they have systems in place to constantly improve their processes whenever possible.

Most organizations are not, of course, right at one level or another. Studies have suggested that most organizations in the US are somewhere between Level 2 and Level 3, trying to expand the processes they have modeled and understand into a complete process architecture. Similarly, a smaller group of companies are between Levels 3 and 4. They are working to establish process management and measurement systems throughout the company.

Types of Business Process Software Tools

We have assumed that most of the respondents to our survey have been reading BPTrends and know how we classify business process software tools. We have used our classification, which is described in Figure 6, to identify types of tools and to suggest some of the ways the various tools or techniques overlap with each other. For those who may be unfamiliar, we have described the major types of business process software tools.

Simple Graphics Tools

A significant portion of the companies seeking to describe or document business processes use either Word, and create outlines, or they use graphics tools like Visio or PowerPoint. The advantage these tools offer is simplicity and familiarity. Most business managers already have them and are familiar with their use. The disadvantage of these products is that they are not designed to create a database or repository that can save and accumulate information about business processes. Thus, they tend to be used on isolated business process projects. It is nearly impossible to maintain business process documentation in these tools, and thus redesigns carried out in these products tend to be useless for subsequent redesign projects or for the development of an enterprise process architecture.

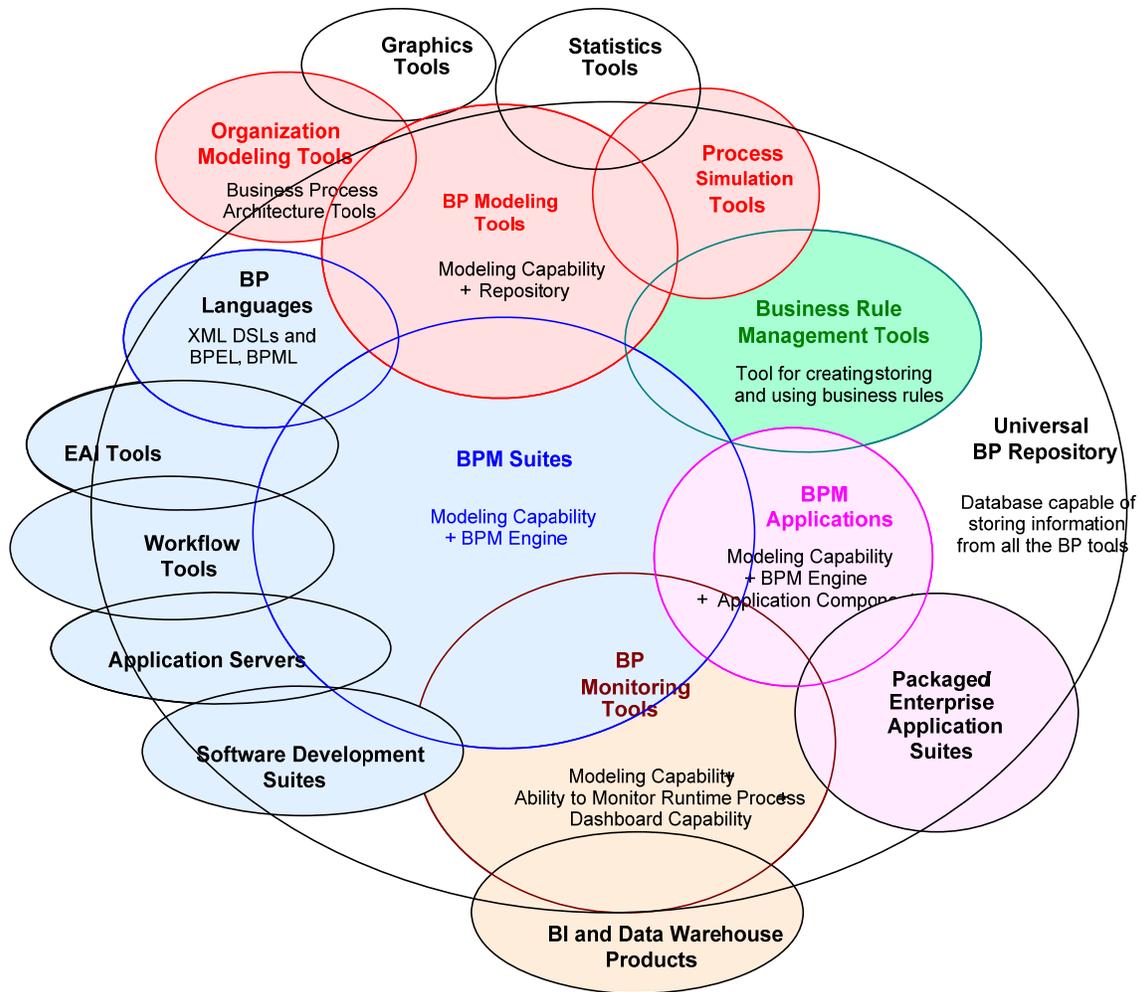


Figure 6. Major types of software tools used by business process practitioners

Business Process Modeling Tools (BP Modeling Tools)

Business Process Modeling tools are designed not only to define and document business processes, but to store information about the processes so that they can be easily updated and maintained. Companies that move beyond isolated process change efforts and decide to define enterprise-wide process architectures almost always shift to one of these tools. They are harder to learn, but they provide considerable support once their use is mastered.

Organization Modeling Tools

Many of BP Modeling tools include features that allow users to create modeling of their organization. In essence, these models are very high-level views of how the organization interacts with its environment, what value chains and major business processes it supports, and how high-level processes are aligned with various types of enterprise resources. In addition to the capabilities included in BP Modeling tools, there are some tools that specialize in Organization Modeling.

Business Process Simulation Tools

Most BP Modeling tools include simulation capabilities. In addition, there are some tools that are especially designed for more demanding Simulation work. Most BP Modeling teams turn to specialists to undertake simulation studies, and those specialists often prefer the more sophisticated Simulation Tools.

Business Process Management Suites or Systems (BPMS Tools)

These tools combine process modeling with runtime execution. In essence, they combine features previously found in workflow and EAI (Enterprise Application Integration) products. In some cases the tools also incorporate Rule Management and Process Monitoring capabilities. These tools are newer and are just beginning to gain a foothold in most companies. In the long run, they promise to help companies create a process layer between those who define and manage processes and the software resources used to implement processes.

BPM Applications

In essence, BPM Suites are tools that one uses to create BPM Applications. A BPM application is used to manage all of the people and software systems used to implement a specific process. Whenever the organization is called upon to execute the specific process, it relies on the BPM application to manage the execution. In a few years, as BPM Suites become more widely used, we expect to see applications offered with BPMS built-in. Conversely, we expect ERP and CRM vendors to offer BPM Applications especially designed to go with their current ERP or CRM modules. A BPMS is only a tool for building a BPM application. A BPM application is an application designed to execute a specific company process with BPMS built in so that managers can modify the application as needed.

Business Process Monitoring Tools

Most BPMS tools offer some process monitoring capabilities. They tend, for example, to provide information about process events to the process supervisors. Other BPMS tools, and more sophisticated monitoring tools, combine data from specific processes with information derived from other sources in a Data Warehouse, and then use simulation techniques or Business Intelligence (BI or Data Mining) techniques to abstract patterns from the data and to report this “overview” information to executives via Executive Dashboards in something close to real-time. These tools are sometimes called Business Activity Monitoring (BAM) tools.

Rule Management Tools

Most BP Modeling tools allow analysts to identify and save business rules. Most BPMS tools incorporate rule management tools that at least allow for the identification of business rules used in specific business processes. In some cases the Rule Management tools can be used to actually analyze business rules at runtime and generate or suggest decisions using logical inferencing techniques.

BPTrends has published extensive reports on Business Process Modeling and Simulation Tools, on BPM Suites, and on Business Rule Tools. These reports are available free of charge on www.bptrends.com

Geoffrey Moore’s Technology Lifecycle Model

Geoffrey Moore is a high tech marketing guru who has been involved in numerous technology launches and wrote a very popular book, *Crossing the Chasm*, (HarperBusiness, 1991) that describes the lifecycle of new technologies and the problems they face gaining widespread acceptance.

Innovators

New technologies, according to Moore, are initially adopted by Innovators, companies that are focused on new technologies and are willing to work hard to make a new technology work in order to gain an early advantage. Innovators have their own teams of sophisticated technologists and are willing to work with academics and vendors to create highly tailored solutions.

Early Adopters

Once the Innovators prove that a new technology can be made to work, Early Adopters follow. Early Adopters are not focused on new technologies, as such, but on new business approaches that can give them a competitive advantage. They are less technologically sophisticated than Innovators,

but still willing to work hard to make a new technology perform, if they see a clear business advantage. (See Figure 7.)

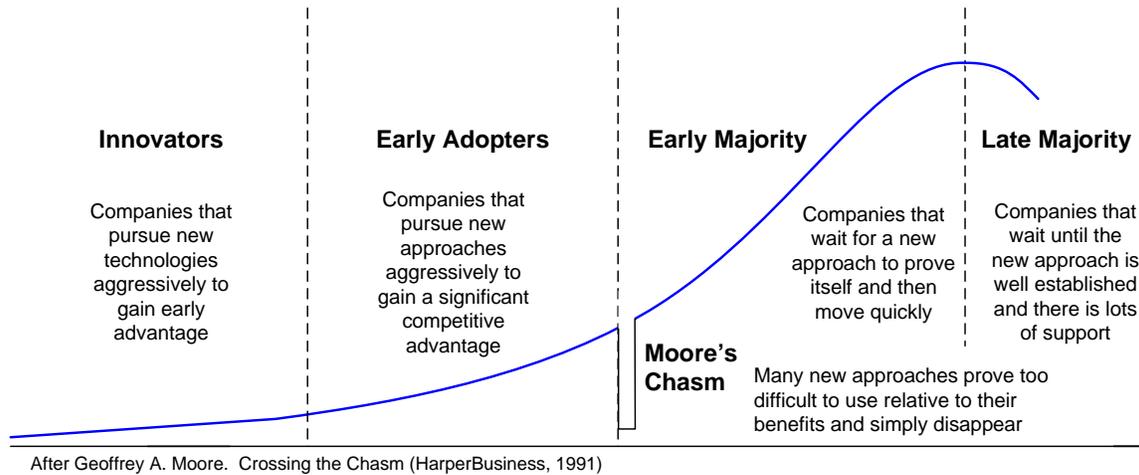


Figure 7. Moore's technology adoption lifecycle curve.

The Early Majority

The market for a new technology doesn't really get hot until the Early Majority is convinced to adopt the technology. The Early Majority represent some 35% of the market. They won't adopt new technology until they consider it well-proven. In fact, they aren't interested in technology at all, and don't have a lot of sophisticated technologists who are willing to struggle with the technology. They wait for case studies to show that the technology really gets the benefits that are claimed. And they insist on products that make it easy for less sophisticated developers to deploy the technology quickly, without significant difficulties.

Moore's Chasm

Moore's Chasm falls between Early Adopters and the Early Majority. Lots of technological innovations that are tried by Early Adopters fail to gain sufficient acceptance to pass the criteria of the Early Majority. For a while, the new technology gets lots of publicity. Conferences are launched to provide information about the technology, and it is often described in glowing articles in all the high-tech magazines and business publications whose business it is to tout the next new thing. Ultimately, however, the technology fails to produce enough concrete proof of usability and benefits to convince the Early Majority to make an investment, and the technology drops out of sight.

The Late Majority and the Laggards

The Late Majority, like the Laggards who lie even further to the right on the diagram, are reluctant to spend money or take chances on new approaches. They wait until their competitors among the Early Majority have started gaining benefits from the technology, and then follow suit, reluctantly.

When you go to conferences and hear vendors talk about the technological features of their product and why it is better technology than whatever came before, you are in an Innovator's Market. When the market begins to transition to Early Adopters, you begin to hear more business cases and get information on specific benefits. This is also the time when vendors begin to worry about wider acceptance, and become concerned with standards, user interfaces, and how to assure potential users that their products can work with legacy applications. If the technology is really successful and crosses the chasm, the technology conferences tend to drop away, and the vendors begin to show up at traditional business shows and promote their products as a cost-effective way to solve a class of business problems. The majority doesn't care about technology. They just want to solve business problems quickly and effectively and to stay ahead or at least even with their competitors.

When a new technology is first introduced, many relatively small vendors rush to offer products. As long as the market is small, ironically, the number of vendors is large. No one vendor makes very much money, but they have high hopes, each believing that their technological approach is superior. As the market grows and customers become a little more sophisticated, they begin to demand more comprehensive products and features, like support for evolving standards. It is not uncommon for products to go through 3-4 generations in the course of 2-3 years. The cost of constantly developing new versions of a product, coupled with the need for more aggressive advertising, forces the smaller vendors to search for capital to continue to remain competitive.

Sometime during the Early Adopter phase of the market, the major vendors begin to incorporate the technology into their more comprehensive offerings, and begin to promote the technology. In effect, the large vendors guarantee that the new technology is safe. As the competition heats up, most of the small vendors disappear. Some are acquired by large vendors. Many decide to specialize in industry or niche specific markets. Others simply fail to earn enough money to survive. The key element, however, is that Majority companies only buy from established vendors who they are reasonably confident can provide the rather extensive support they will require and who they are sure will still be in business 5 or 10 years from now. Thus, if a new technology succeeds in crossing Moore's chasm, the leading vendors will be companies like IBM, Microsoft, and SAP. One or two of the new startups may have been successful enough to have grown into a 100 million dollar company and still be viable in the Majority market, but most won't make it.

Moore's Model and BPM Market

Unfortunately, it is not easy to apply Moore's model to the BPM market, as a whole, because today's BPM market is really a number of separate markets. The most important distinction is between those engaged in helping companies improve their business processes and those working to provide software tools that will enable some kind of process automation. Even within these segments, however, there are important distinctions, as, for example, between the process modeling software tools that have been widely adopted and the BPMS tools that are still in the Early Adaptor phase.